

Standards Gap Analysis for Cooperative Intelligent Transportation Systems

Results: Resolution Perspective

Document HTG7-3-2 Version: 2018-12

Standards Harmonisation Working Group Harmonisation Task Group 7











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1. Introduction

1.1 Background

Advancements in transportation technologies are rapidly transforming the world's strategies for increasing safety; gaining operational, mobility, and cost efficiencies; opening access to underserved communities; and reducing environmental impacts from transportation. Using new forms of short-range communications, vehicles and devices are now capable of broadcasting or receiving data that allow them to sense the movements and status of other surrounding devices. These cooperative exchanges create a three hundred sixty degree awareness that, when further fused with other open data, can enable drivers and other users of the transportation system to receive alerts and warnings regarding the formation of threats and hazards. The alerts and warnings created through these communication technologies provide the opportunity to prevent some crashes, thereby reducing fatalities, injuries, and property damage. The cooperative exchange of data in this manner can also enhance the benefits of automation.

Access to new data sets can also transform network operations and minimize the capital investment costs of infrastructure owners and operators. Broadcast data sets from users within a highly mobile environment can complement or potentially supersede the need for significant roadside equipment on major roads. These new data can also form a more complete representation of conditions on the arterial network, including road weather impacts, effects of traffic signal timing, support for incident and emergency responders, or changes in traveller decisions, among other conditions.

Standards for interfaces in the public interest can play a key role in delivering these benefits to communities that implement cooperative-ITS technologies. Technical standards are developed to address coordination problems and overcome technical barriers that exist when different organizations need to work together while preserving their institutional and proprietary processes. The International Organization for Standards (ISO) defines a standard as, "... a document, established by a consensus of subject matter experts and approved by a recognized body that provides guidance on the design, use or performance of materials, products, processes, services, systems or persons." The end documents, which frequently represent the interests of the experts and parties that gather to develop them, are vetted by experts. Recognized benefits include improved safety, mobility, and sustainability for the travelling public and enhanced interoperability within an open market environment.¹

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¹ See definitions at: the European Committee for Standardization (CEN):

https://www.cen.eu/work/ENdev/whatisEN/Pages/default.aspx; the International Organization for Standards (ISO): https://www.iso.org/sites/ConsumersStandards/1 standards.html; Wikipedia:

https://en.wikipedia.org/wiki/Technical_standard; the National Institute of Standards and Technology (NIST): https://www.nist.gov/services-resources/standards-and-measurements.



1.2 History

In 2011, the United States (US) Department of Transportation (USDOT) and the European Commission (EC) approved a <u>Harmonisation Action Plan</u> to guide EC-US standards development via Harmonisation Task Groups (HTGs). The plan recognises that successful, interoperable, nationwide or regional, cooperative technology implementations are critically dependent upon consistent application of complete, technically sound standards and policies for critical functions, interfaces, and *information flows*². This worldwide need applies to the common services of a cooperative systems environment as well as to global markets for vehicles, devices, and applications. While the envisioned end state appears very similar in many parts of the world, past analyses have been regional and independent in nature and have proceeded with varying levels of coordination. The HTGs allow participating countries to collaborate on technical ITS issues that are of common interest and thus leverage critical expertise and resources while potentially realizing more compatible worldwide solutions.

Transport Certification Australia (TCA) joined the HTG initiatives in January 2014 by bringing security expertise and co-leadership to the sixth HTG (HTG6).³

1.3 HTG7

With the emergence in 2015 of plans in the US, Europe, and Australia to develop pilot *Cooperative Intelligent Transportation Systems* (*C-ITS*)⁴ projects, a new HTG was established to identify how existing standards could support new C-ITS installations (i.e., "standards solutions for C-ITS") and, in doing so, identify the issues in standards that could pose risks for deployers. This seventh HTG (HTG7) began in late 2015 as a joint effort between the EC, the USDOT, and TCA, with the Japan Ministry of Land, Infrastructure, Transport and Tourism (MLIT) joining in 2017.

Specifically, the objective of HTG7 was to identify standards that comprehensively support large-scale C-ITS deployments. HTG7 expects that fulfilling this objective will allow:

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² Terms that are in *bold italics* in this report are defined in a companion report, the **HARTS Reference Compendium** (**HTG7-5**), which defines all of the terms used throughout this report set. Terms defined in the reference compendium are bold faced and italicised within each HARTS report upon their first use.

³ Results of HTG6 are located here: https://ec.europa.eu/digital-single-market/news/harmonized-security-policies-cooperative-intelligent-transport-systems-create-international.

⁴ C-ITS is a subset of ITS that requires the mutual, secure exchange of data between *independent* trusted entities (i.e., parties that have no contractual relationship). In other words, while traditional ITS typically deals with exchanges among system components owned and managed by a single or limited number of entities; these new ITS services expand this scope to include system components (e.g., vehicles) that may be owned and managed by any number of different entities. The scope of the HTG7 analysis included the C-ITS interfaces (i.e., exchanges between parties with no contractual relationship but with security and authentication as the basis for trust) as well as the more traditional "back-office" flows (between contracted parties) that enable the provision of the C-ITS services. This architecture presents a level of connectivity suggesting an "Internet of Things" for transportation.



- Governments, standards organisations, and other interested stakeholders to track issues regarding those interfaces and information flows that are of significant public interest within the C-ITS architecture, facilitating engagement with experts to address them;
- 2. ITS deployment teams, device manufacturers, and application developers to identify candidate standards-based solutions that are available to them for planning, understand the issues associated with those solutions, and mitigate the risks associated with those issues in their deployments. Future ITS deployment teams around the world will have a clearer understanding about which system functions and interfaces are critical for interoperability and where standards are defined (or not yet defined) to support interoperability.

1.4 Globally Harmonised Reference Architecture

To establish a foundation for analysing standards, the international HTG7 team first developed Harmonised Architecture Reference for Technical Standards (HARTS). HARTS facilitates understanding of the applicability of standards (ITS standards and other Information and Communications Technology (ICT) standards) for the successful implementation of *C-ITS services*⁵. HARTS provided the framework for the HTG7 team to identify key interfaces that need to be standardised in the public interest and served as the basis for performing the gap and overlap analysis of C-ITS standards for those interfaces.

HARTS is an internationally harmonised reference architecture based on:

- National ITS Architecture Framework (NIAF) from Australia
- EU's Framework Architecture (FRAME) from Europe
- Connected Vehicle Reference Implementation Architecture (CVRIA) from the US
- C-ITS architecture constructs from Japan

The body of work produced by HTG7 includes key resources for industry, such as HARTS and the accompanying HTG7 reports. These tools not only provide a starting point for the ITS community to address the technical and interoperability challenges that face wide-scale ITS deployment; but also provide tactical guidance on standards, solutions, and risks for current or near-term project teams planning and implementing ITS systems. Although the reports are based on a globally harmonised *reference architecture*, they formally recognise and accommodate regional and local approaches to ITS services, solutions, and standards.

1.5 Format of HTG7 Reports

The results summarized in this Executive Summary are presented in greater detail in the HTG7 series of reports:

• **Executive Overview (HTG7-1)** - A high-level summary of the approach, process and the key results of HTG7.

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⁵ For the purpose of this report, the term "C-ITS service" is intended to include all ITS services encompassed by the HARTS service packages; at the time of publication 34 are available on the HARTS website (http://htg7.org).



- **Analysis Methodology** (<u>HTG7-2</u>) Presents the HTG7 methodology used to develop HARTS, perform the gap analysis, and develop proposed resolutions.
- Issues and Proposed Resolutions (<u>HTG7-3</u>, this document) Summarises the issues
 identified through HTG7 analysis and proposes actions to resolve the issues. It introduces
 a series of more detailed reports, detailed below, each of which identifies the same set of
 proposed resolutions but adopts a presentation format and includes details relevant to a
 different perspective.
 - Results: Solution Perspective for Deployers (<u>HTG7-3-1-AU</u>, <u>HTG7-3-1-EU</u>, <u>HTG7-3-1-JP</u>, <u>HTG7-3-1-US</u>) Addresses development or implementation teams in their planning and procurement processes. This detailed report lists each solution along with its associated issues and proposed resolutions and is divided into four regional sub-reports, one for each participating region. (The region is reflected by the appended 2-letter region code⁶).
 - Results: Resolution Perspective for Standards Developers (<u>HTG7-3-2</u>) Presents each proposed resolution along with its associated issues and the data
 exchanges affected by these issues. This detailed report can assist standards
 development communities and governments in their planning and work processes.
 - Results: Service Package Perspective (<u>HTG7-3-3-AU</u>, <u>HTG7-3-3-EU</u>, <u>HTG7-3-3-JP</u>, <u>HTG7-3-3-US</u>) Offers road operators the opportunity to evaluate the "readiness" of *service packages*. This detailed report lists each service package, the data exchanges contained within the service package, and the issues associated with each solution for each data exchange. In this respect, this report helps deployers understand the levels of risk due to the standards gaps. The report is divided into 4 regional reports, one for each participating region. (The region is reflected by the appended the 2-letter region code⁶).
- HARTS Website Overview (<u>HTG7-4</u>) Provides an overview of the HARTS public website, available at http://htg7.org. It describes each aspect of the website and provides instructions on how to submit comments about the information on the website.
- HARTS Reference Compendium (HTG7-5) Provides reference material including:
 - o A glossary of terms and associated definitions
 - Acronyms and associated meanings
 - Graphic symbols and associated meanings
 - Explanations of key terms and their inter-relationships

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⁶ As defined by ISO 3166-1:2013 Codes for the representation of names of countries and their subdivisions – Part 1: Country codes



1.6 Conventions

While the HTG7 Report set was developed using United Kingdom (UK) English, the HARTS (toolset and website) was developed using US English. Whenever an extract from HARTS is presented within the HTG7 Report set, it will retain its US English spelling.

As noted in footnote 2 on page 2, this report is supplemented by the HARTS Reference Compendium (HTG7-5), which defines all of the terms used throughout this report set. Terms defined in the reference compendium are bold faced and italicised within each HARTS report upon their first use.

1.7 Purpose of this Document

This document, HTG7-3-2 Results: Resolution Perspective, is one of nine detailed reports designed to report the issues found and their proposed resolutions, each from a unique perspective. They are adjuncts to the Summary of Issues and Proposed Resolutions (HTG7-3) report, which summarises the results of the HTG7 analysis, summarises the key issues identified during the analysis, and provides a comprehensive set of proposed and prioritised resolutions. The nine detailed reports offer three different technical perspectives, with two of those perspectives further broken out into the four regions encompassed by the HTG7 analysis. The specific detailed reports are as follows:

- Solution Perspective: Assists implementation teams in understanding the issues surrounding each solution contained within the HARTS analysis; there is one detailed report for each of the four regions covered by the HARTS analysis. The name of each of the four reports will have a two-letter identifier (-AU, -EU, -JP or -US) at the end of the report identifier and the electronic filename.
- **Resolution Perspective:** Provides an overarching view of the work that still needs to be completed to provide a fully interoperable C-ITS environment and is intended primarily for standards development organisations and governmental entities.
- Service Package Perspective: For entities that are deploying C-ITS, such as
 governmental agencies, product vendors and others that are interesting in the complete
 end-to-end implementation of an ITS service package; there is one detailed report for each
 of the four regions covered by the HARTS analysis. The identifier of each of the four
 reports will have a two-letter identifier (-AU, -EU, -JP or -US) at the end of the report title
 and the electronic filename.

Please note that each of these detailed reports is extremely large and therefore not intended for printing.

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2. Report Perspective

In accordance with guidance in ISO 42010-2011, "Systems and software engineering — Architecture description", this detailed report is designed to address a specific set of concerns, or perspective, of a specific group of stakeholders. This detailed report provides the resolution perspective. It provides a table of the HARTS analysis results structured to provide insight for the standards development community, or other decision makers, who wish to develop roadmaps and work plans for standards development activity. This detailed report is intended to aid in the prioritisation of work activities and facilitate the cohesive and cooperative planning for standards development activities.

The results in this detailed report are therefore organised by proposed resolution, accompanied by a list of the issues that should be addressed by the resolution. Under each issue addressed by the resolution, the detailed report then lists the various *information triples* (*source*, *destination* and information flow) and paired solution that trace to the issue and proposed resolution. This is summarised in Figure 1.

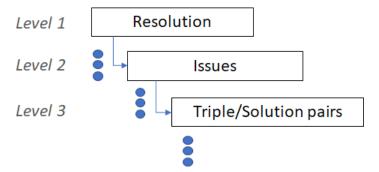


Figure 1: Resolution Perspective Overview

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3. Report Structure

As show in Figure 1 above, there are multiple levels within the detailed report. Each level will consist of one, or possibly two header rows, followed by one or more content rows. Given the multi-level detailed report structure, higher-level sorting fields are typically displayed in header rows (e.g., at the start of the detailed report and when values change) while the lowest-level sorting fields may only appear in content rows. When the header field value is changed, the page header for each subsequent page is changed accordingly. Figure 2 below illustrates the detailed report structure, and each field included in the detailed report is subsequently defined in Table 1.

Level 1	Class	Timeframe	Proposed Resolution	Description		Regional Applicability
	Security	Urgent	Text	Text		US
Level 2	Issue Description	on Text				Severity Ultra
112			Relevant Flow S	Solution Combinations		
Level 3	Source	Destination	Flow	SolutionName	Notes	
	Source 17	Destination	43 Flow 28	Solution 324	text	
	Source 17	Destination	87 Flow 123	Solution 945	text	
	Source 18	Destination	56 Flow 65	Solution 117	text	

Figure 2: Resolution Perspective Report Structure

The following table contains the field name, its description and its value range for each of the detailed report fields in Chapter 4. They are listed in the table below according to the order in which they appear in the detailed report in Chapter 4. Additionally, the table also shows the sorting criteria used for the detailed report, including the order of sorting fields, the sorting method used, and the sort direction.



Table 1: Resolution Perspective Report Field Descriptions

Report		Field Information			Sort Criter	ia
Level	Title	Description	Value Range	Order	Measure	Direction
	Class	The class of proposed resolutions to which the specific resolution belongs. Each of the 112 defined proposed resolutions is aligned to a class.	Ordered List found in HTG7-5.	2	List Order	↓
1	Timeframe	The timeframe in which the proposed resolution needs to be addressed in order to eliminate or mitigate the associated issues(s) which will facilitate wide-scale deployments of impacted solutions, triples, and service packages.	Ordered List (Urgent, Near-Term, Medium-Term, Future)	1	List Order	↓
	Proposed Resolution	The name of the proposed resolution, which will correspond to one of the 112 defined proposed resolutions.	ASCII ⁷ text	3	Alphabetic	↓
	Description	A description of the proposed resolution.	ASCII text	-	-	-
	Regional Applicability	The HARTS region or regions in which the proposed resolution is relevant.	Multiple from the following list (AU, EU, JP, US)	-	-	-
2	Issue Description	A summary description of the issue.	ASCII	_	_	_

⁷ ASCII (American Standard Code for Information Exchange)



Report		Field Information			Sort Criter	ia
Level	Title	Description	Value Range	Order	Measure	Direction
	Severity	An indication of how severe the issue is deemed to be. If the severity of the issue needs to be decided when assigning the issue, multiple issues can be created with slightly different names and definitions. For example, "Data may not be fully defined (low)" and "Data not fully defined (medium)".		4	List Order	←
	Source	The HARTS subsystem that is the source of the information in the flow. The combination of the source, destination and the information flow constitute the information triple.	ASCII	5	Alphabetic	↓
3	Destination	The HARTS subsystem that is the destination of the information in the flow. The combination of the source, destination and the information flow constitute the information triple.	ASCII	6	Alphabetic	↓
	Flow	Summary name for the information that is exchanged between subsystems in the Physical View of HARTS. These Information flows and their communication requirements define the interfaces which formed the basis for the standards analysis conducted by HTG7. The combination of the source, destination and the information flow constitute the information triple.	ASCII	7	Alphabetic	↓



Report		Field Information	Sort Criteria			
Level	Title	Description	Value Range	Order	Measure	Direction
	SolutionName	The name of the solution expressed as a hyphenated concatenation of the HARTS data profile and the HARTS communication profile that collectively define the solution.		8	Alphabetic	↓
	Notes	Notes relevant to this specific instance of the issue	ASCII	_	_	_



4. Report Content

The table of results is shown below.

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HTG7-3-2: Resolution Perspective

Class	Foundational Timeframe Urgent		Proposed Resolution	esolution C-V: Wide-area broadcast subnet and hybrid communications Regional Applicability Austral		tralia, European Union, United States		
Class	Timeframe	Proposed Resolution	on	Description	Description			
Foundational	Urgent	C-V: Wide-area bro and hybrid commu		users that are currently being transmitted and while other messages (e	Standardise one or more mechanisms by which wide-area broadcast messages can be received by a defined minimum percentage of transportation users that are currently operating within a specified geographic area. The required minimum percentage is dependent on the type of information being transmitted and will need to be determined by the expert community. Some alerts (e.g., tornado warnings) will require near 100% reception, while other messages (e.g., road works ahead) may require significantly lower minimum percentages. The minimum percentage may be made up with a variety of technologies using hybrid communications and the ITS station architecture.			
Issue Description	: With the contin		roadcast technol	ogies and a mixture of free	e and subscriber-based systems, it is difficult to identify any single technolo	ogy that can be used to reliably reach the bulk of	Severity Low	

drivers in a tim	ery manner.			
		<u>Rele</u>	evant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes
Transportation Information Center	Personal Information Device	emergency traveler information	(None-Data) - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Transportation Information Center	Vehicle OBE	emergency traveler information	(None-Data) - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Personal Information Device	traffic-related regulations	(None-Data) - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Vehicle OBE	traffic-related regulations	(None-Data) - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Transportation Information Center	Personal Information Device	broadcast traveler information	TMC - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Transportation Information Center	Vehicle OBE	broadcast traveler information	TMC - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Personal Information Device	wide area broadcast traveler information	TMC - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Vehicle OBE	broadcast traveler information	TMC - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Vehicle OBE	wide area broadcast traveler information	TMC - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Transportation Information Center	Personal Information Device	broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Transportation Information Center	Vehicle OBE	broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Personal Information Device	wide area broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Vehicle OBE	broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Vehicle OBE	wide area broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Transportation Information Center	Personal Information Device	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Fransportation Information Center	Vehicle OBE	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Personal Information Device	wide area broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Wide Area Information Disseminator	Vehicle OBE	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology
Nide Area Information Disseminator	Vehicle OBE	wide area broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	Ensuring that the public receives the transmission is difficult without a ubiquitous broadcast technology

Class	Foundational	Timeframe Urgent	Proposed Resolution Data dis	tribution technologies	Regional Applicability Australia, Europ	pean Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
Foundational	Urgent	Data distribution technologies	more efficient, secure, and scalab		ite data among multiple ITS subsystems on an as-needed basis in a ine where the use of these technologies might be appropriate, and efforts.	Australia, Euro United States	ppean Union,
Issue Description:	The proposed so	lution uses a suite of standards that is	accepted within some communities	, but has not necessarily been accepted for u	se within the context of this information triple.	Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
ITS Roadway Equipme	nt	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
ITS Roadway Equipme	nt	Connected Vehicle Roadside Equipment	work zone warning notification	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
ITS Roadway Equipme	ent	Emissions Management Center	vehicle emissions data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
ITS Roadway Equipme	nt	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Other Data Distributio	n Systems	Data Distribution System	field situation data sharing	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Other Data Distributio	n Systems	Data Distribution System	traveler situation data sharing	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Other Data Distributio	n Systems	Data Distribution System	vehicle situation data sharing	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Other Emergency Mar	nagement Centers	Emergency Management Center	evacuation coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Other Freight Distribut Centers	tion and Logistics	Freight Distribution and Logistics Center	load matching systems coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Other Map Update Sys	stems	Map Update System	map update coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Parking Management	System	Map Update System	parking facility geometry	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Parking Management	System	Transportation Information Center	parking reservation confirmation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Payment Administration	on Center	Parking Management System	vehicle payment request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Privacy Protection Gat	teway	Center	protected location and address flow	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Security Credentials Ro	egistry	Commercial Vehicle Check Equipment	security credentials	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Service Monitor System	m	Center	service maintenance status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Service Monitor Syste	m	Data Distribution System	service maintenance status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Storage Facility Data A	Acquisition System	Maint and Constr Management Center	maintenance materials storage status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Traffic Management C	Center	Emissions Management Center	low emissions zone coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Traffic Management C	Center	Intermodal Terminal	intermodal freight traffic confirmation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Traffic Management C	Center	Map Update System	map update notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle Cl	heck Equipment	Commercial Vehicle OBE Service Provider	security credentials	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle Cl	heck Equipment	Emergency Management Center	commercial vehicle incident notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle Cl	heck Equipment	Enforcement Center	violation notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle O		Commercial Vehicle Administration Center	commercial vehicle permit information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Ro		Parking Management System	connected vehicle parking data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
CVO Information Requ		Commercial Vehicle Administration Center	request for data review	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Data Distribution Syste		Other Data Distribution Systems	field situation data sharing	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Data Distribution Syste		Other Data Distribution Systems	traveler situation data sharing	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Data Distribution Syste		Other Data Distribution Systems	vehicle situation data sharing	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Data Distribution Syste		Service Monitor System	service maintenance request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.		

Class	Foundational	Timeframe Urgent	Proposed Resolution Data distribu	ution technologies	Regional Applicability Australia, European Union, United States
Emissions Management Ce	enter	Connected Vehicle Roadside Equipment	vehicle emissions monitoring parameters	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Emissions Management Ce	enter	ITS Roadway Equipment	emissions sensor control	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Field Support Equipment		Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Field Support Equipment		Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Field Support Equipment		Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Field Support Equipment		ITS Roadway Equipment	field equipment software install/upgrade	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Center	device identification	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	infrastructure restriction warning	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	vehicle entries and exits	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Parking Management Syste	em	Payment Administration Center	service payment information	(Out of Scope) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information	n Center	Emergency Management Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information	n Center	Emergency Management Center	road weather advisories	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information	n Center	Emissions Management Center	corridor operational strategies	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information	n Center	Fleet and Freight Management Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information	n Center	Fleet and Freight Management Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information	n Center	Fleet and Freight Management Center	road weather advisories	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Archived Data Center		Archived Data User Systems	archive analysis results	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Archived Data Center		Archived Data User Systems	archive request confirmation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Archived Data Center		Archived Data User Systems	archived data products	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Archived Data Center		Center	archive requests	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Archived Data Center		Center	archive status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Archived Data Center		Government Reporting Systems	government reporting system data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Archived Data User System	ns	Archived Data Center	archive analysis requests	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Archived Data User System	าร	Archived Data Center	archived data product requests	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection Adminis	tration Center	Border Inspection System	consolidated agency response	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection Adminis	tration Center	Border Inspection System	manifest data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection Adminis	tration Center	Border Inspection System	traveler personal information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection Adminis	tration Center	Fleet and Freight Management Center	clearance notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection Adminis	tration Center	Freight Distribution and Logistics Center	clearance notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection Adminis	tration Center	Intermodal Customer System	clearance notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection System		Border Inspection Administration Center	border security input	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection System		Border Inspection Administration Center	inspection results	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection System		Commercial Vehicle Administration Center	arrival notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Cellular Communications P	Provider	Transportation Information Center	comm-derived travel time data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Center		Map Update System	map update notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Center		Service Monitor System	service maintenance request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribut	ion technologies	Regional Applicability Australia, European Union, United States
Center	Service Monitor System	system monitoring	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Border Inspection Administration Center	border clearance status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	border agency clearance results	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	carrier participation report	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	commercial vehicle permit information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	credentials information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	credentials status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	cv driver record	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	safety status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	targeted list	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	transportation border clearance assessment	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Commercial Vehicle OBE Service Provider	commercial vehicle permit information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	CVO Information Requestor Center	carrier participation report	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	CVO Information Requestor Center	credentials information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	CVO Information Requestor Center	credentials status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	CVO Information Requestor Center	cv driver record	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	CVO Information Requestor Center	safety status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	border clearance status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	citation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	compliance review report	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	credentials information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	credentials status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	cv driver record	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	safety status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	trigger area	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	trigger area notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Intermodal Customer System	border clearance status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	accident report	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	citation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	commercial vehicle permit information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	credential fee coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	credentials information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	credentials status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	cv driver record	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	safety status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Transportation Information Center	commercial vehicle permit information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	border clearance event	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	citation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.

Class Fo	undational	Timeframe Urgent	Proposed Resolution Data distribu	ution technologies	Regional Applicability Australia, European Union, United States
Commercial Vehicle Check Eq	luipment	Commercial Vehicle Administration Center	daily site activity data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Check Eq	luipment	Commercial Vehicle Administration Center	on-board safety data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Check Eq	luipment	Commercial Vehicle Administration Center	violation notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Service Monitor System	support system status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Cen	iter	Other Emergency Management Centers	evacuation coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Cen	iter	Public Health System	public health request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Cen	iter	Traffic Management Center	special vehicle restricted use information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Cen	iter	Transportation Information Center	transportation system status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Cente	er	Traffic Management Center	low emissions zone coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Cente	er	Traffic Management Center	low emissions zone operations information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Cente	er	Traffic Management Center	mobile source emissions data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Cente	er	Traffic Management Center	widearea statistical pollution information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Cente	er	Transit Management Center	low emissions zone coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Cente	er	Transit Management Center	low emissions zone operations information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Cente	er	Transportation Information Center	low emissions zone operations information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Enforcement Center		Commercial Vehicle Check Equipment	information on violators	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Event Promoters		Parking Management System	event plans	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Border Inspection Administration Center	manifest data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Commercial Vehicle Administration Center	audit data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Commercial Vehicle Administration Center	credential application	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Commercial Vehicle Administration Center	on-board safety data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Commercial Vehicle Administration Center	request for permit	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Commercial Vehicle Administration Center	tax filing	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Commercial Vehicle Administration Center	unique identifiers	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Emergency Management Center	commercial vehicle incident notification	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Freight Distribution and Logistics Center	available truck capacity	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Freight Distribution and Logistics Center	load appointment status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Intermodal Customer System	available truck capacity	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Intermodal Customer System	booking status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Intermodal Terminal	container delivery request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Intermodal Terminal	container pickup confirmation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Intermodal Terminal	terminal reservation request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Transportation Information Center	commercial vehicle trip information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Managemen	nt Center	Transportation Information Center	freight traveler information preferences	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Freight Distribution and Logist	tics Center	Border Inspection Administration Center	manifest data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Freight Distribution and Logist	tics Center	Fleet and Freight Management Center	available loads	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Freight Distribution and Logist	tics Center	Fleet and Freight Management Center	load matching info	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Freight Distribution and Logist	tics Center	Intermodal Customer System	booking status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.

Class Foundation	Timeframe Urgent	Proposed Resolution Data distribut	tion technologies	Regional Applicability Australia, European Union, United States
reight Distribution and Logistics Center	Intermodal Terminal	container availability request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
reight Distribution and Logistics Center	Other Freight Distribution and Logistics Centers	load matching systems coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
reight Distribution and Logistics Center	Transportation Information Center	freight traveler information preferences	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Government Reporting Systems	Archived Data Center	government reporting data receipt	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
ntermodal Customer System	Border Inspection Administration Center	manifest data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Customer System	Fleet and Freight Management Center	available loads	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
ntermodal Customer System	Freight Distribution and Logistics Center	available loads	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
ntermodal Customer System	Transportation Information Center	freight traveler information preferences	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
ntermodal Terminal	Fleet and Freight Management Center	container pickup request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
ntermodal Terminal	Fleet and Freight Management Center	intermodal terminal status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Terminal	Fleet and Freight Management Center	terminal reservation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Terminal	Freight Distribution and Logistics Center	container availability status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
ntermodal Terminal	Freight Distribution and Logistics Center	intermodal terminal status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
ntermodal Terminal	Traffic Management Center	intermodal freight event information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
ntermodal Terminal	Transportation Information Center	intermodal terminal status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Emergency Management Center	road network status assessment	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Emergency Management Center	roadway maintenance status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Maintenance and Construction Administrative Systems	maint and constr work performance	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Traffic Management Center	special vehicle restricted use information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	roadway maintenance status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Maintenance and Construction Administrative Systems	Maint and Constr Management Center	maint and constr administrative information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Map Update System	Center	map updates	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Map Update System	Other Map Update Systems	map update coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Map Update System	Parking Management System	parking facility geometry	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	accident report	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	citation	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	commercial vehicle permit information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	credential fee coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	credentials information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	credentials status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	cv driver record	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	safety status information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Parking Management System	parking demand management request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Parking Management System	parking traffic information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Parking Management System	transportation operational strategies	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Transit Management Center	dynamic bus lane status	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.

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Traffic Regulatory Authority	Transportation Information Center	traffic-related regulations	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transit Management Center	Emissions Management Center	low emissions zone coordination	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transit Management Center	Traffic Management Center	dynamic bus lane request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Emergency Management Center	road network environmental situation data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Fleet and Freight Management Center	freight-specific traveler information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Fleet and Freight Management Center	road network environmental situation data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Freight Distribution and Logistics Center	freight-specific traveler information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Intermodal Customer System	freight-specific traveler information	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Maint and Constr Management Center	road network environmental situation data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Parking Management System	parking reservation request	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Surface Transportation Weather Service	road network environmental situation data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Traffic Management Center	road network environmental situation data	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Travel Services Provider System	Transportation Information Center	travel service reservations	(None-Data) - OMG DDS	DDS has not been adopted by the C-ITS community.
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Connected Vehicle Roadside Equipment	trigger area notification	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Connected Vehicle Roadside Equipment	trigger control	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Archived Data Center	local situation data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Commercial Vehicle Administration Center	on-board safety data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Commercial Vehicle Administration Center	roadside data message	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Data Distribution System	local situation data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Electric Charging Station	vehicle charging profile	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Emergency Management Center	work zone safety application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Emissions Management Center	low emissions zone application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection infringement info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	restricted lanes application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	vehicle entries and exits	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	vehicle occupancy	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	work zone warning notification	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
				DDS has not been adopted by the C-ITS community.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribut	tion technologies	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	environmental situation data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	work zone safety application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Payment Administration Center	access violation notification	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Payment Administration Center	road use history	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Payment Administration Center	toll collection application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Payment Administration Center	vehicle payment information	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	automated lane status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	infrastructure restriction warning status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	lighting management application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	local border wait times	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	restricted lanes application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic metering application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Transit Management Center	transit user guidance application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Transportation Information Center	local situation data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Data Distribution System	Connected Vehicle Roadside Equipment	local traveler information distribution data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Data Distribution System	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
DMV	ITS Roadway Equipment	registration	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribu	ition technologies	Regional Applicability Australia, European Union, United States
Electric Charging Station	Connected Vehicle Roadside Equipment	current charging status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
mergency Management Center	Connected Vehicle Roadside Equipment	emergency acknowledge	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
mergency Management Center	Connected Vehicle Roadside Equipment	work zone safety application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
missions Management Center	Connected Vehicle Roadside Equipment	low emissions zone application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	infrastructure restriction warning status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	lane management information	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	lane violation notification	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Payment Equipment	Connected Vehicle Roadside Equipment	payment instructions	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Payment Equipment	Connected Vehicle Roadside Equipment	vehicle entries and exits	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	work zone safety application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Map Update System	Connected Vehicle Roadside Equipment	map updates	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Map Update System	Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Other Connected Vehicle Roadside Equipment	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Other Parking Management Systems	Parking Management System	parking coordination	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Parking Management System	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Parking Management System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Parking Management System	Other Parking Management Systems	parking coordination	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Payment Administration Center	Connected Vehicle Roadside Equipment	road use charges	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Payment Administration Center	Connected Vehicle Roadside Equipment	toll collection application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Payment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Payment Administration Center	ITS Roadway Payment Equipment	payment instructions	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	Connected Vehicle Roadside Equipment	automated lane control data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	Connected Vehicle Roadside Equipment	infrastructure restriction warning info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	Connected Vehicle Roadside Equipment	lighting management application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Connected Vehicle Roadside Equipment	restricted lanes application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribut	tion technologies	Regional Applicability Australia, European Union, United States
Traffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
raffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	Connected Vehicle Roadside Equipment	traffic metering application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	ITS Roadway Equipment	infrastructure restriction warning control	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Transit Management Center	Connected Vehicle Roadside Equipment	transit user guidance application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Funnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	ITS Roadway Equipment	lighting system control data	DDS: NTCIP Lighting - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	roadway dynamic signage data	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Other ITS Roadway Equipment	dynamic sign coordination	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	roadway warning system status	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	variable speed limit status	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Other ITS Roadway Equipment	ITS Roadway Equipment	dynamic sign coordination	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Emergency Management Center	Traffic Management Center	emergency traffic control request	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Center	Traffic Management Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Center	Transportation Information Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Center	Transportation Information Center	air quality information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	route restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Center	equipment maintenance status	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Commercial Vehicle Administration Center	current infrastructure restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Emergency Management Center	road weather information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Map Update System	current infrastructure restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Surface Transportation Weather Service	road weather information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.

Class	Foundational	Timeframe Urgent	Proposed Resolution Data d	istribution technologies	Regional Applicability Australia, European Union, United States
Maint and Constr Manag	ement Center	Traffic Management Center	current infrastructure restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Connected Vehicle Road	side Equipment	ITS Roadway Payment Equipment	payment transactions	(Out of Scope) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Road	side Equipment	Payment Administration Center	service payment information	(Out of Scope) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Payment Ed	quipment	Payment Administration Center	payment transactions	(Out of Scope) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fleet and Freight Manag	ement Center	Transportation Information Center	route request	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Inf	ormation Centers	Transportation Information Center	multimodal information	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Inf	ormation Centers	Transportation Information Center	parking information	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Parking Management Sys	stem	Traffic Management Center	parking information	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Parking Management Sys	stem	Transit Management Center	parking information	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Parking Management Sys	stem	Transportation Information Center	parking information	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cen	ter	Media	traffic information for media	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Informat	ion Center	Fleet and Freight Management Center	route plan	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Informat	ion Center	Media	traffic information for media	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Informat	ion Center	Media	traveler information for media	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Informat	ion Center	Other Transportation Information Centers	multimodal information	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Informat	ion Center	Other Transportation Information Centers	parking information	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Travel Services Provider	System	Transportation Information Center	travel service information	DDS: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Emergency Telecommunications System	incident information for public	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Maint and Constr Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Maint and Constr Management Center	evacuation information	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Other Emergency Management Centers	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Other Emergency Management Centers	incident report	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Rail Operations Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Rail Operations Center	evacuation information	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Traffic Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Traffic Management Center	emergency route request	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Traffic Management Center	evacuation information	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Transit Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Transit Management Center	evacuation information	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Managemen	t Center	Transportation Information Center	evacuation information	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Manag	ement Center	Emergency Management Center	hazmat information	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Manag	gement Center	Emergency Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Emergency Manag	gement Centers	Emergency Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Emergency Manag	gement Centers	Emergency Management Center	incident report	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Rail Operations Center		Emergency Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Shelter Provider Center		Emergency Management Center	shelter information	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Shelter Provider Center		Transportation Information Center	shelter information	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cen	ter	Emergency Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.

Class Foun	ndational	Timeframe Urgent	Proposed Resolution Data distrib	ution technologies	Regional Applicability Australia, European Union, United States
Traffic Management Center		Emergency Management Center	emergency routes	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
Transit Management Center		Emergency Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Maint and Constr Management Center	traffic images	DDS: NTCIP CCTV - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Traffic Management Center	traffic images	DDS: NTCIP CCTV - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management	Center	ITS Roadway Equipment	video surveillance control	DDS: NTCIP CCTV - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	video surveillance control	DDS: NTCIP CCTV - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equ	uipment	Emissions Management Center	emissions situation data	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Emissions Management Center		ITS Roadway Equipment	air quality sensor control	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	environmental sensor data	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	ITS roadway equipment information	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Emissions Management Center	air quality sensor data	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Maint and Constr Management Center	environmental sensor data	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Traffic Management Center	environmental sensor data	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management	Center	ITS Roadway Equipment	environmental sensors control	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	environmental sensors control	DDS: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Traffic Management Center	lighting system status	DDS: NTCIP Lighting - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	lane management control	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	roadway dynamic signage data	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	roadway warning system control	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	variable speed limit control	DDS: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Traffic Management Center	traffic metering status	DDS: NTCIP Ramp Meters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	traffic metering control	DDS: NTCIP Ramp Meters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		Transit Management Center	traffic control priority status	DDS: NTCIP Signal Priority - OMG DDS	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equ	uipment	ITS Roadway Equipment	signal preemption request	DDS: NTCIP Signal Priority - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equ	uipment	ITS Roadway Equipment	signal priority service request	DDS: NTCIP Signal Priority - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Traffic Management Center	right-of-way request notification	DDS: NTCIP Signal Priority - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	signal control commands	DDS: NTCIP Signal System Masters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	signal control device configuration	DDS: NTCIP Signal System Masters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center		ITS Roadway Equipment	signal system configuration	DDS: NTCIP Signal System Masters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equ	uipment	ITS Roadway Equipment	pedestrian location information	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equ	uipment	ITS Roadway Equipment	signal service request	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	conflict monitor status	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	intersection control status	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribut	tion technologies	Regional Applicability Australia, European Union, United States
TS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
S Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
rs Roadway Equipment	Other ITS Roadway Equipment	signal control coordination	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	signal control status	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control coordination	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	ITS Roadway Equipment	signal control plans	DDS: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	traffic situation data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Transportation Information Center	traffic situation data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Maint and Constr Management Center	traffic detector data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Other ITS Roadway Equipment	roadway detector coordination	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	speed monitoring information	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	traffic detector data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Other ITS Roadway Equipment	ITS Roadway Equipment	roadway detector coordination	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
raffic Management Center	ITS Roadway Equipment	speed monitoring control	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
raffic Management Center	ITS Roadway Equipment	traffic detector control	DDS: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
mergency Management Center	ITS Roadway Equipment	work zone warning device control	DDS: NTCIP Warning Device - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Emergency Management Center	work zone warning status	DDS: NTCIP Warning Device - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
S Roadway Equipment	Maint and Constr Management Center	work zone warning status	DDS: NTCIP Warning Device - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Naint and Constr Management Center	ITS Roadway Equipment	work zone warning device control	DDS: NTCIP Warning Device - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle OBE Service Provider	Commercial Vehicle Check Equipment	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle OBE Service Provider	Fleet and Freight Management Center	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.

Class	Foundational	Timeframe Urgent	Proposed Resolution Data d	istribution technologies	Regional Applicability Australia, European Union, United States
Commercial Vehicle OBE	Service Provider	Other CVOBE Service Provider	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roads	ide Equipment	Commercial Vehicle Administration Center	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Manage	ment Center	Commercial Vehicle Administration Center	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CVOBE Service Prov	vider	Commercial Vehicle OBE Service Provider	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roads	ide Equipment	Parking Management System	commercial vehicle identification	DDS: SAE J3067 (J2735 SE) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Map Update System		Connected Vehicle Roadside Equipment	intersection geometry	DDS: SAE Other J2735 - OMG DDS	
Map Update System		Connected Vehicle Roadside Equipment	roadway geometry	DDS: SAE Signal Control Messages - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Alternate Mode Transpor	tation Center	Transit Management Center	multimodal service data	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Alternate Mode Transpor	tation Center	Transit Management Center	service information response	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Alternate Mode Transpor	tation Center	Transportation Information Center	multimodal service data	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management	Center	Transit Management Center	emergency transit service request	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transit Manageme	nt Centers	Transit Management Center	transit service coordination	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Info	ormation Centers	Transportation Information Center	transit service information	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Fraffic Management Cent	er	Transit Management Center	transit service change request	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	er	Transportation Information Center	transit service change request	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Transit Management Cen	ter	Alternate Mode Transportation Center	service information request	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransit Management Cen	ter	Alternate Mode Transportation Center	transit multimodal information	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransit Management Cen	ter	Emergency Management Center	emergency transit service response	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransit Management Cen	ter	Emissions Management Center	transit and fare schedules	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransit Management Cen	ter	Other Transit Management Centers	transit service coordination	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransit Management Cen	ter	Parking Management System	transit schedule adherence information	n DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransit Management Cen	ter	Parking Management System	transit schedule information	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransit Management Cen	ter	Traffic Management Center	traffic control priority request	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransit Management Cen	ter	Traffic Management Center	transit system data	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransit Management Cen	ter	Transportation Information Center	demand responsive transit plan	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransit Management Cen	ter	Transportation Information Center	emergency transit schedule information	n DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransit Management Cen	ter	Transportation Information Center	transit and fare schedules	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransit Management Cen	ter	Transportation Information Center	transit incident information	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransit Management Cen	ter	Transportation Information Center	transit schedule adherence information	n DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransit Management Cen	ter	Transportation Information Center	transit trip plan	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information	on Center	Alternate Mode Transportation Center	service information request	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information	on Center	Other Transportation Information Centers	transit service information	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information	on Center	Transit Management Center	demand responsive transit request	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Other Data Distribution Systems	data subscription	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE) but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution Systems	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Personal Information Device	data publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE) but has not received broad review by the ITS industry.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distrib	ution technologies	Regional Applicability Australia, European Union, United States
Data Distribution System	Personal Information Device	data publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Transportation Information Center	Transit Management Center	transit service change request	DDS: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection System	Traffic Management Center	border wait times data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Border Inspection System	Transportation Information Center	border crossing status information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Center	Archived Data Center	center archive data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Center	Data Distribution System	operational data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Center	Data Distribution System	traveler information distribution data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Center	Maint and Constr Management Center	equipment maintenance request	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	route restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Other CV Administration Centers	route restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Commercial Vehicle Administration Center	Transportation Information Center	route restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System	Center	operational data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System	Center	regional situation data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Traffic Management Center	environmental conditions data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Traffic Management Center	equipment maintenance status	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Traffic Management Center	work zone information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transit Management Center	current infrastructure restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	current infrastructure restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	environmental conditions data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	maint and constr work plans	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	road weather information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	work zone information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	route restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	device control request	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	device data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	device status	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	traffic image meta data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	traffic images	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	emergency traveler information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	traffic image meta data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	traffic images	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Service Monitor System	Center	RSE fault data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Service Monitor System	Maint and Constr Management Center	RSE fault data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.

Class Foundationa	Timeframe Urgent	Proposed Resolution Data distri	bution technologies	Regional Applicability Australia, European Union, United States
Surface Transportation Weather Service	Emergency Management Center	transportation weather information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
urface Transportation Weather Service	Maint and Constr Management Center	transportation weather information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
urface Transportation Weather Service	Traffic Management Center	transportation weather information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
urface Transportation Weather Service	Transportation Information Center	transportation weather information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Emergency Management Center	emergency traffic control information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Emergency Management Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Emergency Management Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Emissions Management Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Fleet and Freight Management Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Fleet and Freight Management Center	route restrictions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Maint and Constr Management Center	equipment maintenance request	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Maint and Constr Management Center	field equipment status	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Maint and Constr Management Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Maint and Constr Management Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Other Traffic Management Centers	device control request	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Other Traffic Management Centers	device data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Other Traffic Management Centers	device status	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Other Traffic Management Centers	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Other Traffic Management Centers	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Other Traffic Management Centers	traffic image meta data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Other Traffic Management Centers	traffic images	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Transit Management Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Transit Management Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Transportation Information Center	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Transportation Information Center	regional situation data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Transportation Information Center	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Transportation Information Center	traffic control information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Transportation Information Center	traffic image meta data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
raffic Management Center	Transportation Information Center	traffic images	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information Center	Archived Data Center	regional situation data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information Center	Emergency Management Center	corridor operational strategies	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information Center	Maint and Constr Management Center	corridor operational strategies	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information Center	Other Transportation Information Centers	emergency traveler information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information Center	Other Transportation Information Centers	incident information	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information Center	Other Transportation Information Centers	road network conditions	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransportation Information Center	Other Transportation Information Centers	traffic image meta data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
ransportation Information Center	Other Transportation Information Centers	traffic images	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransportation Information Center	Traffic Management Center	corridor operational strategies	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.

Class	oundational	Timeframe Urgent	Proposed Resolution Data distrib	ution technologies	Regional Applicability Australia, European Union, United States
Transportation Information	Center	Traffic Management Center	regional situation data	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Fransportation Information	Center	Transit Management Center	corridor operational strategies	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Funnel Management System	۱	Maint and Constr Management Center	field equipment status	DDS: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Manageme	ent Center	Freight Distribution and Logistics Center	freight transportation status	DDS: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Freight Distribution and Log	istics Center	Intermodal Customer System	freight transportation status	DDS: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Freight Distribution and Log	istics Center	Intermodal Terminal	freight transportation status	DDS: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Customer Syster	n	Freight Distribution and Logistics Center	freight transport booking	DDS: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside	e Equipment	Field Support Equipment	RSE status	US: NTCIP Generic Objects - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside	e Equipment	Service Monitor System	RSE status	US: NTCIP Generic Objects - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Field Support Equipment		Connected Vehicle Roadside Equipment	RSE status	US: NTCIP Generic Objects - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Field Support Equipment		ITS Roadway Equipment	field equipment commands	US: NTCIP Generic Objects - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Field Support Equipment		ITS Roadway Equipment	field equipment configuration settings	US: NTCIP Generic Objects - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Field Support Equipment	field equipment status	US: NTCIP Generic Objects - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment		Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment		Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside	e Equipment	Wayside Equipment	rail crossing blockage notification	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside	e Equipment	Wayside Equipment	rail crossing operational status	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment		Connected Vehicle Roadside Equipment	track status	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment		Wayside Equipment	rail crossing blockage notification	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment		Wayside Equipment	rail crossing operational status	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Multi-Modal Crossing		Connected Vehicle Roadside Equipment	multimodal crossing status	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Multi-Modal Crossing		ITS Roadway Equipment	multimodal crossing status	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Wayside Equipment		Connected Vehicle Roadside Equipment	track status	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Wayside Equipment		ITS Roadway Equipment	track status	F-F: Highway-Rail Field Interface - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Center		Data Distribution System	data provision	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Center		Data Distribution System	data query	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Center		Data Distribution System	data subscription	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Center	data publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Center	data query publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Other Data Distribution Systems	data provision	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Other Data Distribution Systems	data publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Other Data Distribution Systems	data query	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Other Data Distribution Systems	data query publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Other Data Distribution Systems	data subscription	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Personal Information Device	data publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Personal Information Device	data query publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Vehicle OBE	data publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Data Distribution System		Vehicle OBE	data query publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distrib	oution technologies	Regional Applicability Australia, European Union, United States
Other Data Distribution Systems	Data Distribution System	data provision	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Data Distribution Systems	Data Distribution System	data publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Data Distribution Systems	Data Distribution System	data query	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Data Distribution Systems	Data Distribution System	data query publication	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Data Distribution Systems	Data Distribution System	data subscription	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Personal Information Device	Data Distribution System	data provision	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
ersonal Information Device	Data Distribution System	data query	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Personal Information Device	Data Distribution System	data subscription	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
/ehicle OBE	Data Distribution System	data provision	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
ehicle OBE	Data Distribution System	data query	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
/ehicle OBE	Data Distribution System	data subscription	Flow-Specific Data - OMG DDS	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Data Distribution System	data provision	Flow-Specific Data - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Data Distribution System	data query	Flow-Specific Data - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	Data Distribution System	data subscription	Flow-Specific Data - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Data Distribution System	Connected Vehicle Roadside Equipment	data publication	Flow-Specific Data - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Data Distribution System	Connected Vehicle Roadside Equipment	data query publication	Flow-Specific Data - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Senter	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE but has not received broad review by the ITS industry.
enter	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
enter	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE but has not received broad review by the ITS industry.
Senter	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Center	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE but has not received broad review by the ITS industry.
Center	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Connected Vehicle Roadside Equipment	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE but has not received broad review by the ITS industry.
Connected Vehicle Roadside Equipment	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Connected Vehicle Roadside Equipment	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE but has not received broad review by the ITS industry.
Connected Vehicle Roadside Equipment	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Connected Vehicle Roadside Equipment	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE but has not received broad review by the ITS industry.
Connected Vehicle Roadside Equipment	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System	Center	data publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE but has not received broad review by the ITS industry.
Data Distribution System	Center	data publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.

Class	Foundational	Timeframe	Urgent	Proposed Resolution	Data distribution technologies	Regional Applicability Australia, European Union, United States
Data Distribution System		Center		data query publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Center		data query publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Connected Vehicle Roads	side Equipment	data publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Connected Vehicle Roads	side Equipment	data publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Connected Vehicle Roads	side Equipment	data query publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Connected Vehicle Roads	side Equipment	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution S	ystems	data provision	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution S	ystems	data provision	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution S	ystems	data publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution S	ystems	data publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution S	ystems	data query	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution S	ystems	data query	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution S	ystems	data query publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Other Data Distribution S	ystems	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Personal Information Dev	vice	data query publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Personal Information Dev	vice	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Vehicle OBE		data publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Vehicle OBE		data publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Vehicle OBE		data query publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Data Distribution System		Vehicle OBE		data query publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Other Data Distribution Sys	stems	Data Distribution System		data provision	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Other Data Distribution Sys	stems	Data Distribution System		data provision	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Other Data Distribution Sy	stems	Data Distribution System		data publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Other Data Distribution Sys	stems	Data Distribution System		data publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Other Data Distribution Sy	stems	Data Distribution System		data query	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distributi	on technologies	Regional Applicability Australia, European Union, United States
Other Data Distribution Systems	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Other Data Distribution Systems	Data Distribution System	data query publication	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Other Data Distribution Systems	Data Distribution System	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Other Data Distribution Systems	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Transportation Information Center	Other Transportation Information Centers	emergency traveler information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Other Transportation Information Centers	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Other Transportation Information Centers	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Other Transportation Information Centers	traffic image meta data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Other Transportation Information Centers	traffic images	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Traffic Management Center	corridor operational strategies	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Traffic Management Center	regional situation data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Transit Management Center	corridor operational strategies	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Tunnel Management System	Maint and Constr Management Center	field equipment status	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Data Distribution Systems	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Personal Information Device	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Personal Information Device	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Personal Information Device	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Personal Information Device	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Personal Information Device	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Personal Information Device	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Vehicle OBE	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Vehicle OBE	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Vehicle OBE	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Vehicle OBE	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Vehicle OBE	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Vehicle OBE	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper has been used on a few specific ITS projects, such as the USDOT JPO's Operational Data Environment (ODE), but has not received broad review by the ITS industry.
Fleet and Freight Management Center	Transportation Information Center	route request	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	multimodal information	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	parking information	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribution technologies		Regional Applicability Australia, European Union, United States	
Parking Management System	Traffic Management Center	parking information	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Parking Management System	Transit Management Center	parking information	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Parking Management System	Transportation Information Center	parking information	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Traffic Management Center	Media	traffic information for media	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Transportation Information Center	Fleet and Freight Management Center	route plan	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Transportation Information Center	Media	traffic information for media	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Transportation Information Center	Media	traveler information for media	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Transportation Information Center	Other Transportation Information Centers	multimodal information	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Transportation Information Center	Other Transportation Information Centers	parking information	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Travel Services Provider System	Transportation Information Center	travel service information	US: ATIS - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Emergency Telecommunications System	incident information for public	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Maint and Constr Management Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Maint and Constr Management Center	evacuation information	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Other Emergency Management Centers	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Other Emergency Management Centers	incident report	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Rail Operations Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Rail Operations Center	evacuation information	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Traffic Management Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Traffic Management Center	emergency route request	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Traffic Management Center	evacuation information	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Transit Management Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Transit Management Center	evacuation information	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Emergency Management Center	Transportation Information Center	evacuation information	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Fleet and Freight Management Center	Emergency Management Center	hazmat information	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Maint and Constr Management Center	Emergency Management Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Other Emergency Management Centers	Emergency Management Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Other Emergency Management Centers	Emergency Management Center	incident report	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Rail Operations Center	Emergency Management Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Shelter Provider Center	Emergency Management Center	shelter information	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Shelter Provider Center	Transportation Information Center	shelter information	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Traffic Management Center	Emergency Management Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Traffic Management Center	Emergency Management Center	emergency routes	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
Transit Management Center	Emergency Management Center	emergency plan coordination	US: Incident Management - OMG DDS	DDS has not been adopted by the C-ITS community.	
ITS Roadway Payment Equipment	Traffic Management Center	incident report	US: Incident Management - OMG DDS RPC	DDS has not been adopted by the C-ITS community.	
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	US: NTCIP CCTV - OMG DDS RPC	DDS has not been adopted by the C-ITS community.	
ITS Roadway Equipment	Traffic Management Center	traffic images	US: NTCIP CCTV - OMG DDS RPC	DDS has not been adopted by the C-ITS community.	
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - OMG DDS RPC	DDS has not been adopted by the C-ITS community.	
Traffic Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - OMG DDS RPC	DDS has not been adopted by the C-ITS community.	

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribu	tion technologies	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Emissions Management Center	emissions situation data	US: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
missions Management Center	ITS Roadway Equipment	air quality sensor control	US: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	lighting system status	US: NTCIP Lighting - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	ITS Roadway Equipment	lighting system control data	US: NTCIP Lighting - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment	Other ITS Roadway Equipment	dynamic sign coordination	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Other ITS Roadway Equipment	ITS Roadway Equipment	dynamic sign coordination	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	ITS Roadway Equipment	lane management control	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	traffic metering status	US: NTCIP Ramp Meters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fraffic Management Center	ITS Roadway Equipment	traffic metering control	US: NTCIP Ramp Meters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Traffic Management Center	Transit Management Center	traffic control priority status	US: NTCIP Signal Priority - OMG DDS	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal preemption request	US: NTCIP Signal Priority - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal priority service request	US: NTCIP Signal Priority - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
TS Roadway Equipment	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - OMG DDS RPC	DDS has not been adopted by the C-ITS community.
Fransportation Information Center	Archived Data Center	regional situation data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Emergency Management Center	corridor operational strategies	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Emergency Management Center	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Emergency Management Center	road weather advisories	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Emissions Management Center	corridor operational strategies	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Fleet and Freight Management Center	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Fleet and Freight Management Center	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Fleet and Freight Management Center	road weather advisories	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Transportation Information Center	Maint and Constr Management Center	corridor operational strategies	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribu	ition technologies	Regional Applicability Australia, European Union, United States		
Traffic Management Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
raffic Management Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
raffic Management Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	pedestrian location information	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal service request	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Other ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
ITS Roadway Equipment	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Traffic Management Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	traffic situation data	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	Transportation Information Center	traffic situation data	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Maint and Constr Management Center	traffic detector data	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Other ITS Roadway Equipment	roadway detector coordination	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Traffic Management Center	speed monitoring information	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Traffic Management Center	traffic detector data	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Other ITS Roadway Equipment	ITS Roadway Equipment	roadway detector coordination	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Fraffic Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Fraffic Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Emergency Management Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Emergency Management Center	work zone warning status	US: NTCIP Warning Device - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
TS Roadway Equipment	Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Maint and Constr Management Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	driver log	US: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle OBE Service Provider	Commercial Vehicle Check Equipment	driver log	US: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle OBE Service Provider	Fleet and Freight Management Center	driver log	US: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle OBE Service Provider	Other CVOBE Service Provider	driver log	US: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Fleet and Freight Management Center	Commercial Vehicle Administration Center	driver log	US: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.		

Class Foundational	Timeframe Urgent	Proposed Resolution Data distribu	ution technologies	Regional Applicability Australia, European Union, United States		
Other CVOBE Service Provider	Commercial Vehicle OBE Service Provider	driver log	US: SAE J3067 (J2735 SE) - OMG DDS	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	Commercial Vehicle Administration Center	driver log	US: SAE J3067 (J2735 SE) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	Emergency Management Center	emergency notification	US: SAE J3067 (J2735 SE) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	Emergency Management Center	emergency notification relay	US: SAE J3067 (J2735 SE) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Connected Vehicle Roadside Equipment	Parking Management System	commercial vehicle identification	US: SAE J3067 (J2735 SE) - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	US: SAE Other J2735 - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	US: SAE Other J2735 - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Nayside Equipment	ITS Roadway Equipment	arriving train information	US: SAE Other J2735 - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Map Update System	Center	intersection geometry	US: SAE Signal Control Messages - OMG DDS	DDS has not been adopted by the C-ITS community.		
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Map Update System	Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - OMG DDS RPC	DDS has not been adopted by the C-ITS community.		
Emergency Management Center	Transit Management Center	emergency transit service request	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
Other Transit Management Centers	Transit Management Center	transit service coordination	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
Other Transportation Information Centers	Transportation Information Center	transit service information	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
Fraffic Management Center	Transit Management Center	transit service change request	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
Fraffic Management Center	Transportation Information Center	transit service change request	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Emergency Management Center	emergency transit service response	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Emissions Management Center	transit and fare schedules	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Other Transit Management Centers	transit service coordination	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Parking Management System	transit schedule adherence information	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Parking Management System	transit schedule information	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Traffic Management Center	traffic control priority request	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Traffic Management Center	transit system data	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Transportation Information Center	demand responsive transit plan	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Transportation Information Center	emergency transit schedule information	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Transportation Information Center	transit and fare schedules	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Transportation Information Center	transit incident information	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Transportation Information Center	transit schedule adherence information	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransit Management Center	Transportation Information Center	transit trip plan	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransportation Information Center	Other Transportation Information Centers	transit service information	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransportation Information Center	Transit Management Center	demand responsive transit request	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
ransportation Information Center	Transit Management Center	transit service change request	US: TCIP - OMG DDS	DDS has not been adopted by the C-ITS community.		
Border Inspection System	Traffic Management Center	border wait times data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.		
Forder Inspection System	Transportation Information Center	border crossing status information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.		
Center	Archived Data Center	center archive data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.		
Center	Maint and Constr Management Center	equipment maintenance request	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle Administration Center	Fleet and Freight Management Center	route restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.		
Commercial Vehicle Administration Center	Other CV Administration Centers	route restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.		

Class Foundational	Timeframe Urgent	Foundational Timeframe Urgent Proposed Resolution Data distribution technologies Regional Applicability Australia, European Union		
Commercial Vehicle Administration Center	Transportation Information Center	route restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Center	Traffic Management Center	emergency traffic control request	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Center	Traffic Management Center	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Emergency Management Center	Transportation Information Center	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Emissions Management Center	Transportation Information Center	air quality information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	route restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Center	equipment maintenance status	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Commercial Vehicle Administration Center	current infrastructure restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Emergency Management Center	road weather information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Map Update System	current infrastructure restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Surface Transportation Weather Service	road weather information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Traffic Management Center	current infrastructure restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Traffic Management Center	environmental conditions data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Traffic Management Center	equipment maintenance status	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Traffic Management Center	work zone information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transit Management Center	current infrastructure restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	current infrastructure restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	environmental conditions data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	maint and constr work plans	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	road weather information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Maint and Constr Management Center	Transportation Information Center	work zone information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other CV Administration Centers	Commercial Vehicle Administration Center	route restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	device control request	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	device data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	device status	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	traffic image meta data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Traffic Management Centers	Traffic Management Center	traffic images	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	emergency traveler information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	traffic image meta data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Other Transportation Information Centers	Transportation Information Center	traffic images	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Service Monitor System	Center	RSE fault data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Service Monitor System	Maint and Constr Management Center	RSE fault data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Surface Transportation Weather Service	Emergency Management Center	transportation weather information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Surface Transportation Weather Service	Maint and Constr Management Center	transportation weather information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.

Class	Foundational	Timeframe	Urgent	Proposed Resolution Data	distribution technologies	Regional Applicability Australia, European Union, United States
Surface Transportation W	/eather Service	Traffic Management Cente	er	transportation weather information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Surface Transportation W	/eather Service	Transportation Informatio	on Center	transportation weather information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Emergency Management (Center	emergency traffic control informatio	n US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Emergency Management (Center	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Emergency Management (Center	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Emissions Management Ce	enter	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Fleet and Freight Manager	ment Center	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Fleet and Freight Manager	ment Center	route restrictions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Maint and Constr Manage	ement Center	equipment maintenance request	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Maint and Constr Manage	ement Center	field equipment status	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Maint and Constr Manage	ement Center	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Maint and Constr Manage	ement Center	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Other Traffic Management	t Centers	device control request	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Other Traffic Management	it Centers	device data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Other Traffic Management	t Centers	device status	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Other Traffic Management	t Centers	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Other Traffic Management	t Centers	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Other Traffic Management	it Centers	traffic image meta data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Other Traffic Management	t Centers	traffic images	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Transit Management Cent	ter	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Transit Management Cent	ter	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Transportation Informatio	on Center	incident information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Transportation Informatio	on Center	regional situation data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Transportation Informatio	on Center	road network conditions	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Transportation Informatio	on Center	traffic control information	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Transportation Informatio	on Center	traffic image meta data	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Traffic Management Cent	ter	Transportation Informatio	on Center	traffic images	US: TMDD - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Manage	ement Center	Freight Distribution and Lo	ogistics Center	freight transportation status	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Manage	ement Center	Intermodal Customer Syste	tem	freight transportation status	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Fleet and Freight Manage	ement Center	Intermodal Terminal		freight transportation status	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Freight Distribution and L	ogistics Center	Intermodal Customer Syste	tem	freight transportation status	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Freight Distribution and Lo	ogistics Center	Intermodal Terminal		freight transportation status	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Customer Syst	tem	Fleet and Freight Manager	ment Center	freight transport booking	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Customer Syst	tem	Fleet and Freight Manager	ment Center	freight transportation status	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Customer Syst	tem	Freight Distribution and Lo	ogistics Center	freight transport booking	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Terminal		Fleet and Freight Manager	ment Center	container delivery confirmation	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.
Intermodal Terminal		Fleet and Freight Manager	ment Center	freight transportation status	US: UBL - OMG DDS	DDS has not been adopted by the C-ITS community.

Class	Foundational	Timeframe	Urgent	Proposed Resolution	Data distribution technologies	Regional Applicability	Australia, European Union, Unite	ed States
Issue Description:	The specific dialo	ogs for exchanging thi	is data have not	been fully defined.			Severity	Medium
	_				Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Center		Data Distribution System	m	data provision	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Center		Data Distribution System	m	data query	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Center		Data Distribution System	m	data subscription	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Data Distribution Syster	m	Center		data publication	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Data Distribution Syster	m	Center		data query publication	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Data Distribution System	m	Other Data Distribution	n Systems	data provision	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Data Distribution Syster	m	Other Data Distribution	n Systems	data publication	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu	· ·	nechanism within
Data Distribution Syster	m	Other Data Distribution	n Systems	data query	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Data Distribution Syster	m	Other Data Distribution	n Systems	data query publication	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Data Distribution Syster	m	Other Data Distribution	n Systems	data subscription	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Other Data Distribution	Systems	Data Distribution System	m	data provision	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Other Data Distribution	Systems	Data Distribution System	m	data publication	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu	·	nechanism within
Other Data Distribution	Systems	Data Distribution System	m	data query	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Other Data Distribution	Systems	Data Distribution System	m	data query publication	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within
Other Data Distribution	Systems	Data Distribution System	m	data subscription	Flow-Specific Data - NTCIP Messaging	NTCIP messaging defines how a process can subscribe a the host to allow multipe processes to subscribe and pu		nechanism within

Class Foundar	tional Timeframe Urgent	Proposed Resolution	Data distribution technologies	Regional Applicability Australia, Europe	an Union, United	d States
Issue Description: This is op	en-source software rather than a documente	d interface specification s	tandardized through a formal and open process.		Severity	Low
			Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes		
Data Distribution System	Other Data Distribution Systems	data subscription	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Data Distribution System	Other Data Distribution Systems	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Data Distribution System	Personal Information Device	data publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Data Distribution System	Personal Information Device	data publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
ata Distribution System	Personal Information Device	data query publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Center	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Center	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
enter	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Center	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Center	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Center	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Connected Vehicle Roadside Equipm	nent Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
onnected Vehicle Roadside Equipm	nent Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Connected Vehicle Roadside Equipm	nent Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
onnected Vehicle Roadside Equipn	nent Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
connected Vehicle Roadside Equipm	nent Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Connected Vehicle Roadside Equipm	nent Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
ata Distribution System	Center	data publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
ata Distribution System	Center	data publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
ata Distribution System	Center	data query publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
ata Distribution System	Center	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
ata Distribution System	Connected Vehicle Roadside Equipment	data publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
ata Distribution System	Connected Vehicle Roadside Equipment	data publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Data Distribution System	Connected Vehicle Roadside Equipment	data query publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
ata Distribution System	Connected Vehicle Roadside Equipment	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
ata Distribution System	Other Data Distribution Systems	data provision	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Data Distribution System	Other Data Distribution Systems	data provision	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
ata Distribution System	Other Data Distribution Systems	data publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
ata Distribution System	Other Data Distribution Systems	data publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
ata Distribution System	Other Data Distribution Systems	data query	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
ata Distribution System	Other Data Distribution Systems	data query	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
ata Distribution System	Other Data Distribution Systems	data query publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Data Distribution System	Other Data Distribution Systems	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Data Distribution System	Personal Information Device	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Data Distribution System	Vehicle OBE	data publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
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Class	Foundational	Timeframe Urgent	Proposed Resolution	Data distribution technologies	Regional Applicability Australia, Europ	ean Union, United States	
Data Distribution Syste	em	Vehicle OBE	data publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Data Distribution Syste	em	Vehicle OBE	data query publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Data Distribution Syste	em	Vehicle OBE	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data query publication	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data query publication	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Other Data Distribution	n Systems	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.	pecification.	
Personal Information D	Device	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Personal Information D	Device	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Personal Information D	Device	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Personal Information D	Device	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Personal Information D	Device	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Personal Information D	Device	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
/ehicle OBE		Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
/ehicle OBE		Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
/ehicle OBE		Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
/ehicle OBE		Data Distribution System	data query	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
/ehicle OBE		Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Kafka is an open-source software project, not a standardized specification.		
Vehicle OBE		Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	Zookeeper is open source software, not a standardized specification.		
Class	Timeframe	Proposed Resolution	Description			Regional Applicability	
Foundational	Urgent	Develop an ITS terminology standard	Develop an internation	nally acceptable ITS terminology standard, complete with a c	defined concept model as required by ISO 704.	Australia, European Union, United States, Japan	

lass	Foundational	Timeframe Urgent	Proposed Resolution	Develop ITS-wide reference data model	Regional Applicability Australia, Europ	ean Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
oundational	Urgent	Develop ITS-wide reference data model	Develop an internatio	onally representative ITS-wide reference data model that will enable better data sharing different entities, working groups, and standards development organisations.	g across disparate enterprise systems	Australia, Euro United States	pean Union,
ssue Description:	There are ambig	guities as to how to (or if one should) o	couple the upper-layer sta	andards defined in this solution with the indicated lower-layer standards.		Severity	High
	_			Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName Notes			
lap Update System		Connected Vehicle Roadside Equipment	roadway geometry	DDS: SAE Signal Control Messages - OMG DDS RPC			

Class	Foundational	Timeframe Urgent	Proposed Resolution	Develop ITS-wide reference data model	Regional Applicability Australia, European Union, Unite	ed States
Issue Description:	Some of the data	elements for this information	n flow are not fully defined.		Severity	Medium
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Data Distribution Syste	em	Personal Information Device	data publication	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Personal Information Device	data query publication	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Vehicle OBE	data publication	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Vehicle OBE	data query publication	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Personal Information D	Device	Data Distribution System	data provision	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Personal Information D	Device	Data Distribution System	data query	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data query publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data subscription	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Personal Information Device	data publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Personal Information D	Device	Data Distribution System	data subscription	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Vehicle OBE		Data Distribution System	data provision	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Vehicle OBE		Data Distribution System	data query	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Vehicle OBE		Data Distribution System	data subscription	Flow-Specific Data - Mobile Internet (US)	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Center		Data Distribution System	data provision	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Center		Data Distribution System	data query	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Center		Data Distribution System	data subscription	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Center	data publication	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Center	data query publication	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data provision	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data publication	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data query	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data query publication	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data subscription	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Other Data Distribution	n Systems	Data Distribution System	data provision	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Other Data Distribution	n Systems	Data Distribution System	data publication	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Other Data Distribution	n Systems	Data Distribution System	data query	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Other Data Distribution	n Systems	Data Distribution System	data query publication	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Other Data Distribution	n Systems	Data Distribution System	data subscription	Flow-Specific Data - NTCIP Messaging	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Center		Data Distribution System	data provision	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Center		Data Distribution System	data query	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Center		Data Distribution System	data subscription	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Center	data publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Center	data query publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data provision	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
Data Distribution Syste	em	Other Data Distribution Systems	data publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.	
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Class Foundational	Timeframe Urgent	Proposed Resolution Develop ITS-	wide reference data model	Regional Applicability Australia, European Union, United States
Data Distribution System	Other Data Distribution Systems	data query	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
ata Distribution System	Other Data Distribution Systems	data query publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
ata Distribution System	Other Data Distribution Systems	data subscription	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
ata Distribution System	Personal Information Device	data publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
ata Distribution System	Personal Information Device	data query publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Vehicle OBE	data publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Vehicle OBE	data query publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Other Data Distribution Systems	Data Distribution System	data provision	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Other Data Distribution Systems	Data Distribution System	data publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Other Data Distribution Systems	Data Distribution System	data query	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Other Data Distribution Systems	Data Distribution System	data query publication	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Other Data Distribution Systems	Data Distribution System	data subscription	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Personal Information Device	Data Distribution System	data provision	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Personal Information Device	Data Distribution System	data query	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Personal Information Device	Data Distribution System	data subscription	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
/ehicle OBE	Data Distribution System	data provision	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
ehicle OBE	Data Distribution System	data query	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
ehicle OBE	Data Distribution System	data subscription	Flow-Specific Data - OMG DDS	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data provision	Flow-Specific Data - OMG DDS RPC	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data query	Flow-Specific Data - OMG DDS RPC	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data subscription	Flow-Specific Data - OMG DDS RPC	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Connected Vehicle Roadside Equipment	data publication	Flow-Specific Data - OMG DDS RPC	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Connected Vehicle Roadside Equipment	data query publication	Flow-Specific Data - OMG DDS RPC	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data provision	Flow-Specific Data - SNMPv3	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data query	Flow-Specific Data - SNMPv3	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data subscription	Flow-Specific Data - SNMPv3	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Connected Vehicle Roadside Equipment	data publication	Flow-Specific Data - SNMPv3	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Connected Vehicle Roadside Equipment	data query publication	Flow-Specific Data - SNMPv3	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Center	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Center	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Center	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Connected Vehicle Roadside Equipment	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Center	data publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Center	data query publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Connected Vehicle Roadside Equipment	data publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.
Data Distribution System	Connected Vehicle Roadside Equipment	data query publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored to the specific need.

Class Foundational	Timeframe Urgent	Proposed Resolution Develop IT	ΓS-wide reference data model	Regional Applicability Australia, Euro	pean Union, Unite	ed States
Data Distribution System	Other Data Distribution Systems	data provision	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Oata Distribution System	Other Data Distribution Systems	data publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Data Distribution System	Other Data Distribution Systems	data query	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Data Distribution System	Personal Information Device	data query publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Data Distribution System	Vehicle OBE	data publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Data Distribution System	Vehicle OBE	data query publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Other Data Distribution Systems	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Other Data Distribution Systems	Data Distribution System	data publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Other Data Distribution Systems	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Other Data Distribution Systems	Data Distribution System	data query publication	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Other Data Distribution Systems	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Personal Information Device	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Personal Information Device	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Personal Information Device	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
/ehicle OBE	Data Distribution System	data provision	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Vehicle OBE	Data Distribution System	data query	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
Vehicle OBE	Data Distribution System	data subscription	Flow-Specific Data - Apache Kafka	This information flow is a super-flow, the data content needs to be tailored	to the specific need.	
ssue Description: Data has been d	efined for SNMPv1, but needs to be u	pdated to SNMPv3 format.			Severity	Medium
		<u>R</u>	Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes		
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE status	US: NTCIP Generic Objects - SNMPv3	NTCIP 1201 data needs to be upgraded to SNMPv3.		
Connected Vehicle Roadside Equipment	Service Monitor System	RSE status	US: NTCIP Generic Objects - SNMPv3	NTCIP 1201 data needs to be upgraded to SNMPv3.		
ield Support Equipment	Connected Vehicle Roadside Equipment	RSE status	US: NTCIP Generic Objects - SNMPv3	NTCIP 1201 data needs to be upgraded to SNMPv3.		
ield Support Equipment	ITS Roadway Equipment	field equipment commands	US: NTCIP Generic Objects - SNMPv3	NTCIP 1201 data needs to be upgraded to SNMPv3.		
ield Support Equipment	ITS Roadway Equipment	field equipment configuration settings	US: NTCIP Generic Objects - SNMPv3	NTCIP 1201 data needs to be upgraded to SNMPv3.		
TS Roadway Equipment	Field Support Equipment	field equipment status	US: NTCIP Generic Objects - SNMPv3	NTCIP 1201 data needs to be upgraded to SNMPv3.		
TS Roadway Equipment	Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - SNMPv3	NTCIP 1201 data needs to be upgraded to SNMPv3.		
TS Roadway Equipment	Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - SNMPv3	NTCIP 1201 data needs to be upgraded to SNMPv3.		
Class Timeframe	Proposed Resolution	Description			Regional Appl	icability
Foundational Urgent	Develop map message structures	Develop a model for exchanging de	tailed map information throughout the ITS e	environment.	Australia, Euro United States	

Class	Foundational	Timeframe	Urgent	Proposed Resolution	Develop standard for electronic distribution of tra	ffic regulations	Regional Applicability Australia, Europe	an Union, United	d States	
Class	Timeframe	Proposed Resolution	on	Description				Regional Applicability		
Foundational	Urgent	Develop standard f distribution of traff			nally acceptable standard to enable the provision and ross jurisdictional boundaries.	d management of electronic tr	raffic regulations to enable proper operation	Australia, European Union, United States		
Issue Description:	Performance, fu	nctionality, and the u	pper-layers of th	e OSI stack have not been	defined for this information flow.			Severity	Ultra	
					Relevant Flow Solution Combinations					
Source		Destination		Flow	SolutionName	Notes				
Transportation Inform	ation Center	Wide Area Information	Disseminator	traffic-related regulations	(None-Data) - Internet (X.509)	Work on the upper lay	ver standards related to this solution have not been start	ed.		
Traffic Regulatory Auth	nority	Transportation Informa	tion Center	traffic-related regulations	(None-Data) - DATEX Messaging TCP	Work on the upper la	ver standards related to this solution have not been start	ced.		
Fransportation Inform	nsportation Information Center Wide Area Information Disseminator		Disseminator	traffic-related regulations	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been started.				
Transportation Inform	ation Center	Wide Area Information	Disseminator	traffic-related regulations	(None-Data) - Internet (US)	Work on the upper la	Work on the upper layer standards related to this solution have not been started.			
Fransportation Inform	ation Center	Personal Information D	evice	traffic-related regulations	(None-Data) - Mobile Internet (US)	Work on the upper la	ver standards related to this solution have not been start	red.		
Fransportation Inform	ation Center	Vehicle OBE		traffic-related regulations	(None-Data) - Mobile Internet (US)	Work on the upper la	yer standards related to this solution have not been start	red.		
Transportation Inform	ation Center	Personal Information D	evice	traffic-related regulations	(None-Data) - Mobile Internet (X.509)	Work on the upper la	ver standards related to this solution have not been start	ed.		
Transportation Inform	ation Center	Vehicle OBE		traffic-related regulations	(None-Data) - Mobile Internet (X.509)	Work on the upper la	yer standards related to this solution have not been start	red.		
Traffic Regulatory Auth	nority	Transportation Informa	tion Center	traffic-related regulations	(None-Data) - NTCIP Messaging	Work on the upper lay	ver standards related to this solution have not been start	red.		
Transportation Inform	ation Center	Wide Area Information	Disseminator	traffic-related regulations	(None-Data) - NTCIP Messaging	Work on the upper la	ver standards related to this solution have not been start	red.		
Traffic Regulatory Auth	nority	Transportation Informa	tion Center	traffic-related regulations	(None-Data) - OMG DDS	Work on the upper la	ver standards related to this solution have not been start	red.		
Wide Area Information	n Disseminator	Personal Information D	evice	traffic-related regulations	(None-Data) - Wide Area Broadcast (Uppe	er) Work on the upper la	ver standards related to this solution have not been start	red.		
Wide Area Informatior	n Disseminator	Vehicle OBE		traffic-related regulations	(None-Data) - Wide Area Broadcast (Uppe	er) Work on the upper la	ver standards related to this solution have not been start	ed.		

Class	Foundational	Timeframe	Urgent	Proposed Resolution	Identifier registry	Regional Applicability	Australia, European Union, United States
Class	Timeframe	Proposed Resoluti	on	Description			Regional Applicability
Foundational	Urgent	Identifier registry		Implement a centralised	l identifier registry network that ensures the assign	ment of globally unique C-ITS identifiers.	Australia, European Union, United States
Issue Description	The standard de	efines a field which re	uires a globally	y unique identifier, but no reg	gistration authority exists to assign these values.		Severity Medium
					Relevant Flow Solution Combinations		
Source		Destination		Flow	SolutionName	Notes	
Connected Vehicle Ro	oadside Equipment	Center		device identification	(None-Data) - AU IFCP	There is no registry defined for device identifiers	
Vehicle OBE		Center		device identification	(None-Data) - Mobile Internet (US)	There is no registry defined for device identifiers	
ITS Roadway Equipme	ent	Center		device identification	(None-Data) - AU IFCP	There is no registry defined for device identifiers	
Connected Vehicle Ro	oadside Equipment	Center		device identification	(None-Data) - EU-ICIP-C2F	There is no registry defined for device identifiers	
ITS Roadway Equipme	ent	Center		device identification	(None-Data) - EU-ICIP-C2F	There is no registry defined for device identifiers	
ITS Roadway Equipme	ent	Center		device identification	(None-Data) - OMG DDS RPC	There is no registry defined for device identifiers	
Personal Information	Device	Center		device identification	(None-Data) - Mobile Internet (US)	There is no registry defined for device identifiers	
Personal Information	Device	Center		device identification	(None-Data) - Mobile Internet (X.509)	There is no registry defined for device identifiers	
Vehicle OBE		Center		device identification	(None-Data) - Mobile Internet (X.509)	There is no registry defined for device identifiers	
Connected Vehicle Ro	adside Equipment	Center		device identification	(None-Data) - OMG DDS RPC	There is no registry defined for device identifiers	
ITS Roadway Equipme	ent	Center		device identification	(None-Data) - SNMPv1	There is no registry defined for device identifiers	
ITS Roadway Equipme	ent	Center		device identification	(None-Data) - SNMPv1/TLS	There is no registry defined for device identifiers	
Connected Vehicle Ro	oadside Equipment	Center		device identification	(None-Data) - SNMPv3	There is no registry defined for device identifiers	
ITS Roadway Equipme	ent	Center		device identification	(None-Data) - SNMPv3	There is no registry defined for device identifiers	

		Timeframe Urgent	Proposed Resolution V	/-L: GeoNetworking	Regional Applicability Australia, Euro	pean Union
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Foundational	Urgent	V-L: GeoNetworking	Determine how to implem	nent GeoNetworking without unduly flooding the netwo	rk and, if feasible, prove out concept.	Australia, European Union
Issue Description: A	A feature of the	protocol is not fully applicable in the gi	iven context, e.g. GeoNetwo	rking multi-hop forwarding in 5.9 GHz channels.		Severity Low
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Connected Vehicle Roads	side Equipment	Vehicle OBE	traffic gap information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Vehicle OBE	traffic gap information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Connected Vehicle Roads	side Equipment	Vehicle OBE	traffic gap information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Vehicle OBE		Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Vehicle OBE		Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Connected Vehicle Roads	side Equipment	Personal Information Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Personal Information Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Connected Vehicle Roads	side Equipment	Personal Information Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Connected Vehicle Roads	side Equipment	Vehicle OBE	vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Vehicle OBE	vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Connected Vehicle Roads	side Equipment	Vehicle OBE	vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Other Vehicle OBEs		Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Other Vehicle OBEs		Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Other Vehicle OBEs		Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Personal Information Dev	vice	Connected Vehicle Roadside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Personal Information Dev	vice	Connected Vehicle Roadside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Personal Information Dev	vice	Connected Vehicle Roadside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Personal Information Dev	vice	Vehicle OBE	personal location	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Personal Information Dev	vice	Vehicle OBE	personal location	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Personal Information Dev	vice	Vehicle OBE	personal location	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Vehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Vehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments	using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message the message (e.g., a message generated by a central system and sent to the	
Vehicle OBE		Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD v	s LPD and Geonetworking.

Class Foundational	Timeframe Urgent	Proposed Resolution V-L: Geo	Networking	Regional Applicability Australia, European Union
/ehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster o the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class Foundational	Timeframe Urgent	Proposed Resolution V-L: Geo	Networking	Regional Applicability Australia, European Union
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Fransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Fransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.

Class	Foundational	Timeframe	Urgent	Proposed Resolution V-L: GeoNe	etworking	Regional Applicability Australia, European Union
Transit Vehicle OBE		Vehicle OBE		special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Connected Vehicle Road	dside Equipment	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs		vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs		vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs		vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs		vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs		vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs		vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Personal Information De	evice	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Personal Information De	evice	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Personal Information De	evice	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE		wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class	ındational	Timeframe Urgent	Proposed Resolution V-	-L: GeoNetworking	Regional Applicability Australia, European Union
Connected Vehicle Roadside Eq	quipment Ve	ehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Eq	quipment Ve	chicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Ve	ehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Ve	Phicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Emergency Vehicle OBE	Ve	chicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Ve	Phicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Ve	chicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Maint and Constr Vehicle OBE	Ve	chicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Ve	ehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Ve	chicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Ve	chicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Ve	Phicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Ve	chicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Ve	chicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
other Vehicle OBEs	Ve	chicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
other Vehicle OBEs	Ve	chicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Ve	chicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Ve	chicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Ve	chicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Ve	chicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Ve	chicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Ve	Phicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Ve	chicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ransit Vehicle OBE	Ve	hicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ransit Vehicle OBE	Ve	ehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ransit Vehicle OBE	Ve	phicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
'ehicle OBE	Co	onnected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Co	onnected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Co	nnected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Co	onnected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Co	onnected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
/ehicle OBE	Co	nnnected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class	oundational	Timeframe	Urgent	Proposed Resolution	V-L: GeoNetworking	Regional Applicability Australia, European Union
Vehicle OBE		Connected Vehicle Road	dside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Road	dside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Connected Vehicle Road	dside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs		intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs		intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs		intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs		vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs		vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs		vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs		vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs		vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs		vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs		vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs		vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs		vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs		wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs		wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs		wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside	e Equipment	Commercial Vehicle OB	E	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside	e Equipment	Commercial Vehicle OB	E	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside	e Equipment	Commercial Vehicle OB	E	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside	e Equipment	Emergency Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside	e Equipment	Emergency Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside	e Equipment	Emergency Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside	e Equipment	ITS Roadway Equipment	t	intersection status monitoring	g EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside	e Equipment	ITS Roadway Equipment	t	intersection status monitoring	g EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside	e Equipment	ITS Roadway Equipment	t	intersection status monitoring	g EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcast the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside	e Equipment	Transit Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Founda	ional Timeframe	Urgent	Proposed Resolution	V-L: GeoNetworking	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipn	ent Transit Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipm	ent Transit Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipm	ent Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipm	ent Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipm	ent Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class	Security	Timeframe Urgent	Proposed Resolution C-C: Secur	e communications	Regional Applicability Australia, E	uropean Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
Security	Urgent	C-C: Secure communications	standard(s) should include support	for authentication, authorization, confiden	nmunication standards and define rules on when to use which one. tiality, and non-repudiation, as needed. I yer standards will need to be updated to document data in	The Australia, Euro United States	ppean Union,
ssue Descriptio	n: The document	may be publicly available but it is not a		to open standards development rules and o	details may change prior to adoption as open standard.	Severity	Medium
			<u>R</u>	elevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Weather Service		Traffic Management Center	weather information	(Out of Scope) - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
Cellular Communica	ations Provider	Traffic Management Center	comm-derived travel time data	(None-Data) - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
mergency Manage	ment Center	Traffic Management Center	emergency traffic control request	(None-Data) - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
ntermodal Termina	ıl	Traffic Management Center	intermodal freight event information	(None-Data) - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Emergency Management Center	emergency traffic control information	(None-Data) - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Intermodal Terminal	intermodal freight traffic confirmation	(None-Data) - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Map Update System	map update notification	(None-Data) - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Transit Management Center	traffic control priority status	EU: Data Transmodel - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
ransit Managemen	nt Center	Traffic Management Center	traffic control priority request	EU: Data Transmodel - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
lternate Mode Tra	nsportation Center	Traffic Management Center	alternate mode incident information	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
ther Traffic Manag	gement Centers	Traffic Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Emergency Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Emissions Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Fleet and Freight Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Maint and Constr Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Other Traffic Management Centers	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Transit Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Transportation Information Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
lternate Mode Tra	nsportation Center	Traffic Management Center	alternate mode service demand info	EU: SIRI - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
raffic Managemen	t Center	Media	traffic information for media	TPEG2 - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		
Fraffic Management	t Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - ODG-OCIT-C	OCIT-C is a proprietary protocol that requires special rights to use.		

Class Security	Timeframe Urgent	Proposed Resolution C-C: Se	cure communications	Regional Applicability Australia, European Union, United States
Issue Description: The solution do	pes not provide adequate communicati	ions security for the information trip	ole, which potentially jeopardizes C-ITS operations.	Severity Medium
			Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes Notes
Traffic Management Center	Other Traffic Management Centers	device status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Other Traffic Management Centers	road network conditions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Parking Management System	parking demand management request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Parking Management System	parking traffic information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Parking Management System	transportation operational strategies	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transit Management Center	dynamic bus lane status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transit Management Center	traffic control priority status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	incident information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Authorizing Center	Center	permission request received	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Authorizing Center	Other Authorizing Centers	permission request coordination	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Cellular Communications Provider	Traffic Management Center	comm-derived travel time data	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Cellular Communications Provider	Transportation Information Center	comm-derived travel time data	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Center	Authorizing Center	permission request	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Center	Authorizing Center	permission update request	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Center	Maint and Constr Management Center	equipment maintenance request	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Center	Map Update System	map update notification	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Center	Service Monitor System	service maintenance request	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Center	Service Monitor System	system monitoring	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Data Distribution System	Service Monitor System	service maintenance request	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Data Distribution System	Service Monitor System	support system status	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Emergency Management Center	Traffic Management Center	emergency traffic control request	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Emissions Management Center	Transportation Information Center	air quality information	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Fleet and Freight Management Center	Intermodal Terminal	freight transportation status	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Fleet and Freight Management Center	Transportation Information Center	route request	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Intermodal Terminal	Fleet and Freight Management Center	freight transportation status	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Intermodal Terminal	Traffic Management Center	intermodal freight event information	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Maint and Constr Management Center	Map Update System	current infrastructure restrictions	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Map Update System	Center	map updates	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Map Update System	Other Map Update Systems	map update coordination	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Authorizing Centers	Authorizing Center	permission request coordination	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Map Update Systems	Map Update System	map update coordination	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
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Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure	e communications	Regional Applicability Australia, European Union, United States
Other Transportation Information Centers	Transportation Information Center	multimodal information	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ther Transportation Information Centers	Transportation Information Center	transit service information	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
arking Management System	Map Update System	parking facility geometry	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Privacy Protection Gateway	Center	protected location and address flow	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Service Monitor System	Center	RSE fault data	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Service Monitor System	Center	service maintenance status	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Service Monitor System	Data Distribution System	service maintenance status	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Service Monitor System	Maint and Constr Management Center	RSE fault data	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Service Monitor System	Wide Area Information Disseminator	service maintenance status	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Emergency Management Center	emergency traffic control information	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Intermodal Terminal	intermodal freight traffic confirmation	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Fraffic Management Center	Map Update System	map update notification	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Regulatory Authority	Transportation Information Center	traffic-related regulations	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transportation Information Center	Fleet and Freight Management Center	route plan	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Media	traveler information for media	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Other Transportation Information Centers	multimodal information	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Other Transportation Information Centers	transit service information	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Wide Area Information Disseminator	traffic-related regulations	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Wide Area Information Disseminator	traveler information for media	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Wide Area Information Disseminator	Service Monitor System	service maintenance request	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Nide Area Information Disseminator	Service Monitor System	support system status	(None-Data) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Emergency Management Center	emergency traffic control information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Emergency Management Center	incident information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Emergency Management Center	road network conditions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Emissions Management Center	low emissions zone coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Enforcement Center	lane violation notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Intermodal Terminal	intermodal freight traffic confirmation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Maint and Constr Management Center	incident information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
arking Management System	Payment Administration Center	service payment information	(Out of Scope) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Veather Service	Traffic Management Center	weather information	(Out of Scope) - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
rchived Data Center	Archived Data User Systems	archive analysis results	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Archived Data Center	Archived Data User Systems	archive request confirmation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure of	ommunications	Regional Applicability Australia, European Union, United States
Archived Data Center	Archived Data User Systems	archived data products	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Archived Data Center	Center	archive requests	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Archived Data Center	Center	archive status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Archived Data Center	Government Reporting Systems	government reporting system data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Archived Data User Systems	Archived Data Center	archive analysis requests	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Archived Data User Systems	Archived Data Center	archived data product requests	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Authorizing Center	Center	permission request received	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Authorizing Center	Other Authorizing Centers	permission request coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection Administration Center	Border Inspection System	consolidated agency response	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection Administration Center	Border Inspection System	manifest data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection Administration Center	Border Inspection System	traveler personal information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection Administration Center	Fleet and Freight Management Center	clearance notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection Administration Center	Freight Distribution and Logistics Center	clearance notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection Administration Center	Intermodal Customer System	clearance notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection System	Border Inspection Administration Center	border security input	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection System	Border Inspection Administration Center	inspection results	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection System	Commercial Vehicle Administration Center	arrival notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Cellular Communications Provider	Transportation Information Center	comm-derived travel time data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Authorizing Center	permission request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Authorizing Center	permission update request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Data Distribution System	operational data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Data Distribution System	traveler information distribution data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Maint and Constr Management Center	equipment maintenance request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Map Update System	map update notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Service Monitor System	service maintenance request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Center	Service Monitor System	system monitoring	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Border Inspection Administration Center	border clearance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	border agency clearance results	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	carrier participation report	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	commercial vehicle permit information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	credentials information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	credentials status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	cv driver record	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	safety status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	targeted list	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle Check Equipment	transportation border clearance assessment	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Commercial Vehicle OBE Service Provider	commercial vehicle permit information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	CVO Information Requestor Center	carrier participation report	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	CVO Information Requestor Center	credentials information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	CVO Information Requestor Center	credentials status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	CVO Information Requestor Center	cv driver record	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	CVO Information Requestor Center	safety status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	border clearance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	citation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	compliance review report	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	credentials information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	credentials status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	cv driver record	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	safety status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	trigger area	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Commercial Vehicle Administration Center	Fleet and Freight Management Center	trigger area notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Intermodal Customer System	border clearance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	accident report	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	citation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	commercial vehicle permit information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	credential fee coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	credentials information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	credentials status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	cv driver record	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	safety status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Transportation Information Center	commercial vehicle permit information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	border clearance event	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	citation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	daily site activity data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	on-board safety data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	violation notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Commercial Vehicle OBE Service Provider	security credentials	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Emergency Management Center	commercial vehicle incident notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Enforcement Center	violation notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle OBE Service Provider	Commercial Vehicle Administration Center	commercial vehicle permit information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Connected Vehicle Roadside Equipment	Intermodal Terminal	container identification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Connected Vehicle Roadside Equipment	Intermodal Terminal	container location	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Connected Vehicle Roadside Equipment	Intermodal Terminal	container transfer location request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
CVO Information Requestor Center	Commercial Vehicle Administration Center	request for data review	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Center	operational data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Data Distribution System	Center	regional situation data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Other Data Distribution Systems	field situation data sharing	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Other Data Distribution Systems	traveler situation data sharing	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Other Data Distribution Systems	vehicle situation data sharing	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Service Monitor System	service maintenance request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Service Monitor System	support system status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Other Emergency Management Centers	evacuation coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Public Health System	public health request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Traffic Management Center	emergency traffic control request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Traffic Management Center	special vehicle restricted use information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Transportation Information Center	incident information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Transportation Information Center	transportation system status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Traffic Management Center	low emissions zone coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Traffic Management Center	low emissions zone operations information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Traffic Management Center	mobile source emissions data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Traffic Management Center	widearea statistical pollution information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Transit Management Center	low emissions zone coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Transit Management Center	low emissions zone operations information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Transportation Information Center	air quality information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Transportation Information Center	low emissions zone operations information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Enforcement Center	Commercial Vehicle Check Equipment	information on violators	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Event Promoters	Parking Management System	event plans	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Border Inspection Administration Center	manifest data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	audit data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	credential application	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure c	ommunications	Regional Applicability Australia, European Union, United States
Fleet and Freight Management Center	Commercial Vehicle Administration Center	on-board safety data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	request for permit	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	tax filing	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	unique identifiers	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Emergency Management Center	commercial vehicle incident notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Freight Distribution and Logistics Center	available truck capacity	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Freight Distribution and Logistics Center	load appointment status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Intermodal Customer System	available truck capacity	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Intermodal Customer System	booking status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Intermodal Terminal	container delivery request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Intermodal Terminal	container pickup confirmation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Intermodal Terminal	freight transportation status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Intermodal Terminal	terminal reservation request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Transportation Information Center	commercial vehicle trip information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Transportation Information Center	freight traveler information preferences	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Transportation Information Center	route request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Consolidation Station	Fleet and Freight Management Center	container pickup request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Center	Border Inspection Administration Center	manifest data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Center	Fleet and Freight Management Center	available loads	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Center	Fleet and Freight Management Center	load matching info	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Center	Intermodal Customer System	booking status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Center	Intermodal Terminal	container availability request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Center	Other Freight Distribution and Logistics Centers	load matching systems coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Center	Transportation Information Center	freight traveler information preferences	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Government Reporting Systems	Archived Data Center	government reporting data receipt	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Intermodal Customer System	Border Inspection Administration Center	manifest data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Customer System	Fleet and Freight Management Center	available loads	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Customer System	Freight Distribution and Logistics Center	available loads	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Customer System	Transportation Information Center	freight traveler information preferences	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Connected Vehicle Roadside Equipment	container transfer location	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Fleet and Freight Management Center	container pickup request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Fleet and Freight Management Center	freight transportation status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Fleet and Freight Management Center	intermodal terminal status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Fleet and Freight Management Center	terminal reservation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Freight Distribution and Logistics Center	container availability status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Freight Distribution and Logistics Center	intermodal terminal status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Traffic Management Center	intermodal freight event information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Transportation Information Center	intermodal terminal status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Center	equipment maintenance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Emergency Management Center	road network status assessment	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Emergency Management Center	roadway maintenance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Maintenance and Construction Administrative Systems	maint and constr work performance	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Map Update System	current infrastructure restrictions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Traffic Management Center	special vehicle restricted use information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Traffic Management Center	work zone information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Transportation Information Center	maint and constr work plans	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Transportation Information Center	roadway maintenance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Transportation Information Center	work zone information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maintenance and Construction Administrative Systems	Maint and Constr Management Center	maint and constr administrative information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Map Update System	Center	map updates	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Map Update System	Other Map Update Systems	map update coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Map Update System	Parking Management System	parking facility geometry	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Authorizing Centers	Authorizing Center	permission request coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	accident report	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	citation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	commercial vehicle permit information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	credential fee coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	credentials information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	credentials status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	cv driver record	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	safety status information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Data Distribution Systems	Data Distribution System	field situation data sharing	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Data Distribution Systems	Data Distribution System	traveler situation data sharing	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Data Distribution Systems	Data Distribution System	vehicle situation data sharing	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Emergency Management Centers	Emergency Management Center	evacuation coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Freight Distribution and Logistics Centers	Freight Distribution and Logistics Center	load matching systems coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Map Update Systems	Map Update System	map update coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Parking Management Systems	Parking Management System	parking coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	device data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	device status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	road network conditions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	incident information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	multimodal information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	parking information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	road network conditions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Other Transportation Information Centers	Transportation Information Center	traffic image meta data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	traffic images	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	transit service information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Parking Management System	Map Update System	parking facility geometry	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Parking Management System	Other Parking Management Systems	parking coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Parking Management System	Transportation Information Center	parking reservation confirmation	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Payment Administration Center	Parking Management System	vehicle payment request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Privacy Protection Gateway	Center	protected location and address flow	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Security Credentials Registry	Commercial Vehicle Check Equipment	security credentials	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Service Monitor System	Center	RSE fault data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Service Monitor System	Center	service maintenance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Service Monitor System	Data Distribution System	service maintenance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Service Monitor System	Maint and Constr Management Center	RSE fault data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Service Monitor System	Wide Area Information Disseminator	service maintenance status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Storage Facility Data Acquisition System	Maint and Constr Management Center	maintenance materials storage status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Surface Transportation Weather Service	Traffic Management Center	transportation weather information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Maint and Constr Management Center	road network conditions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Map Update System	map update notification	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Media	traffic information for media	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Other Traffic Management Centers	device data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	road network conditions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	traffic control information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	traffic image meta data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	traffic images	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Wide Area Information Disseminator	traffic information for media	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Traffic Regulatory Authority	Transportation Information Center	traffic-related regulations	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Emissions Management Center	low emissions zone coordination	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Traffic Management Center	dynamic bus lane request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Traffic Management Center	traffic control priority request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transportation Information Center	transit and fare schedules	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transportation Information Center	transit schedule adherence information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Emergency Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Fleet and Freight Management Center	freight-specific traveler information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Fleet and Freight Management Center	incident information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Fleet and Freight Management Center	road network conditions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Fleet and Freight Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Fleet and Freight Management Center	route plan	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Freight Distribution and Logistics Center	freight-specific traveler information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Intermodal Customer System	freight-specific traveler information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Maint and Constr Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Media	traffic information for media	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Media	traveler information for media	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	incident information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	multimodal information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	parking information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	road network conditions	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	traffic image meta data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	traffic images	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	transit service information	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Parking Management System	parking reservation request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure of	communications	Regional Applicability Australia, European Union, United States
Transportation Information Center	Surface Transportation Weather Service	road network environmental situation data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Traffic Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fransportation Information Center	Wide Area Information Disseminator	traffic information for media	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fransportation Information Center	Wide Area Information Disseminator	traffic-related regulations	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fransportation Information Center	Wide Area Information Disseminator	traveler information for media	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
ravel Services Provider System	Transportation Information Center	travel service reservations	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Wide Area Information Disseminator	Service Monitor System	service maintenance request	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Wide Area Information Disseminator	Service Monitor System	support system status	(None-Data) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Cellular Communications Provider	Traffic Management Center	comm-derived travel time data	(None-Data) - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Emergency Management Center	Traffic Management Center	emergency traffic control request	(None-Data) - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
intermodal Terminal	Traffic Management Center	intermodal freight event information	(None-Data) - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Fraffic Management Center	Emergency Management Center	emergency traffic control information	(None-Data) - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Fraffic Management Center	Intermodal Terminal	intermodal freight traffic confirmation	(None-Data) - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Fraffic Management Center	Map Update System	map update notification	(None-Data) - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Neather Service	Traffic Management Center	weather information	(Out of Scope) - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Fleet and Freight Management Center	Transportation Information Center	route request	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	multimodal information	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	parking information	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Parking Management System	Traffic Management Center	parking information	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Transportation Information Center	incident information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Transportation Information Center	road network conditions	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Transportation Information Center	traffic control information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Transportation Information Center	traffic demand management information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Transportation Information Center	traffic image meta data	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Transportation Information Center	traffic images	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Fleet and Freight Management Center	incident information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Fransportation Information Center	Fleet and Freight Management Center	road network conditions	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transportation Information Contor	Other Transportation Information Centers	incident information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transportation Information Center				

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure of	ommunications	Regional Applicability Australia, European Union, United States
Transportation Information Center	Other Transportation Information Centers	road network conditions	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transportation Information Center	Other Transportation Information Centers	traffic image meta data	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Transit Management Center	traffic control priority status	EU: Data Transmodel - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transit Management Center	Traffic Management Center	traffic control priority request	EU: Data Transmodel - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transit Management Center	Transportation Information Center	transit and fare schedules	EU: Data Transmodel - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Transit Management Center	traffic control priority status	EU: Data Transmodel - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Transit Management Center	Traffic Management Center	traffic control priority request	EU: Data Transmodel - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Alternate Mode Transportation Center	Traffic Management Center	alternate mode incident information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Emergency Management Center	Transportation Information Center	incident information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Maint and Constr Management Center	Center	equipment maintenance status	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Maint and Constr Management Center	Traffic Management Center	work zone information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Maint and Constr Management Center	Transportation Information Center	maint and constr work plans	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Maint and Constr Management Center	Transportation Information Center	roadway maintenance status	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Maint and Constr Management Center	Transportation Information Center	work zone information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Traffic Management Centers	Traffic Management Center	device data	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Traffic Management Centers	Traffic Management Center	device status	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Traffic Management Centers	Traffic Management Center	road network conditions	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Transportation Information Centers	Transportation Information Center	incident information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Transportation Information Centers	Transportation Information Center	parking information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Transportation Information Centers	Transportation Information Center	road network conditions	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Transportation Information Centers	Transportation Information Center	traffic image meta data	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Other Transportation Information Centers	Transportation Information Center	traffic images	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Parking Management System	Traffic Management Center	parking information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Parking Management System	Transit Management Center	parking information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Parking Management System	Transportation Information Center	parking information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Surface Transportation Weather Service	Traffic Management Center	transportation weather information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Emergency Management Center	incident information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Emergency Management Center	road network conditions	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Maint and Constr Management Center	incident information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Maint and Constr Management Center	road network conditions	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Other Traffic Management Centers	device data	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Other Traffic Management Centers	device status	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Traffic Management Center	Other Traffic Management Centers	road network conditions	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transportation Information Center	Other Transportation Information Centers	traffic images	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transportation Information Center	Traffic Management Center	road network environmental situation data	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transportation Information Center	Wide Area Information Disseminator	broadcast traveler information	EU: DATEX - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Alternate Mode Transportation Center	Traffic Management Center	alternate mode incident information	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Other Traffic Management Centers	Traffic Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Traffic Management Center	Emergency Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Traffic Management Center	Emissions Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Traffic Management Center	Fleet and Freight Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Traffic Management Center	Maint and Constr Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Traffic Management Center	Other Traffic Management Centers	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Traffic Management Center	Transit Management Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Traffic Management Center	Transportation Information Center	road network conditions	EU: DATEX - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Map Update System	Center	intersection geometry	EU: Signal Control Messages - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Alternate Mode Transportation Center	Traffic Management Center	alternate mode service demand info	EU: SIRI - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Transit Management Center	Transportation Information Center	transit schedule adherence information	EU: SIRI - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
Alternate Mode Transportation Center	Traffic Management Center	alternate mode service demand info	EU: SIRI - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Center	Data Distribution System	data provision	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Data Distribution System	data query	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Data Distribution System	data subscription	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Center	data publication	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Center	data query publication	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Other Data Distribution Systems	data provision	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Other Data Distribution Systems	data publication	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Other Data Distribution Systems	data query	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Other Data Distribution Systems	data query publication	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Other Data Distribution Systems	data subscription	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Data Distribution Systems	Data Distribution System	data provision	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Data Distribution Systems	Data Distribution System	data publication	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Data Distribution Systems	Data Distribution System	data query	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-	C: Secure communications	Regional Applicability Australia, European Union, United States
Other Data Distribution Systems	Data Distribution System	data query publication	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Data Distribution Systems	Data Distribution System	data subscription	Flow-Specific Data - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
mergency Management Center	Emergency Telecommunications System	incident information for public	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
mergency Management Center	Maint and Constr Management Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
mergency Management Center	Maint and Constr Management Center	evacuation information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
mergency Management Center	Other Emergency Management Centers	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
mergency Management Center	Other Emergency Management Centers	incident report	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
mergency Management Center	Rail Operations Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Rail Operations Center	evacuation information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Freight Distribution and Logistics Center	freight transportation status	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Connected Vehicle Roadside Equipment	Intermodal Terminal	container identification	ISO: Equipment Identification - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Media	traffic information for media	TPEG2 - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
raffic Management Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Media	traffic information for media	TPEG2 - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - DATEX Messaging TCP	The DATEX Messaging standard does not provide any application layer security
ransportation Information Center	Wide Area Information Disseminator	broadcast traveler information	TPEG2 - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Media	traffic information for media	TPEG2 - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Fraffic Management Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - ODG-OCIT-C	OCIT-C can be implemented over secure connections but does not provide any native security that should be included with central systems.
Parking Management System	Transit Management Center	parking information	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
arking Management System	Transportation Information Center	parking information	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
raffic Management Center	Media	traffic information for media	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
ransportation Information Center	Fleet and Freight Management Center	route plan	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
ransportation Information Center	Media	traffic information for media	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
ransportation Information Center	Media	traveler information for media	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
ransportation Information Center	Other Transportation Information Centers	multimodal information	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
ransportation Information Center	Other Transportation Information Centers	parking information	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Travel Services Provider System	Transportation Information Center	travel service information	US: ATIS - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Shelter Provider Center	evacuation information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Traffic Management Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Traffic Management Center	emergency route request	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Traffic Management Center	evacuation information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Transit Management Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Transit Management Center	evacuation information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Transportation Information Center	evacuation information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Emergency Management Center	hazmat information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Emergency Management Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Emergency Management Centers	Emergency Management Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Emergency Management Centers	Emergency Management Center	incident report	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Rail Operations Center	Emergency Management Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Shelter Provider Center	Emergency Management Center	shelter information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Shelter Provider Center	Transportation Information Center	shelter information	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Emergency Management Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Emergency Management Center	emergency routes	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Emergency Management Center	emergency plan coordination	US: Incident Management - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transit Management Center	traffic control priority status	US: NTCIP Signal Priority - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	driver log	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle OBE Service Provider	Commercial Vehicle Check Equipment	driver log	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle OBE Service Provider	Fleet and Freight Management Center	driver log	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle OBE Service Provider	Other CVOBE Service Provider	driver log	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Connected Vehicle Roadside Equipment	Commercial Vehicle Administration Center	driver log	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Connected Vehicle Roadside Equipment	Intermodal Terminal	commercial vehicle identification	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure c	communications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Intermodal Terminal	container location	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	driver log	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CVOBE Service Provider	Commercial Vehicle OBE Service Provider	driver log	US: SAE J3067 (J2735 SE) - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Map Update System	Center	intersection geometry	US: SAE Signal Control Messages - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Emergency Management Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Emissions Management Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Fleet and Freight Management Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Fleet and Freight Management Center	route restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Maint and Constr Management Center	equipment maintenance request	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Maint and Constr Management Center	field equipment status	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Maint and Constr Management Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Maint and Constr Management Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Alternate Mode Transportation Center	Transit Management Center	multimodal service data	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Alternate Mode Transportation Center	Transit Management Center	service information response	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Alternate Mode Transportation Center	Transportation Information Center	multimodal service data	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Connected Vehicle Roadside Equipment	Public Information Device	transit vehicle information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Transit Management Center	emergency transit service request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transit Management Centers	Transit Management Center	transit service coordination	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	transit service information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Personal Information Device	Transit Management Center	transit stop request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Public Information Device	Connected Vehicle Roadside Equipment	transit stop request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Public Information Device	Connected Vehicle Roadside Equipment	transit traveler information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Public Information Device	Transit Management Center	transit stop request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transit Management Center	transit service change request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	transit service change request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Transit Management Center	Alternate Mode Transportation Center	service information request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Alternate Mode Transportation Center	transit multimodal information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Emergency Management Center	emergency transit service response	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Emissions Management Center	transit and fare schedules	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Other Transit Management Centers	transit service coordination	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Parking Management System	transit schedule adherence information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Parking Management System	transit schedule information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Public Information Device	transit traveler information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Traffic Management Center	traffic control priority request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Traffic Management Center	transit system data	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transit Vehicle OBE	connection protection instructions	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transit Vehicle OBE	transit stop request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transportation Information Center	demand responsive transit plan	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transportation Information Center	emergency transit schedule information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transportation Information Center	transit and fare schedules	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transportation Information Center	transit incident information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transportation Information Center	transit schedule adherence information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transit Management Center	Transportation Information Center	transit trip plan	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Alternate Mode Transportation Center	service information request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	transit service information	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Transit Management Center	demand responsive transit request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Transit Management Center	transit service change request	US: TCIP - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection System	Traffic Management Center	border wait times data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Border Inspection System	Transportation Information Center	border crossing status information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Archived Data Center	center archive data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure of	communications	Regional Applicability Australia, European Union, United States
Center	Data Distribution System	operational data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Data Distribution System	traveler information distribution data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Center	Maint and Constr Management Center	equipment maintenance request	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Fleet and Freight Management Center	route restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Other CV Administration Centers	route restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Commercial Vehicle Administration Center	Transportation Information Center	route restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Center	operational data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Data Distribution System	Center	regional situation data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Traffic Management Center	emergency traffic control request	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Traffic Management Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emergency Management Center	Transportation Information Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Emissions Management Center	Transportation Information Center	air quality information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Center	Commercial Vehicle Administration Center	route restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Center	equipment maintenance status	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Commercial Vehicle Administration Center	current infrastructure restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Emergency Management Center	road weather information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Map Update System	current infrastructure restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Surface Transportation Weather Service	road weather information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Traffic Management Center	current infrastructure restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Traffic Management Center	environmental conditions data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Traffic Management Center	equipment maintenance status	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Traffic Management Center	work zone information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Transit Management Center	current infrastructure restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Transportation Information Center	current infrastructure restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Transportation Information Center	environmental conditions data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Maint and Constr Management Center	Transportation Information Center	maint and constr work plans	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Transportation Information Center	road weather information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Transportation Information Center	work zone information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Maint and Constr Management Center	Weather Service	road weather information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other CV Administration Centers	Commercial Vehicle Administration Center	route restrictions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	device control request	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	device data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	device status	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	traffic image meta data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Traffic Management Centers	Traffic Management Center	traffic images	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	emergency traveler information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	traffic image meta data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Other Transportation Information Centers	Transportation Information Center	traffic images	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Service Monitor System	Center	RSE fault data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Service Monitor System	Maint and Constr Management Center	RSE fault data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Surface Transportation Weather Service	Emergency Management Center	transportation weather information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Surface Transportation Weather Service	Maint and Constr Management Center	transportation weather information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Surface Transportation Weather Service	Traffic Management Center	transportation weather information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Surface Transportation Weather Service	Transportation Information Center	transportation weather information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Emergency Management Center	emergency traffic control information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Emergency Management Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	Timeframe Urgent	Proposed Resolution C-C: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Traffic Management Center	Other Traffic Management Centers	device control request	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Other Traffic Management Centers	device data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Other Traffic Management Centers	device status	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Other Traffic Management Centers	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Other Traffic Management Centers	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Other Traffic Management Centers	traffic image meta data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Other Traffic Management Centers	traffic images	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transit Management Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transit Management Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	regional situation data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	traffic control information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	traffic image meta data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Traffic Management Center	Transportation Information Center	traffic images	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Archived Data Center	regional situation data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Emergency Management Center	corridor operational strategies	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Emergency Management Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Emergency Management Center	road weather advisories	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Emissions Management Center	corridor operational strategies	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Fleet and Freight Management Center	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Fleet and Freight Management Center	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Fleet and Freight Management Center	road weather advisories	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Maint and Constr Management Center	corridor operational strategies	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	emergency traveler information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class Security	y Timeframe Urgent	Proposed Resolution C	C-C: Secure communications	Regional Applicability Australia, European Union, United States
Transportation Information Center	Other Transportation Information Centers	incident information	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	road network conditions	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	traffic image meta data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Other Transportation Information Centers	traffic images	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Traffic Management Center	corridor operational strategies	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Traffic Management Center	regional situation data	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Transportation Information Center	Transit Management Center	corridor operational strategies	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Tunnel Management System	Maint and Constr Management Center	field equipment status	US: TMDD - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Cen	ter Intermodal Customer System	freight transportation status	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Fleet and Freight Management Cen	ter Intermodal Terminal	freight transportation status	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Ce	enter Intermodal Customer System	freight transportation status	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Freight Distribution and Logistics Ce	enter Intermodal Terminal	freight transportation status	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Customer System	Fleet and Freight Management Center	freight transport booking	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Customer System	Fleet and Freight Management Center	freight transportation status	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Customer System	Freight Distribution and Logistics Center	freight transport booking	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Fleet and Freight Management Center	container delivery confirmation	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.
Intermodal Terminal	Fleet and Freight Management Center	freight transportation status	US: UBL - NTCIP Messaging	Application level authentication is not addressed by this communication profile. While it provides TransNet layer security, the Facilities (OSI Application) Layer does not authenticate the user for the service being provided.

Class	Security	Timeframe Urgent	Proposed Resolution	Core authorization - base services	Regional Applicability Australia, Europe	ean Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description			Regional Appl	cability
Security	Urgent	Core authorization - base services	il .	lly acceptable standard for the user permission sets, permission triples contained within the Core Aut	sion request, permission update request, permission request thorization Service Package.	Australia, Euro United States	pean Union,
Issue Description:	: Performance, f	unctionality, and the upper-layers of the	OSI stack have not been d	efined for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle Ro	oadside Equipment	Center	device identification	(None-Data) - AU IFCP	There is no registry defined for device identifiers		
Connected Vehicle Ro	oadside Equipment	Center	device identification	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
ITS Roadway Equipme	ent	Center	device identification	(None-Data) - AU IFCP	There is no registry defined for device identifiers		
Vehicle OBE		Center	device identification	(None-Data) - Mobile Internet (US)	There is no registry defined for device identifiers		
Vehicle OBE		Center	device identification	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
ITS Roadway Equipme	ent	Center	device identification	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Authorizing Center		Center	permission request received	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Authorizing Center	permission request	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Authorizing Center	permission update request	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle Ro	padside Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	There is no registry defined for device identifiers		
Connected Vehicle Ro	padside Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ITS Roadway Equipme	ent	Center	device identification	(None-Data) - EU-ICIP-C2F	There is no registry defined for device identifiers		
ITS Roadway Equipme	ent	Center	device identification	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
Authorizing Center		Center	permission request received	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Authorizing Center		Cooperative ITS Credentials Management System	user permission sets	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Authorizing Center	permission request	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Authorizing Center	permission update request	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Authorizing Center		Center	permission request received	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Authorizing Center	permission request	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Authorizing Center	permission update request	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been star	ted.	
ITS Roadway Equipme	ent	Center	device identification	(None-Data) - OMG DDS RPC	There is no registry defined for device identifiers		
ITS Roadway Equipme	ent	Center	device identification	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
Personal Information	Device	Center	device identification	(None-Data) - Mobile Internet (US)	There is no registry defined for device identifiers		
Personal Information	Device	Center	device identification	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Personal Information	Device	Center	device identification	(None-Data) - Mobile Internet (X.509)	There is no registry defined for device identifiers		
Personal Information	Device	Center	device identification	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been star	ted.	
Vehicle OBE		Center	device identification	(None-Data) - Mobile Internet (X.509)	There is no registry defined for device identifiers		
Vehicle OBE		Center	device identification	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been star	ted.	
Authorizing Center		Center	permission request received	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Authorizing Center	permission request	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Authorizing Center	permission update request	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle Ro	padside Equipment	Center	device identification	(None-Data) - OMG DDS RPC	There is no registry defined for device identifiers		

Class Security	Timeframe Urgent	Proposed Resolution Core authorize	zation - base services	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
ITS Roadway Equipment	Center	device identification	(None-Data) - SNMPv1	There is no registry defined for device identifiers
ITS Roadway Equipment	Center	device identification	(None-Data) - SNMPv1	Work on the upper layer standards related to this solution have not been started.
ITS Roadway Equipment	Center	device identification	(None-Data) - SNMPv1/TLS	There is no registry defined for device identifiers
ITS Roadway Equipment	Center	device identification	(None-Data) - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - SNMPv3	There is no registry defined for device identifiers
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.
ITS Roadway Equipment	Center	device identification	(None-Data) - SNMPv3	There is no registry defined for device identifiers
ITS Roadway Equipment	Center	device identification	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.

Class	Security	Timeframe	Urgent	Proposed Resolution	Credentials management system	Regional Applicability Au	ıstralia, European Union, United	States
Class	Timeframe	Proposed Resoluti	ion	Description			Regional Appli	cability
Security	Urgent	Credentials manag	gement system	Implement regional (sec	curity) credentials management systems that are interope	erable.	Australia, Europ United States	pean Union,
Issue Description:	Performance, fu	ınctionality, and the ι	upper-layers of the	e OSI stack have not been d	defined for this information flow.		Severity	Ultra
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Cooperative ITS Creder System	ntials Management	Object Registration an	d Discovery Service	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	
Cooperative ITS Creder System	ntials Management	Object Registration an	d Discovery Service	security policy and networking	g information (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Center		Cooperative ITS Crede System	ntials Management	device enrollment information	n (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Center		Cooperative ITS Crede System	ntials Management	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Connected Vehicle Roa	adside Equipment	Cooperative ITS Crede System	ntials Management	device enrollment information	n (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	
Connected Vehicle Roa	adside Equipment	Cooperative ITS Crede System	ntials Management	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	
Cooperative ITS Creder System	ntials Management	Center		security credential revocation	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	
Cooperative ITS Creder System	ntials Management	Center		security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	
Cooperative ITS Creder System	ntials Management	Center		security policy and networking	g information (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	
Cooperative ITS Creder System	ntials Management	Connected Vehicle Roa	adside Equipment	security credential revocation	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Cooperative ITS Creder System	ntials Management	Connected Vehicle Roa	adside Equipment	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Cooperative ITS Creder System	ntials Management	Connected Vehicle Roa	adside Equipment	security policy and networking	g information (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Cooperative ITS Creder System	ntials Management	Data Distribution Syste	em	security credential revocation	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Cooperative ITS Creder System	ntials Management	Data Distribution Syste	em	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Cooperative ITS Creder System	ntials Management	Data Distribution Syste	em	security policy and networking	g information (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Cooperative ITS Creder System	ntials Management	Object Registration an	nd Discovery Service	security credential revocation	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Cooperative ITS Creder System	ntials Management	Service Monitor System	m	security credential revocation	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	ave not been started.	
Cooperative ITS Creder System	ntials Management	Service Monitor System	m	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	
Cooperative ITS Creder System	ntials Management	Service Monitor System	m	security policy and networking	g information (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	
Cooperative ITS Creder System	ntials Management	Wide Area Information	n Disseminator	security credential revocation	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.	

Class Security	Timeframe Urgent	Proposed Resolution Credentials m	nanagement system	Regional Applicability Australia, European Union, United States
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security policy and networking information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Data Distribution System	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Data Distribution System	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Service Monitor System	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Service Monitor System	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Object Registration and Discovery Service	security credential revocations	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Object Registration and Discovery Service	security credentials	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Object Registration and Discovery Service	security policy and networking information	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Personal Information Device	security credential revocations	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Personal Information Device	security credentials	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Personal Information Device	security policy and networking information	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Vehicle OBE	security credential revocations	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Vehicle OBE	security credentials	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Vehicle OBE	security policy and networking information	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Personal Information Device	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Personal Information Device	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Vehicle OBE	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.

Class Security	Timeframe Urgent	Proposed Resolution Credentials m	nanagement system	Regional Applicability Australia, European Union, United States
Vehicle OBE	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credential revocations	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credentials	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security policy and networking information	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Security Credentials Registry	Commercial Vehicle Check Equipment	security credentials	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been started.
Commercial Vehicle Check Equipment	Commercial Vehicle OBE Service Provider	security credentials	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been started.
Security Credentials Registry	Commercial Vehicle Check Equipment	security credentials	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been started.
Commercial Vehicle Check Equipment	Commercial Vehicle OBE Service Provider	security credentials	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been started.

Class	Security	Timeframe Urgent	Proposed Resolution C-V: Secu	re communications	Regional Applicability Australia, Euro	pean Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
Security	Urgent	C-V: Secure communications	standard(s) should include support	Develop one or more internationally acceptable, secure, centre-vehicle communication standards and define rules on when to use each one. The standard(s) should include support for authentication, authorization, confidentiality, and non-repudiation, as needed. Once the application layer standard(s) are developed, most ITS Information Layer standards will need to be updated to document data in appropriate format(s).			
ssue Description	n: The solution do	pes not provide adequate communica	tions security for the information triple,	which potentially jeopardizes C-ITS operations	S.	Severity	Mediun
			Į.	Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Emergency Vehicle	OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Application-level authentication not provided.		
raffic Managemer	nt Center	Media	traffic information for media	EU: TPEG2 - Internet (X.509)	Application-level authentication not provided.		
ransportation Info	ormation Center	Media	traffic information for media	EU: TPEG2 - Internet (X.509)	Application-level authentication not provided.		
ransportation Info	ormation Center	Media	traveler information for media	EU: TPEG2 - Internet (X.509)	Application-level authentication not provided.		
ransportation Info	ormation Center	Wide Area Information Disseminator	traveler information for media	EU: TPEG2 - Internet (X.509)	Application-level authentication not provided.		
/ehicle OBE		Transportation Information Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
ehicle OBE		Transportation Information Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		
ehicle OBE		Transportation Information Center	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
ehicle OBE		Transportation Information Center	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		
ransportation Info	ormation Center	Wide Area Information Disseminator	broadcast traveler information	TMC - Internet (US)	The application layer security defined in ISO 14819-6 needs to be updated to	o reflect other C-ITS so	ecurity standa
ransportation Info	ormation Center	Personal Information Device	broadcast traveler information	TMC - Wide Area Broadcast (Upper)	The application layer security defined in ISO 14819-6 needs to be updated to	o reflect other C-ITS so	ecurity standa
ransportation Info	ormation Center	Vehicle OBE	broadcast traveler information	TMC - Wide Area Broadcast (Upper)	The application layer security defined in ISO 14819-6 needs to be updated to	o reflect other C-ITS se	ecurity standa
Vide Area Informa	tion Disseminator	Personal Information Device	wide area broadcast traveler information	TMC - Wide Area Broadcast (Upper)	The application layer security defined in ISO 14819-6 needs to be updated to	o reflect other C-ITS so	ecurity standa
Vide Area Informa	tion Disseminator	Vehicle OBE	broadcast traveler information	TMC - Wide Area Broadcast (Upper)	The application layer security defined in ISO 14819-6 needs to be updated to	o reflect other C-ITS so	ecurity standa
Vide Area Informa	tion Disseminator	Vehicle OBE	wide area broadcast traveler information	TMC - Wide Area Broadcast (Upper)	The application layer security defined in ISO 14819-6 needs to be updated to	o reflect other C-ITS so	ecurity standa
raffic Managemer	nt Center	Media	traffic information for media	TPEG2 - DATEX Messaging TCP	Application-level authentication not provided.		
raffic Managemer	nt Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - DATEX Messaging TCP	Application-level authentication not provided.		
ransportation Info	ormation Center	Media	traffic information for media	TPEG2 - DATEX Messaging TCP	Application-level authentication not provided.		
ransportation Info	ormation Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - DATEX Messaging TCP	Application-level authentication not provided.		
raffic Managemer	nt Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - Guaranteed Internet (X.509)	Application-level authentication not provided.		
ransportation Info	ormation Center	Wide Area Information Disseminator	broadcast traveler information	TPEG2 - Guaranteed Internet (X.509)	Application-level authentication not provided.		
ransportation Info	ormation Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - Guaranteed Internet (X.509)	Application-level authentication not provided.		
connected Vehicle	Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Application-level authentication not provided.		
onnected Vehicle	Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Application-level authentication not provided.		
onnected Vehicle	Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	Application-level authentication not provided.		
Connected Vehicle	Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Application-level authentication not provided.		
Connected Vehicle	Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	Application-level authentication not provided.		
Maint and Constr V	/ehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Application-level authentication not provided.		

Class Security	Timeframe Urgent	Proposed Resolution C-V: Secure	communications	Regional Applicability Australia, European Union, United States
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	Application-level authentication not provided.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (US)	Application-level authentication not provided.
mergency Management Center	Emergency Vehicle OBE	suggested route	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
leet and Freight Management Center	Commercial Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
Maint and Constr Management Center	Personal Information Device	road weather advisories	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
Maint and Constr Management Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
Maint and Constr Management Center	Vehicle OBE	work zone information	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
Traffic Management Center	Vehicle OBE	lane closure information	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
Traffic Management Center	Vehicle OBE	speed management information	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
Traffic Management Center	Vehicle OBE	vehicle signage data	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
Fransportation Information Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (US)	Application-level authentication not provided.
Data Distribution System	Personal Information Device	traveler information	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Data Distribution System	Vehicle OBE	traveler information	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Emergency Management Center	Emergency Vehicle OBE	suggested route	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Maint and Constr Management Center	Vehicle OBE	work zone information	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Fraffic Management Center	Personal Information Device	traffic demand management information	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Fraffic Management Center	Vehicle OBE	lane closure information	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Fraffic Management Center	Vehicle OBE	traffic demand management information	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Fraffic Management Center	Vehicle OBE	vehicle signage data	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Transportation Information Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (X.509)	Application-level authentication not provided.
Fransportation Information Center	Wide Area Information Disseminator	broadcast traveler information	TPEG2 - NTCIP Messaging	Application-level authentication not provided.
Fraffic Management Center	Media	traffic information for media	TPEG2 - ODG-OCIT-C	Application-level authentication not provided.
Fraffic Management Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - ODG-OCIT-C	Application-level authentication not provided.
Fransportation Information Center	Personal Information Device	broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Application-level authentication not provided.
Fransportation Information Center	Vehicle OBE	broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Application-level authentication not provided.
Wide Area Information Disseminator	Personal Information Device	wide area broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Application-level authentication not provided.
Wide Area Information Disseminator	Vehicle OBE	broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Application-level authentication not provided.
Wide Area Information Disseminator	Vehicle OBE	wide area broadcast traveler information	TPEG2 - Wide Area Broadcast (Upper)	Application-level authentication not provided.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided
Data Distribution System	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Data Distribution System	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided
Emergency Vehicle OBE	Emergency Management Center	emergency vehicle tracking data	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Emergency Vehicle OBE	Emergency Management Center	emergency vehicle tracking data	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided
Surface Transportation Weather Service	Vehicle OBE	transportation weather information	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Surface Transportation Weather Service	Vehicle OBE	transportation weather information	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided
Traffic Management Center	Vehicle OBE	intersection status	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Traffic Management Center	Vehicle OBE	intersection status	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided

Class Security	Timeframe Urgent	Proposed Resolution C-V: Secure c	ommunications	Regional Applicability Australia, European Union, United States
Traffic Management Center	Vehicle OBE	lane closure information	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Traffic Management Center	Vehicle OBE	lane closure information	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided
Transportation Information Center	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Transportation Information Center	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided
Vehicle OBE	Data Distribution System	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Vehicle OBE	Data Distribution System	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided
Vehicle OBE	Map Update System	vehicle location and motion for mapping	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.
Vehicle OBE	Map Update System	vehicle location and motion for mapping	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided

Class	Security	Timeframe	Urgent	Proposed Resolution	pposed Resolution I-F: Secure communications		Australia, European Union, United States		States
Class	Timeframe Proposed Resolution Description						Regional Applicability		
Security	Urgent I-F: Secure communications Develop one or more internationally acceptable, secure, centre-to-field communications standard(s) should include support for authentication, authorization, confidentialist					each one. The	Australia, Europe United States	ean Union,	
Issue Description	Ssue Description: The standards development organization has established a work item for the subject standard but a draft is not available for this critical feature to enable the interface. The draft may be missing due to the								

		<u> </u>	Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes Notes
enter	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
enter	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
enter	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
enter	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
enter	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
enter	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Center	device identification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Field Support Equipment	RSE status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Field Support Equipment	RSE status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection infringement info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection infringement info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	pedestrian location information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution

Class	Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	mmunications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	pedestrian location information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Road	dside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	Service Monitor System	RSE status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	Service Monitor System	RSE status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	Traffic Management Center	environmental situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	Traffic Management Center	environmental situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Road	dside Equipment	Traffic Management Center	intersection management application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Road	dside Equipment	Traffic Management Center	intersection management application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roa	dside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roa	dside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	communications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Fraffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Traffic Management Center	environmental sensor data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	e communications	Regional Applicability Australia, European Union, United States
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Center	device identification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Center	device identification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	re communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Maint and Constr Management Center	work zone warning status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Maint and Constr Management Center	work zone warning status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	re communications	Regional Applicability Australia, European Union, United States
TS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ΓS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	speed monitoring information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	speed monitoring information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	traffic images	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	traffic images	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	traffic metering status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	traffic metering status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
laint and Constr Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Naint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Naint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Naint and Constr Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	e communications	Regional Applicability Australia, European Union, United States
Map Update System	Connected Vehicle Roadside Equipment	map updates	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Connected Vehicle Roadside Equipment	map updates	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System	Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System	Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System	Parking Management System	parking facility geometry	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Parking Management System	parking facility geometry	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System	Public Information Device	map updates	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Public Information Device	map updates	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Multi-Modal Crossing	Connected Vehicle Roadside Equipment	multimodal crossing status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Multi-Modal Crossing	Connected Vehicle Roadside Equipment	multimodal crossing status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Multi-Modal Crossing	ITS Roadway Equipment	multimodal crossing status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Nulti-Modal Crossing	ITS Roadway Equipment	multimodal crossing status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Other Connected Vehicle Roadside Equipment	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Other Connected Vehicle Roadside Equipment	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ther ITS Roadway Equipment	ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
arking Management System	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Map Update System	parking facility geometry	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Map Update System	parking facility geometry	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Traffic Management Center	parking information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Traffic Management Center	parking information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Transit Management Center	parking information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Transit Management Center	parking information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Transportation Information Center	parking information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Transportation Information Center	parking information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure of	communications	Regional Applicability Australia, European Union, United States
Payment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ayment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Fraffic Management Center	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Fraffic Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal system configuration	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	signal system configuration	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	traffic metering control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	traffic metering control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	e communications	Regional Applicability Australia, European Union, United States
raffic Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ransportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Fransportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Transportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Fransportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Funnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Funnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Nayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Wayside Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Wayside Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Wayside Equipment	ITS Roadway Equipment	arriving train information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Nayside Equipment	ITS Roadway Equipment	arriving train information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Wayside Equipment	ITS Roadway Equipment	track status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Wayside Equipment	ITS Roadway Equipment	track status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Data Distribution System	local situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Data Distribution System	local situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	ure communications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection infringement info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection infringement info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	pedestrian location information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	pedestrian location information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Service Monitor System	RSE status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Service Monitor System	RSE status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Data Distribution System	Connected Vehicle Roadside Equipment	local traveler information distribution data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Data Distribution System	Connected Vehicle Roadside Equipment	local traveler information distribution data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Data Distribution System	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Data Distribution System	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secur	re communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	noise data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	noise data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Other Traffic Signal Controller	local priority request details	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Other Traffic Signal Controller	local priority request details	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secur	re communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	signal control status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	signal control status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	traffic images	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	traffic images	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	variable speed limit status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	variable speed limit status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class	Security	Timeframe Urgent	Proposed Resolution I-F: Secure of	communications	Regional Applicability Australia, European Union, United States
Maint and Constr Manag	gement Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Map Update System		Connected Vehicle Roadside Equipment	map updates	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Map Update System		Connected Vehicle Roadside Equipment	map updates	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Map Update System		Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Map Update System		Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Map Update System		Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Map Update System		Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Map Update System		Parking Management System	parking facility geometry	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Map Update System		Parking Management System	parking facility geometry	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Map Update System		Public Information Device	map updates	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Map Update System		Public Information Device	map updates	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Other Connected Vehicle Equipment	e Roadside	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Other Connected Vehicle Equipment	e Roadside	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Other ITS Roadway Equip	pment	ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Other ITS Roadway Equip	pment	ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Other Traffic Signal Cont	roller	ITS Roadway Equipment	local priority request details	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Other Traffic Signal Cont	roller	ITS Roadway Equipment	local priority request details	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Parking Management Sys	stem	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Parking Management Sys	stem	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Parking Management Sys	stem	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Parking Management Sys	stem	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Cen	nter	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Traffic Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	signal control commands	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	signal control commands	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	signal control device configuration	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	signal control device configuration	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	signal control plans	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	signal control plans	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	signal system configuration	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	signal system configuration	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	e communications	Regional Applicability Australia, European Union, United States
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Transportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Transportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Transportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Transportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Transportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Transportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Tunnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Tunnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Wayside Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Wayside Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Wayside Equipment	ITS Roadway Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Wayside Equipment	ITS Roadway Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Wayside Equipment	ITS Roadway Equipment	track status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Wayside Equipment	ITS Roadway Equipment	track status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Payment Administration Center	vehicle payment information	(Out of Scope) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Payment Administration Center	vehicle payment information	(Out of Scope) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Payment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(Out of Scope) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Payment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(Out of Scope) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure communications		Regional Applicability Australia, European Union, United States	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.	
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.	
ITS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
ITS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.	
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.	
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.	
Traffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Traffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.	
Traffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Fraffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.	
TS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
TS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.	
TS Roadway Equipment	Traffic Management Center	environmental sensor data	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
TS Roadway Equipment	Traffic Management Center	environmental sensor data	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.	
TS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
TS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.	
TS Roadway Equipment	Traffic Management Center	variable speed limit status	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
TS Roadway Equipment	Traffic Management Center	variable speed limit status	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.	
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.	
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Fraffic Management Center	ITS Roadway Equipment	environmental sensors control	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.	
Fraffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.	
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection infringement info	EU: DEN Service - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	

Class	Security	Timeframe Urgent	Proposed Resolution I-F: Secur	re communications	Regional Applicability Australia, European Union, United States
Connected Vehicle Ro	padside Equipment	ITS Roadway Equipment	intersection infringement info	EU: DEN Service - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Electric Charging Stati	ion	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Management - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Electric Charging Stati	ion	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Management - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Ro	oadside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Management - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Ro	oadside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Management - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Electric Charging Stati	ion	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Management - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Electric Charging Stati	ion	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Management - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Transportation Inform	nation Center	Connected Vehicle Roadside Equipment	electric charging services inventory	EU: Electric Charging Hot Spot - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Transportation Inform	nation Center	Connected Vehicle Roadside Equipment	electric charging services inventory	EU: Electric Charging Hot Spot - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Ro	padside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Ro	oadside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Electric Charging Stati	ion	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Electric Charging Stati	ion	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Transportation Inform	nation Center	Connected Vehicle Roadside Equipment	electric charging services inventory	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Transportation Inform	nation Center	Connected Vehicle Roadside Equipment	electric charging services inventory	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Ro	padside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Management - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Ro	padside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Management - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System		Connected Vehicle Roadside Equipment	intersection geometry	EU: Signal Control Messages - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Map Update System		Connected Vehicle Roadside Equipment	intersection geometry	EU: Signal Control Messages - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.

Class	Timeframe Urgent	Proposed Resolution I-F: Secure communications		Regional Applicability Australia, European Union, United States	
Issue Description: The solution	n does not provide any significant security	and a communications link using th	is solution is easily hacked.	Severity High	
			Relevant Flow Solution Combinations		
Source	Destination	Flow	SolutionName	Notes Notes	
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt Center	device identification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt Center	device identification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt Center	protected location and address flow	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt Center	protected location and address flow	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt Center	RSE application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt Center	RSE application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt Field Support Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt Field Support Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt Field Support Equipment	RSE configuration settings	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt Field Support Equipment	RSE configuration settings	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt Field Support Equipment	RSE control commands	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
onnected Vehicle Roadside Equipmer	nt Field Support Equipment	RSE control commands	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt Field Support Equipment	RSE status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt Field Support Equipment	RSE status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt ITS Roadway Equipment	environmental situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt ITS Roadway Equipment	environmental situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt ITS Roadway Equipment	intersection infringement info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt ITS Roadway Equipment	intersection infringement info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt ITS Roadway Equipment	pedestrian location information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt ITS Roadway Equipment	pedestrian location information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	
Connected Vehicle Roadside Equipmer	nt ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution	
Connected Vehicle Roadside Equipmer	nt ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.	

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
connected Vehicle Roadside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Service Monitor System	RSE status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Service Monitor System	RSE status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
onnected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
onnected Vehicle Roadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure of	communications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	mmunications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
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Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	communications	Regional Applicability Australia, European Union, United States
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Center	device identification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Center	device identification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	ure communications	Regional Applicability Australia, European Union, United States
TS Roadway Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
rs Roadway Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Maint and Constr Management Center	traffic detector data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Maint and Constr Management Center	traffic images	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Maint and Constr Management Center	traffic images	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Maint and Constr Management Center	work zone warning status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Maint and Constr Management Center	work zone warning status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	right-of-way request notification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	right-of-way request notification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
TS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Sec	turity Timeframe Urgent	Proposed Resolution I-F: S	ecure communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	traffic images	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	traffic images	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Traffic Management Center	traffic metering status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Traffic Management Center	traffic metering status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Managemen	t Center Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Managemen	t Center Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Managemen	t Center Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Managemen	t Center Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Managemen	t Center ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Managemen	t Center ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Managemen	t Center ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Managemen	t Center ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Managemen	t Center ITS Roadway Equipment	traffic detector control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Managemen	t Center ITS Roadway Equipment	traffic detector control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Managemen	t Center ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Managemen	t Center ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System	Connected Vehicle Roadside Equipment	map updates	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Connected Vehicle Roadside Equipment	map updates	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System	Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure of	communications	Regional Applicability Australia, European Union, United States
Map Update System	Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System	Parking Management System	parking facility geometry	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Parking Management System	parking facility geometry	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Map Update System	Public Information Device	map updates	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Map Update System	Public Information Device	map updates	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Multi-Modal Crossing	Connected Vehicle Roadside Equipment	multimodal crossing status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Multi-Modal Crossing	Connected Vehicle Roadside Equipment	multimodal crossing status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Multi-Modal Crossing	ITS Roadway Equipment	multimodal crossing status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Multi-Modal Crossing	ITS Roadway Equipment	multimodal crossing status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Other Connected Vehicle Roadside Equipment	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Other Connected Vehicle Roadside Equipment	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Map Update System	parking facility geometry	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
arking Management System	Map Update System	parking facility geometry	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Traffic Management Center	parking information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Traffic Management Center	parking information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Transit Management Center	parking information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Transit Management Center	parking information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Parking Management System	Transportation Information Center	parking information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Parking Management System	Transportation Information Center	parking information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Payment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Payment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	communications	Regional Applicability Australia, European Union, United States
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Fraffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal system configuration	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	signal system configuration	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	traffic metering control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	traffic metering control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ransportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ransportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
ransportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Transportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	re communications	Regional Applicability Australia, European Union, United States
Tunnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Tunnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Wayside Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Wayside Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Wayside Equipment	ITS Roadway Equipment	arriving train information	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Wayside Equipment	ITS Roadway Equipment	arriving train information	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Wayside Equipment	ITS Roadway Equipment	track status	(None-Data) - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Wayside Equipment	ITS Roadway Equipment	track status	(None-Data) - AU IFCP	AU IFCP does not currently provide any significant security.
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Data Distribution System	local situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Data Distribution System	local situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection infringement info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class	Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	mmunications	Regional Applicability Australia, European Union, United States
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	intersection infringement info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	pedestrian location information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	pedestrian location information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Service Monitor System	RSE status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	Service Monitor System	RSE status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Traffic Management Center	environmental situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	Traffic Management Center	environmental situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Traffic Management Center	intersection management application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Road	dside Equipment	Traffic Management Center	intersection management application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Road	dside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	mmunications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	stop sign gap assist RSE status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Transportation Information Center	electric charging station information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Transportation Information Center	traveler information application status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Data Distribution System	Connected Vehicle Roadside Equipment	local traveler information distribution data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Data Distribution System	Connected Vehicle Roadside Equipment	local traveler information distribution data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Data Distribution System	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure communications		Regional Applicability Australia, European Union, United States
Data Distribution System	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Center	device identification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secur	re communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	traffic gap information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	noise data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	noise data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Other Traffic Signal Controller	local priority request details	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Other Traffic Signal Controller	local priority request details	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment	Traffic Management Center	signal control status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure of	communications	Regional Applicability Australia, European Union, United States
S Roadway Equipment	Traffic Management Center	signal control status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
S Roadway Equipment	Traffic Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Traffic Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Traffic Management Center	traffic images	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Traffic Management Center	traffic images	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Traffic Management Center	variable speed limit status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Traffic Management Center	variable speed limit status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
TS Roadway Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
TS Roadway Equipment	Wayside Equipment	rail crossing operational status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Map Update System	Connected Vehicle Roadside Equipment	map updates	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

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New Update System Owner Level Vehicle Routebile Capaziment Stage Update System Owner Level Vehicle Routebile Capaziment Owner Level Vehicle Routebile Capaziment Stage Update System Owner Level Vehicle Routebile Capaz	1ap Update System	Connected Vehicle Roadside Equipment	map updates	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
No. Update Severn	1ap Update System	Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
No ploated System Owner Cell Vision Resident Foundament Owner Database System Owner Database Own	1ap Update System	Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
No. Update specime. Passing Management Against Annual Passing Management A	1ap Update System	Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
May Update System Pulsic Information Device may specify Soling Pulsic Information Device Information D	1ap Update System	Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Note places system Apply updates System Ap	lap Update System	Parking Management System	parking facility geometry	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
No Spalane Spriam May Spalane May Sp	1ap Update System	Parking Management System	parking facility geometry	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Other Connected Vehicle Roadside Equipment volume (and Vehicle Roadside Equipment) work way whicle detected (home-controlled Vehicle Roadside Equipment) work way whiche detected vehicle Roadside Equipment) work way whiche detected vehicle Roadside Equipment (home-controlled Vehicle Roadside Equipment) work was warrised to the controlled Roadside Equipment (home-controlled Vehicle Roadside Equipment) which was warrised to the controlled Roadside Equipment (home-controlled Vehicle Roadside Equipment) which was warrised to the controlled Roadside Equipment (home-controlled Vehicle Roadside Equipment) which was warrised to the controlled Roadside Equipment (home-controlled Roadside Equipment) which was warrised to the controlled Roadside Equipment (home-controlled Roadside Equipment) which was warrised provided Roadside Equipment (home-controlled Roadside Equipment) (h	lap Update System	Public Information Device	map updates	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Enginement Other Connected Vehicle Roundside Figuipment Other Connected Vehicle Roundside Figuipment Other Connected Vehicle Roundside Figuipment Other Standards Figuipment Other Stan	1ap Update System	Public Information Device	map updates	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Chier ITS Roadway Equipment ITS Roadway Equi		Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Other TTS Roadway Equipment Signal Control data Signal Control data (None-Data) - EU-ICIP-C2F The Security for the Centrer-to-Field EU-ICIP protocol is not yet defined. Other TTS Roadway Equipment Intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centrer-to-Field EU-ICIP protocol is not yet defined. Other TTS Roadway Equipment (Intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centrer-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment parking management application info (None-Data) - EU-ICIP-C2F The Security for the Centrer-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The Security for the Centrer-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The Security for the Centrer-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The Security for the Centrer-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centrer-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Fie		Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Other Traffic Signal Controller IT'S Roadway Equipment Iocal priority request details None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment parking management application info None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment parking management application info None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection sangement application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Cente	ther ITS Roadway Equipment	ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Other Traffic Signal Controller Traffic Management System Connected Vehicle Roadside Equipment Traffic Management Center Connected Vehicle Roadside Equipment Traffic Managem	ther ITS Roadway Equipment	ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Parking Management System Connected Vehicle Roadside Equipment parking management application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Parking Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected	ther Traffic Signal Controller	ITS Roadway Equipment	local priority request details	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
might be. Parking Management System Connected Vehicle Roadside Equipment vehicle Signage local data (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application in	ther Traffic Signal Controller	ITS Roadway Equipment	local priority request details	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Parking Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossi	arking Management System	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Might be. Parking Management System Connected Vehicle Roadside Equipment vehicle signage local data (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application infor (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined.	arking Management System	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be.	arking Management System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center Connected Vehicle Roadside Equipment intersection management application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be.	arking Management System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F Traffic Management Center Connected Vehicle Roadside Equipment intersection safety application info (None-Data) - EU-ICIP-C2F Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be.	raffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The Echas identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The Echas identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The Echas identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The Security for the Centre-to-Field EU-ICIP protocol is not yet defined.	raffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	raffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center Connected Vehicle Roadside Equipment queue warning application information (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	raffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	raffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
might be. Traffic Management Center Connected Vehicle Roadside Equipment rail crossing application info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	raffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
	raffic Management Center	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Treffic Management Contact Connected Vahiela Readside Equipment The FC has identified the need to develop this communication profile but there is no consensus as to what the	raffic Management Center	Connected Vehicle Roadside Equipment	rail crossing application info	(None-Data) - EU-ICIP-C2F	
might be.	raffic Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center Connected Vehicle Roadside Equipment reduced speed warning info (None-Data) - EU-ICIP-C2F The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	raffic Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center Connected Vehicle Roadside Equipment situation data collection parameters (None-Data) - EU-ICIP-C2F The EC has identified the need to develop this communication profile, but there is no consensus as to what the might be.	raffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Traffic Management Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Fraffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Fraffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Fraffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Fraffic Management Center	Connected Vehicle Roadside Equipment	stop sign gap assist info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Fraffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Fraffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Fraffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	signal control commands	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	signal control commands	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	signal control device configuration	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	signal control device configuration	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	signal control plans	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	signal control plans	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	signal system configuration	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
raffic Management Center	ITS Roadway Equipment	signal system configuration	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
raffic Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure communications		Regional Applicability Australia, European Union, United States	
Traffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	
raffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
raffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	
raffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
raffic Management Center	ITS Roadway Equipment	variable speed limit control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	
raffic Management Center	ITS Roadway Equipment	variable speed limit control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
raffic Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	
raffic Management Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
ransportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	
ransportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
Fransportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	
ransportation Information Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
ransportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	
ransportation Information Center	Connected Vehicle Roadside Equipment	traveler information application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
unnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what thi might be.	
unnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
Vayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what thi might be.	
Vayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
Vayside Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.	
Vayside Equipment	Connected Vehicle Roadside Equipment	track status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
Vayside Equipment	ITS Roadway Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what thi might be.	
Vayside Equipment	ITS Roadway Equipment	arriving train information	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
Vayside Equipment	ITS Roadway Equipment	track status	(None-Data) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what thi might be.	
Vayside Equipment	ITS Roadway Equipment	track status	(None-Data) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.	
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - ODG-OCIT-O	OCIT-O does not provide any significant security.	
onnected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - ODG-OCIT-O	OCIT-O does not provide any significant security.	
ΓS Roadway Equipment	Other ITS Roadway Equipment	signal control data	(None-Data) - ODG-OCIT-O	OCIT-O does not provide any significant security.	
TS Roadway Equipment	Traffic Management Center	roadway warning system status	(None-Data) - ODG-OCIT-O	OCIT-O does not provide any significant security.	
TS Roadway Equipment	Traffic Management Center	traffic detector data	(None-Data) - ODG-OCIT-O	OCIT-O does not provide any significant security.	
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	(None-Data) - ODG-OCIT-O	OCIT-O does not provide any significant security.	
Traffic Management Center	ITS Roadway Equipment	traffic detector control	(None-Data) - ODG-OCIT-O	OCIT-O does not provide any significant security.	

Class Se	ecurity	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
DMV		ITS Roadway Equipment	registration	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Emissions Management Cent	ter	ITS Roadway Equipment	emissions sensor control	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Center	device identification	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Emissions Management Center	vehicle emissions data	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Maint and Constr Management Center	roadway advisory radio status	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Traffic Management Center	infrastructure restriction warning status	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Traffic Management Center	lane management information	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Traffic Management Center	lane violation notification	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Traffic Management Center	rail crossing blockage notification	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Traffic Management Center	rail crossing status	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Traffic Management Center	roadway advisory radio status	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Traffic Management Center	stop sign gap assist status	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Maint and Constr Manageme	ent Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center		ITS Roadway Equipment	infrastructure restriction warning control	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center		ITS Roadway Equipment	rail crossing control data	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center		ITS Roadway Equipment	rail crossing request	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center		ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center		ITS Roadway Equipment	stop sign gap assist control	(None-Data) - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Connected Vehicle Roadside	e Equipment	Payment Administration Center	vehicle payment information	(Out of Scope) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roadside	e Equipment	Payment Administration Center	vehicle payment information	(Out of Scope) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Payment Administration Cen	nter	Connected Vehicle Roadside Equipment	vehicle payment request	(Out of Scope) - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Payment Administration Cen	nter	Connected Vehicle Roadside Equipment	vehicle payment request	(Out of Scope) - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secur	e communications	Regional Applicability Australia, European Union, United States
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
S Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field line
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
TS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
TS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field line
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
raffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
raffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	AU IFCP does not currently provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field line.
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field device
TS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
TS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
Fraffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field device
Fraffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secur	e communications	Regional Applicability Australia, European Union, United States
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
Traffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field device
Fraffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Fraffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
Fraffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field device
Fraffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Fraffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	No security is provided between the traffic controller and field device

Class	Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Traffic Management Cent	ter	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Traffic Management Cent	ter	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol is available via RMS but is not a published standard
Traffic Management Cent	ter	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	No security is provided between the traffic controller and field device
Traffic Management Cent	ter	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Traffic Management Cent	ter	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol is available via RMS but is not a published standard
ITS Roadway Equipment		Maint and Constr Management Center	roadway dynamic signage status	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment		Maint and Constr Management Center	roadway dynamic signage status	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment		Traffic Management Center	environmental sensor data	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment		Traffic Management Center	environmental sensor data	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment		Traffic Management Center	roadway dynamic signage status	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment		Traffic Management Center	roadway dynamic signage status	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.
ITS Roadway Equipment		Traffic Management Center	variable speed limit status	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ITS Roadway Equipment		Traffic Management Center	variable speed limit status	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.
Maint and Constr Manage	ement Center	ITS Roadway Equipment	roadway dynamic signage data	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Maint and Constr Manage	ement Center	ITS Roadway Equipment	roadway dynamic signage data	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Cent	ter	ITS Roadway Equipment	environmental sensors control	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Cent	ter	ITS Roadway Equipment	environmental sensors control	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Cent	ter	ITS Roadway Equipment	roadway dynamic signage data	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Cent	ter	ITS Roadway Equipment	roadway dynamic signage data	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.
Traffic Management Cent	ter	ITS Roadway Equipment	variable speed limit control	DMS and RWIS data - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Traffic Management Cent	ter	ITS Roadway Equipment	variable speed limit control	DMS and RWIS data - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roads	ide Equipment	ITS Roadway Equipment	intersection infringement info	EU: DEN Service - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roads	ide Equipment	ITS Roadway Equipment	intersection infringement info	EU: DEN Service - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roads	ide Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Management - AU IFCP	AU IFCP does not currently provide any significant security.
Electric Charging Station		Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Management - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
Electric Charging Station		Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Management - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roads	ide Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Management - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Connected Vehicle Roads	ide Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Management - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ITS Roadway Equipment		Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment		Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Cent	ter	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secur	re communications	Regional Applicability Australia, European Union, United States
raffic Management Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ransportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	EU: Electric Charging Hot Spot - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
ransportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	EU: Electric Charging Hot Spot - AU IFCP	AU IFCP does not currently provide any significant security.
Connected Vehicle Roadside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
connected Vehicle Roadside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
lectric Charging Station	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
lectric Charging Station	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
ransportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
ransportation Information Center	Connected Vehicle Roadside Equipment	electric charging services inventory	EU: Electric Charging Hot Spot - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
Connected Vehicle Roadside Equipment	Electric Charging Station	vehicle charging profile	EU: Electric Charging Management - AU IFCP	A standardised I-F protocol is needed for Australia but no consensus exists. Adoption of an appropriate existing standard is a potential solution
lectric Charging Station	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Management - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
lectric Charging Station	Connected Vehicle Roadside Equipment	current charging status	EU: Electric Charging Management - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
S Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
S Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
S Roadway Equipment	Other Traffic Signal Controller	local priority request details	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
S Roadway Equipment	Traffic Management Center	right-of-way request notification	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
S Roadway Equipment	Traffic Management Center	signal control status	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
ther Traffic Signal Controller	ITS Roadway Equipment	local priority request details	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal control commands	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal control device configuration	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal control plans	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
raffic Management Center	ITS Roadway Equipment	signal system configuration	EU: OCIT-O Signal Control - OCIT-O	OCIT-O does not provide any significant security.
Nap Update System	Connected Vehicle Roadside Equipment	intersection geometry	EU: Signal Control Messages - EU-ICIP-C2F	The EC has identified the need to develop this communication profile, but there is no consensus as to what this might be.
Nap Update System	Connected Vehicle Roadside Equipment	intersection geometry	EU: Signal Control Messages - EU-ICIP-C2F	The security for the Centre-to-Field EU-ICIP protocol is not yet defined.
rs Roadway Equipment	Maint and Constr Management Center	traffic images	US: NTCIP CCTV - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
rs Roadway Equipment	Traffic Management Center	traffic images	US: NTCIP CCTV - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
laint and Constr Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
raffic Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
missions Management Center	ITS Roadway Equipment	air quality sensor control	US: NTCIP Environmental Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
TS Roadway Equipment	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	re communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Maint and Constr Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	lighting system status	US: NTCIP Lighting - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	lighting system control data	US: NTCIP Lighting - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
TS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	lane management control	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	traffic metering status	US: NTCIP Ramp Meters - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	traffic metering control	US: NTCIP Ramp Meters - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
TS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secur	e communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Traffic Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Traffic Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Emergency Management Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Emergency Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
ITS Roadway Equipment	Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.
Maint and Constr Management Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1	SNMPv1 is a legacy solution; new deployments are strongly encouraged to use a solution based on SNMPv3 with TLS security.

Class Se	ecurity Timeframe Urgent	Proposed Resolution	-F: Secure communications	Regional Applicability Austra	alia, European Union, United Sta	ates
Issue Description: The	document may be publicly available but it is not o	currently available as a formal	standard and details may change prior to adopt	ion as a standard.	Severity	Medium
			Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field d	evice	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published sta	andard	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field d	evice	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published sta	andard	
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field d	evice	
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published sta	andard	
ITS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field d	evice	
ITS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
ITS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published sta	andard	
Other ITS Roadway Equipmen	nt ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field d	evice	
Other ITS Roadway Equipmen	nt ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
Other ITS Roadway Equipmen	nt ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published sta	andard	
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field d	evice	
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published sta	andard	
Traffic Management Center	ITS Roadway Equipment	signal control device configurati	ion AU TRAFF - AU IFCP	No security is provided between the traffic controller and field d	evice	
Traffic Management Center	ITS Roadway Equipment	signal control device configurati	ion AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
Traffic Management Center	ITS Roadway Equipment	signal control device configurati	ion AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published sta	andard	
Traffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field d	evice	
Traffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
Traffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published sta	andard	
ITS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field d	evice	
ITS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
ITS Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published sta	andard	
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field d	evice	
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
Traffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published sta	andard	
Traffic Management Center	ITS Roadway Equipment	signal control device configurati	ion AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field d	evice	
Traffic Management Center	ITS Roadway Equipment	signal control device configurati	ion AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
Traffic Management Center	ITS Roadway Equipment	signal control device configurati	ion AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published sta	andard	
Traffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field d	evice	
Traffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller bu	t does not adequately define the centre	e-field link
			Page 119 of 347			

Class	Security	Timeframe Urgent	Proposed Resolution I-F: Secu	re communications	Regional Applicability Australia, European Union, United States
Fraffic Management Co	enter	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roa	idside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roa	dside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roa	idside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roa	dside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roa	dside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roa	dside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roa	idside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roa	idside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roa	idside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roa	idside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roa	dside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roa	dside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
connected Vehicle Roa	idside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roa	idside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roa	idside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roa	idside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roa	idside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field linl
onnected Vehicle Roa	dside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roa	idside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roa	dside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roa	dside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
connected Vehicle Roa	dside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roa	idside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roa	idside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roa	idside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roa	idside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field linl
Connected Vehicle Roa	idside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roa	idside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
connected Vehicle Roa	idside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
onnected Vehicle Roa	idside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Co	enter	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	No security is provided between the traffic controller and field device
raffic Management Co	enter	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field linl
raffic Management Co	enter	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Co	enter	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	No security is provided between the traffic controller and field device
raffic Management Ce	enter	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Fraffic Management Ce	enter	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol is available via RMS but is not a published standard

Security	Timeframe Urgent	Proposed Resolution I-F: Secu	re communications	Regional Applicability Australia, European Union, United States
ssue Description: Some of the da	ata elements for this information flow a	re not fully defined.		Severity Medium
			Relevant Flow Solution Combinations	
ource	Destination	Flow	SolutionName	Notes
TS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
TS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
TS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
S Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
TS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
S Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
S Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
S Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
S Roadway Equipment	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
rs Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
ther ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
ther ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
ther ITS Roadway Equipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
affic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
raffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
affic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	No security is provided between the traffic controller and field device
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	The TRAFF protocol is available via RMS but is not a published standard
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field device
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
S Roadway Equipment	Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field device
affic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
raffic Management Center	ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
affic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field device
affic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
raffic Management Center	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	No security is provided between the traffic controller and field device
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin

Class Security	Timeframe Urgent	Proposed Resolution I-F: Sec	ure communications	Regional Applicability Australia, European Union, United States
raffic Management Center	ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field link
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field line
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field line
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	No security is provided between the traffic controller and field device
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	No security is provided between the traffic controller and field device
raffic Management Center	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
raffic Management Center	Commercial Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol is available via RMS but is not a published standard
raffic Management Center	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	No security is provided between the traffic controller and field device
raffic Management Center	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol defines messages to the traffic controller but does not adequately define the centre-field lin
Fraffic Management Center	Emergency Vehicle OBE	intersection status	AU TRAFF - Mobile Internet (X.509)	The TRAFF protocol is available via RMS but is not a published standard

Class	Security	Timeframe	Urgent	Proposed Resolution I-F: Secure communications Regional Applicability Australia, E		European Union, United States		
Issue Descripti	on: The document i	may be publicly availa	ble but it is not	a formal standard developed acc	ording to open standards development rules and	details may change prior to adoption as open standard.	Severity	Medium
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Connected Vehicle	Roadside Equipment	ITS Roadway Equipme	nt	signal priority service request	(None-Data) - ODG-OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
Connected Vehicle	Roadside Equipment	Traffic Management Co	enter	traffic situation data	(None-Data) - ODG-OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
ITS Roadway Equip	oment	Other ITS Roadway Eq	uipment	signal control data	(None-Data) - ODG-OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
ITS Roadway Equip	oment	Traffic Management Co	enter	roadway warning system status	(None-Data) - ODG-OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
ITS Roadway Equip	oment	Traffic Management Co	enter	traffic detector data	(None-Data) - ODG-OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
Other ITS Roadway	y Equipment	ITS Roadway Equipmen	nt	signal control data	(None-Data) - ODG-OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
Traffic Manageme	nt Center	ITS Roadway Equipmen	nt	traffic detector control	(None-Data) - ODG-OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
ITS Roadway Equip	oment	Connected Vehicle Roa	adside Equipment	intersection control status	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
ITS Roadway Equip	oment	Connected Vehicle Roa	adside Equipment	ITS roadway equipment information	n EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
ITS Roadway Equip	oment	Other Traffic Signal Co	ntroller	local priority request details	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
ITS Roadway Equip	oment	Traffic Management Co	enter	right-of-way request notification	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
ITS Roadway Equip	oment	Traffic Management Co	enter	signal control status	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
Other Traffic Signa	l Controller	ITS Roadway Equipmen	nt	local priority request details	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
Traffic Manageme	nt Center	ITS Roadway Equipmen	nt	signal control commands	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
Traffic Manageme	nt Center	ITS Roadway Equipmen	nt	signal control device configuration	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
Traffic Manageme	nt Center	ITS Roadway Equipmen	nt	signal control plans	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		
Traffic Manageme	nt Center	ITS Roadway Equipme	nt	signal system configuration	EU: OCIT-O Signal Control - OCIT-O	OCIT-O is a proprietary protocol that requires special rights to use.		

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	communications	Regional Applicability Australia,	European Union, Unite	d States
ssue Description: The proposed	solution uses a suite of standards that i	s accepted within some communities, b	out has not necessarily been accepted for u	ise within the context of this information triple.	Severity	Medium
		<u> </u>	Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes		
TS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Mobile SNMPv3			
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Mobile SNMPv3			
Personal Information Device	Service Monitor System	PID status	(None-Data) - Mobile SNMPv3			
DMV	ITS Roadway Equipment	registration	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate		
DMV	ITS Roadway Equipment	registration	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
Emissions Management Center	ITS Roadway Equipment	emissions sensor control	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate		
Emissions Management Center	ITS Roadway Equipment	emissions sensor control	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
TS Roadway Equipment	Center	device identification	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate		
TS Roadway Equipment	Center	device identification	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
TS Roadway Equipment	Emissions Management Center	vehicle emissions data	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate		
TS Roadway Equipment	Emissions Management Center	vehicle emissions data	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
TS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate		
TS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
TS Roadway Equipment	Traffic Management Center	infrastructure restriction warning status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate		
TS Roadway Equipment	Traffic Management Center	infrastructure restriction warning status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
ITS Roadway Equipment	Traffic Management Center	lane management information	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate	•	
TS Roadway Equipment	Traffic Management Center	lane management information	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
TS Roadway Equipment	Traffic Management Center	lane violation notification	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate	•	
TS Roadway Equipment	Traffic Management Center	lane violation notification	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
TS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate		
TS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communicat certificates to exchange data between end devices, the application la in checking the certificate		
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the I	S community has not officia	lly adopted it.

Class Secu	rity Timeframe Urgent	Proposed Resolution I-F: Secure	communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management	Center ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management	Center ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	infrastructure restriction warning control	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	infrastructure restriction warning control	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management	Center ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management	Center ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure of	communications	Regional Applicability Australia, European Union, United States
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	US: NTCIP CCTV - Mobile SNMPv3	
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - Mobile SNMPv3	
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	US: NTCIP CCTV - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	US: NTCIP CCTV - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	traffic images	US: NTCIP CCTV - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	traffic images	US: NTCIP CCTV - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management Center	Maint and Constr Vehicle OBE	environmental sensors control	US: NTCIP Environmental Sensors - Mobile SNMPv3	
Maint and Constr Management Center	Maint and Constr Vehicle OBE	maint and constr vehicle system control	US: NTCIP Environmental Sensors - Mobile SNMPv3	
Maint and Constr Vehicle OBE	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - Mobile SNMPv3	
Maint and Constr Vehicle OBE	Maint and Constr Management Center	maint and constr vehicle operational data	US: NTCIP Environmental Sensors - Mobile SNMPv3	
Emissions Management Center	ITS Roadway Equipment	air quality sensor control	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Emissions Management Center	ITS Roadway Equipment	air quality sensor control	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	ure communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
TS Roadway Equipment	Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
TS Roadway Equipment	Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
TS Roadway Equipment	Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
TS Roadway Equipment	Traffic Management Center	lighting system status	US: NTCIP Lighting - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	lighting system status	US: NTCIP Lighting - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	lighting system control data	US: NTCIP Lighting - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	lighting system control data	US: NTCIP Lighting - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	US: NTCIP Message Sign - Mobile SNMPv3	
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - Mobile SNMPv3	
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
TS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
TS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	lane management control	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	lane management control	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Fraffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate

Class	Security	Timeframe Urgent	Proposed Resolution I-F: Secu	re communications	Regional Applicability Australia, European Union, United States
Traffic Management Cer	nter	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Cer	nter	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Cer	nter	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	t	Traffic Management Center	traffic metering status	US: NTCIP Ramp Meters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	t	Traffic Management Center	traffic metering status	US: NTCIP Ramp Meters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Cer	nter	ITS Roadway Equipment	traffic metering control	US: NTCIP Ramp Meters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Cer	nter	ITS Roadway Equipment	traffic metering control	US: NTCIP Ramp Meters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	t	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	t	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Cer	nter	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Cer	nter	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Cer	nter	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Cer	nter	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	i	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	t	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	i	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	t	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Cer	nter	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Cer	nter	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Cer	nter	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Cer	nter	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	t	Maint and Constr Vehicle OBE	traffic detector data	US: NTCIP Transportation Sensors - Mobile SNMPv3	
Maint and Constr Vehicl	le OBE	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - Mobile SNMPv3	
ITS Roadway Equipment	t	Maint and Constr Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	t	Maint and Constr Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.

Class	Security	Timeframe Urgent	Proposed Resolution I-F:	Secure communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment		Maint and Constr Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment		Maint and Constr Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment		Traffic Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment		Traffic Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment		Traffic Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment		Traffic Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Cente	er	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Cente	er	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Cente	er	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Emergency Management (Center	Emergency Vehicle OBE	work zone warning device control	US: NTCIP Warning Device - Mobile SNMPv3	
Emergency Vehicle OBE		Emergency Management Center	work zone warning status	US: NTCIP Warning Device - Mobile SNMPv3	
Maint and Constr Manage	ement Center	Maint and Constr Vehicle OBE	work zone warning device control	US: NTCIP Warning Device - Mobile SNMPv3	
Emergency Management (Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Emergency Management (Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment		Emergency Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment		Emergency Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment		Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment		Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Manage	ement Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Manage	ement Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment		Maint and Constr Vehicle OBE	traffic images	US: TMDD - Mobile SNMPv3	

Issue Description: The solution do						
	des not provide adequate communicati	ons security for the information triple,	, which potentially jeopardizes C-ITS operations	S.	Severity	Medium
			Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes		
DMV	ITS Roadway Equipment	registration	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication proceptificates to exchange data between end devices, the application layer does in checking the certificate		
DMV	ITS Roadway Equipment	registration	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
Emissions Management Center	ITS Roadway Equipment	emissions sensor control	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication procertificates to exchange data between end devices, the application layer does in checking the certificate		
Emissions Management Center	ITS Roadway Equipment	emissions sensor control	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
ITS Roadway Equipment	Center	device identification	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication procertificates to exchange data between end devices, the application layer does in checking the certificate		
ITS Roadway Equipment	Center	device identification	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
ITS Roadway Equipment	Emissions Management Center	vehicle emissions data	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication procertificates to exchange data between end devices, the application layer does in checking the certificate		
ITS Roadway Equipment	Emissions Management Center	vehicle emissions data	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
TS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication proceptificates to exchange data between end devices, the application layer does in checking the certificate		
TS Roadway Equipment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
TS Roadway Equipment	Traffic Management Center	infrastructure restriction warning status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication proceptificates to exchange data between end devices, the application layer does in checking the certificate		
TS Roadway Equipment	Traffic Management Center	infrastructure restriction warning status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
TS Roadway Equipment	Traffic Management Center	lane management information	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication procertificates to exchange data between end devices, the application layer does in checking the certificate		
TS Roadway Equipment	Traffic Management Center	lane management information	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
ITS Roadway Equipment	Traffic Management Center	lane violation notification	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication procertificates to exchange data between end devices, the application layer does in checking the certificate		
TS Roadway Equipment	Traffic Management Center	lane violation notification	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
TS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication procertificates to exchange data between end devices, the application layer does in checking the certificate		
TS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication proceptificates to exchange data between end devices, the application layer does in checking the certificate		
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS com	munity has not officia	ally adopted it.
TS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication proceptificates to exchange data between end devices, the application layer does in checking the certificate		

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure of	communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	infrastructure restriction warning control	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	infrastructure restriction warning control	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	rail crossing control data	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	rail crossing request	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	stop sign gap assist control	(None-Data) - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
ITS Roadway Equipment	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
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Class Secur	ity Timeframe Urgent	Proposed Resolution I-F: Secur	re communications	Regional Applicability Australia, European Union, United States
raffic Management Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
raffic Management Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management C	enter ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management C	enter ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management C	enter ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management C	enter ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
TS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
ITS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
TS Roadway Equipment	Traffic Management Center	signal control status	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
TS Roadway Equipment	Traffic Management Center	speed monitoring information	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
TS Roadway Equipment	Traffic Management Center	traffic detector data	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
TS Roadway Equipment	Traffic Management Center	traffic images	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
TS Roadway Equipment	Traffic Management Center	variable speed limit status	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	re communications	Regional Applicability Australia, European Union, United States
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	signal control commands	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	signal control device configuration	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	signal control plans	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	signal system configuration	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	traffic detector control	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
Traffic Management Center	ITS Roadway Equipment	video surveillance control	EU: UTMC Data - UTMC	The security provided by SNMPv2 does not provide certificate based authentication of users; it only checks the certificates of a connection when TLS is used, but data access is still dependent upon the user name. Use of SNMPv3 is strongly recommended.
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	US: NTCIP CCTV - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Management Center	traffic images	US: NTCIP CCTV - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	traffic images	US: NTCIP CCTV - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	traffic images	US: NTCIP CCTV - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.

Class	Security	Timeframe Urgent	Proposed Resolution	I-F: Secure communications	Regional Applicability Australia, European Union, United States
Traffic Management Ce	enter	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Ce	enter	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Mana	agement Center	Maint and Constr Vehicle OBE	environmental sensors contro	US: NTCIP Environmental Sensors - Mobile SNMPv1/TLS	
Maint and Constr Mana	agement Center	Maint and Constr Vehicle OBE	environmental sensors contro	US: NTCIP Environmental Sensors - Mobile SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate security in checking the certificate to en
Maint and Constr Vehic	cle OBE	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - Mobile SNMPv1/TLS	
Maint and Constr Vehic	cle OBE	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - Mobile SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate security in checking the certificate to en
Emissions Management	t Center	ITS Roadway Equipment	air quality sensor control	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Emissions Management	t Center	ITS Roadway Equipment	air quality sensor control	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Mana	agement Center	ITS Roadway Equipment	environmental sensors contro	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Mana	agement Center	ITS Roadway Equipment	environmental sensors contro	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Ce	enter	ITS Roadway Equipment	environmental sensors contro	US: NTCIP Environmental Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Ce	enter	ITS Roadway Equipment	environmental sensors contro	US: NTCIP Environmental Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipmen	nt	Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipmen	nt	Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipmen	nt	Traffic Management Center	lighting system status	US: NTCIP Lighting - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipmen	nt	Traffic Management Center	lighting system status	US: NTCIP Lighting - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Ce	enter	ITS Roadway Equipment	lighting system control data	US: NTCIP Lighting - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Ce	enter	ITS Roadway Equipment	lighting system control data	US: NTCIP Lighting - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipmen	nt	Maint and Constr Management Center	roadway dynamic signage sta	tus US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipmen	nt	Maint and Constr Management Center	roadway dynamic signage sta	tus US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipmen	nt	Traffic Management Center	roadway dynamic signage sta	tus US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipmen	nt	Traffic Management Center	roadway dynamic signage sta	tus US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipmen	nt	Traffic Management Center	roadway warning system stat	us US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipmen	nt	Traffic Management Center	roadway warning system stat	us US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secu	ure communications	Regional Applicability Australia, European Union, United States
ITS Roadway Equipment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	lane management control	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	lane management control	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	traffic metering status	US: NTCIP Ramp Meters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	traffic metering status	US: NTCIP Ramp Meters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	traffic metering control	US: NTCIP Ramp Meters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	traffic metering control	US: NTCIP Ramp Meters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Se	cure communications	Regional Applicability Australia, European Union, United States
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Traffic Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Traffic Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Traffic Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Traffic Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Emergency Management Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Emergency Management Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Emergency Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Emergency Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
ITS Roadway Equipment	Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
ITS Roadway Equipment	Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.
Maint and Constr Management Cen	ter ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1/TLS	Application level authentication is not addressed by this communication profile. While it assumes encryption with certificates to exchange data between end devices, the application layer does not provide adequate authentication in checking the certificate
Maint and Constr Management Cen	ter ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv1/TLS	The use of TLS with SNMPv1 has been deployed in the field, but the ITS community has not officially adopted it.

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure of	communications	Regional Applicability	Australia, European I	Union, United	States
Issue Description: The standard all	ows for multiple security mechanisms	. The only defined mechanism that mee	ts the requirements for C-ITS is the one based	on TLS.	S	Severity	Low
		<u>Re</u>	levant Flow Solution Combinations				
Source	Destination	Flow	SolutionName	Notes			
ITS Roadway Equipment	Traffic Management Center	lane management information	(None-Data) - SNMPv3				
ITS Roadway Equipment	Traffic Management Center	lane violation notification	(None-Data) - SNMPv3				
ITS Roadway Equipment	Traffic Management Center	rail crossing blockage notification	(None-Data) - SNMPv3				
TS Roadway Equipment	Traffic Management Center	rail crossing status	(None-Data) - SNMPv3				
TS Roadway Equipment	Traffic Management Center	roadway advisory radio status	(None-Data) - SNMPv3				
TS Roadway Equipment	Traffic Management Center	stop sign gap assist status	(None-Data) - SNMPv3				
ITS Roadway Payment Equipment	Connected Vehicle Roadside Equipment	payment instructions	(None-Data) - SNMPv3				
ITS Roadway Payment Equipment	Connected Vehicle Roadside Equipment	vehicle entries and exits	(None-Data) - SNMPv3				
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - SNMPv3				
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - SNMPv3				
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	work zone safety application info	(None-Data) - SNMPv3				
Maint and Constr Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv3				
Map Update System	Connected Vehicle Roadside Equipment	map updates	(None-Data) - SNMPv3				
Map Update System	Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - SNMPv3				
Other Connected Vehicle Roadside Equipment	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - SNMPv3				
Other Parking Management Systems	Parking Management System	parking coordination	(None-Data) - SNMPv3				
arking Management System	Connected Vehicle Roadside Equipment	parking management application info	(None-Data) - SNMPv3				
arking Management System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - SNMPv3				
arking Management System	Other Parking Management Systems	parking coordination	(None-Data) - SNMPv3				
Payment Administration Center	Connected Vehicle Roadside Equipment	road use charges	(None-Data) - SNMPv3				
Payment Administration Center	Connected Vehicle Roadside Equipment	toll collection application info	(None-Data) - SNMPv3				
ayment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(None-Data) - SNMPv3				
Payment Administration Center	ITS Roadway Payment Equipment	payment instructions	(None-Data) - SNMPv3				
raffic Management Center	Connected Vehicle Roadside Equipment	automated lane control data	(None-Data) - SNMPv3				
raffic Management Center	Connected Vehicle Roadside Equipment	infrastructure restriction warning info	(None-Data) - SNMPv3				
raffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - SNMPv3				
raffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - SNMPv3				
TS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Mobile SNMPv3				
Naint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Mobile SNMPv3				
ersonal Information Device	Service Monitor System	PID status	(None-Data) - Mobile SNMPv3				
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - SNMPv3				
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - SNMPv3				
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - SNMPv3				
Center	Service Monitor System	system monitoring	(None-Data) - SNMPv3				

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	mmunications	Regional Applicability	Australia, European Union, United States
Commercial Vehicle Administration Center	Connected Vehicle Roadside Equipment	trigger area notification	(None-Data) - SNMPv3		
Commercial Vehicle Administration Center	Connected Vehicle Roadside Equipment	trigger control	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Archived Data Center	local situation data	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Center	device identification	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Commercial Vehicle Administration Center	on-board safety data	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Commercial Vehicle Administration Center	roadside data message	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Data Distribution System	local situation data	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Electric Charging Station	vehicle charging profile	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Emergency Management Center	work zone safety application status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Emissions Management Center	low emissions zone application status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection infringement info	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	restricted lanes application status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	vehicle entries and exits	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	vehicle occupancy	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	work zone warning notification	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	ITS Roadway Payment Equipment	vehicle entries and exits	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	environmental situation data	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	work zone safety application status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Other Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Parking Management System	connected vehicle parking data	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Payment Administration Center	access violation notification	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Payment Administration Center	road use history	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Payment Administration Center	toll collection application status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Payment Administration Center	vehicle payment information	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Traffic Management Center	automated lane status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Traffic Management Center	infrastructure restriction warning status	(None-Data) - SNMPv3		
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - SNMPv3		

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Cameria of March Name March	Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - SNMPv3		
Control of Virols Control Co	Connected Vehicle Roadside Equipment	Traffic Management Center	lighting management application status	(None-Data) - SNMPv3		
Convental Visibilità Nazioni de Projugiones Convental Visibilità Nazioni de Republica Convental Visibilità Nazioni de Seguero de Convental Visibilità Nazioni de Republica Convental Visibilità Nazioni de Convental Visibilità Nazioni de Republica Convental Visibilità Nazioni Republica Convental Visibilità Nazioni Republica Convental Visibilità Nazioni de Republica Convental Visibilità Nazioni Republica Convental Visibilità Nazi	Connected Vehicle Roadside Equipment	Traffic Management Center	local border wait times	(None-Data) - SNMPv3		
Concesion designation for Concesion Sequences	Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - SNMPv3		
Convention Verbinder Ver	Connected Vehicle Roadside Equipment	Traffic Management Center	rail crossing application status	(None-Data) - SNMPv3		
Secretary North-Control Security (Septiment Control Secu	Connected Vehicle Roadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - SNMPv3		
Convented vidents de sauciene Traffe Management Center Varife Ma	Connected Vehicle Roadside Equipment	Traffic Management Center	restricted lanes application status	(None-Data) - SNMPv3		
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Connected Vehicle Roadside Equipment ITS Roadway Payment Equipment payment transactions (Out of Scope) - SNMPv3	
Connected Vehicle Roadside Equipment Payment Administration Center service payment information (Out of Scope) - SNMPv3	
ITS Roadway Payment Equipment Payment Administration Center payment transactions (Out of Scope) - SNMPv3	
Connected Vehicle Roadside Equipment Wayside Equipment rail crossing blockage notification F-F: Highway-Rail Field Interface - SNMPv3	
Connected Vehicle Roadside Equipment Wayside Equipment rail crossing operational status F-F: Highway-Rail Field Interface - SNMPv3	
ITS Roadway Equipment Connected Vehicle Roadside Equipment track status F-F: Highway-Rail Field Interface - SNMPv3	
ITS Roadway Equipment Wayside Equipment rail crossing blockage notification F-F: Highway-Rail Field Interface - SNMPv3	
ITS Roadway Equipment Wayside Equipment rail crossing operational status F-F: Highway-Rail Field Interface - SNMPv3	
Multi-Modal Crossing Connected Vehicle Roadside Equipment multimodal crossing status F-F: Highway-Rail Field Interface - SNMPv3	
Multi-Modal Crossing ITS Roadway Equipment multimodal crossing status F-F: Highway-Rail Field Interface - SNMPv3	
Wayside Equipment Connected Vehicle Roadside Equipment track status F-F: Highway-Rail Field Interface - SNMPv3	
Wayside Equipment ITS Roadway Equipment track status F-F: Highway-Rail Field Interface - SNMPv3	

Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	ommunications	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Data Distribution System	data provision	Flow-Specific Data - SNMPv3	
Connected Vehicle Roadside Equipment	Data Distribution System	data query	Flow-Specific Data - SNMPv3	
Connected Vehicle Roadside Equipment	Data Distribution System	data subscription	Flow-Specific Data - SNMPv3	
Data Distribution System	Connected Vehicle Roadside Equipment	data publication	Flow-Specific Data - SNMPv3	
Data Distribution System	Connected Vehicle Roadside Equipment	data query publication	Flow-Specific Data - SNMPv3	
ITS Roadway Payment Equipment	Traffic Management Center	incident report	US: Incident Management - SNMPv3	
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	US: NTCIP CCTV - Mobile SNMPv3	
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - Mobile SNMPv3	
TS Roadway Equipment	Maint and Constr Management Center	traffic images	US: NTCIP CCTV - SNMPv3	
TS Roadway Equipment	Traffic Management Center	traffic images	US: NTCIP CCTV - SNMPv3	
Maint and Constr Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv3	
Maint and Constr Management Center	Maint and Constr Vehicle OBE	environmental sensors control	US: NTCIP Environmental Sensors - Mobile SNMPv3	
Maint and Constr Management Center	Maint and Constr Vehicle OBE	maint and constr vehicle system control	US: NTCIP Environmental Sensors - Mobile SNMPv3	
Maint and Constr Vehicle OBE	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - Mobile SNMPv3	
Maint and Constr Vehicle OBE	Maint and Constr Management Center	maint and constr vehicle operational data	US: NTCIP Environmental Sensors - Mobile SNMPv3	
Connected Vehicle Roadside Equipment	Emissions Management Center	emissions situation data	US: NTCIP Environmental Sensors - SNMPv3	
missions Management Center	ITS Roadway Equipment	air quality sensor control	US: NTCIP Environmental Sensors - SNMPv3	
TS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	
TS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	US: NTCIP Environmental Sensors - SNMPv3	
TS Roadway Equipment	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv3	
TS Roadway Equipment	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	
TS Roadway Equipment	Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	
Maint and Constr Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - SNMPv3	
raffic Management Center	ITS Roadway Equipment	environmental sensors control	US: NTCIP Environmental Sensors - SNMPv3	
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE status	US: NTCIP Generic Objects - SNMPv3	
Connected Vehicle Roadside Equipment	Service Monitor System	RSE status	US: NTCIP Generic Objects - SNMPv3	
ield Support Equipment	Connected Vehicle Roadside Equipment	RSE status	US: NTCIP Generic Objects - SNMPv3	
ield Support Equipment	ITS Roadway Equipment	field equipment commands	US: NTCIP Generic Objects - SNMPv3	
ield Support Equipment	ITS Roadway Equipment	field equipment configuration settings	US: NTCIP Generic Objects - SNMPv3	
TS Roadway Equipment	Field Support Equipment	field equipment status	US: NTCIP Generic Objects - SNMPv3	
TS Roadway Equipment	Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - SNMPv3	
TS Roadway Equipment	Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - SNMPv3	
TS Roadway Equipment	Traffic Management Center	lighting system status	US: NTCIP Lighting - SNMPv3	
Fraffic Management Center	ITS Roadway Equipment	lighting system control data	US: NTCIP Lighting - SNMPv3	
TS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	US: NTCIP Message Sign - Mobile SNMPv3	
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Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure	e communications	Regional Applicability Australia, European Union, United States
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - Mobile SNMPv3	
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv3	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	US: NTCIP Message Sign - SNMPv3	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv3	
ITS Roadway Equipment	Maint and Constr Management Center	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv3	
ITS Roadway Equipment	Other ITS Roadway Equipment	dynamic sign coordination	US: NTCIP Message Sign - SNMPv3	
ITS Roadway Equipment	Traffic Management Center	roadway dynamic signage status	US: NTCIP Message Sign - SNMPv3	
ITS Roadway Equipment	Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - SNMPv3	
TS Roadway Equipment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv3	
Maint and Constr Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv3	
Other ITS Roadway Equipment	ITS Roadway Equipment	dynamic sign coordination	US: NTCIP Message Sign - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	lane management control	US: NTCIP Message Sign - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	US: NTCIP Message Sign - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv3	
ITS Roadway Equipment	Traffic Management Center	traffic metering status	US: NTCIP Ramp Meters - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	traffic metering control	US: NTCIP Ramp Meters - SNMPv3	
TS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv3	
ITS Roadway Equipment	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv3	
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - SNMPv3	
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal preemption request	US: NTCIP Signal Priority - SNMPv3	
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal priority service request	US: NTCIP Signal Priority - SNMPv3	
TS Roadway Equipment	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv3	
Fraffic Management Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv3	
Fraffic Management Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv3	
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	pedestrian location information	US: NTCIP Traffic Signal - SNMPv3	
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal service request	US: NTCIP Traffic Signal - SNMPv3	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	US: NTCIP Traffic Signal - SNMPv3	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - SNMPv3	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	US: NTCIP Traffic Signal - SNMPv3	
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	US: NTCIP Traffic Signal - SNMPv3	
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - SNMPv3	
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - SNMPv3	
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv3	
Traffic Management Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv3	
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Class Security	Timeframe Urgent	Proposed Resolution I-F: Secure co	nmunications	Regional Applicability	Australia, European Union, United States
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	US: NTCIP Transportation Sensors - Mobile SNMPv3		
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - Mobile SNMPv3		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	traffic situation data	US: NTCIP Transportation Sensors - SNMPv3		
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	US: NTCIP Transportation Sensors - SNMPv3		
Connected Vehicle Roadside Equipment	Transportation Information Center	traffic situation data	US: NTCIP Transportation Sensors - SNMPv3		
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv3		
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv3		
ITS Roadway Equipment	Other ITS Roadway Equipment	roadway detector coordination	US: NTCIP Transportation Sensors - SNMPv3		
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	US: NTCIP Transportation Sensors - SNMPv3		
ITS Roadway Equipment	Traffic Management Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv3		
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv3		
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv3		
Other ITS Roadway Equipment	ITS Roadway Equipment	roadway detector coordination	US: NTCIP Transportation Sensors - SNMPv3		
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	US: NTCIP Transportation Sensors - SNMPv3		
Traffic Management Center	ITS Roadway Equipment	traffic detector control	US: NTCIP Transportation Sensors - SNMPv3		
Emergency Management Center	Emergency Vehicle OBE	work zone warning device control	US: NTCIP Warning Device - Mobile SNMPv3		
Emergency Vehicle OBE	Emergency Management Center	work zone warning status	US: NTCIP Warning Device - Mobile SNMPv3		
Maint and Constr Management Center	Maint and Constr Vehicle OBE	work zone warning device control	US: NTCIP Warning Device - Mobile SNMPv3		
Emergency Management Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv3		
ITS Roadway Equipment	Emergency Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv3		
ITS Roadway Equipment	Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv3		
Maint and Constr Management Center	ITS Roadway Equipment	work zone warning device control	US: NTCIP Warning Device - SNMPv3		
Maint and Constr Vehicle OBE	Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - SNMPv3		
Connected Vehicle Roadside Equipment	Commercial Vehicle Administration Center	driver log	US: SAE J3067 (J2735 SE) - SNMPv3		
Connected Vehicle Roadside Equipment	Emergency Management Center	emergency notification	US: SAE J3067 (J2735 SE) - SNMPv3		
Connected Vehicle Roadside Equipment	Emergency Management Center	emergency notification relay	US: SAE J3067 (J2735 SE) - SNMPv3		
Connected Vehicle Roadside Equipment	Parking Management System	commercial vehicle identification	US: SAE J3067 (J2735 SE) - SNMPv3		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	US: SAE Other J2735 - SNMPv3		
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Other J2735 - SNMPv3		
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	US: SAE Other J2735 - SNMPv3		
Wayside Equipment	ITS Roadway Equipment	arriving train information	US: SAE Other J2735 - SNMPv3		
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - SNMPv3		
Map Update System	Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - SNMPv3		
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	US: TMDD - Mobile SNMPv3		

Class	Security	Timeframe Urgent	Proposed Resolution Misbehavio	r detection and security revocation mechanism	Regional Applicability Australia, Europ	ean Union, United States
Class	Timeframe	Proposed Resolution	Description	-		Regional Applicability
Security	Urgent	Misbehavior detection and security revocation mechanism	1	trust revocation mechanisms at all levels, incluhin a region) and of an ITS station (e.g., in case	ding revoking the privileges of a certificate authority (e.g., if an an ITS station starts to misbehave).	Australia, European Union, United States
Issue Description:	The mechanism	s used to prevent bad actors from send	ing authorized messages is unproven.			Severity Medium
			Re	levant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Connected Vehicle Road	dside Equipment	Vehicle OBE	vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 16 security architecture is based, has not been proven.	09.2, upon which the ETSI ITS-S
Personal Information De	evice evice	Vehicle OBE	personal location	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 16 security architecture is based, has not been proven.	09.2, upon which the ETSI ITS-S
Vehicle OBE		Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 16 security architecture is based, has not been proven.	09.2, upon which the ETSI ITS-S
Vehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 16 security architecture is based, has not been proven.	09.2, upon which the ETSI ITS-S
Vehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 16 security architecture is based, has not been proven.	09.2, upon which the ETSI ITS-S
Connected Vehicle Road	dside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
Connected Vehicle Road	dside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator broadcaster of the message (e.g., a message generated by a central system a	
Connected Vehicle Road	dside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 16	509.3 WSA or ISO 22418 FSAP.
Connected Vehicle Road	dside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not be	een proven
Connected Vehicle Road	dside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16 security architecture is based, has not been proven.	09.2, upon which the ETSI ITS-S
Personal Information De)evice	Social Media	traveler request	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Personal Information De	evice	Social Media	traveler sourced updates	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Personal Information De	evice	Transportation Information Center	travel services request	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Transportation Informa	ation Center	Personal Information Device	travel services information	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Transportation Informa	ation Center	Vehicle OBE	travel services information	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Transportation Informa	ation Center	Vehicle OBE	traffic-related regulations	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Transportation Informa	ation Center	Vehicle OBE	trip plan	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Vehicle OBE		Center	device identification	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Vehicle OBE		Data Distribution System	traveler sourced updates	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Vehicle OBE		Payment Administration Center	road use history	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Vehicle OBE		Transportation Information Center	trip request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Vehicle OBE		Transportation Information Center	user profile	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Cooperative ITS Creden System	ntials Management	Object Registration and Discovery Service	security credentials	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Cooperative ITS Creden	ntials Management	Object Registration and Discovery Service	security policy and networking information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Cooperative ITS Creden	ntials Management	Other CCMS	authorization coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 16	09.2 has not been proven.
Connected Vehicle Road	dside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other CCMS	Cooperative ITS Credentials Management System	authorization coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other CCMS	Cooperative ITS Credentials Management System	enrollment coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other CCMS	Cooperative ITS Credentials Management System	misbehavior analysis coordinat	tion (None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other CCMS	Cooperative ITS Credentials Management System	revocation coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Connected Vehicle Roadside Equipment	road use charges	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Connected Vehicle Roadside Equipment	vehicle payment request	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	DMV	license request	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Emissions Management Center	low emissions zone coordination	on (None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Enforcement Center	payment violation notification	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Parking Management System	vehicle payment request	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Public Information Device	traveler payment request	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Public Information Device	user account reports	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Privacy Protection Gateway	Center	protected location and address	s flow (None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Privacy Protection Gateway	Cooperative ITS Credentials Management System	protected location and address	s flow (None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	traffic gap information	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Personal Information Device	Connected Vehicle Roadside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Personal Information Device	Vehicle OBE	personal location	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	pedestrian safety information	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbeha	vior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	traffic gap information	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Personal Information Device	Connected Vehicle Roadside Equipment	personal location	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Alternate Mode Transportation Center	Transportation Information Center	alternate mode incident information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Alternate Mode Transportation Center	Transportation Information Center	alternate mode information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Alternate Mode Transportation Center	Transportation Information Center	alternate mode service demand info	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Alternate Mode Transportation Center	Transportation Information Center	service request	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Authorizing Center	Center	permission request received	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Authorizing Center	Cooperative ITS Credentials Management System	user permission sets	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Authorizing Center	Other Authorizing Centers	permission request coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Center	Authorizing Center	permission request	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Center	Authorizing Center	permission update request	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Center	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Center	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Center	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Center	protected location and address flow	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Cooperative ITS Credentials Management System	protected location and address flow	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE application install/upgrade	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Payment Administration Center	access violation notification	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Payment Administration Center	road use history	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Center	security credential revocations	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Center	security credentials	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Center	security policy and networking informatio	n (None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Connected Vehicle Roadside Equipment	security credential revocations	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Connected Vehicle Roadside Equipment	security credentials	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Cooperative ITS Credentials Management System	Connected Vehicle Roadside Equipment	security policy and networking information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Data Distribution System	security credential revocations	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Data Distribution System	security credentials	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Data Distribution System	security policy and networking information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Object Registration and Discovery Service	security credential revocations	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Other CCMS	enrollment coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Other CCMS	misbehavior analysis coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Other CCMS	revocation coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Service Monitor System	security credential revocations	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Service Monitor System	security credentials	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Service Monitor System	security policy and networking information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credential revocations	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credentials	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security policy and networking information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	Service Monitor System	support system status	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
DMV	Payment Administration Center	registration	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emissions Management Center	Payment Administration Center	low emissions zone coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emissions Management Center	Payment Administration Center	low emissions zone operations information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE application install/upgrade	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Public Information Device	map updates	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Authorizing Centers	Authorizing Center	permission request coordination	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Public Information Device	Payment Administration Center	user account setup	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Public Information Device	Transit Management Center	transit information user request	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Service Monitor System	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Service Monitor System	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Personal Information Device	security credential revocations	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Personal Information Device	security credentials	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Personal Information Device	security policy and networking information	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Vehicle OBE	security credential revocations	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Vehicle OBE	security credentials	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Vehicle OBE	security policy and networking information	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Emergency Vehicle OBE	occupant information	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Payment Administration Center	vehicle payment request	(None-Data) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Care Facility	Emergency Vehicle OBE	care facility status	(None-Data) - Guaranteed Mobile Internet (X.509)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Care Facility	Emergency Vehicle OBE	medical records	(None-Data) - Guaranteed Mobile Internet (X.509)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Management Center	Emergency Vehicle OBE	green wave information	(None-Data) - Guaranteed Mobile Internet (X.509)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Care Facility	care facility status request	(None-Data) - Guaranteed Mobile Internet (X.509)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Care Facility	medical records request	(None-Data) - Guaranteed Mobile Internet (X.509)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Object Registration and Discovery Service	Personal Information Device	object discovery	(None-Data) - Guaranteed Mobile Internet (X.509)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Object Registration and Discovery Service	Vehicle OBE	object discovery	(None-Data) - Guaranteed Mobile Internet (X.509)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Border Inspection System	Commercial Vehicle Check Equipment	inspection results	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Border Inspection System	Connected Vehicle Roadside Equipment	border pass/pull-in	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Border Inspection System	Connected Vehicle Roadside Equipment	clearance notification	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Border Inspection System	Connected Vehicle Roadside Equipment	traveler border clearance status	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Border Inspection System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle Check Equipment	Connected Vehicle Roadside Equipment	border pass/pull-in	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle Check Equipment	Connected Vehicle Roadside Equipment	electronic screening request	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbeha	avior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Commercial Vehicle Check Equipment	Connected Vehicle Roadside Equipment	pass/pull-in	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle Check Equipment	Connected Vehicle Roadside Equipment	screening event record	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Border Inspection System	container manifest	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Border Inspection System	container seal status	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Border Inspection System	local border wait times	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Border Inspection System	tag data	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Border Inspection System	traveler credentials	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle Check Equipment	border clearance data	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle Check Equipment	electronic lock data	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle Check Equipment	on-board safety data	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle Check Equipment	screening event record	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle Check Equipment	tag data	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle Check Equipment	unique identifiers	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Traffic Management Center	local border wait times	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credential revocations	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credentials	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security policy and networking information	on (None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Center	map updates	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Object Registration and Discovery Service	Wide Area Information Disseminator	object discovery	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Service Monitor System	Wide Area Information Disseminator	service maintenance status	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Wide Area Information Disseminator	traffic-related regulations	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wide Area Information Disseminator	Object Registration and Discovery Service	object registration	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wide Area Information Disseminator	Service Monitor System	service maintenance request	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wide Area Information Disseminator	Service Monitor System	support system status	(None-Data) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior d	etection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
TS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission)
TS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
TS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission)
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
TS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	screening event record	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	trigger area notification	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Freight Equipment	container identification request	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Freight Equipment	container seal interrogation	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	cooperative adaptive cruise control parameters	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	emergency acknowledge	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	infrastructure restriction warning notification	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	low emissions zone parameters	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution Misbehavio	r detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ehicle OBE	Payment Administration Center	vehicle payment request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ehicle OBE	Privacy Protection Gateway	private location and address flow	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ehicle OBE	Service Monitor System	OBE status	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Transportation Information Center	emergency traveler information request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Transportation Information Center	evacuation assistance request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Transportation Information Center	shelter request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Transportation Information Center	traveler sourced updates	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ehicle OBE	Transportation Information Center	trip confirmation	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
'ehicle OBE	Transportation Information Center	trip feedback	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Payment Administration Center	service payment information	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Transportation Information Center	travel services request	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Weather Service	Vehicle OBE	weather information	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission
ehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	border clearance data	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	container transfer location request	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	electronic lock data	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	on-board safety data	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	screening event record	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	tag data	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	unique identifiers	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	border clearance data request	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	border clearance event	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	border pass/pull-in	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	clearance notification	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	container transfer location	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	electronic lock data request	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	electronic screening request	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	pass/pull-in	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	request tag data	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	restricted lane warning	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	restricted lanes parameters	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	road use charges	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	traveler border clearance status	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Freight Equipment	container seal interrogation	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	Vehicle OBE	emergency acknowledge	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	cooperative adaptive cruise control status	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	road use history	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Other Vehicle OBEs	emergency acknowledge	(None-Data) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Intermodal Terminal	container transfer location request	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	access violation notification	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Connected Vehicle Roadside Equipment	container manifest	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Connected Vehicle Roadside Equipment	container seal status	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Connected Vehicle Roadside Equipment	tag data	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Emergency Vehicle OBE	container manifest	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Emergency Vehicle OBE	container seal status	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Intermodal Terminal	Commercial Vehicle OBE	container transfer location	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Intermodal Terminal	Freight Equipment	container identification request	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Connected Vehicle Roadside Equipment	transit user information	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Vehicle OBE	transfer request	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Vehicle OBE	transit user information	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Personal Information Device	transfer status	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	traveler credentials	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle route plan	(None-Data) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Center	Personal Information Device	permission application receipt	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle Administration Center	Commercial Vehicle OBE	safety inspection record	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Commercial Vehicle Administration Center	on-board safety data	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Commercial Vehicle Administration Center	unique identifiers	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Commercial Vehicle OBE Service Provider	on-board vehicle data	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	on-board safety data	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	on-board vehicle data	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	route deviation alert	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavio	r detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Commercial Vehicle OBE	Transportation Information Center	freight traveler information preferences	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Emergency Vehicle OBE	emergency dispatch requests	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Vehicle OBE	emergency acknowledge	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Emergency Management Center	emergency dispatch response	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Enforcement Center	Commercial Vehicle OBE	commercial vehicle violation notification	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Enforcement Center	Vehicle OBE	service notification record	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	route deviation alert	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	safety inspection record	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	transport assignment	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	trigger area	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	trigger area notification	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Freight Equipment	freight monitoring parameters	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Maint and Constr Vehicle OBE	maint and constr dispatch information	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Vehicle OBE	roadway maintenance status	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Maint and Constr Management Center	infrastructure conditions data	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Maint and Constr Management Center	maint and constr dispatch status	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Maint and Constr Management Center	work zone status	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Personal Information Device	map updates	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Vehicle OBE	map updates	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Vehicle OBE	parking facility geometry	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Personal Information Device	access violation notification	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Personal Information Device	traveler payment request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Personal Information Device	user account reports	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Vehicle OBE	access violation notification	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Vehicle OBE	road use charges	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Payment Administration Center	Vehicle OBE	vehicle payment request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Center	device identification	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Center	permission application	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Data Distribution System	traveler sourced updates	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Payment Administration Center	user account setup	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Privacy Protection Gateway	private location and address flow	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Service Monitor System	PID status	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Management Center	transfer request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Management Center	transit information user request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Management Center	trip confirmation	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Management Center	trip request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	emergency traveler information request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
				The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Personal Information Device	Transportation Information Center	freight traveler information preferences	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	shelter request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	traveler sourced updates	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	trip confirmation	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	trip feedback	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	trip request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	user account setup	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	user profile	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	automated lane control data	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	restricted lane warning	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	restricted lanes application info	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	restricted lanes parameters	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Personal Information Device	transfer status	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Personal Information Device	trip plan	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	transfer status	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	transit stop locations	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Transit Management Center	transfer request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Transit Management Center	transit traveler request	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Transit Management Center	transit user information	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Commercial Vehicle OBE	freight-specific traveler information	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	emergency traveler information	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	evacuation assistance information	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	freight-specific traveler information	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	shelter recommendations	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	traffic-related regulations	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	trip plan	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	user profile	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Vehicle OBE	electric charging services inventory	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Vehicle OBE	evacuation assistance information	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Vehicle OBE	shelter recommendations	(None-Data) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	traffic gap information	(None-Data) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	(None-Data) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle platoon coordination	(None-Data) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle platoon coordination	(None-Data) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	(None-Data) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle platoon coordination	(None-Data) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
onnected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ther Payment Administration	Payment Administration Center	payment coordination	(Out of Scope) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
arking Management System	Payment Administration Center	service payment information	(Out of Scope) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ayment Administration Center	Other Payment Administration	payment coordination	(Out of Scope) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ublic Information Device	Payment Administration Center	traveler payment informatio	n (Out of Scope) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ublic Information Device	Transportation Information Center	travel services request	(Out of Scope) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ransportation Information Center	Public Information Device	travel services information	(Out of Scope) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ayment Administration Center	Personal Information Device	service payment information	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ersonal Information Device	Payment Administration Center	service payment information	(Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ersonal Information Device	Payment Administration Center	traveler payment informatio	n (Out of Scope) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitorir	g AU TRAFF - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitorin	ag AU TRAFF - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavio	or detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Data Distribution System	Personal Information Device	data publication	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	Personal Information Device	data query publication	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	Vehicle OBE	data publication	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	Vehicle OBE	data query publication	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Data Distribution System	data provision	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transportation Information Center	traveler request	US: ATIS - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	interactive traveler information	US: ATIS - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Vehicle OBE	interactive traveler information	US: ATIS - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Data Distribution System	traveler request	US: ATIS - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Transportation Information Center	traveler request	US: ATIS - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Personal Information Device	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle ID	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle location and motion	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Personal Information Device	vehicle location and motion	EU: CA Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	on EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	on EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	speed management information	on EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	on EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data paramet	ters EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data paramet	ters EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data paramet	ters EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data paramet	ters EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data paramet	ters EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
/ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	DEU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
/ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Maint and Constr Vehicle OBE	environmental sensor data	US: NTCIP Environmental Sensors - WAVE SNMPv3	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - WAVE SNMPv3	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
/ehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavio	r detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitorin	EU: Signal Control Messages - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitorin	g EU: Signal Control Messages - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - FNTP/M5	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
onnected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Security	Timeframe Urgent	Proposed Resolution N	Aisbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Wayside Equipment	rail crossing blockage notification	n F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	track status	F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ITS Roadway Equipment	Wayside Equipment	rail crossing blockage notification	r F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Multi-Modal Crossing	Connected Vehicle Roadside Equipment	multimodal crossing status	F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Multi-Modal Crossing	ITS Roadway Equipment	multimodal crossing status	F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wayside Equipment	Connected Vehicle Roadside Equipment	track status	F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wayside Equipment	ITS Roadway Equipment	arriving train information	F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Wayside Equipment	ITS Roadway Equipment	track status	F-F: Highway-Rail Field Interface - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Data Distribution System	data query	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Data Distribution System	data subscription	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Data Distribution System	data provision	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Data Distribution System	data query	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Data Distribution System	data subscription	Flow-Specific Data - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Emergency Vehicle OBE	decision support information	US: Incident Management - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Emergency Management Center	incident status	US: Incident Management - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	hazmat information	US: Incident Management - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Transportation Information Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Connected Vehicle Roadside Equipment	container identification	ISO: Equipment Identification - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Intermodal Terminal	container identification	ISO: Equipment Identification - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Wide Area Information Disseminator	broadcast traveler information	TMC - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2, upon which the ETSI ITS-S security architecture is based, has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Emergency Vehicle OBE	suggested route	TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Personal Information Device	road weather advisories	TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Vehicle OBE	work zone information	TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	lane closure information	TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	speed management information	on TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	vehicle signage data	TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Wide Area Information Disseminator	traffic information for media	US: ATIS - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Wide Area Information Disseminator	traffic information for media	US: ATIS - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Transportation Information Center	Wide Area Information Disseminator	traveler information for media	US: ATIS - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	Personal Information Device	traveler information	US: ATIS - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	Vehicle OBE	traveler information	US: ATIS - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Data Distribution System	traveler request	US: ATIS - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Other EV OBEs	decision support information	US: Incident Management - Guaranteed Mobile Internet (US), with WAVE alternative	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other EV OBEs	Emergency Vehicle OBE	decision support information	US: Incident Management - Guaranteed Mobile Internet (US), with WAVE alternative	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Care Facility	patient status	US: Incident Management - Guaranteed Mobile Internet (X.509)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Maint and Constr Vehicle OBE	environmental sensor data	US: NTCIP Environmental Sensors - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Maint and Constr Vehicle OBE	environmental sensors control	US: NTCIP Environmental Sensors - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Maint and Constr Vehicle OBE	maint and constr vehicle system control	US: NTCIP Environmental Sensors - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Maint and Constr Management Center	maint and constr vehicle operational data	US: NTCIP Environmental Sensors - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - WAVE UDP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	US: SAE Signal Control Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	US: SAE Signal Control Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Emergency Vehicle OBE	work zone warning device control	US: NTCIP Warning Device - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Emergency Management Center	work zone warning status	US: NTCIP Warning Device - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Maint and Constr Vehicle OBE	work zone warning device control	US: NTCIP Warning Device - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Maint and Constr Management Center	work zone warning status	US: NTCIP Warning Device - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle path prediction	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Personal Information Device	vehicle path prediction	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fransit Vehicle OBE	Vehicle OBE	vehicle path prediction	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	Transit Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Other Vehicle OBEs	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Personal Information Device	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Emergency Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Maint and Constr Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Other Vehicle OBEs	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Personal Information Device	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Transit Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Emergency Management Center	emergency notification	US: SAE J3067 (J2735 SE) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Emergency Management Center	emergency notification relay	US: SAE J3067 (J2735 SE) - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Emergency Management Center	hazmat spill notification	US: SAE J3067 (J2735 SE) - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle Check Equipment	driver log	US: SAE J3067 (J2735 SE) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle Check Equipment	freight equipment information	US: SAE J3067 (J2735 SE) - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	freight equipment information	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Emergency Vehicle OBE	hazmat spill notification	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	Vehicle OBE	emergency notification relay	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	emergency notification relay	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle reported emissions	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Emergency Vehicle OBE	emergency notification relay	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Other Vehicle OBEs	emergency notification relay	US: SAE J3067 (J2735 SE) - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	commercial vehicle identification	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	driver log	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Intermodal Terminal	commercial vehicle identification	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Parking Management System	commercial vehicle identification	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Connected Vehicle Roadside Equipment	container location	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Connected Vehicle Roadside Equipment	freight equipment information	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Intermodal Terminal	container location	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Commercial Vehicle Administration Center	driver log	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Commercial Vehicle OBE Service Provider	driver log	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	driver log	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	driver to fleet request	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	emergency notification	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	freight equipment information	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Fleet and Freight Management Center	trip log	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Emergency Vehicle OBE	suggested route	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Emergency Management Center	emergency notification relay	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	driver log	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	Commercial Vehicle OBE	fleet to driver update	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Freight Equipment	Fleet and Freight Management Center	freight equipment information	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Vehicle OBE	current infrastructure restrictions	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Transit Management Center	transit vehicle emissions	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Personal Information Device	current infrastructure restrictions	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Vehicle OBE	current infrastructure restrictions	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Emergency Management Center	emergency notification	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Emergency Management Center	emergency notification relay	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	Vehicle OBE	emergency notification	US: SAE J3067 (J2735 SE) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	Connected Vehicle Roadside Equipment	emergency notification	US: SAE J3067 (J2735 SE) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Emergency Vehicle OBE	emergency notification	US: SAE J3067 (J2735 SE) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Other Vehicle OBEs	emergency notification	US: SAE J3067 (J2735 SE) - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Center	intersection geometry	US: SAE Other J2735 - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Mi	isbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Fleet and Freight Management Center	Commercial Vehicle OBE	road weather advisories	US: SAE Other J2735 - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Personal Information Device	road weather advisories	US: SAE Other J2735 - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Vehicle OBE	road weather advisories	US: SAE Other J2735 - Guaranteed Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Other EV OBEs	work zone warning notification	US: SAE Other J2735 - Guaranteed Mobile Internet (US), with WAVE alternative	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other EV OBEs	Emergency Vehicle OBE	work zone warning notification	US: SAE Other J2735 - Guaranteed Mobile Internet (US), with WAVE alternative	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Wide Area Information Disseminator	broadcast traveler information	US: SAE Other J2735 - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Emergency Vehicle OBE	vehicle collision information	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Maint and Constr Vehicle OBE	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	personal safety warning	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	signal service status	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	restricted lanes application info	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	restricted lanes application info	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Personal Information Device	personal safety warning	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Connected Vehicle Roadside Equipment	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Other MCV OBEs	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Maint and Constr Vehicle OBE	work zone warning notification		
	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	vehicle environmental data	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	vehicle environmental data	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	vehicle collision information	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	vehicle environmental data	US: SAE Other J2735 - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	personal signal service request	US: SAE Other J2735 - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	vehicle situation data	US: SAE Other J2735 - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fleet and Freight Management Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	emergency vehicle tracking data	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	transportation weather information	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	intersection status	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	lane closure information	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Data Distribution System	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	vehicle location and motion for mapping	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	intersection safety warning	US: SAE Other J2735 - WAVE UDP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	special vehicle type alert	US: SAE Other J2735 - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	intersection safety warning	US: SAE Other J2735 - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	personal safety warning	US: SAE Other J2735 - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	special vehicle type alert	US: SAE Other J2735 - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	intersection infringement info	US: SAE Other J2735 - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	special vehicle type alert	US: SAE Other J2735 - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	intersection infringement info	US: SAE Other J2735 - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	intersection infringement info	US: SAE Other J2735 - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	personal safety warning	US: SAE Safety Awareness Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	emergency vehicle alert	US: SAE Safety Awareness Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	special vehicle type alert	US: SAE Safety Awareness Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	vehicle hazard event	US: SAE Safety Awareness Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Other Vehicle OBEs	vehicle hazard event	US: SAE Safety Awareness Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
	Connected Vehicle Roadside Equipment Emergency Vehicle OBE Other Vehicle OBEs Connected Vehicle Roadside Equipment Connected Vehicle Roadside Equipment Fleet and Freight Management Center Vehicle OBE Emergency Management Center Vehicle OBE Vehicle OBE Vehicle OBE Data Distribution System Map Update System Transportation Information Center Personal Information Device Vehicle OBE Vehicle OBE Vehicle OBE Vehicle OBE Personal Information Device Vehicle OBE Other Vehicle OBE Vehicle OBE Vehicle OBE Vehicle OBE Vehicle OBE Other Vehicle OBE Other Vehicle OBE Other Vehicle OBE Other Vehicle OBES	Connected Vehicle Roadside Equipment Vehicle environmental data Vehicle collision information Other Vehicle OBES Vehicle environmental data Connected Vehicle Roadside Equipment Connected Vehicle Roadside Equipment Connected Vehicle Roadside Equipment Vehicle oBE Vehicle OBE Wehicle oBE Vehicle OBE	Connected Vehicle Roadside Equipment vehicle environmental data US: SAE Other 12735 - Local Broadcast Wireless (US) Dither Vehicle OBE vehicle collision information US: SAE Other 12735 - Local Broadcast Wireless (US) Dither Vehicle OBEs vehicle environmental data US: SAE Other 12735 - Local Broadcast Wireless (US) Connected Vehicle Roadside Equipment personal signal service request US: SAE Other 12735 - Local Unicast Wireless (US) Connected Vehicle Roadside Equipment vehicle situation data US: SAE Other 12735 - Local Unicast Wireless (US) Itelet and Freight Management Center vehicle environmental data US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE vehicle situation data parameters US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE transportation weather information US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE intersection status US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE vehicle situation data US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE vehicle situation data parameters US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE vehicle situation data US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE vehicle situation data US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE vehicle situation data US: SAE Other 12735 - Mobile Internet (US) Map Update System vehicle intersection and motion for mapping US: SAE Other 12735 - Mobile Internet (US) Transportation Information Device vehicle situation data US: SAE Other 12735 - Mobile Internet (US) Vehicle OBE Special vehicle type alert US: SAE Other 12735 - WAVE WSMP Vehicle OBE intersection infringement info US: SAE Other 12735 - WAVE WSMP Vehicle OBE intersection infringement Info US: SAE Other 12735 - WAVE WSMP Vehicle OBE intersection infringement Info US: SAE Other 12735 - WAVE WSMP Vehicle OBE intersection infringement Info US: SAE Other 12735 - WAVE WSMP Vehicle OBE intersection infringement Info US: SAE Other 12735 - WAVE WSMP Vehicle OBE intersection infringement Info US: SAE Safety Awarenes

Class Security	Timeframe Urgent	Proposed Resolution	Misbehavior detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	roadway geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Personal Information Device	intersection geometry	US: SAE Signal Control Messages - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Vehicle OBE	intersection geometry	US: SAE Signal Control Messages - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Map Update System	Vehicle OBE	roadway geometry	US: SAE Signal Control Messages - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Commercial Vehicle OBE	intersection status	US: SAE Signal Control Messages - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Emergency Vehicle OBE	intersection status	US: SAE Signal Control Messages - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	intersection status	US: SAE Signal Control Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	pedestrian safety information	US: SAE Signal Control Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	US: SAE Signal Control Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	US: SAE Signal Control Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	US: SAE Signal Preemption - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption reques	US: SAE Signal Preemption - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	transit stop request	US: TCIP - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Vehicle OBE	transit stop request	US: TCIP - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Transit Vehicle OBE	alarm acknowledge	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Management Center	transit stop request	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Personal Information Device	personal transit information	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	alarm acknowledge	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	US: SAE Signal Preemption - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Personal Information Device	local traveler information	US: SAE Traveler Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	US: SAE Traveler Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavior	detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	US: SAE Traveler Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	US: SAE Traveler Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	speed management information	US: SAE Traveler Info - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Traffic Management Center	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Connected Vehicle Roadside Equipment	personal location	US: SAE VRU Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Emergency Vehicle OBE	personal location	US: SAE VRU Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Maint and Constr Vehicle OBE	personal location	US: SAE VRU Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Transit Vehicle OBE	personal location	US: SAE VRU Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Vehicle OBE	personal location	US: SAE VRU Messages - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	US: SAE Weather Info - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
mergency Management Center	Emergency Vehicle OBE	road weather advisories for emergency response	US: SAE Weather Info - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
leet and Freight Management Center	Commercial Vehicle OBE	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Personal Information Device	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Vehicle OBE	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Vehicle OBE	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Alternate Mode Transportation Center	Transit Management Center	multimodal service data	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Alternate Mode Transportation Center	Transit Management Center	service information response	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Alternate Mode Transportation Center	Transportation Information Center	multimodal service data	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Public Information Device	transit vehicle information	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Emergency Management Center	Public Information Device	alarm acknowledge	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Public Information Device	Connected Vehicle Roadside Equipment	transit stop request	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Public Information Device	Connected Vehicle Roadside Equipment	transit traveler information	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Public Information Device	Emergency Management Center	alarm notification	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Public Information Device	Transit Management Center	alarm notification	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Public Information Device	Transit Management Center	transit fare and passenger status	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Public Information Device	Transit Management Center	transit stop request	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fransit Management Center	Alternate Mode Transportation Center	service information request	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fransit Management Center	Alternate Mode Transportation Center	transit multimodal information	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Public Information Device	transit fare information	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Public Information Device	transit traveler information	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transportation Information Center	Alternate Mode Transportation Center	service information request	US: TCIP - Guaranteed Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class Security	Timeframe Urgent	Proposed Resolution Misbehavio	r detection and security revocation mechanism	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Personal Information Device	transit stop guidance	US: TCIP - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	transit vehicle information	US: TCIP - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Personal Information Device	transit vehicle information	US: TCIP - Local Broadcast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	connection protection instructions	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	fare management information	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	transit schedule information	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	transit stop request	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	transit traveler information	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Management Center	Transit Vehicle OBE	transit vehicle operator information	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Emergency Management Center	alarm notification	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Transit Vehicle OBE	Transit Management Center	alarm notification	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fransit Vehicle OBE	Transit Management Center	demand response passenger and use data	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fransit Vehicle OBE	Transit Management Center	fare collection data	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fransit Vehicle OBE	Transit Management Center	transit vehicle conditions	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fransit Vehicle OBE	Transit Management Center	transit vehicle loading data	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
ransit Vehicle OBE	Transit Management Center	transit vehicle location data	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Fransit Vehicle OBE	Transit Management Center	transit vehicle schedule performance	US: TCIP - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Maint and Constr Management Center	Vehicle OBE	work zone information	US: TMDD - Mobile Internet (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Personal Information Device	Connected Vehicle Roadside Equipment	service payment information	US: WAVE Tolling - Local Unicast Wireless (US)	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	US: WAVE Tolling - WAVE UDP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment update	US: WAVE Tolling - WAVE UDP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
TS Roadway Payment Equipment	Vehicle OBE	vehicle payment request	US: WAVE Tolling - WAVE UDP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
TS Roadway Payment Equipment	Vehicle OBE	vehicle payment update	US: WAVE Tolling - WAVE UDP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	service payment information	US: WAVE Tolling - WAVE UDP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
/ehicle OBE	ITS Roadway Payment Equipment	service payment information	US: WAVE Tolling - WAVE UDP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	US: WAVE Tolling - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment update	US: WAVE Tolling - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	Connected Vehicle Roadside Equipment	service payment information	US: WAVE Tolling - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.
Vehicle OBE	ITS Roadway Payment Equipment	service payment information	US: WAVE Tolling - WAVE WSMP	The mechanism by which trust is revoked from misbehaving actors in IEEE 1609.2 has not been proven.

Class	Security	Timeframe Urgent	Proposed Resolution	Secure and accurate location and time standards	Regional Applicability Australia, Euro	opean Union, Unite	ed States
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
Security	Urgent	Secure and accurate location and time standards		nationally acceptable standard/solution for synchronising and ronment in a secure and reliable manner with sufficient accur	,	Australia, Eur United States	•
Issue Description	Performance, fu	unctionality, and the upper-layers of th	e OSI stack have not been	defined for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle Ro	oadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been s	started.	
Connected Vehicle Ro	padside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been s	started.	
Issue Description	: The performand	ce rules are not fully defined for this in	formation flow.			Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle Ro	oadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD), Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD	, Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Ro	padside Equipment	Personal Information Device	location correction	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD), Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Ro	padside Equipment	Vehicle OBE	location correction	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD), Test, NMEA, RTCM, a	and ICA messages
Issue Description	The solution do	es not provide adequate communication	ons security for the informa	ation triple, which potentially jeopardizes C-ITS operations.		Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Field Location and Tin	me Data Source	Connected Vehicle Roadside Equipment					rifting, this is a
		connected venicle Roadside Equipment	location and time	Location/Time reference - Positioning	Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards.	and cause significant d	riitilig, tilis is a
Field Location and Tin	me Data Source	Connected Vehicle Roadside Equipment	location and time	Location/Time reference - Positioning Location/Time reference - Positioning		and cause significant d	Titting, tills is a
					security issue that should be addressed in the standards.		
Personal Location and	d Time Data Source	Connected Vehicle Roadside Equipment	location and time	Location/Time reference - Positioning	security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed		
Personal Location and	d Time Data Source	Connected Vehicle Roadside Equipment Personal Information Device	location and time	Location/Time reference - Positioning Location/Time reference - Positioning	security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards.	and cause significant d	rifting; this is a
Personal Location and Personal Location and Vehicle Location and	d Time Data Source d Time Data Source Time Data Source	Connected Vehicle Roadside Equipment Personal Information Device Personal Information Device	location and time location and time location and time	Location/Time reference - Positioning Location/Time reference - Positioning Location/Time reference - Positioning	security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed	and cause significant d	rifting; this is a
Personal Location and Vehicle Location and	d Time Data Source d Time Data Source Time Data Source Time Data Source	Connected Vehicle Roadside Equipment Personal Information Device Personal Information Device Vehicle OBE	location and time location and time location and time location and time	Location/Time reference - Positioning Location/Time reference - Positioning Location/Time reference - Positioning Location/Time reference - Positioning	security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards.	and cause significant d	rifting; this is a
Personal Location and Personal Location and Vehicle Location and Vehicle Location and Network Time Source	d Time Data Source d Time Data Source Time Data Source Time Data Source	Connected Vehicle Roadside Equipment Personal Information Device Personal Information Device Vehicle OBE Vehicle OBE	location and time	Location/Time reference - Positioning	security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service.	and cause significant d	rifting; this is a
Personal Location and Vehicle Location and Vehicle Location and Network Time Source	d Time Data Source d Time Data Source Time Data Source Time Data Source	Connected Vehicle Roadside Equipment Personal Information Device Personal Information Device Vehicle OBE Vehicle OBE Center	location and time time	Location/Time reference - Positioning NTP - UDP/IP	security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. NTP has known security limitations that allow the signal to be spoofed	and cause significant d	rifting; this is a
Field Location and Tin Personal Location and Personal Location and Vehicle Location and Vehicle Location and Network Time Source Network Time Source Service Monitor Syste	d Time Data Source d Time Data Source Time Data Source Time Data Source	Connected Vehicle Roadside Equipment Personal Information Device Personal Information Device Vehicle OBE Vehicle OBE Center Data Distribution System	location and time time time	Location/Time reference - Positioning NTP - UDP/IP NTP - UDP/IP	security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. Recent experiments have revealed that GPS-styled signals can be spoofed security issue that should be addressed in the standards. Satellite signals can easily be jammed resulting in a denial of service. NTP has known security limitations that allow the signal to be spoofed NTP has known security limitations that allow the signal to be spoofed	and cause significant d	rifting; this is a

Class	Security	Timeframe Urg	Proposed Resolution	Secure installation/update of software	Regional Applicability Au	ustralia, European Union, United States
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Security	Urgent	Secure installation/upda software	software) on devices		update, and validation of software (including application, sup h devices have been updated and provide a mechanism to d	
Issue Description	Performance, fo	unctionality, and the upper-	layers of the OSI stack have not bee	en defined for this information flow.		Severity Ultra
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Center		Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - AU IFCP	Work on the upper layer standards related to this solution h	lave not been started.
Connected Vehicle	Roadside Equipment	Field Support Equipment	RSE application install/up	grade (None-Data) - AU IFCP	Work on the upper layer standards related to this solution h	lave not been started.
Field Support Equip	oment	Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - AU IFCP	Work on the upper layer standards related to this solution h	lave not been started.
Center		Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution h	ave not been started.
Connected Vehicle	Roadside Equipment	Field Support Equipment	RSE application install/up	grade (None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution h	nave not been started.
Field Support Equip	oment	Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution h	lave not been started.
Center		Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	lave not been started.
Connected Vehicle	Roadside Equipment	Field Support Equipment	RSE application install/up	grade (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	lave not been started.
Field Support Equip	oment	Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution h	nave not been started.
Center		Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - Guaranteed Internet (X.509)) Work on the upper layer standards related to this solution h	nave not been started.
Connected Vehicle	Roadside Equipment	Field Support Equipment	RSE application install/up	grade (None-Data) - Guaranteed Internet (X.509)) Work on the upper layer standards related to this solution h	nave not been started.
Field Support Equip	oment	Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - Guaranteed Internet (X.509)) Work on the upper layer standards related to this solution h	nave not been started.
Field Support Equip	oment	Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution h	nave not been started.
Center		Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution h	nave not been started.
Connected Vehicle	Roadside Equipment	Field Support Equipment	RSE application install/up	grade (None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution h	nave not been started.
Center		Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - SNMPv3	Work on the upper layer standards related to this solution h	ave not been started.
Connected Vehicle	Roadside Equipment	Field Support Equipment	RSE application install/up	grade (None-Data) - SNMPv3	Work on the upper layer standards related to this solution h	lave not been started.
Field Support Equip	oment	Connected Vehicle Roadside E	Equipment RSE application install/up	grade (None-Data) - SNMPv3	Work on the upper layer standards related to this solution h	nave not been started.

Class	Security	Timeframe Urgent	Proposed Resolution Security an	d credentials management - base services	Regional Applicability Australia, Europe	an Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description	_		Regional Appl	icability
Security	Urgent	Security and credentials management - base services	Develop an internationally acceptab		king information, device enrolment information, security triples contained within the Security and Credentials Management	Australia, Euro United States	-
Issue Description	Performance, fu	ınctionality, and the upper-layers of the	e OSI stack have not been defined for the	nis information flow.		Severity	Ultra
			<u>Re</u>	elevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Cooperative ITS Crede System	entials Management	Object Registration and Discovery Service	security credential revocations	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Object Registration and Discovery Service	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Object Registration and Discovery Service	security policy and networking information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Center		Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle Ro	oadside Equipment	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle Ro	oadside Equipment	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Center	security credential revocations	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Center	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Center	security policy and networking information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Connected Vehicle Roadside Equipment	security credential revocations	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Connected Vehicle Roadside Equipment	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Connected Vehicle Roadside Equipment	security policy and networking information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Data Distribution System	security credential revocations	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Data Distribution System	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Data Distribution System	security policy and networking information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Service Monitor System	security credential revocations	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Service Monitor System	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Service Monitor System	security policy and networking information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
Cooperative ITS Crede System	entials Management	Wide Area Information Disseminator	security credential revocations	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	

Class Security	Timeframe Urgent	Proposed Resolution Security and o	credentials management - base services	Regional Applicability Australia, European Union, United States
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credentials	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security policy and networking information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Data Distribution System	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Data Distribution System	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Service Monitor System	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Service Monitor System	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Object Registration and Discovery Service	security credential revocations	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Object Registration and Discovery Service	security credentials	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Object Registration and Discovery Service	security policy and networking information	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Object Registration and Discovery Service	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Personal Information Device	security credential revocations	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Personal Information Device	security credentials	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Personal Information Device	security policy and networking information	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Vehicle OBE	security credential revocations	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Vehicle OBE	security credentials	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Vehicle OBE	security policy and networking information	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Personal Information Device	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Personal Information Device	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Vehicle OBE	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.

Class Security	Timeframe Urgent	Proposed Resolution Security and o	credentials management - base services	Regional Applicability Australia, European Union, United States
Vehicle OBE	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Guaranteed Mobile Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credential revocations	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security credentials	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Cooperative ITS Credentials Management System	Wide Area Information Disseminator	security policy and networking information	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	device enrollment information	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Wide Area Information Disseminator	Cooperative ITS Credentials Management System	misbehavior report	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been started.
Security Credentials Registry	Commercial Vehicle Check Equipment	security credentials	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been started.
Commercial Vehicle Check Equipment	Commercial Vehicle OBE Service Provider	security credentials	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been started.
Commercial Vehicle Check Equipment	Commercial Vehicle OBE Service Provider	security credentials	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been started.
Security Credentials Registry	Commercial Vehicle Check Equipment	security credentials	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been started.

Class	Security	Timeframe Urge	nt Proposed Resolution V-L: Private	te location and address	Regional Applicability Australia, Europ	ean Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
Security	Urgent	V-L: Private location and a	Develop an internationally accepta	ble ITS application specification that defines the	operation of a Privacy Protection Gateway.	Australia, Euro United States	pean Union,
Issue Description	on: Performance, fu	unctionality, and the upper-la	ayers of the OSI stack have not been defined for	this information flow.		Severity	Ultra
			<u>F</u>	Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes Notes		
Connected Vehicle	Roadside Equipment	Center	protected location and address flow	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Connected Vehicle	Roadside Equipment	Center	protected location and address flow	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.	
Privacy Protection	Gateway	Center	protected location and address flow	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Privacy Protection	Gateway	Cooperative ITS Credentials Ma System	nagement protected location and address flow	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Privacy Protection	Gateway	Center	protected location and address flow	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Connected Vehicle	Roadside Equipment	Center	protected location and address flow	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Connected Vehicle	Roadside Equipment	Cooperative ITS Credentials Ma System	nagement protected location and address flow	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Connected Vehicle	Roadside Equipment	Center	protected location and address flow	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Privacy Protection	Gateway	Center	protected location and address flow	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Privacy Protection	Gateway	Center	protected location and address flow	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been sta	rted.	
Personal Information	ion Device	Connected Vehicle Roadside Eq	uipment private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been sta	rted.	
Vehicle OBE		Connected Vehicle Roadside Eq	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been sta	rted.	
Vehicle OBE		Privacy Protection Gateway	private location and address flow	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Personal Information	ion Device	Connected Vehicle Roadside Eq	private location and address flow	(None-Data) - Local Unicast Wireless (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Vehicle OBE		Connected Vehicle Roadside Eq	uipment private location and address flow	(None-Data) - Local Unicast Wireless (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Personal Information	ion Device	Privacy Protection Gateway	private location and address flow	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Personal Information	ion Device	Privacy Protection Gateway	private location and address flow	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Vehicle OBE		Privacy Protection Gateway	private location and address flow	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Privacy Protection	Gateway	Center	protected location and address flow	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Connected Vehicle	Roadside Equipment	Center	protected location and address flow	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	rted.	
Connected Vehicle	Roadside Equipment	Center	protected location and address flow	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been sta	rted.	

Class	Security Timeframe Urgent		Proposed Resolution	V-L: Update GeoNetworking security	Regional Applicability Australia, European Union			
Class	Timeframe	Proposed Resolution	on	Description			Regional Applicability	
Security	Urgent	V-L: Update GeoNe	etworking security			transmitter of a message is not the same of the generator of the ransmission or a message generated by one vehicle and rebroadcast	Australia, Euro	pean Union
ssue Description	n: The solution do	oes not provide adequa	ate communicatio	ns security for the informa	tion triple, which potentially jeopardizes C-ITS operations.		Severity	Medium
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Connected Vehicle R	Roadside Equipment	Vehicle OBE		traffic gap information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs Li	D and Geonetwork	ing.
Connected Vehicle R	Roadside Equipment	Vehicle OBE		traffic gap information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments usi	ng 5.9 GHz channels	S.
Connected Vehicle R	Roadside Equipment	Vehicle OBE		traffic gap information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the RS		
onnected Vehicle R	Roadside Equipment	Vehicle OBE		rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 160	09.3 WSA or ISO 224	418 FSAP.
Connected Vehicle R	Roadside Equipment	Vehicle OBE		rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not be	en proven	
Connected Vehicle R	Roadside Equipment	Personal Information D	Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LI	D and Geonetwork	ing.
Connected Vehicle R	Roadside Equipment	Personal Information D	Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator broadcaster of the message (e.g., a message generated by a central system an		
Connected Vehicle R	Roadside Equipment	Personal Information D	Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 160	09.3 WSA or ISO 224	418 FSAP.
onnected Vehicle R	Roadside Equipment	Personal Information D	Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not be	en proven	
ehicle OBE		Connected Vehicle Roa	adside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LI	D and Geonetwork	ing.
ehicle OBE		Connected Vehicle Roa	adside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments usi	ng 5.9 GHz channels	S.
/ehicle OBE		Connected Vehicle Roa	adside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the RS		
onnected Vehicle R	Roadside Equipment	Personal Information D	Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LI	D and Geonetwork	ing.
onnected Vehicle R	Roadside Equipment	Personal Information D	Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments usi	ng 5.9 GHz channels	S.
Connected Vehicle R	Roadside Equipment	Personal Information D	Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the RS		
Connected Vehicle R	Roadside Equipment	Vehicle OBE		vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LI	D and Geonetwork	ing.
onnected Vehicle R	Roadside Equipment	Vehicle OBE		vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments usi	ng 5.9 GHz channels	S.
Connected Vehicle R	Roadside Equipment	Vehicle OBE		vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the RS		
ther Vehicle OBEs		Vehicle OBE		intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LI	D and Geonetwork	ing.
ther Vehicle OBEs		Vehicle OBE		intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments usi	ng 5.9 GHz channels	S.
Other Vehicle OBEs		Vehicle OBE		intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the RS		
ersonal Information	n Device	Connected Vehicle Roa	adside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LI	D and Geonetwork	ing.
ersonal Information	n Device	Connected Vehicle Roa	adside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments usi	ng 5.9 GHz channels	S.
ersonal Information	n Device	Connected Vehicle Roa	adside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the RS		
ersonal Information	n Device	Vehicle OBE		personal location	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LI	D and Geonetwork	ing.
Personal Information	n Device	Vehicle OBE		personal location	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments usi	ng 5.9 GHz channels	S.
Personal Information	n Device	Vehicle OBE		personal location	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the RS		

Class	Security	Timeframe Urgent	Proposed Resolution	V-L: Update GeoNetworking security	Regional Applicability Australia, European Union
Vehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE		Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Road	dside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Road	dside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Road	dside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Road	dside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Road	dside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Road	dside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Road	dside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Road	dside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Road	dside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Road	dside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Road	dside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Road	dside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Road	dside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Road	dside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Road	dside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Road	dside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Road	dside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Road	dside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roa	dside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Road	dside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Road	dside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Road	dside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Road	dside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Road	dside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution V-L: Upda	te GeoNetworking security	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class Security	Timeframe Urgent	Proposed Resolution V-L: Update	GeoNetworking security	Regional Applicability Australia, European Union
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ersonal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ersonal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Security	Timeframe Urgent	Proposed Resolution V-L: Update	GeoNetworking security	Regional Applicability Australia, European Union
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class	Security	Timeframe Urgent	Proposed Resolution V-L: Update G	eoNetworking security	Regional Applicability Australia, European Union
Connected Vehicle Roadsi	ide Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadsi	ide Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadsi	de Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadsi	ide Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadsi	de Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadsi	ide Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadsi	de Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadsi	ide Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs		Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs		Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs		Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadsi	ide Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE		Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE		Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution V-L: Update	e GeoNetworking security	Regional Applicability Australia, European Union
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ommercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ommercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
mergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Fransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Fransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.

Class Secu	rity Timeframe	Urgent	Proposed Resolution V-	L: Update GeoNetworking security	Regional Applicability Australia, European Union
Transit Vehicle OBE	Vehicle OBE		special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion for su	urveillance EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion for su	urveillance EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion for su	urveillance EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Other Vehicle OBEs		vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs		vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Other Vehicle OBEs		vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Other Vehicle OBEs		vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs		vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Other Vehicle OBEs		vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Personal Information	Device	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Personal Information	Device	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Personal Information	Device	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Connected Vehicle Ro	adside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Ro	adside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Connected Vehicle Ro	adside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Connected Vehicle Ro	adside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion for su	urveillance EU: CA Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion for su	urveillance EU: CA Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion for su	urveillance EU: CA Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Ro	adside Equipment	vehicle location and motion for su	urveillance EU: CA Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equ	uipment Vehicle OBE		reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equ	uipment Vehicle OBE		reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class Security	Timeframe Urgent	Proposed Resolution V-L: Update	GeoNetworking security	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Security	Timeframe Urgent	Proposed Resolution V-L: Up	date GeoNetworking security	Regional Applicability Australia, European Union
laint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
laint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ther Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ther Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ther Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ther Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ther Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
/ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class Security	Timeframe Urgent	Proposed Resolution V-L: Update 0	GeoNetworking security	Regional Applicability Australia, European Union
Vehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class Security	Timeframe Urgent	Proposed Resolution V-L: Update	e GeoNetworking security	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution V-L: Update G	GeoNetworking security	Regional Applicability Australia, European Union
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	electric charging services inventory	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Security	Timeframe Urgent	Proposed Resolution V-L:	Update GeoNetworking security	Regional Applicability Australia, European Union
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class	Security	Timeframe Urgent	Proposed Resolution	V-L: Update GeoNetworking security	Regional Applicability Australia, European Union
Connected Vehicle Roads	side Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	side Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roads	side Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle	e OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle	e OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle	e OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle	e OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle	e OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle	e OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle	e OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle	e OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roads	side Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roads	side Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	side Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.

Class	Security	Timeframe Urgent	Proposed Resolution V-	-L: Update GeoNetworking security	Regional Applicability Australia, European Union
Connected Vehicle Roads	ide Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	ide Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	ide Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roads	ide Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	ide Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	ide Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roads	ide Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	ide Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	ide Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roads	ide Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Commercial Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roads	ide Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	ide Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	ide Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roads	ide Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roads	ide Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	ide Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	ide Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roads	ide Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roads	ide Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	ide Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class Security	Timeframe Urgent	Proposed Resolution V-L: Update	GeoNetworking security	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class Security	Timeframe Urgent	Proposed Resolution V-L: U	pdate GeoNetworking security	Regional Applicability Australia, Europ	ean Union	
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not b	een proven	
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs	LPD and Geonetwork	ing.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generato broadcaster of the message (e.g., a message generated by a central system a	-	
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1	609.3 WSA or ISO 22	118 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not b	een proven	
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs	LPD and Geonetwork	ing.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generato broadcaster of the message (e.g., a message generated by a central system a	_	
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1	509.3 WSA or ISO 22	418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not b	een proven	
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs	LPD and Geonetwork	ing.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generato broadcaster of the message (e.g., a message generated by a central system a	_	
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1	609.3 WSA or ISO 22	118 FSAP.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not b	een proven	
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs	LPD and Geonetwork	ing.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generato broadcaster of the message (e.g., a message generated by a central system a	_	
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1	609.3 WSA or ISO 22	418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not b	een proven	
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs	LPD and Geonetwork	ing.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generato broadcaster of the message (e.g., a message generated by a central system a	_	
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1	609.3 WSA or ISO 22	418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not b	een proven	
Class Timeframe	Proposed Resolution	Description			Regional Appl	icability
Centre Urgent	C-C: AU incident information	Adopt an existing incident man	agement centre-to-centre data profile for use with	nin the region.	Australia	
Issue Description: Performance, fu	unctionality, and the upper-layers of the	e OSI stack have not been defined	for this information flow.		Severity	Ultra
			Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes Notes		
Traffic Management Center	Transportation Information Center	incident information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Traffic Management Center	Emergency Management Center	incident information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Traffic Management Center	Maint and Constr Management Center	incident information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Emergency Management Center	Transportation Information Center	incident information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Maint and Constr Management Center	Traffic Management Center	work zone information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Maint and Constr Management Center	Transportation Information Center	work zone information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Other Transportation Information Centers	Transportation Information Center	incident information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Transportation Information Center	Fleet and Freight Management Center	incident information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
	Other Transportation Information Centers	incident information		Work on the upper layer standards related to this solution have not been sta		

Class	Centre	Timeframe Urgent	Proposed Resolution C-C: Al	J traffic management data	Regional Applicability Australia		
Class	Timeframe	Proposed Resolution	Description			Regional Applicability	
Centre	Urgent	C-C: AU traffic management data	Adopt an existing traffic manage	ement centre-to-centre data profile for use wi	ithin the region.	Australia	
Issue Description	sue Description: Performance, functionality, and the upper-layers of the OSI stack have not been defined for this information flow.						
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes Notes		
Traffic Managemer	nt Center	Other Traffic Management Centers	road network conditions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Traffic Managemer	nt Center	Transportation Information Center	road network conditions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Traffic Managemer	nt Center	Emergency Management Center	road network conditions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Traffic Managemer	nt Center	Maint and Constr Management Center	road network conditions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Other Traffic Mana	agement Centers	Traffic Management Center	device data	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Other Traffic Mana	agement Centers	Traffic Management Center	device status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Other Traffic Mana	agement Centers	Traffic Management Center	road network conditions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Other Transportati	ion Information Centers	Transportation Information Center	road network conditions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Traffic Managemer	nt Center	Other Traffic Management Centers	device data	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Traffic Managemer	nt Center	Other Traffic Management Centers	device status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Transportation Info	ormation Center	Fleet and Freight Management Center	road network conditions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	
Fransportation Info	ormation Center	Other Transportation Information Centers	road network conditions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	started.	

Class	Centre	Timeframe Urgent	Proposed Resolution C-C: Dist	ribute maps	Regional Applicability Australia, Europ	pean Union, United States
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Centre	Urgent	C-C: Distribute maps		table ITS application specification that definest tween a Map Update System and a centre).	s the rules for updating maps, roadway geometry, and intersection	Australia, European Union, United States
Issue Description	n: Performance, f	functionality, and the upper-layers o	of the OSI stack have not been defined fo	r this information flow.		Severity Ultra
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Map Update System		Parking Management System	parking facility geometry	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Other Map Update Sy	ystems	Map Update System	map update coordination	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Parking Management	t System	Map Update System	parking facility geometry	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Traffic Management	Center	Map Update System	map update notification	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Map Update System		Parking Management System	parking facility geometry	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.
Parking Management	t System	Map Update System	parking facility geometry	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.
Center		Map Update System	map update notification	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	arted.
Maint and Constr Ma	anagement Center	Map Update System	current infrastructure restrictions	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been st	arted.
Лар Update System		Center	map updates	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been st	arted.
Лар Update System		Other Map Update Systems	map update coordination	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been st	arted.
ther Map Update Sy	ystems	Map Update System	map update coordination	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been st	arted.
arking Management	t System	Map Update System	parking facility geometry	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been st	arted.
raffic Management	Center	Map Update System	map update notification	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been st	arted.
Map Update System		Parking Management System	parking facility geometry	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.
Лар Update System		Center	map updates	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been st	arted.
enter		Map Update System	map update notification	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Naint and Constr Ma	anagement Center	Map Update System	current infrastructure restrictions	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Map Update System	-	Center	intersection geometry	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Map Update System		Center	map updates	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Лар Update System		Other Map Update Systems	map update coordination	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.
Other Map Update Sy	ystems	Map Update System	map update coordination	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been st	arted.
arking Management		Map Update System	parking facility geometry	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been st	arted.
raffic Management		Map Update System	map update notification	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been st	arted.
Center		Map Update System	map update notification	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	arted.
Maint and Constr Ma	anagement Center	Map Update System	current infrastructure restrictions	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	arted.
Nap Update System	-	Center	map updates	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	
Map Update System		Other Map Update Systems	map update coordination	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	
Nap Update System		Parking Management System	parking facility geometry	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	
Other Map Update Sy		Map Update System	map update coordination	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	
Parking Management		Map Update System	parking facility geometry	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	
Traffic Management		Map Update System	map update notification	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	
raffic Management		Map Update System	map update notification	(None-Data) - ODG-OCIT-C	Work on the upper layer standards related to this solution have not been st	

Class Centre	Timeframe Urgent	Proposed Resolution C-C: Distribut	te maps	Regional Applicability Australia, European Union, United States
Center	Map Update System	map update notification	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been started.
Map Update System	Center	map updates	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been started.
Map Update System	Other Map Update Systems	map update coordination	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been started.
Map Update System	Parking Management System	parking facility geometry	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been started.
Map Update System	Center	intersection geometry	EU: Signal Control Messages - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been started.
Map Update System	Center	intersection geometry	US: SAE Other J2735 - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been started.
Map Update System	Center	intersection geometry	US: SAE Signal Control Messages - NTCIP Messaging	Work on the upper layer standards related to this solution have not been started.
Map Update System	Center	intersection geometry	US: SAE Signal Control Messages - OMG DDS	Work on the upper layer standards related to this solution have not been started.
ssue Description: The performa	nce rules are not fully defined for this ir	nformation flow.		Severity Medium
		Rele	evant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes
Map Update System	Center	intersection geometry	(None-Data) - Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Map Update System	Center	intersection geometry	(None-Data) - Internet (X.509)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
1ap Update System	Center	intersection geometry	EU: Signal Control Messages - DATEX Messaging TCP	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
/lap Update System	Center	intersection geometry	EU: Signal Control Messages - DATEX Messaging TCP	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Иар Update System	Center	intersection geometry	US: SAE Other J2735 - Guaranteed Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Лар Update System	Center	intersection geometry	US: SAE Other J2735 - Guaranteed Internet (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Nap Update System	Center	intersection geometry	US: SAE Signal Control Messages - NTCIP Messaging	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Map Update System	Center	intersection geometry	US: SAE Signal Control Messages - NTCIP Messaging	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
1ap Update System	Center	intersection geometry	US: SAE Signal Control Messages - OMG DDS	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Nap Update System	Center	intersection geometry	US: SAE Signal Control Messages - OMG DDS	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
ssue Description: A draft of the	standard has been developed by the w	orking group, but it was still under develop	oment at the time the HARTS analysis was perfo	
		Rele	evant Flow Solution Combinations	
ource	Destination	Flow	SolutionName	Notes
Vlap Update System	Center	intersection geometry	US: SAE Signal Control Messages - NTCIP Messaging	The conditions under which messages are sent, the rules defining which data fields to populate for each condition, and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev
Map Update System	Center	intersection geometry	US: SAE Signal Control Messages - OMG DDS	The conditions under which messages are sent, the rules defining which data fields to populate for each condition, and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev

Class	Centre	Timeframe	Urgent	Proposed Resolution	C-C: Road work information	Regional Applicabili	Australia, European Union
Class	Timeframe	Proposed Resolution	on	Description			Regional Applicability
Centre	Urgent	C-C: Road work info	rmation	Develop an internationa	lly acceptable ITS application specification for C-C ex	change of road works and seasonal maintenance da	ta. Australia, European Union
Issue Descriptio	on: While the indica	ated standards nomina	lly address the ir	nformation flow, the design	may not meet practical constraints because this par	ticular use case was not the focus of the design effo	rt. Severity Medium
					Relevant Flow Solution Combinations		
Source		Destination		Flow	SolutionName	Notes	
Maint and Constr Management Center		Traffic Management Ce	nter	work zone information	EU: DATEX - DATEX Messaging TCP	_	e rules indicating which data fields should be populated for formance requirements related to these messages are not
Maint and Constr M	Management Center	Transportation Informa	tion Center	work zone information	EU: DATEX - DATEX Messaging TCP	,	e rules indicating which data fields should be populated for formance requirements related to these messages are not

Class	Centre	Timeframe Urgent	Proposed Resolution C-C: Situation	n data	Regional Applicability Australia, Unit	ed States	
Class	Timeframe	Proposed Resolution	Description			Regional Appli	cability
Centre	Urgent	C-C: Situation data	Develop an internationally acceptable sensors, etc.) among various centres.	ITS application specification for the use	case of distributing collected situation data (e.g., BSMs, CAMs,	Australia, Unite	ed States
ssue Description	Performance, f	unctionality, and the upper-layers of	the OSI stack have not been defined for this	s information flow.		Severity	Ultra
			Rele	evant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Transportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	Data may be similar to TMDD, but TMDD does not explicitly define how to	aggregate data from ve	hicles.
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	The TMDD defines how to exchange raw environmental data but does not	define how to exchange	e aggregated dat
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	tarted.	
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - OMG DDS	Data may be similar to TMDD, but TMDD does not explicitly define how to	aggregate data from ve	hicles.
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - OMG DDS	The TMDD defines how to exchange raw environmental data but does not	define how to exchange	e aggregated da
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been	tarted.	
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	EU: DATEX - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been	started.	
ssue Description	Required data	elements are not defined.				Severity	High
			Rela	evant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	Data may be similar to TMDD, but TMDD does not explicitly define how to	aggregate data from ve	hicles.
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	The TMDD defines how to exchange raw environmental data but does not	define how to exchange	e aggregated da
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - OMG DDS	Data may be similar to TMDD, but TMDD does not explicitly define how to	aggregate data from ve	hicles.
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - OMG DDS	The TMDD defines how to exchange raw environmental data but does not	define how to exchange	e aggregated da
ssue Descriptior	Some of the da	ta elements for this information flow	v are not fully defined.			Severity	Medium
			Rele	evant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	Data may be similar to TMDD, but TMDD does not explicitly define how to		
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - NTCIP Messaging	The TMDD defines how to exchange raw environmental data but does not	define how to exchange	e aggregated dat
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - OMG DDS	Data may be similar to TMDD, but TMDD does not explicitly define how to	aggregate data from ve	hicles.
ransportation Inform	mation Center	Traffic Management Center	road network environmental situation data	(None-Data) - OMG DDS	The TMDD defines how to exchange raw environmental data but does not	define how to exchange	e aggregated da

Class	Centre	Timeframe	Urgent	Proposed Resolution C-	C: System monitoring	Regional Applicability Australia, Europe	an Union, United States	
Class	Timeframe	Proposed Resolution	on	Description	Description		Regional Applicability	
Centre	Urgent	C-C: System monito	C-C: System monitoring Develop an internationally acceptable ITS application specification for the Service Monitor System to monitor other centers and support systems and to report issues.				Australia, European Union, United States	
Issue Descriptior	n: Performance, fu	unctionality, and the u	pper-layers of	the OSI stack have not been defi	ned for this information flow.		Severity Ultra	
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Wide Area Informati	ion Disseminator	Service Monitor System	1	support system status	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been start	ed.	
Center		Service Monitor System	ı	system monitoring	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been start	ed.	
Data Distribution Sys	stem	Service Monitor System	1	support system status	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been start	ed.	
Wide Area Informati	ion Disseminator	Service Monitor System	1	support system status	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been start	ed.	
Data Distribution Sys	stem	Service Monitor System	1	support system status	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been start	ed.	
Data Distribution Sys	stem	Service Monitor System	1	support system status	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been start	ed.	
Nide Area Informati	ion Disseminator	Service Monitor System	1	support system status	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been start	ed.	
Center		Service Monitor System	1	system monitoring	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been start	ed.	
Data Distribution Sys	stem	Service Monitor System	1	support system status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been start	ed.	
Wide Area Informati	ion Disseminator	Service Monitor System	1	support system status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been start	ed.	
Center		Service Monitor System	1	system monitoring	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been start	ed.	
Data Distribution Sys	stem	Service Monitor System	1	support system status	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been start	ed.	
Center		Service Monitor Systen	1	system monitoring	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been start	ed.	

Class	Centre	Timeframe Urgent	Proposed Resolution C-C: W/	AID	Regional Applicability Australia, Europ	ean Union, United States
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Centre	Urgent	C-C: WAID	Develop an internationally accep	otable ITS application specification for providin	ng information from a centre to a WAID for wide-area dissemination.	Australia, European Unio United States
ssue Description	n: There are ambi	guities as to how to (or if one sho	uld) couple the upper-layer standards de	fined in this solution with the indicated lower-	layer standards.	Severity High
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Fraffic Management	t Center	Media	traffic information for media	TPEG2 - DATEX Messaging TCP	The rules for sending TPEG over DATEX messaging are not defined; the excal describing the rules for broadcasting the information to vehicles.	inge will need to include meta-data
Traffic Management	t Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - DATEX Messaging TCP	The rules for sending TPEG over DATEX messaging are not defined; the excal describing the rules for broadcasting the information to vehicles.	inge will need to include meta-data
Transportation Infor	rmation Center	Media	traffic information for media	TPEG2 - DATEX Messaging TCP	The rules for sending TPEG over DATEX messaging are not defined; the excal describing the rules for broadcasting the information to vehicles.	nge will need to include meta-data
Transportation Infor	rmation Center	Wide Area Information Disseminator	traffic information for media	TPEG2 - DATEX Messaging TCP	The rules for sending TPEG over DATEX messaging are not defined; the excal describing the rules for broadcasting the information to vehicles.	nnge will need to include meta-data
ssue Description	n: The performan	ce rules are not fully defined for t	nis information flow.			Severity Mediur
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
ransportation Infor	rmation Center	Wide Area Information Disseminator	broadcast traveler information	EU: DATEX - DATEX Messaging TCP	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	est, NMEA, RTCM, and ICA messag
ransportation Infor	rmation Center	Wide Area Information Disseminator	broadcast traveler information	TMC - Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, and ICA messag
ransportation Infor	rmation Center	Wide Area Information Disseminator	broadcast traveler information	TPEG2 - Guaranteed Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	est, NMEA, RTCM, and ICA messag
ransportation Infor	rmation Center	Wide Area Information Disseminator	broadcast traveler information	TPEG2 - NTCIP Messaging	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, and ICA messag
ransportation Infor	rmation Center	Wide Area Information Disseminator	broadcast traveler information	US: SAE Other J2735 - Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	est, NMEA, RTCM, and ICA messag
ransportation Infor	rmation Center	Wide Area Information Disseminator	broadcast traveler information	US: SAE Other J2735 - Internet (US)	The parameters associated with the J2735 message defining where the WAII are not currently defined.	should broadcast the message (et
ssue Description	n: Some of the da	ta elements for this information f	low are not fully defined.			Severity Medium
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Transportation Infor	rmation Center	Wide Area Information Disseminator	broadcast traveler information	US: SAE Other J2735 - Internet (US)	The parameters associated with the J2735 message defining where the WAII are not currently defined.	should broadcast the message (et

Class	Field	Timeframe Urgent	Proposed Resolution I-F: Applicati	on management	Regional Applicability Australia, Europe	ean Union, United States
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Field	Urgent	I-F: Application management	Develop an internationally acceptable RSE.	ITS application specification for genericall	y managing applications (e.g., enabling, monitoring, etc.) within an	Australia, European Union, United States
Issue Description	Performance, fu	unctionality, and the upper-layers of th	e OSI stack have not been defined for thi	s information flow.		Severity Ultra
			Relo	evant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Center		Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
Center		Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been stan	rted.
Connected Vehicle Ro	oadside Equipment	Center	RSE application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been stan	ted.
Connected Vehicle Ro	oadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been stan	rted.
onnected Vehicle Ro	padside Equipment	Field Support Equipment	RSE control commands	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been stan	rted.
onnected Vehicle Ro	padside Equipment	Field Support Equipment	RSE status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been stan	rted.
onnected Vehicle Ro	padside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	rted.
onnected Vehicle Ro	padside Equipment	Service Monitor System	RSE status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been stan	ted.
onnected Vehicle Ro	padside Equipment	Traffic Management Center	intersection management application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
onnected Vehicle Ro	padside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	rted.
onnected Vehicle Ro	padside Equipment	Traffic Management Center	speed management application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
onnected Vehicle Ro		Traffic Management Center	traffic monitoring application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	rted.
onnected Vehicle Ro		Traffic Management Center	vehicle signage application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	rted.
onnected Vehicle Ro		Traffic Management Center	work zone application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	rted.
eld Support Equipm		Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	rted.
eld Support Equipm		Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
eld Support Equipm		Connected Vehicle Roadside Equipment	RSE status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
onnected Vehicle Ro	padside Equipment	Traffic Management Center	queue warning application status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
raffic Management (Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
onnected Vehicle Ro		Traffic Management Center	queue warning application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.
raffic Management (Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	
onnected Vehicle Ro		Center	RSE application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	
laint and Constr Ma		Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	
raffic Management (Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	
affic Management (Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	
raffic Management (Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	
affic Management (Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	
affic Management (Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	
unnel Management		Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	
enter	5,5tcm	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	
					Work on the upper layer standards related to this solution have not been star	
enter	andaida Fauticus sut	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	
Connected Vehicle Ro	Dauside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	violik on the upper layer standards related to this solution have not been stall	icu.

Class Field	Timeframe Urgent	Proposed Resolution I-F: Application	on management	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Service Monitor System	RSE status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Tunnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been started.
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.

Class Field	Timeframe Urgent	Proposed Resolution I-F: Application	n management	Regional Applicability Australia, European Union, United States	
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Maint and Constr Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection management application info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	intersection safety application info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Tunnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.	
Center	Connected Vehicle Roadside Equipment	RSE application information	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Center	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Center	RSE application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE configuration settings	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Field Support Equipment	RSE control commands	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Maint and Constr Management Center	vehicle signage application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection management application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Traffic Management Center	intersection safety application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Traffic Management Center	queue warning application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Traffic Management Center	speed management application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic monitoring application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Traffic Management Center	vehicle signage application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Connected Vehicle Roadside Equipment	Traffic Management Center	work zone application status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE configuration settings	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Field Support Equipment	Connected Vehicle Roadside Equipment	RSE control commands	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	queue warning application information	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	speed management application information	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	traffic monitoring application info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Traffic Management Center	Connected Vehicle Roadside Equipment	work zone application info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	
Tunnel Management System	Connected Vehicle Roadside Equipment	vehicle signage application info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been started.	

Class	Timeframe	Proposed Resolution	Description			Regional Appli	cability
Field	Urgent	I-F: Data aggregation	Develop an internationally accepta parties (e.g., centres).	ble ITS application specification for an RSE to a	aggregate collected data and report the information to interested	Australia, Euro United States	pean Unior
Issue Description	n: Performance, f	unctionality, and the upper-layers of th	e OSI stack have not been defined for	this information flow.		Severity	Ultra
			<u>F</u>	Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle R	oadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Traffic Management	Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	ITS Roadway Equipment	traffic situation data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
connected Vehicle R	oadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ata Distribution Sys	tem	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
raffic Management	Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ata Distribution Sys	tem	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - ODG-OCIT-O	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Maint and Constr Management Center	environmental situation data	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
Data Distribution Sys	tem	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
raffic Management	Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Maint and Constr Management Center	environmental situation data	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Traffic Management Center	environmental situation data	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Transportation Information Center	environmental situation data	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
Data Distribution Sys	tem	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
Traffic Management	Center	Connected Vehicle Roadside Equipment	situation data collection parameters	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle R	oadside Equipment	Traffic Management Center	traffic situation data	(None-Data) - UTMC	Work on the upper layer standards related to this solution have not been star	ted.	

Class

Field

Timeframe

Urgent

Proposed Resolution

I-F: Data aggregation

Class	Field	Timeframe Urger	Proposed Resolution	I-F: Data aggregation	Regional Applicability Australia, European Union, United States
Issue Description:	Some of the dat	ta elements for this information	on flow are not fully defined.		Severity Mediu
				Relevant Flow Solution Combinations	
Source		Destination	Flow	SolutionName	Notes Notes
Connected Vehicle Road	dside Equipment	Transportation Information Cent	ter environmental situation data	EU: DATEX - DATEX Messaging TCP	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	traffic situation data	US: NTCIP Transportation Sensors - OMO	Process for converting BSM/probe data into aggregated data and related data specifications (e.g., additional configuration parameters) are not defined.
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	traffic situation data	US: NTCIP Transportation Sensors - SNM	Process for converting BSM/probe data into aggregated data and related data specifications (e.g., additional configuration parameters) are not defined.
Issue Description:	A draft of the st	andard has been developed b	by the working group, but it was still	under development at the time the HARTS analysi	s was performed. Severity Mediu
				Relevant Flow Solution Combinations	
Source		Destination	Flow	SolutionName	Notes
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - AU IFCP	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Traffic Management Center	environmental situation data	(None-Data) - AU IFCP	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Transportation Information Cent	ter environmental situation data	(None-Data) - AU IFCP	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - EU-ICIP-C2F	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Traffic Management Center	environmental situation data	(None-Data) - EU-ICIP-C2F	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Transportation Information Cent	ter environmental situation data	(None-Data) - EU-ICIP-C2F	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - OMG DDS RPC	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Traffic Management Center	environmental situation data	(None-Data) - OMG DDS RPC	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Transportation Information Cent	ter environmental situation data	(None-Data) - OMG DDS RPC	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	environmental situation data	(None-Data) - SNMPv3	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Traffic Management Center	environmental situation data	(None-Data) - SNMPv3	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Transportation Information Cent	ter environmental situation data	(None-Data) - SNMPv3	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized
Connected Vehicle Road	dside Equipment	Transportation Information Cen	ter environmental situation data	EU: DATEX - DATEX Messaging TCP	This only reflects a current proposal to expand DATEX to support this flow; it has not yet been standardized

Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
ield	Urgent	I-F: Distribute maps	Develop an internationally ac	ceptable ITS application specification that defines the r (e.g., a Map Update System) and field equipment.	rules for distributing maps, roadway geometry, and intersection	Australia, Euro United States,	pean Unio
sue Description	Performance, f	unctionality, and the upper-layers of th	e OSI stack have not been define	d for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
ap Update System		Connected Vehicle Roadside Equipment	map updates	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
lap Update System		Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Public Information Device	map updates	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	map updates	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	roadway geometry	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Public Information Device	map updates	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Public Information Device	map updates	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Public Information Device	map updates	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been star	ted.	
p Update System		Connected Vehicle Roadside Equipment	map updates	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	map updates	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	parking facility geometry	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
p Update System		Connected Vehicle Roadside Equipment	roadway geometry	DDS: SAE Signal Control Messages - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
ap Update System		Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.	
	: There are ambi	iguities as to how to (or if one should)	couple the upper-layer standards	defined in this solution with the indicated lower-layers	standards.	Severity	High
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
ap Update System		Connected Vehicle Roadside Equipment	intersection geometry	EU: Signal Control Messages - EU-ICIP-C2F	The precise rules for how to provide intersection geometry over EU-ICIP has r	ot been defined.	
ap Update System		Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Other J2735 - SNMPv3	SAE J2735 was not designed to be implemented over SNMP messaging; interf	ace details need to b	e defined.
ap Update System		Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - SNMPv3			
ap Update System		Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - SNMPv3			

Class Field	Timeframe Urgent	Proposed Resolution I-F:	Distribute maps	Regional Applicability Australia, European Union, United States, Japa
ssue Description: A draft	of the standard has been developed by the wo	orking group, but it was still unde	r development at the time the HARTS analysis was perf	ormed. Severity Medium
			Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - OMG DDS RPC	The conditions under which messages are sent, the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev
Лар Update System	Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - OMG DDS RPC	The conditions under which messages are sent, the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - SNMPv3	The conditions under which messages are sent, the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev
Map Update System	Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - SNMPv3	The conditions under which messages are sent, the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev
Issue Description: The per	formance rules are not fully defined for this in	formation flow.		Severity Medium
			Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	DDS: SAE Other J2735 - OMG DDS	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	DDS: SAE Other J2735 - OMG DDS	The conditions under which messages are sent; the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	EU: Signal Control Messages - EU-ICIP-C2F	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	EU: Signal Control Messages - EU-ICIP-C2F	The conditions under which messages are sent; the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Other J2735 - SNMPv3	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Other J2735 - SNMPv3	The conditions under which messages are sent; the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - OMG DDS RPC	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - OMG DDS RPC	The conditions under which messages are sent; the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - SNMPv3	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - SNMPv3	The conditions under which messages are sent; the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not defined. Note:

Class	Field	Timeframe Urgent	Proposed Resolution I-F: EU sign	al operations	Regional Applicability Australia, Europ	ean Union
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Field	Urgent	I-F: EU signal operations	Develop an ITS application specificat secure centre-to-field protocol.	tion for exchanging configuration, plans, status, a	and commands for signal control and signal systems using the	Australia, European Union
ssue Description:	Performance, fu	unctionality, and the upper-layers of	the OSI stack have not been defined for tl	nis information flow.		Severity Ultra
			Re	elevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
S Roadway Equipmer	nt	Other ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmer	nt	Traffic Management Center	right-of-way request notification	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
ther ITS Roadway Equ	uipment	ITS Roadway Equipment	signal control data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce	enter	ITS Roadway Equipment	signal system configuration	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmer	nt	Other ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmer	nt	Other Traffic Signal Controller	local priority request details	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmen	nt	Traffic Management Center	right-of-way request notification	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmer	nt	Traffic Management Center	signal control status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
ther ITS Roadway Equ	uipment	ITS Roadway Equipment	signal control data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
ther Traffic Signal Cor	ntroller	ITS Roadway Equipment	local priority request details	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce	enter	ITS Roadway Equipment	signal control commands	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce	enter	ITS Roadway Equipment	signal control device configuration	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce	enter	ITS Roadway Equipment	signal control plans	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce	enter	ITS Roadway Equipment	signal system configuration	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmer	nt	Other ITS Roadway Equipment	signal control data	(None-Data) - ODG-OCIT-O	Work on the upper layer standards related to this solution have not been sta	rted.
ther ITS Roadway Equ	uipment	ITS Roadway Equipment	signal control data	(None-Data) - ODG-OCIT-O	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmer	nt	Other ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmen	nt	Traffic Management Center	signal control status	AU TRAFF - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
her ITS Roadway Equ	uipment	ITS Roadway Equipment	signal control data	AU TRAFF - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce	enter	ITS Roadway Equipment	signal control commands	AU TRAFF - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce	enter	ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce	enter	ITS Roadway Equipment	signal control plans	AU TRAFF - AU IFCP	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmer		Traffic Management Center	signal control status	AU TRAFF - AU TRAFF Comms	Work on the upper layer standards related to this solution have not been sta	rted.
raffic Management Ce		ITS Roadway Equipment	signal control commands	AU TRAFF - AU TRAFF Comms	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce		ITS Roadway Equipment	signal control device configuration	AU TRAFF - AU TRAFF Comms	Work on the upper layer standards related to this solution have not been sta	rted.
raffic Management Ce		ITS Roadway Equipment	signal control plans	AU TRAFF - AU TRAFF Comms	Work on the upper layer standards related to this solution have not been sta	rted.
S Roadway Equipmer		Traffic Management Center	right-of-way request notification	DDS: NTCIP Signal Priority - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	rted.
affic Management Ce		ITS Roadway Equipment	signal control commands	DDS: NTCIP Signal System Masters - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	rted.
raffic Management Ce		ITS Roadway Equipment	signal control device configuration	DDS: NTCIP Signal System Masters - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	rted.
raffic Management Ce		ITS Roadway Equipment	signal system configuration	DDS: NTCIP Signal System Masters - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	
'S Roadway Equipmen		Other ITS Roadway Equipment	signal control data	DDS: NTCIP Traffic Signal - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	
'S Roadway Equipmer		Traffic Management Center	signal control status	DDS: NTCIP Traffic Signal - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	

Class	Field	Timeframe Urgent	Proposed Resolution I-F: EU sig	gnal operations	Regional Applicability Australia, European Union
Other ITS Roadway E	Equipment	ITS Roadway Equipment	signal control data	DDS: NTCIP Traffic Signal - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Traffic Management	Center	ITS Roadway Equipment	signal control plans	DDS: NTCIP Traffic Signal - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv1	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv1	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been started.
Fraffic Management	Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	right-of-way request notification	EU: OCIT-O Signal Control - OCIT-O	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	signal control status	EU: OCIT-O Signal Control - OCIT-O	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control commands	EU: OCIT-O Signal Control - OCIT-O	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control device configuration	EU: OCIT-O Signal Control - OCIT-O	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control plans	EU: OCIT-O Signal Control - OCIT-O	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal system configuration	EU: OCIT-O Signal Control - OCIT-O	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	right-of-way request notification	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	signal control status	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control commands	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control device configuration	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control plans	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal system configuration	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been started.
ΓS Roadway Equipm	ient	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv1	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	ent	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv3	Work on the upper layer standards related to this solution have not been started.
ΓS Roadway Equipm	nent	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv3	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv1	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv3	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv3	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv3	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	ient	Other ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
Other ITS Roadway E	quipment	ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
raffic Management	Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - OMG DDS RPC	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1	Work on the upper layer standards related to this solution have not been started.
Traffic Management	Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1	Work on the upper layer standards related to this solution have not been started.
TS Roadway Equipm	nent	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been started.

Class	Field	Timeframe Urgent	Proposed Resolution	I-F: EU signal operations	Regional Applicability Australia, Euro	opean Union	
Traffic Management	t Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been	started.	
ITS Roadway Equipm	nent	Other ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - SNMPv3	Work on the upper layer standards related to this solution have not been	started.	
Other ITS Roadway E	Equipment	ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - SNMPv3	Work on the upper layer standards related to this solution have not been	started.	
Traffic Management	t Center ITS Roadway Equipment signal control plans US: NTCIP Traffic Signal - SNMPv3 Work on the upper layer standards related to this solution have not been st		started.				
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
Field	Urgent	I-F: Exception-based reporting	Develop an internation	ally acceptable ITS application specification for managing	g exception-based reports from other local field devices.	Australia, Euro United States	pean Union,
Issue Description	n: Performance, fo	unctionality, and the upper-layers of th	ne OSI stack have not been	defined for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
ITS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been	started.	
ITS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been	started.	
Parking Managemen	nt System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been	started.	
ITS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been	started.	
Parking Managemen	nt System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been	started.	
Border Inspection Sy	ystem	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been	started.	
Parking Managemen	nt System	Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been	started.	
		Connected Vehicle Roadside Equipment	vehicle signage local data	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been	started.	
Parking Managemen	nt System						

Class	Timeframe	Proposed Resolution	Description			Regional Appl	licability	
ield	Urgent	I-F: Message signs	Develop an internationally accept control.	cable ITS application specification for managing mo	essage signs for secure communications with proper access	Australia, European Union, United States		
ssue Description	on: Performance, f	unctionality, and the upper-layers of th	ne OSI stack have not been defined fo	r this information flow.		Severity	Ultra	
				Relevant Flow Solution Combinations				
Source		Destination	Flow	SolutionName	Notes			
Connected Vehicle	Roadside Equipment	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.		
raffic Managemer	nt Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.		
ΓS Roadway Equip	ment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Traffic Management Center	roadway warning system status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.		
onnected Vehicle	Roadside Equipment	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.		
ΓS Roadway Equip	ment	Connected Vehicle Roadside Equipment	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.		
TS Roadway Equip	ment	Maint and Constr Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Traffic Management Center	roadway dynamic signage status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Traffic Management Center	roadway warning system status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.		
laint and Constr N	Management Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.		
raffic Managemer	nt Center	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.		
raffic Managemer	nt Center	ITS Roadway Equipment	roadway warning system control	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been st	arted.		
laint and Constr V	/ehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Traffic Management Center	roadway warning system status	(None-Data) - ODG-OCIT-O	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Traffic Management Center	roadway warning system status	DDS: NTCIP Message Sign - OMG DDS RPC	Work on the upper layer standards related to this solution have not been st	arted.		
affic Managemer	nt Center	ITS Roadway Equipment	roadway warning system control	DDS: NTCIP Message Sign - OMG DDS RPC	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Traffic Management Center	roadway warning system status	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been st	arted.		
raffic Managemer	nt Center	ITS Roadway Equipment	roadway warning system control	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - OMG DDS RPC	Work on the upper layer standards related to this solution have not been st	arted.		
raffic Managemer	nt Center	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - OMG DDS RPC	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip	ment	Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - SNMPv1	Work on the upper layer standards related to this solution have not been st	arted.		
raffic Managemer	nt Center	ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv1	Work on the upper layer standards related to this solution have not been st	arted.		
'S Roadway Equip		Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been st	arted.		
raffic Managemer		ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been st	arted.		
S Roadway Equip		Traffic Management Center	roadway warning system status	US: NTCIP Message Sign - SNMPv3	Work on the upper layer standards related to this solution have not been st	arted.		
raffic Managemer		ITS Roadway Equipment	roadway warning system control	US: NTCIP Message Sign - SNMPv3	Work on the upper layer standards related to this solution have not been st			

Class	Field	Timeframe	Urgent	Proposed Resolution I-F: Message signs Regional Applicability Aus		Australia, European Union, Unit	Australia, European Union, United States		
Issue Description	Data has been d	efined for SNMPv1, bu	ıt needs to be ι	updated to SNMPv3 format.			Severity	Medium	
					Relevant Flow Solution Combinations				
Source		Destination		Flow	SolutionName	Notes			
ITS Roadway Equipme	ent	Maint and Constr Vehicl	e OBE	roadway dynamic signage stat	us US: NTCIP Message Sign - Mobile SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
Maint and Constr Veh	icle OBE	ITS Roadway Equipment		roadway dynamic signage data	US: NTCIP Message Sign - Mobile SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
Connected Vehicle Ro	adside Equipment	ITS Roadway Equipment		roadway dynamic signage data	US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipme	ent	Connected Vehicle Road	side Equipment	ITS roadway equipment inform	us: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipme	ent	Connected Vehicle Road	side Equipment	roadway dynamic signage stat	us US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipme	ent	Maint and Constr Manag	gement Center	roadway dynamic signage stat	us US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipme	ent	Other ITS Roadway Equi	pment	dynamic sign coordination	US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipme	ent	Traffic Management Cer	nter	roadway dynamic signage stat	us US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipme	ent	Traffic Management Cer	nter	roadway warning system statu	s US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipme	ent	Traffic Management Cer	nter	variable speed limit status	US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
Maint and Constr Mar	nagement Center	ITS Roadway Equipment		roadway dynamic signage data	US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
Other ITS Roadway Eq	quipment	ITS Roadway Equipment		dynamic sign coordination	US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
Traffic Management C	Center	ITS Roadway Equipment		lane management control	US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
Traffic Management C	Center	ITS Roadway Equipment		roadway dynamic signage data	US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
Traffic Management C	Center	ITS Roadway Equipment		roadway warning system cont	rol US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			
Traffic Management C	Center	ITS Roadway Equipment		variable speed limit control	US: NTCIP Message Sign - SNMPv3	NTCIP 1203 data needs to be upgraded to SNMPv3.			

Class	Field	Timeframe Urgent	Proposed Resolution I-F: Si	gnal conflict prevention	Regional Applicability Australia, European Union, United States	
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Field	Urgent	I-F: Signal conflict prevention	Develop an internationally accomphysical displays and broadcas		ntersection status information to prevent conflicts between	Australia, European Union, United States
Issue Descripti	on: The performan	ce rules are not fully defined for this	information flow.			Severity Medium
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Connected Vehicle	e Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining which da and the latency, accuracy, and performance requirements related to these Application data, minimum requireme	
Connected Vehicle	e Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	The conditions under which messages are sent; the rules defining which da and the latency, accuracy, and performance requirements related to these Application data, minimum requireme	
Connected Vehicle	Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining which da and the latency, accuracy, and performance requirements related to these Application data, minimum requireme	
Connected Vehicle	e Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - FNTP/M5	The conditions under which messages are sent; the rules defining which da and the latency, accuracy, and performance requirements related to these Application data, minimum requireme	
Connected Vehicle	e Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - Internet (X.509)	The conditions under which messages are sent; the rules defining which da and the latency, accuracy, and performance requirements related to these Application data, minimum requireme	
Connected Vehicle	e Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - WAVE UDP	The conditions under which messages are sent; the rules defining which da and the latency, accuracy, and performance requirements related to these Application data, minimum requireme	
Connected Vehicle	e Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - Internet (US)	The conditions under which messages are sent; the rules defining which da and the latency, accuracy, and performance requirements related to these Application data, minimum requireme	
Connected Vehicle	Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent; the rules defining which da and the latency, accuracy, and performance requirements related to these Application data, minimum requireme	

Class	Field	Timeframe Urgent	Proposed Resolution	-F: Signal control	Regional Applicability Australia, Euro	pean Union, United	States
Class	Timeframe	Proposed Resolution	Description			Regional Applic	ability
Field	Urgent	I-F: Signal control	Develop an internationally acceptable ITS application specification for the interface between a traffic signal controller and a roadside station to exchange raw data related to the SPaT, SRM, and SSM using the secure centre-to-field protocol.		Australia, European Union, United States		
Issue Description	n: Performance, f	unctionality, and the upper-layers of th	ne OSI stack have not been de	fined for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.	
TS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.	
ITS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal preemption request	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal service request	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.	
TS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	conflict monitor status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.	
TS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	intersection control status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal priority service request	(None-Data) - ODG-OCIT-O	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal preemption request	DDS: NTCIP Signal Priority - OMG DDS RPC	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal priority service request	DDS: NTCIP Signal Priority - OMG DDS RPC	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal preemption request	US: NTCIP Signal Priority - OMG DDS RPC	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal priority service request	US: NTCIP Signal Priority - OMG DDS RPC	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal preemption request	US: NTCIP Signal Priority - SNMPv3	Work on the upper layer standards related to this solution have not been st	arted.	
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal priority service request	US: NTCIP Signal Priority - SNMPv3	Work on the upper layer standards related to this solution have not been st	arted.	
ssue Description	n: Some of the da	ta elements for this information flow a	re not fully defined.			Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
TS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - OMG DDS RPC	NTCIP 1202 does not fully define the information needed for a SPaT message link to the MAP and some detailed timing data		
TS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 does not fully define the information needed for a SPaT message link to the MAP and some detailed timing data	ge, such as the informat	on necessary

Class	Field	Timeframe Urgent	Proposed Resolution I-F: Speed w	arning	Regional Applicability Australia, Europe	ean Union, United States
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
ield	Urgent	I-F: Speed warning	Develop an internationally acceptable parameters and thresholds to a speed		dway configuration data, current speed limits , warning	Australia, European Union, United States
sue Description	Performance, fo	unctionality, and the upper-layers of the	e OSI stack have not been defined for thi	s information flow.		Severity Ultra
			Rel	evant Flow Solution Combinations		
ource		Destination	Flow		Notes	
nnected Vehicle Ro	oadside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
nnected Vehicle Ro	padside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
affic Management	Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipmo	ent	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
aint and Constr Ma	nagement Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
nnected Vehicle Ro	padside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.
nnected Vehicle Ro	padside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipmo	ent	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipmo	ent	Traffic Management Center	variable speed limit status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.
aint and Constr Ma	nagement Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.
ffic Management	Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.
ffic Management	Center	ITS Roadway Equipment	variable speed limit control	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.
aint and Constr Ma	nagement Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipm	ent	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.
nnected Vehicle Ro	padside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.
nnected Vehicle Ro	oadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.
aint and Constr Ma	nagement Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.
affic Management	Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.
nnected Vehicle Ro	padside Equipment	Maint and Constr Management Center	reduced speed warning status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.
nnected Vehicle Ro	oadside Equipment	Traffic Management Center	reduced speed warning status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipm	ent	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.
affic Management	Center	Connected Vehicle Roadside Equipment	reduced speed warning info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipm	ent	Traffic Management Center	variable speed limit status	DDS: NTCIP Message Sign - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.
affic Management	Center	ITS Roadway Equipment	variable speed limit control	DDS: NTCIP Message Sign - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipm	ent	Traffic Management Center	variable speed limit status	DMS and RWIS data - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
affic Management	Center	ITS Roadway Equipment	variable speed limit control	DMS and RWIS data - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipm	ent	Traffic Management Center	variable speed limit status	DMS and RWIS data - DMS and RWIS comms	Work on the upper layer standards related to this solution have not been star	ted.
affic Management	Center	ITS Roadway Equipment	variable speed limit control	DMS and RWIS data - DMS and RWIS comms	Work on the upper layer standards related to this solution have not been star	ted.
Roadway Equipm	ent	Traffic Management Center	variable speed limit status	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been star	ted.
affic Management	Center	ITS Roadway Equipment	variable speed limit control	EU: UTMC Data - UTMC	Work on the upper layer standards related to this solution have not been star	ted.
S Roadway Equipmo	ent	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.
affic Management	Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.

Class	Field	Timeframe Urgent	Proposed Resolution I-F: Spe	ed warning	Regional Applicability Australia, European Union, United States
ITS Roadway Equip	pment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv1	Work on the upper layer standards related to this solution have not been started.
Traffic Managemen	ent Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv1	Work on the upper layer standards related to this solution have not been started.
ITS Roadway Equip	pment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been started.
Traffic Managemen	ent Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been started.
ITS Roadway Equip	pment	Traffic Management Center	variable speed limit status	US: NTCIP Message Sign - SNMPv3	Work on the upper layer standards related to this solution have not been started.
Traffic Managemen	ent Center	ITS Roadway Equipment	variable speed limit control	US: NTCIP Message Sign - SNMPv3	Work on the upper layer standards related to this solution have not been started.

Class	Field	Timeframe	Urgent	Proposed Resolution	I-F: Transportation sensor systems	Regional Applicability Australia, Europe	ean Union, Unito	ed States	
Class	Timeframe	Proposed Resolution		Description			Regional App	licability	
Field	Urgent	I-F: Transportation sensor systems		Develop an internationally acceptable ITS application specification for exchanging transportation sensor station data with a management entity that uses the secure centre-to-field protocol.				Australia, European Union, United States	
Issue Description	n: Performance, fu	unctionality, and the upp	er-layers of the	e OSI stack have not been	defined for this information flow.		Severity	Ultra	
					Relevant Flow Solution Combinations				
Source		Destination		Flow	SolutionName	Notes			
ITS Roadway Equipm	ment	Maint and Constr Manage	ement Center	traffic detector data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.		
ITS Roadway Equipn	ment	Traffic Management Cent	er	traffic detector data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.		
Maint and Constr M	lanagement Center	ITS Roadway Equipment		traffic detector control	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.		
Traffic Management	t Center	ITS Roadway Equipment		traffic detector control	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been stan	ted.		
ITS Roadway Equipn	ment	Maint and Constr Manage	ement Center	traffic detector data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been stan	ted.		
ITS Roadway Equipn	ment	Traffic Management Cent	er	traffic detector data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been stan	ted.		
Maint and Constr M	lanagement Center	ITS Roadway Equipment		traffic detector control	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.		
Traffic Management	t Center	ITS Roadway Equipment		traffic detector control	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.		
ITS Roadway Equipm	ment	Maint and Constr Vehicle	OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been star	ted.		
Maint and Constr Ve	ehicle OBE	ITS Roadway Equipment		traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been stan	ted.		
ITS Roadway Equipm	ment	Traffic Management Cent	er	traffic detector data	(None-Data) - ODG-OCIT-O	Work on the upper layer standards related to this solution have not been star	ted.		
Traffic Management	t Center	ITS Roadway Equipment		traffic detector control	(None-Data) - ODG-OCIT-O	Work on the upper layer standards related to this solution have not been star	ted.		
Issue Description	n: Data has been o	defined for SNMPv1, but	needs to be up	odated to SNMPv3 format			Severity	Medium	
					Relevant Flow Solution Combinations				
Source		Destination		Flow	SolutionName	Notes			
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment		traffic situation data	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
Connected Vehicle R	Roadside Equipment	Traffic Management Cent	er	traffic situation data	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
Connected Vehicle F	Roadside Equipment	Transportation Informatio	on Center	traffic situation data	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipn	ment	Maint and Constr Manage	ement Center	speed monitoring information	on US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
TS Roadway Equipn	ment	Maint and Constr Manage	ement Center	traffic detector data	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
TS Roadway Equipn	ment	Other ITS Roadway Equip	ment	roadway detector coordinat	ion US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
TS Roadway Equipn	ment	Traffic Management Cent	er	speed monitoring information	on US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
ITS Roadway Equipn	ment	Traffic Management Cent	er	traffic detector data	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
Maint and Constr M	lanagement Center	ITS Roadway Equipment		speed monitoring control	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
Maint and Constr M	lanagement Center	ITS Roadway Equipment		traffic detector control	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
Other ITS Roadway I	Equipment	ITS Roadway Equipment		roadway detector coordinat	ion US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
Traffic Management	t Center	ITS Roadway Equipment		speed monitoring control	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			
	t Center	ITS Roadway Equipment		traffic detector control	US: NTCIP Transportation Sensors - SNMPv3	NTCIP 1209 data needs to be upgraded to SNMPv3.			

Class	Field	Timeframe Urgent	Proposed Resolution I-F: US	S signal operations	Regional Applicability United States	
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Field	Urgent	I-F: US signal operations	Develop an ITS application spec secure centre-to-field protocol		tus, and commands for signal control and signal systems using the	United States
Issue Description	The specific dia	logs for exchanging this data have not	been fully defined.			Severity Medium
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
ITS Roadway Equipm	nent	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Other ITS Roadway E	Equipment	ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Connected Vehicle R	oadside Equipment	ITS Roadway Equipment	pedestrian location information	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Connected Vehicle R	oadside Equipment	ITS Roadway Equipment	signal service request	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	conflict monitor status	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Connected Vehicle Roadside Equipment	pedestrian crossing status	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Other ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Other ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Other ITS Roadway E	Equipment	ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Other ITS Roadway E	Equipment	ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Traffic Management	Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Traffic Management	Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
TS Roadway Equipm	nent	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv1	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Traffic Management	Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv1	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
Traffic Management	Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not
ITS Roadway Equipm	nent	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv1/TLS	Generic SNMP dialogs exist, but the complex logic of how individual GET a defined.	nd SET operations are used is not

Class Field	Timeframe Urgent	Proposed Resolution I-F: US sig	nal operations	Regional Applicability United States
S Roadway Equipment	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv1/TLS	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
raffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv1/TLS	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
affic Management Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv1/TLS	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	pedestrian location information	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	signal service request	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
S Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
S Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
rs Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
rs Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
rs Roadway Equipment	Other ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
TS Roadway Equipment	Other ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
raffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
raffic Management Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.
ssue Description: Some of the da	ta elements for this information flow a	re not fully defined.		Severity Medium
		<u>!</u>	Relevant Flow Solution Combinations	
ource	Destination	Flow	SolutionName	Notes Notes
S Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - OMG DDS RPC	NTCIP 1202 does not fully define the information needed for a SPaT message, such as the information necessary t link to the MAP and some detailed timing data
TS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 does not fully define the information needed for a SPaT message, such as the information necessary to link to the MAP and some detailed timing data
ssue Description: A draft of the s	tandard has been developed by the wo	rking group, but it was still under deve	elopment at the time the HARTS analysis was per	formed. Severity Medium
		<u> </u>	Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - WAVE UDP	The conditions under which messages are sent, the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - Internet (US)	The conditions under which messages are sent, the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent, the rules defining which data fields to populate for each condition and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev

Class	Field	Timeframe Urgent	Proposed Resolution I-F: US sig	nal operations	Regional Applicability United States		
ssue Descriptio	n: Data has been o	defined for SNMPv1, but needs to be u	pdated to SNMPv3 format.			Severity	Medium
			<u> </u>	Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
TS Roadway Equipn	ment	Traffic Management Center	pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
TS Roadway Equipn	ment	Traffic Management Center	signal control status	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
Other ITS Roadway I	Equipment	ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal preemption request	US: NTCIP Signal Priority - SNMPv3	NTCIP 1211 data needs to be upgraded to SNMPv3.		
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal priority service request	US: NTCIP Signal Priority - SNMPv3	NTCIP 1211 data needs to be upgraded to SNMPv3.		
ΓS Roadway Equipn	ment	Traffic Management Center	right-of-way request notification	US: NTCIP Signal Priority - SNMPv3	NTCIP 1211 data needs to be upgraded to SNMPv3.		
raffic Management	t Center	ITS Roadway Equipment	signal control commands	US: NTCIP Signal System Masters - SNMPv3	NTCIP 1210 data needs to be upgraded to SNMPv3.		
raffic Management	t Center	ITS Roadway Equipment	signal control device configuration	US: NTCIP Signal System Masters - SNMPv3	NTCIP 1210 data needs to be upgraded to SNMPv3.		
raffic Management	t Center	ITS Roadway Equipment	signal system configuration	US: NTCIP Signal System Masters - SNMPv3	NTCIP 1210 data needs to be upgraded to SNMPv3.		
Connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	pedestrian location information	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
connected Vehicle R	Roadside Equipment	ITS Roadway Equipment	signal service request	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
TS Roadway Equipn	ment	Connected Vehicle Roadside Equipment	conflict monitor status	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
TS Roadway Equipm	ment	Connected Vehicle Roadside Equipment	intersection control status	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
ΓS Roadway Equipn	ment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
TS Roadway Equipn	ment	Connected Vehicle Roadside Equipment	pedestrian crossing status	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
TS Roadway Equipn	ment	Other ITS Roadway Equipment	signal control coordination	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
TS Roadway Equipn	ment	Other ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
Other ITS Roadway I	Equipment	ITS Roadway Equipment	signal control data	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
raffic Management	t Center	ITS Roadway Equipment	pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
raffic Management	t Center	ITS Roadway Equipment	signal control plans	US: NTCIP Traffic Signal - SNMPv3	NTCIP 1202 data needs to be upgraded to SNMPv3.		
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
ield	Urgent	I-F: Weather information		ble ITS application specification for directing a	n RSE to provide weather information to vehicles.	Australia, Euro United States	opean Union
ssue Descriptio	n: Performance, fu	unctionality, and the upper-layers of th	ne OSI stack have not been defined for	this information flow.		Severity	Ultra
			!	Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
Connected Vehicle R	Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been s	tarted.	
ransportation Infor	rmation Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been s	tarted.	
onnected Vehicle R	Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been s	tarted.	
ransportation Infor	rmation Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been s	tarted.	
connected Vehicle R	Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been s	tarted.	
ransportation Infor	rmation Center	Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been s	tarted.	
Connected Vehicle F	Roadside Equipment	Transportation Information Center	road weather advisory status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been s	tarted.	
		Connected Vehicle Roadside Equipment	road weather advisory info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been s		

Class	Vehicle-Local	Timeframe	Urgent	Proposed Resolution V-L: CAM		Regional Applicability Australia, Euro	pean Union
Class	Timeframe	Proposed Resoluti	ion	Description			Regional Applicability
Vehicle-Local	Urgent	V-L: CAM		Develop an internationally acceptable optional fields for each condition.	ITS application specification for CAM for	each use case where it applies and when the CAM should include	Australia, European Union
ssue Description:	While the indica	ated standards nomin	nally address the in	nformation flow, the design may not mee	t practical constraints because this partic	ular use case was not the focus of the design effort.	Severity Medium
				Rele	evant Flow Solution Combinations		
Source		Destination		Flow	SolutionName	Notes	
Transit Vehicle OBE		Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impactir vehicle	g several use cases such as turning
ransit Vehicle OBE		Vehicle OBE		special vehicle type alert	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
ehicle OBE		Connected Vehicle Ro	adside Equipment	vehicle control event	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impactir vehicle	g several use cases such as turning
Commercial Vehicle OB	E	Connected Vehicle Ro	adside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
commercial Vehicle OBI	E	Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
Commercial Vehicle OB	E	Vehicle OBE		special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
mergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
mergency Vehicle OBE		Vehicle OBE		special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impactir vehicle	g several use cases such as turning
Maint and Constr Vehic	le OBE	Vehicle OBE		special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
Other Vehicle OBEs		Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impactir vehicle	g several use cases such as turning
Other Vehicle OBEs		Vehicle OBE		vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
Other Vehicle OBEs		Vehicle OBE		vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impactir vehicle	g several use cases such as turning
ransit Vehicle OBE		Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
ransit Vehicle OBE		Vehicle OBE		special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impactir vehicle	g several use cases such as turning
ehicle OBE		Connected Vehicle Ro	adside Equipment	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
ehicle OBE		Connected Vehicle Ro	adside Equipment	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impactir vehicle	g several use cases such as turning
ehicle OBE		Connected Vehicle Ro	adside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
ehicle OBE		Connected Vehicle Ro	adside Equipment	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
ehicle OBE		Other Vehicle OBEs		vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting vehicle	g several use cases such as turning
ehicle OBE		Other Vehicle OBEs		vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impactir vehicle	g several use cases such as turning

Class Vehicle-Local	Timeframe Urgent	Proposed Resolution V-L: CAM		Regional Applicability Australia, European Union
Vehicle OBE	Personal Information Device	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - CEN 5.8Ghz DSRC	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle ID	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Vehicle OBE	Other Vehicle OBEs	vehicle location and motion	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Vehicle OBE	Personal Information Device	vehicle location and motion	EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - Local Broadcast Wireless (AU/EU)	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle
Vehicle OBE	Data Distribution System	vehicle situation data	EU: CA Service - Mobile Internet (X.509)	Vehicle length does not include information for articulation points impacting several use cases such as turning vehicle

Class	Vehicle-Local	Timeframe Urgent	Proposed Resolution	V-L: DENM	Regional Applicability Australia, Europe	an Union	
Class	Timeframe	Proposed Resolution	Description			Regional Appli	cability
Vehicle-Local	Urgent	V-L: DENM	Develop an international optional fields for each		each use case where it applies and when the DENM should include	Australia, Euro	pean Union
Issue Description: V	While the indica	ted standards nominally address the ir	formation flow, the design	may not meet practical constraints because this particula	ar use case was not the focus of the design effort.	Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle Roads	side Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Other Vehicle OBEs		Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Other Vehicle OBEs		Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Other Vehicle OBEs		Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information		
Other Vehicle OBEs		Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Other Vehicle OBEs		Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information		
Vehicle OBE		Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Vehicle OBE		Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Vehicle OBE		Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Vehicle OBE		Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information		
Vehicle OBE		Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		•
Vehicle OBE		Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Connected Vehicle Roads	side Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Other Vehicle OBEs		Vehicle OBE	vehicle collision warning	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
Other Vehicle OBEs		Vehicle OBE	vehicle control event	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
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Class Vehicle-Local	Timeframe Urgent	Proposed Resolution V-L: DENM		Regional Applicability Australia, European Union
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Road closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini

Class	Vehicle-Local	Timeframe Urgent	Proposed Resolution V-L: D	istribute maps	Regional Applicability Australia, Europe	ean Union, Unite	d States, Japa
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
ehicle-Local	Urgent	V-L: Distribute maps	Develop an internationally according geometry to a vehicle from a lo		ules for distributing maps, roadway geometry, and intersection	Australia, Euro United States,	•
ssue Description	: Performance, fu	nctionality, and the upper-layer	s of the OSI stack have not been defined	for this information flow.		Severity	Ultra
	_			Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	_ Notes		
onnected Vehicle Ro	oadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been star	ted.	
onnected Vehicle Ro	oadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been stan	ted.	
onnected Vehicle Ro	oadside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been star	ted.	
onnected Vehicle Ro	padside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (US)	Work on the upper layer standards related to this solution have not been star	ted.	
onnected Vehicle Ro	adside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (US)	Work on the upper layer standards related to this solution have not been star	ted.	
onnected Vehicle Ro	padside Equipment	Vehicle OBE	roadway geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	Work on the upper layer standards related to this solution have not been star	ted.	
ssue Description	: A draft of the sta	andard has been developed by t	he working group, but it was still under (development at the time the HARTS analysis was perfo	ormed.	Severity	Medium
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
onnected Vehicle Ro	padside Equipment	Personal Information Device	intersection geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	The conditions under which messages are sent, the rules defining which data and the latency, accuracy, and performance requirements related to these m document is still under dev		
Connected Vehicle Ro	padside Equipment	Vehicle OBE	intersection geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	The conditions under which messages are sent, the rules defining which data and the latency, accuracy, and performance requirements related to these m document is still under dev		
onnected Vehicle Ro	oadside Equipment	Vehicle OBE	roadway geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	The conditions under which messages are sent, the rules defining which data and the latency, accuracy, and performance requirements related to these m document is still under dev		
ssue Description	: The performance	e rules are not fully defined for	this information flow.			Severity	Medium
	<u> </u>			Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
onnected Vehicle Ro	padside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rules defining which data and the latency, accuracy, and performance requirements related to these m Application data, minimum requireme		
onnected Vehicle Ro	oadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rules defining which data and the latency, accuracy, and performance requirements related to these m Application data, minimum requireme		
onnected Vehicle Ro	oadside Equipment	Personal Information Device	intersection geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	The conditions under which messages are sent; the rules defining which data and the latency, accuracy, and performance requirements related to these m Application data, minimum requireme		
onnected Vehicle Ro	padside Equipment	Vehicle OBE	intersection geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	The conditions under which messages are sent; the rules defining which data and the latency, accuracy, and performance requirements related to these m Application data, minimum requireme		

Class	Vehicle-Local	Timeframe Urgent	Proposed Resolution	V-L: Environmental data sharing	Regional Applicability Australia, Europ	ean Union, United States
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Vehicle-Local	Urgent	V-L: Environmental data sharing	The state of the s	Illy acceptable ITS application specification for sharing environt to date under both J2735 and DENM.	onmental data from vehicles to other local entities. The effort	Australia, European Union, United States
ssue Description:	While the indica	ted standards nominally address the i	nformation flow, the desigr	may not meet practical constraints because this particular of	use case was not the focus of the design effort.	Severity Medium
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which deach condition; and the latency, accuracy, and performance requirements redefined. Notes: Application data, mini	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which deach condition; and the latency, accuracy, and performance requirements redefined. Notes: Application data, mini	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which deach condition; and the latency, accuracy, and performance requirements redefined. Notes: Application data, mini	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Unclear rules on when to send CAM vs. DENM for this information	
/ehicle OBE		Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which deach condition; and the latency, accuracy, and performance requirements redefined. Notes: Application data, mini	
/ehicle OBE		Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Unclear rules on when to send CAM vs. DENM for this information	
/ehicle OBE		Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which deach condition; and the latency, accuracy, and performance requirements redefined. Notes: Application data, mini	
/ehicle OBE		Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Unclear rules on when to send CAM vs. DENM for this information	
ehicle OBE		Transportation Information Center	vehicle environmental data	EU: DEN Service - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which deach condition; and the latency, accuracy, and performance requirements redefined. Notes: Application data, mini	
Vehicle OBE		Transportation Information Center	vehicle environmental data	EU: DEN Service - Mobile Internet (X.509)	Unclear rules on when to send CAM vs. DENM for this information	

Class	Vehicle-Local	Timeframe	Urgent	Proposed Resolution	V-L: Environm	ental data sharing		Regional Applicability A	ustralia, Europea	an Union, United	l States
Issue Description:	The performance	rules are not fully d	efined for this inf	ormation flow.						Severity	Medium
					<u>Relev</u>	vant Flow Solution Combinations					
Source		Destination		Flow		SolutionName	No	tes			
Other Vehicle OBEs		Vehicle OBE		vehicle environmental data		EU: DEN Service - BTP/GeoNetworking/G5	SAE	J2945/x standards have not yet been proposed for the	CSR, PDM, PVD, Tes	t, NMEA, RTCM, an	d ICA messages
Other Vehicle OBEs		Vehicle OBE		vehicle environmental data		EU: DEN Service - FNTP/M5	SAE	J2945/x standards have not yet been proposed for the	CSR, PDM, PVD, Tes	t, NMEA, RTCM, an	d ICA messages
Other Vehicle OBEs		Vehicle OBE		vehicle environmental data		EU: DEN Service - Local Broadcast Wireless (AU/	/EU) SAE	J2945/x standards have not yet been proposed for the	CSR, PDM, PVD, Tes	t, NMEA, RTCM, an	d ICA messages
Vehicle OBE		Connected Vehicle Roa	ndside Equipment	vehicle environmental data		EU: DEN Service - Local Broadcast Wireless (AU/	/EU) SAE	J2945/x standards have not yet been proposed for the	CSR, PDM, PVD, Tes	t, NMEA, RTCM, an	d ICA messages
Vehicle OBE		Other Vehicle OBEs		vehicle environmental data		EU: DEN Service - Local Broadcast Wireless (AU/	/EU) SAE	J2945/x standards have not yet been proposed for the	CSR, PDM, PVD, Tes	t, NMEA, RTCM, an	d ICA messages
Other Vehicle OBEs		Vehicle OBE		vehicle environmental data		US: SAE Other J2735 - Local Broadcast Wireless	(US) SAE	J2945/x standards have not yet been proposed for the	CSR, PDM, PVD, Tes	t, NMEA, RTCM, an	d ICA messages
Vehicle OBE		Connected Vehicle Roa	ndside Equipment	vehicle environmental data		US: SAE Other J2735 - Local Broadcast Wireless	(US) SAE	J2945/x standards have not yet been proposed for the	CSR, PDM, PVD, Tes	t, NMEA, RTCM, an	d ICA messages
Vehicle OBE		Other Vehicle OBEs		vehicle environmental data		US: SAE Other J2735 - Local Broadcast Wireless	(US) SAE	J2945/x standards have not yet been proposed for the	CSR, PDM, PVD, Tes	t, NMEA, RTCM, an	d ICA messages

Class	Vehicle-Local	Timeframe	Jrgent Proposed Res	olution V-L: EU signal operations	Regional Applicability Australia	, European Union
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Vehicle-Local	Urgent	V-L: EU signal operation	ons Develop an IT	S application specification for providing intersection status	s information to vehicles from the roadside.	Australia, European Union
Issue Description	The performand	ce rules are not fully defi	ned for this information flow.			Severity Medium
				Relevant Flow Solution Combinations	<u>s</u>	
Source		Destination	Flow	SolutionName	Notes	
Connected Vehicle Ro	oadside Equipment	Commercial Vehicle OBE	intersection stat	AU TRAFF - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	padside Equipment	Emergency Vehicle OBE	intersection stat	AU TRAFF - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	padside Equipment	Transit Vehicle OBE	intersection stat	AU TRAFF - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	intersection stat	AU TRAFF - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Commercial Vehicle OBE	intersection stat	AU TRAFF - FNTP/M5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	· ·
Connected Vehicle Ro	padside Equipment	Emergency Vehicle OBE	intersection stat	AU TRAFF - FNTP/M5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Transit Vehicle OBE	intersection stat	AU TRAFF - FNTP/M5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	intersection stat	AU TRAFF - FNTP/M5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	padside Equipment	Commercial Vehicle OBE	intersection stat	EU: Signal Control Messages - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Emergency Vehicle OBE	intersection stat	EU: Signal Control Messages - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Transit Vehicle OBE	intersection stat	EU: Signal Control Messages - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
onnected Vehicle Ro	oadside Equipment	Vehicle OBE	intersection stat	EU: Signal Control Messages - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Commercial Vehicle OBE	intersection stat	EU: Signal Control Messages - CEN 5.8	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Commercial Vehicle OBE	intersection stat	EU: Signal Control Messages - FNTP/N	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
Connected Vehicle Ro	oadside Equipment	Emergency Vehicle OBE	intersection stat	EU: Signal Control Messages - FNTP/N	The conditions under which messages are sent; the rules defining w and the latency, accuracy, and performance requirements related to Application data, minimum requireme	
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Class	Vehicle-Local	Timeframe	Urgent	Proposed Resolution	V-L: EU signal operations	Regional Applicability Australia, European Union
Connected Vehicle Road	Iside Equipment	Transit Vehicle OBE		intersection status	EU: Signal Control Messages - FNTP/M5	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Connected Vehicle Road	lside Equipment	Vehicle OBE		intersection status	EU: Signal Control Messages - FNTP/M5	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Connected Vehicle Road	lside Equipment	Commercial Vehicle OB	E	intersection status	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Connected Vehicle Road	lside Equipment	Emergency Vehicle OBE		intersection status	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Connected Vehicle Road	lside Equipment	Transit Vehicle OBE		intersection status	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Connected Vehicle Road	lside Equipment	Vehicle OBE		intersection status	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme

Class	Vehicle-Local	Timeframe	Urgent	Proposed Resolution	/-L: EU signal priority	Regional Applicability	Australia, European Union	
Class Vehicle-Local	Timeframe Urgent	Proposed Resolut V-L: EU signal prio		Description Develop an ITS application	specification for a traffic signal to provide pre-emption o	or priority to authorised vehicles.	Regional Appli Australia, Euro	
Issue Description:	The performance	ce rules are not fully o	defined for this inf	ormation flow.			Severity	Medium
	_				Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Connected Vehicle Road	dside Equipment	Transit Vehicle OBE		signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Commercial Vehicle OB	E	Connected Vehicle Ro	adside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Emergency Vehicle OBE	Ē	Connected Vehicle Ro	adside Equipment	local signal preemption reques	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Commercial Vehicle OB	E	Connected Vehicle Ro	adside Equipment	local signal priority request	EU: CA Service - FNTP/M5	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Emergency Vehicle OBE	1	Connected Vehicle Ro	adside Equipment	local signal preemption reques	EU: CA Service - FNTP/M5	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Emergency Vehicle OBE	:	Connected Vehicle Ro	adside Equipment	local signal preemption reques	EU: CA Service - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Commercial Vehicle OB	E	Connected Vehicle Ro	adside Equipment	local signal priority request	EU: Signal Control Messages - CEN 5.8Ghz DSRC	ISO 19091 does not give clear guidelines on when CAM	should be used vs SRM	
Commercial Vehicle OB	E	Connected Vehicle Ro	adside Equipment	local signal priority request	EU: Signal Control Messages - CEN 5.8Ghz DSRC	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Commercial Vehicle OB	E	Connected Vehicle Ro	adside Equipment	local signal priority request	EU: Signal Control Messages - CEN 5.8Ghz DSRC	The conditions under which the message is sent; the rul each condition; and the latency, accuracy, and performate defined. Notes: Application data, mini		
Connected Vehicle Road	dside Equipment	Commercial Vehicle C	DBE	signal priority status	EU: Signal Control Messages - CEN 5.8Ghz DSRC	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Commercial Vehicle OB	E	Connected Vehicle Ro	oadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM	should be used vs SRM	
Commercial Vehicle OB	E	Connected Vehicle Ro	adside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Commercial Vehicle OB	E	Connected Vehicle Ro	adside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rul each condition; and the latency, accuracy, and performate defined. Notes: Application data, mini		
Connected Vehicle Road	dside Equipment	Commercial Vehicle C	DBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Connected Vehicle Road	dside Equipment	Emergency Vehicle Of	BE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rule and the latency, accuracy, and performance requirement Application data, minimum requireme		
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption reques	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM	should be used vs SRM	

Class	/ehicle-Local	Timeframe Urgent	Proposed Resolution V-L: EU	signal priority	Regional Applicability Australia, European Union
Emergency Vehicle OBE		Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Emergency Vehicle OBE		Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Transit Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM should be used vs SRM
Transit Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Transit Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Commercial Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	US: SAE Signal Preemption - Local Unicast Wireless (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Connected Vehicle Roadside	e Equipment	Commercial Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Connected Vehicle Roadside	e Equipment	Emergency Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Connected Vehicle Roadside	e Equipment	Transit Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Emergency Vehicle OBE		Connected Vehicle Roadside Equipment	local signal preemption request	US: SAE Signal Preemption - Local Unicast Wireless (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Transit Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	US: SAE Signal Preemption - Local Unicast Wireless (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme

Class	Vehicle-Local	cal Timeframe Urgent Proposed Resolution V-L: EU signal priority				Regional Applicability Australia, European Union			
Issue Description:	While the indicat	ted standards nomin	nally address the i	nformation flow, the design	n may not meet practical constraints because this particular	use case was not the focus of the design effort.	Severity	Medium	
					Relevant Flow Solution Combinations				
Source		Destination		Flow	SolutionName	Notes			
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: CA Service - BTP/GeoNetworking/G5	ISO 19091 does not give clear guidelines on when CAM should be used v	vs SRM		
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating wh each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini			
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: CA Service - BTP/GeoNetworking/G5	Vehicle length does not include information for articulation points impavehicle	cting several use cases s	uch as turning	
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: CA Service - FNTP/M5	ISO 19091 does not give clear guidelines on when CAM should be used v	rs SRM		
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating wh each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini			
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: CA Service - FNTP/M5	Vehicle length does not include information for articulation points impavehicle	cting several use cases s	uch as turning	
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: CA Service - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM should be used v	vs SRM		
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: CA Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating wh each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini			
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: CA Service - Local Broadcast Wireless (AU/EU)	Vehicle length does not include information for articulation points impavehicle	cting several use cases s	uch as turning	
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM should be used v	vs SRM		
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating wh each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini			
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	est EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Vehicle length does not include information for articulation points impavehicle	cting several use cases s	uch as turning	
Transit Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM should be used v	vs SRM		
Transit Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating wh each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini			
Emergency Vehicle OBE		Connected Vehicle Ro	adside Equipment	local signal preemption requ	us: SAE Signal Preemption - Local Unicast Wireless (US)	Vehicle length does not include information for articulation points impavehicle	cting several use cases s	uch as turning	

Class Vehicle-		Proposed Resolution V-	L: EU vehicle signage data	Regional Applicability Australia, Eu		
Class Timefrai	me Proposed Resolution	Description			Regional Appl	icability
Vehicle-Local Urgent	V-L: EU vehicle signage data	Develop an ITS application	specification for providing vehicle signage data to vehicles	s over DSRC.	Australia, Euro	pean Union
ssue Description: The perfo	ormance rules are not defined for this info	rmation flow.			Severity	High
			Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	_ Notes		
Connected Vehicle Roadside Equipm	nent Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823		
Connected Vehicle Roadside Equipm	nent Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified.		
Connected Vehicle Roadside Equipm	nent Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating whice each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini		
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823		
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified.		
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini		•
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823		
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified.		
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini		
Traffic Management Center	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.509)	Overlap between ETSI 102 638 and ISO 14823		
Traffic Management Center	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.509)	Performance requirements for IVI data transmission are not specified.		
Traffic Management Center	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini		
Issue Description: Multiple s	standards have been developed to address	s this information and it is unclear	r which standard should be used to address this specific in	nformation flow.	Severity	Medium
			Relevant Flow Solution Combinations			
Source	Destination	Flow	 SolutionName	Notes		
Connected Vehicle Roadside Equipm	nent Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating whice each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini		
Connected Vehicle Roadside Equipm	nent Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN S	Services	

Class	ehicle-Local	Timeframe Urgent	Proposed Resolution	V-L: EU vehicle signage data	Regional Applicability Australia,	European Union	
Issue Description: Wh	nile the indicat	ed standards nominally address the	information flow, the design	may not meet practical constraints because this particular u	use case was not the focus of the design effort.	Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes Notes		
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating weach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Vehicle signage data can be transmitted with ISO 19321 or DEN Service	res (V2V)	
Connected Vehicle Roadside	e Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating veach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	speed management information	on EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	Overlap between IVI and Contextual Speed Information		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	speed management information	on EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating veach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating veach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DE	EN Services	
Maint and Constr Vehicle Ol	BE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating veach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Maint and Constr Vehicle Ol	BE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Vehicle signage data can be transmitted with ISO 19321 or DEN Service	res (V2V)	
Connected Vehicle Roadside	e Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating veach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	speed management information	on EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between IVI and Contextual Speed Information		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	speed management information	on EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating veach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified		
Connected Vehicle Roadside	e Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating veach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823		
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified		
Emergency Vehicle OBE		Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating veach condition; and the latency, accuracy, and performance requirem defined. Notes: Application data, mini		
Maint and Constr Vehicle Ol	BE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823		
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Class Vehicle-Local	Timeframe Urgent	Proposed Resolution V-L: EU vehicl	e signage data	Regional Applicability Australia, European Union
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN Services
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini

Class	Vehicle-Local	Timeframe	Urgent	Proposed Resolution	V-L: Intersection infringement	Regional Applicability Australia, Europe	ean Union, Unite	ed States
Class	Timeframe	Proposed Resolution	n	Description			Regional Appl	licability
/ehicle-Local	Urgent	V-L: Intersection infr	-	Develop an international local environment.	ly acceptable ITS application specification that defines the	he rules for providing intersection infringment information within a	Australia, Euro United States	opean Union,
ssue Description:	Performance, fu	ınctionality, and the up	pper-layers of the C	OSI stack have not been d	efined for this information flow.		Severity	Ultra
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Connected Vehicle Road	lside Equipment	ITS Roadway Equipment	t	intersection infringement info	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
/ehicle OBE		Connected Vehicle Road	dside Equipment	intersection infringement info	(None-Data) - FNTP/M5	Work on the upper layer standards related to this solution have not been star	ted.	
ehicle OBE		Other Vehicle OBEs		intersection infringement info	(None-Data) - FNTP/M5	Work on the upper layer standards related to this solution have not been star	ted.	
ehicle OBE		Connected Vehicle Road	dside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Work on the upper layer standards related to this solution have not been star	ted.	
Other Vehicle OBEs		Vehicle OBE		intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Work on the upper layer standards related to this solution have not been star	ted.	
ehicle OBE		Other Vehicle OBEs		intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle Road	Iside Equipment	ITS Roadway Equipment		intersection infringement info	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
Other Vehicle OBEs		Vehicle OBE		intersection infringement info	(None-Data) - FNTP/M5	Work on the upper layer standards related to this solution have not been star	ted.	
connected Vehicle Road	Iside Fauinment	ITS Roadway Equipment		intersection infringement info	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been star	ted.	
Connected Vehicle Road		ITS Roadway Equipment		intersection infringement info	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been star		
				-		. ,		D.A. Ji
ssue Description:	wrille the indica	ited Standards nominal	ily address the into	ormation now, the design	may not meet practical constraints because this particul	iar use case was not the locus of the design effort.	Severity	Medium
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes The conditions under which the message is contuited rules indicating which do	ta fiolds should be r	anulated for
Connected Vehicle Road	dside Equipment	Vehicle OBE		intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		
Other Vehicle OBEs		Vehicle OBE		intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		
ehicle OBE		Connected Vehicle Road	dside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		
ehicle OBE		Other Vehicle OBEs		intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		•
Connected Vehicle Road	lside Equipment	Vehicle OBE		intersection safety warning	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		
Other Vehicle OBEs		Vehicle OBE		intersection infringement info	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		
/ehicle OBE		Connected Vehicle Road	lside Equipment	intersection infringement info	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		
		Other Vehicle OBEs		intersection infringement info	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which da	ta fields should he r	nonulated for

	le-Local Timeframe Urgent		tersection infringement	Regional Applicability Australia, Eur		
ssue Description: The per	formance rules are not fully defined for t	his information flow.			Severity	Medium
			Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes	Total NIMEA DECM	
/ehicle OBE	Connected Vehicle Roadside Equipm	-	(None-Data) - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI		-
/ehicle OBE	Other Vehicle OBEs	intersection infringement info	(None-Data) - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI		
/ehicle OBE	Connected Vehicle Roadside Equipm	ent intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI		-
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
/ehicle OBE	Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	(None-Data) - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Connected Vehicle Roadside Equi	pment Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Vehicle OBE	Connected Vehicle Roadside Equipm	ent intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
/ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Connected Vehicle Roadside Equi	pment Vehicle OBE	intersection safety warning	EU: DEN Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
/ehicle OBE	Connected Vehicle Roadside Equipm	ent intersection infringement info	EU: DEN Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA message
/ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA message
Connected Vehicle Roadside Equi	pment Vehicle OBE	intersection safety warning	US: SAE Other J2735 - WAVE WSMP	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	US: SAE Other J2735 - WAVE WSMP	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
/ehicle OBE	Connected Vehicle Roadside Equipm	ent intersection infringement info	US: SAE Other J2735 - WAVE WSMP	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Vehicle OBE	Other Vehicle OBEs	intersection infringement info	US: SAE Other J2735 - WAVE WSMP	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVI	D, Test, NMEA, RTCM, a	and ICA messages
Class Timefr	rame Proposed Resolution	Description			Regional App	licability
/ehicle-Local Urgent		·	fication for in-vehicle information for each applica	able use case.	Australia, Eur	-
ssue Description: While the	he indicated standards nominally address	the information flow the design may no	ot meet practical constraints because this particula	ar use case was not the focus of the design effort	Severity	Medium
wille the	The maleated standards normally address.	the information now, the design may ne		an use cuse was not the rocus of the design enort.	Severity	Wicalani
iourco	Destination	Flow	Relevant Flow Solution Combinations SolutionName	Notes		
Source Connected Vehicle Roadside Equi		road closure information	EU: In-Vehicle Information - Local Broadcast	Road closure information can be transmitted with ISO 19321, TPEG2, or D	EN Services	
			Wireless (AU/EU)			
Connected Vehicle Roadside Equi	pment Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating whice each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini		
Class Timefr	rame Proposed Resolution	Description			Regional App	licability
/ehicle-Local Urgent	t V-L: Queue warning	Develop an ITS application speci	fication for providing queue warnings to vehicles	from the roadside or other vehicles that is harmonised with DENI	M. United States	;
ssue Description: Perform	nance, functionality, and the upper-layer	of the OSI stack have not been defined f	or this information flow.		Severity	Ultra
			Relevant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes		
Connected Vehicle Roadside Equip	pment Vehicle OBE	queue warning information	(None-Data) - Local Broadcast Wireless (US)	Work on the upper layer standards related to this solution have not been	started.	

Class	Vehicle-Local	Timeframe	Urgent	Proposed Resolution	V-L: Safety awareness	Regional Applicability United S	tates	
Class	Timeframe	Proposed Resolution	on	Description	cription			cability
Vehicle-Local	Urgent	V-L: Safety awarene	ess	Develop an ITS applicati	on specification for vehicle-to-vehicle safety awareness.		United States	
Issue Description:	A draft of the st	andard has been deve	loped by the wor	king group, but it was still	under development at the time the HARTS analysis was per	formed.	Severity	Medium
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Emergency Vehicle OBE		Personal Information D	evice	personal safety warning	US: SAE Safety Awareness Messages - Local Broadcast Wireless (US)	SAE J2945/2 is still under development.		
Emergency Vehicle OBE		Vehicle OBE		emergency vehicle alert	US: SAE Safety Awareness Messages - Local Broadcast Wireless (US)	SAE J2945/2 is still under development.		
Emergency Vehicle OBE		Vehicle OBE		special vehicle type alert	US: SAE Safety Awareness Messages - WAVE WSMP	SAE J2945/2 is still under development.		
Other Vehicle OBEs		Vehicle OBE		vehicle hazard event	US: SAE Safety Awareness Messages - WAVE WSMP	SAE J2945/2 is still under development.		
Vehicle OBE		Other Vehicle OBEs		vehicle hazard event	US: SAE Safety Awareness Messages - WAVE WSMP	SAE J2945/2 is still under development.		
Class	Timeframe	Proposed Resolution	on	Description			Regional Appl	cability
Vehicle-Local	Urgent	V-L: Signal operatio	ns	Develop an international standardise ISO 19091)	Illy acceptable ITS application specification for signal contro	I information to vehicles from the roadside. (i.e., formally	Australia, Euro United States	pean Union,

Class	Vehicle-Local	Timefram	е	Urgent	Proposed Resolution	V-L: Special vehicle alert	Regional Applicability Australia, Europe	ean Union, United S	Jnion, United States	
Class	Timeframe	Proposed Res	olution	1	Description			Regional Applica	bility	
Vehicle-Local	Urgent	V-L: Special ve	ehicle alert Develop an internationally acceptable ITS application specification for sending special vehicle alerts.		Australia, European Union, United States					
Issue Description:	While the indicat	ted standards no	minall	y address the inf	formation flow, the design	details may not meet performance or other requirements because this particular of	use case was not the focus of the design	Severity	High	

			Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes Notes
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Fransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information

Class Vehicle-Local	Timeframe Urgent	Proposed Resolution V-L:	Special vehicle alert	Regional Applicability Australia, European Union, United States
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Issue Description: The performance	ce rules are not fully defined for this in	nformation flow.		Severity Medium
			Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes Notes
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
ommercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
ommercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
				CAT 12045 / set and and a hour met up to be an information of fair the CCD, DDM, DVD, Text, NIMEA, DTCM, and ICA measures
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Fransit Vehicle OBE Commercial Vehicle OBE	Vehicle OBE Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5 US: SAE Other J2735 - WAVE WSMP	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages

Class	Vehicle-Local	Timeframe Urgent	Proposed Resolution V-L: Station	nary vehicle	Regional Applicability United States		
Class	Timeframe	Proposed Resolution	Description			Regional Appli	icability
Vehicle-Local	Urgent	V-L: Stationary vehicle	Develop an ITS application specificat	tion harmonised with DENM for a vehicle to self-	report when it is stationary and a potential hazard.	United States	
Issue Description:	The performand	ce rules are not fully defined for this in	formation flow.			Severity	Medium
			Re	elevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Other Vehicle OBEs		Vehicle OBE	vehicle hazard event	US: SAE Safety Awareness Messages - WAVE WSMP	Performance characteristics for a vehicle reporting itself as stationary is not	t defined.	
		lau viii aas			Performance characteristics for a vehicle reporting itself as stationary is not	t defined	
/ehicle OBE		Other Vehicle OBEs	vehicle hazard event	US: SAE Safety Awareness Messages - WAVE WSMP	renormance characteristics for a vehicle reporting itself as stationary is not	. defined.	
Class	Timeframe	Proposed Resolution	Description			Regional Appli	icability
/ehicle-Local	Urgent	V-L: Trailer information for vehicle location and motion	Standardise the mechanism for the I	BSM, CAM, and DENM to accurately convey geor	metric properties related to articulated vehicles.	Australia, Euro United States	pean Union
ssue Description:	Some of the dat	ta elements for this information flow a	re not fully defined.			Severity	Medium
	_		Re	elevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
ther Vehicle OBEs		Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	d within the BSI
ransit Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	d within the BS
mergency Vehicle OB	E	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	J within the BS
ransit Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	I within the BS
ehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	J within the BS
ehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	within the BSI
ehicle OBE		Other Vehicle OBEs	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	J within the BSI
mergency Vehicle OB	E	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	I within the BSI
ther Vehicle OBEs		Vehicle OBE	vehicle location and motion	EU: CA Service - FNTP/M5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	I within the BSI
ehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - FNTP/M5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	within the BSI
ehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - FNTP/M5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	I within the BSI
ehicle OBE		Other Vehicle OBEs	vehicle location and motion	EU: CA Service - FNTP/M5	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	l within the BSI
ehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	EU: CA Service - Local Broadcast Wireless (AU/EU)	The standards are ambiguous regarding how trailer information should be o	detected and conveyed	l within the BSI
/ehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	l within the BSI
mergency Vehicle OB	E	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	I within the BS
Other Vehicle OBEs		Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	within the BS
Transit Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	l within the BS
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	within the BS
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	US: SAE Basic Safety Messages - WAVE WSMP	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	l within the BSI
Vehicle OBE		Other Vehicle OBEs	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	The standards are ambiguous regarding how trailer information should be of	detected and conveyed	l within the BSI

Class	Vehicle-Local	Timeframe	Urgent	Proposed Resolution	V-L: US signal operations	Regional Applicability United States	
Class	Timeframe	Proposed Resolution	on	Description	Regional Applicability		
Vehicle-Local	Urgent	V-L: US signal operations		Develop an ITS application roadside.	United States		
Issue Description	A draft of the sta	andard has been deve	loped by the wo	rking group, but it was still	under development at the time the HARTS analysis was pe	rformed.	Severity Medium
					Relevant Flow Solution Combinations		
Source		Destination		Flow	SolutionName	Notes	
Connected Vehicle Ro	oadside Equipment	Emergency Vehicle OB	Ē	intersection status	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent, the rules defining which do and the latency, accuracy, and performance requirements related to these document is still under dev	
Connected Vehicle Ro	oadside Equipment	Transit Vehicle OBE		intersection status	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent, the rules defining which do and the latency, accuracy, and performance requirements related to these document is still under dev	• •
Connected Vehicle Ro	oadside Equipment	Vehicle OBE		intersection status	US: SAE Signal Control Messages - WAVE WSMP	The conditions under which messages are sent, the rules defining which do and the latency, accuracy, and performance requirements related to these document is still under dev	

Class	Vehicle-Local	Timeframe Urg	ent Proposed Resolution	V-L: US signal priority	Regional Applicability United States		
Class	Timeframe	Proposed Resolution	Description			Regional App	olicability
Vehicle-Local	Urgent	V-L: US signal priority	Develop an ITS applica	ation specification for the performance requirements relate	ed to pre-emption and priority for authorised vehicles at a signal.	United States	5
Issue Description:	The performand	ce rules are not defined for	this information flow.			Severity	High
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Commercial Vehicle O	BE	Connected Vehicle Roadside I	Equipment local signal priority request	US: SAE Signal Preemption - Local Unicast Wirele (US)	The conditions under which messages are sent; the rules defining which data fields to populate and the latency, accuracy, and performance requirements related to these messages are not deposition data, minimum requireme		
Connected Vehicle Roadside Equipment		Commercial Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wirele (US)	The conditions under which messages are sent; the rules defining which data fields to poper and the latency, accuracy, and performance requirements related to these messages are application data, minimum requireme		
Connected Vehicle Roadside Equipment Emergency Vehicle OB		Emergency Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wirele (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each and the latency, accuracy, and performance requirements related to these messages are not defined. No Application data, minimum requireme		
Connected Vehicle Roadside Equipment Transit Vehicle OBE		Transit Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wirele (US)	and the latency, accuracy, and performance requirements related to these messages are not defined. Note Application data, minimum requireme		
Emergency Vehicle OBE Connected Vehicle Roadside Equipment		Equipment local signal preemption req	uest US: SAE Signal Preemption - Local Unicast Wirele (US)	and the latency, accuracy, and performance requirements related to these messages are not defined. N Application data, minimum requireme			
Transit Vehicle OBE		Connected Vehicle Roadside I	Equipment local signal priority request	US: SAE Signal Preemption - Local Unicast Wirele (US)	The conditions under which messages are sent; the rules defining which dat and the latency, accuracy, and performance requirements related to these Application data, minimum requireme		
Issue Description:	This recommen	ded practice on how to use	the related standards is still under de	evelopment but is not seen as strictly necessary to begin de	eployment of equipment.	Severity	Low
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Commercial Vehicle O	BE	Connected Vehicle Roadside I	Equipment local signal priority request	US: SAE Signal Preemption - Local Unicast Wirele (US)	The SAE J2945/11 guidance document is still under development.		
Connected Vehicle Roa	adside Equipment	Commercial Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wirele (US)	The SAE J2945/11 guidance document is still under development.		
Connected Vehicle Roa	adside Equipment	Emergency Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wirele (US)	The SAE J2945/11 guidance document is still under development.		
Connected Vehicle Roa	adside Equipment	Transit Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wirele (US)	The SAE J2945/11 guidance document is still under development.		
Emergency Vehicle OB	ВЕ	Connected Vehicle Roadside I	Equipment local signal preemption req	uest US: SAE Signal Preemption - Local Unicast Wirele (US)	The SAE J2945/11 guidance document is still under development.		
Transit Vehicle OBE		Connected Vehicle Roadside I	Equipment local signal priority request	US: SAE Signal Preemption - Local Unicast Wirele (US)	The SAE J2945/11 guidance document is still under development.		

Class	Vehicle-Local	Timeframe U	rgent Proposed Resolution	V-L: US traveler information	Regional Applicability United States		
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
ehicle-Local	Urgent	V-L: US traveler inform		on specification for providing in-vehicle signage and other es such as when and how to locally generate traveler info	r traveler information to the vehicle from the roadside. This will ormation messages and how to sign these messages.	United States	
ssue Description:		evelopment organization g new or simply a lack of a	-	ect standard but a draft is not available for this critical fea	ature to enable the interface. The draft may be missing due to the	Severity	High
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes Notes		
Connected Vehicle Roa	adside Equipment	Personal Information Device	e local traveler information	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2945/4 is still under development.		
Connected Vehicle Roa	adside Equipment	Vehicle OBE	local traveler information	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2945/4 is still under development.		
Connected Vehicle Roa	adside Equipment	Vehicle OBE	reduced speed notification	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2945/4 is still under development.		
Connected Vehicle Roa	adside Equipment	Vehicle OBE	speed management information	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2945/4 is still under development.		
Traffic Management Co	enter	Vehicle OBE	speed management information	on US: SAE Traveler Info - Mobile Internet (US)	SAE J2945/4 is still under development.		
Issue Description:	There are ambig	guities as to how to (or if o	one should) couple the upper-laver stand	ards defined in this solution with the indicated lower-laye	er standards.	Severity	High
<u> </u>		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Traffic Management Co	enter	Vehicle OBE	speed management information				
ssue Description:	The performance	e rules are not fully defin	ed for this information flow.			Severity	Medium
	_			Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle Roa	adside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU	U) SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Roa	adside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU	U) SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Roa	adside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Roa	adside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Roa	adside Equipment	Vehicle OBE	lane closure information	JP: F-V Short Range Wireless Data(JP) - F-V Short Range Wireless Downlink Comm (JP)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Roa	adside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Roa	adside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages
onnected Vehicle Roa	adside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages
Connected Vehicle Roa		Vehicle OBE	lane closure information	US: SAE Other J2735 - Local Broadcast Wireless (U	JS) SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD,	Test, NMEA, RTCM, a	nd ICA messages

Class	Vehicle-Local	Timeframe	Jrgent Propos	ed Resolution	V-L: US work zone information	Regional Applicability United States		
lass	Timeframe	Proposed Resolution	Descri	ption			Regional Appl	licability
ehicle-Local	Urgent	V-L: US work zone info			ion specification for providing work zone information to vehing J3067, TPEG2, IVI, and DENM and assist in the development	icles within a local area. This should be based on the currently of an ITS-Wide Data Model.	United States	
ssue Description	The document i	may be publicly available	but it is not currently a	vailable as a form	al standard and details may change prior to adoption as a st	tandard.	Severity	Medium
					Relevant Flow Solution Combinations			
ource		Destination	Flow		SolutionName	Notes		
onnected Vehicle Ro	oadside Equipment	Vehicle OBE	work zo	ne information	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	SAE J3067 is only an informational report, not a standard. It is a preliminary enhancements and extensions to SAE J2735, but significant technical chang standardization.	•	
laint and Constr Veh	hicle OBE	Vehicle OBE	work zo	ne information	US: SAE J3067 (J2735 SE) - Local Unicast Wireless (US)	SAE J3067 is only an informational report, not a standard. It is a preliminary enhancements and extensions to SAE J2735, but significant technical chang standardization.		
Class	Timeframe	Proposed Resolution	Descri	ption			Regional App	licability
ehicle-Local	Urgent	V-L: Vehicle collision v	-	•	te ITS application specification for exchanging alerts locally t	that vehicles are about to collide.	European Uni	-
ssue Description	: While the indica	ated standards nominally	address the informatio	n flow, the desig	n may not meet practical constraints because this particular	use case was not the focus of the design effort.	Severity	Medium
	_				Relevant Flow Solution Combinations			
ource		Destination	Flow		SolutionName	Notes		
onnected Vehicle Ro	oadside Equipment	Vehicle OBE	vehicle (collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements r defined. Notes: Application data, mini		
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	vehicle (collision warning	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements redefined. Notes: Application data, mini		
Class	Timeframe	Proposed Resolution	Descri	ption			Regional App	licability
ehicle-Local	Urgent	V-L: Vehicle headlight			on specification for a vehicle to request another vehicle to d still needed or whether existing market products adequately	dim its headlights. NOTE: This analysis should consider whether y address this issue.	European Uni	on
ssue Description	Performance, fu	unctionality, and the upp	er-layers of the OSI stac	k have not been	defined for this information flow.		Severity	Ultra
					Relevant Flow Solution Combinations			
ource		Destination	Flow		SolutionName	Notes		
ther Vehicle OBEs		Vehicle OBE	vehicle l	headlight dim reques	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been st	arted.	
ehicle OBE		Other Vehicle OBEs	vehicle	headlight dim reques	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been st	arted.	
lass	Timeframe	Proposed Resolution	Descri	ption			Regional App	licability
ehicle-Local	Urgent	V-L: Vehicle route plan		•	ally acceptable ITS application specification for the use case of ta for Traffic Operations. This might be combined with V-I: Si	of providing detailed vehicle route information to the RSE for Situation Data.	European Uni	-
lass	Timeframe	Proposed Resolution	Descri	ption			Regional App	licability
/ehicle-Local	Urgent	V-L: Weather informa			TS application specification for providing weather informationsider the use of DENM and/or TPEG2 as already implemented		United States	
ssue Description		levelopment organization			ject standard but a draft is not available for this critical featu	ure to enable the interface. The draft may be missing due to the	Severity	High
					Relevant Flow Solution Combinations			
Source		Destination	Flow		SolutionName	Notes		
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	road we	eather advisories	US: SAE Weather Info - Local Broadcast Wireless (US)	A draft of SAE J2945/3 is not yet available.		

Class	Vehicle-Local	Timeframe	Urgent	Proposed Resolution	V-L: Wrong way vehicle detected	Regional Applicability Australia, Eur	opean Union, Unite	ed States	
Class	Timeframe	Proposed Resolution	on	Description			Regional App	licability	
Vehicle-Local	Urgent	V-L: Wrong way ve	hicle detected	Develop an internation	Develop an internationally acceptable ITS application specification for providing distributing wrong way vehicle alerts in real-time.				
Issue Description:	Performance, fu	nctionality, and the u	ipper-layers of th	e OSI stack have not been	defined for this information flow.		Severity	Ultra	
					Relevant Flow Solution Combinations				
Source		Destination		Flow	SolutionName	Notes Notes			
Connected Vehicle Ro	adside Equipment	Other Connected Vehic Equipment	cle Roadside	wrong way vehicle detected	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been	started.		
Other Connected Vehi Equipment	icle Roadside	Connected Vehicle Roa	adside Equipment	wrong way vehicle detected	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been	started.		
Connected Vehicle Ro	oadside Equipment	Other Connected Vehic Equipment	cle Roadside	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been	started.		
Other Connected Vehi Equipment	icle Roadside	Connected Vehicle Roa	adside Equipment	wrong way vehicle detected	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been	started.		
Other Connected Vehi Equipment	icle Roadside	Connected Vehicle Roa	adside Equipment	wrong way vehicle detected	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been	started.		
Connected Vehicle Ro	oadside Equipment	Other Connected Vehic Equipment	cle Roadside	wrong way vehicle detected	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been	started.		
Other Connected Vehi Equipment	icle Roadside	Connected Vehicle Roa	adside Equipment	wrong way vehicle detected	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been	started.		
Connected Vehicle Ro	padside Equipment	Other Connected Vehice Equipment	cle Roadside	wrong way vehicle detected	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been	started.		
Connected Vehicle Ro	adside Equipment	Vehicle OBE		wrong way vehicle detected	(None-Data) - WAVE WSMP	Work on the upper layer standards related to this solution have not been	started.		
Vehicle OBE		Connected Vehicle Roa	adside Equipment	wrong way vehicle detected	(None-Data) - WAVE WSMP	Work on the upper layer standards related to this solution have not been	started.		

	Vehicle-Centre	Timeframe Urgent	Proposed Resolution C-V:	: Distribute maps	Regional Applicability Australia, Europ	ean Union, Unite	d States, Japa
Class	Timeframe	Proposed Resolution	Description			Regional Appl	licability
/ehicle-Centre	Urgent	C-V: Distribute maps			rules for distributing maps, roadway geometry, and intersection entre to user devices (e.g., a vehicle or personal information	Australia, Euro United States,	
ssue Description:	Performance, fur	nctionality, and the upper-layers	of the OSI stack have not been define	ed for this information flow.		Severity	Ultra
	-			Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
/ehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - FNTP/M5	Work on the upper layer standards related to this solution have not been sta	rted.	
ehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	Work on the upper layer standards related to this solution have not been sta	rted.	
ther Vehicle OBEs		Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been sta	rted.	
1ap Update System		Personal Information Device	map updates	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
lap Update System		Vehicle OBE	map updates	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Лар Update System		Vehicle OBE	parking facility geometry	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Лар Update System		Personal Information Device	map updates	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Лар Update System		Vehicle OBE	map updates	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Nap Update System		Vehicle OBE	parking facility geometry	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
/lap Update System		Vehicle OBE	roadway geometry	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
raffic Management Co	enter	Vehicle OBE	vehicle road information	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Лар Update System		Vehicle OBE	roadway geometry	US: SAE Signal Control Messages - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
ssue Description:	There are ambigu	uities as to how to (or if one shou	uld) couple the upper-layer standards	s defined in this solution with the indicated lower-layer s	standards.	Severity	High
				Relevant Flow Solution Combinations			
		Destination	Flow	SolutionName	Notes		
ource		Personal Information Device	intersection geometry	US: SAE Signal Control Messages - Mobile Internet			
				(US)			
Лар Update System		Vehicle OBE	intersection geometry	(US) US: SAE Signal Control Messages - Mobile Internet (US)			
1ap Update System 1ap Update System	A draft of the sta	Vehicle OBE		US: SAE Signal Control Messages - Mobile Internet	formed.	Severity	Medium
1ap Update System 1ap Update System	A draft of the sta	Vehicle OBE		US: SAE Signal Control Messages - Mobile Internet (US) er development at the time the HARTS analysis was perfo	Formed.	Severity	Medium
Map Update System Map Update System ssue Description:	A draft of the sta	Vehicle OBE		US: SAE Signal Control Messages - Mobile Internet (US)	Formed. Notes	Severity	Medium
Map Update System Map Update System ssue Description:	A draft of the sta	Vehicle OBE Indard has been developed by the	e working group, but it was still unde	US: SAE Signal Control Messages - Mobile Internet (US) er development at the time the HARTS analysis was performed Relevant Flow Solution Combinations		fields to populate fo	or each conditio
Map Update System Map Update System Ssue Description:	A draft of the sta	Vehicle OBE Indard has been developed by the Destination	e working group, but it was still unde	US: SAE Signal Control Messages - Mobile Internet (US) er development at the time the HARTS analysis was performed Relevant Flow Solution Combinations SolutionName US: SAE Signal Control Messages - Mobile Internet	Notes The conditions under which messages are sent, the rules defining which data and the latency, accuracy, and performance requirements related to these m	fields to populate for essages are not fully fields to populate for	or each condition defined and the or each condition

Class	Vehicle-Centre	Timeframe	Urgent	Proposed Resolution	C-V: Distribute maps	Regional Applicability Australia, European Union, United States, Japan
Issue Description:	The performance ru	ıles are not fully d	efined for this info	ormation flow.		Severity Medium
					Relevant Flow Solution Combinations	
Source		Destination		Flow	SolutionName	Notes
Map Update System	P	Personal Information D	evice	intersection geometry	EU: Signal Control Messages - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Map Update System	V	/ehicle OBE		intersection geometry	EU: Signal Control Messages - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Map Update System	P	Personal Information D	evice	intersection geometry	US: SAE Signal Control Messages - Mobile Internet (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Map Update System	V	/ehicle OBE		intersection geometry	US: SAE Signal Control Messages - Mobile Internet (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme

Class	Vehicle-Centre	Timeframe Urgent	Proposed Resolution C-V: In-	vehicle signage	Regional Applicability Australia, Europe	ean Union, United	d States
Class	Timeframe	Proposed Resolution	Description			Regional Appli	cability
Vehicle-Centre	Urgent	C-V: In-vehicle signage	Develop an ITS application specif	ication for in-vehicle signage to the vehicle from a co	entre.	Australia, Euro United States	pean Union,
		evelopment organization has estable new or simply a lack of activity on	-	dard but a draft is not available for this critical featur	re to enable the interface. The draft may be missing due to the	Severity	High
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Traffic Management Ce	nter	Vehicle OBE	speed management information	US: SAE Traveler Info - Mobile Internet (US)	SAE J2945/4 is still under development.		
Traffic Management Ce	nter	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Mobile Internet (US)	SAE J2945/4 is still under development.		
Issue Description:	There are ambigu	uities as to how to (or if one shou	ld) couple the upper-layer standards def	ined in this solution with the indicated lower-layer s	standards.	Severity	High
	_			Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	_ Notes		
Maint and Constr Mana	gement Center	Vehicle OBE	work zone information	EU: In-Vehicle Information - Mobile Internet (X.509)	While both IVI and mobile Internet are well defined, there is not an interoper the two together and address which port numbers to use.	ability profile that de	fines how to pa
Traffic Management Ce	nter	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Mobile Internet (X.509)	While both IVI and mobile Internet are well defined, there is not an interoper the two together and address which port numbers to use.	ability profile that de	fines how to pa
Traffic Management Ce	nter	Vehicle OBE	speed management information	EU: In-Vehicle Information - Mobile Internet (X.509)	While both IVI and mobile Internet are well defined, there is not an interoper the two together and address which port numbers to use.	ability profile that de	fines how to pa
Traffic Management Ce	nter	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.509)	While both IVI and mobile Internet are well defined, there is not an interoper the two together and address which port numbers to use.	ability profile that de	fines how to pa
Traffic Management Ce	nter	Vehicle OBE	lane closure information	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
	nter	Vehicle OBE	lane closure information	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		

Class	Vehicle-Centre	Timeframe	Urgent	Proposed Resolution	C-V: In-vehicle signage	Regional Applicability Australia, Europ	ean Union, Unite	ed States
ssue Description:	While the indicate	ed standards nomina	ally address the in	formation flow, the design	n may not meet practical constraints because this particula	r use case was not the focus of the design effort.	Severity	Medium
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Fraffic Management Cen	ter	Vehicle OBE		speed management informat	ion EU: Contextual Speed Information Service - Mobile Internet (X.509)	Overlap between IVI and Contextual Speed Information		
raffic Management Cen	ter	Vehicle OBE		speed management informat	ion EU: Contextual Speed Information Service - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which d each condition; and the latency, accuracy, and performance requirements re defined. Notes: Application data, mini		
raffic Management Cen	ter	Vehicle OBE		vehicle signage data	EU: DEN Service - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which d each condition; and the latency, accuracy, and performance requirements re defined. Notes: Application data, mini		
raffic Management Cen	ter	Vehicle OBE		vehicle signage data	EU: DEN Service - Mobile Internet (X.509)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN Serv	ices	
Fraffic Management Cen	ter	Vehicle OBE		speed management informat	ion EU: In-Vehicle Information - Mobile Internet (X.50)	Overlap between IVI and Contextual Speed Information		
Fraffic Management Cen	ter	Vehicle OBE		speed management informat	ion EU: In-Vehicle Information - Mobile Internet (X.50)	The conditions under which the message is sent; the rules indicating which d each condition; and the latency, accuracy, and performance requirements re defined. Notes: Application data, mini		
Traffic Management Cen	ter	Vehicle OBE		vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.50)	Overlap between ETSI 102 638 and ISO 14823		
Traffic Management Cen	ter	Vehicle OBE		vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.50)	Performance requirements for IVI data transmission are not specified.		
Traffic Management Cen	iter	Vehicle OBE		vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.50)	The conditions under which the message is sent; the rules indicating which d each condition; and the latency, accuracy, and performance requirements re defined. Notes: Application data, mini		
raffic Management Cen	ter	Vehicle OBE		vehicle signage data	TPEG2 - Mobile Internet (US)	The conditions under which the message is sent; the rules indicating which d each condition; and the latency, accuracy, and performance requirements re defined. Notes: Application data, mini		
raffic Management Cen	ter	Vehicle OBE		vehicle signage data	TPEG2 - Mobile Internet (US)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN Serv	ices	
raffic Management Cen	iter	Vehicle OBE		vehicle signage data	TPEG2 - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which d each condition; and the latency, accuracy, and performance requirements re defined. Notes: Application data, mini		
raffic Management Cen	ter	Vehicle OBE		vehicle signage data	TPEG2 - Mobile Internet (X.509)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN Serv	ices	
ssue Description:	Multiple standard	ls have been develo	ped to address thi	s information and it is und	lear which standard should be used to address this specific	information flow.	Severity	Medium
	<u>'</u>		'		Relevant Flow Solution Combinations		•	
ource		Destination		Flow	SolutionName	Notes		
raffic Management Cen	ter	Vehicle OBE		vehicle signage data	TPEG2 - Mobile Internet (US)	The conditions under which the message is sent; the rules indicating which d each condition; and the latency, accuracy, and performance requirements re defined. Notes: Application data, mini		
raffic Management Cen	ter	Vehicle OBE		vehicle signage data	TPEG2 - Mobile Internet (US)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN Serv	ices	
raffic Management Cen	iter	Vehicle OBE		vehicle signage data	TPEG2 - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which d each condition; and the latency, accuracy, and performance requirements re defined. Notes: Application data, mini		
Fraffic Management Cen	ter	Vehicle OBE		vehicle signage data	TPEG2 - Mobile Internet (X.509)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN Serv	ices	

Class	Vehicle-Centre	Timeframe	Urgent	Proposed Resolution	C-V: In-vehicle	e signage	Regional Applicability Australia, European Union, United States
Issue Description:	The performance	rules are not fully d	efined for this inf	ormation flow.			Severity Medium
					Rele	vant Flow Solution Combinations	
Source		Destination		Flow		SolutionName	_ Notes
Traffic Management Ce	nter	Vehicle OBE		lane closure information		EU: DEN Service - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Traffic Management Ce	nter	Vehicle OBE		lane closure information		EU: In-Vehicle Information - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Transportation Informa	tion Center	Vehicle OBE		broadcast traveler information	on	TMC - Wide Area Broadcast (Upper)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Wide Area Information	Disseminator	Vehicle OBE		broadcast traveler information	on	TMC - Wide Area Broadcast (Upper)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Traffic Management Ce	nter	Vehicle OBE		lane closure information		TPEG2 - Mobile Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Traffic Management Ce	nter	Vehicle OBE		lane closure information		TPEG2 - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Transportation Informa	tion Center	Vehicle OBE		broadcast traveler information	on	TPEG2 - Wide Area Broadcast (Upper)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Wide Area Information	Disseminator	Vehicle OBE		broadcast traveler information	on	TPEG2 - Wide Area Broadcast (Upper)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Traffic Management Ce	nter	Vehicle OBE		lane closure information		US: SAE Other J2735 - Mobile Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Transportation Informa	tion Center	Vehicle OBE		broadcast traveler information	on	US: SAE Other J2735 - Wide Area Broadcast (Upper)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Wide Area Information	Disseminator	Vehicle OBE		broadcast traveler information	on	US: SAE Other J2735 - Wide Area Broadcast (Upper)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages

			Proposed Resolution C-V		Regional Applicability Australia, Eu	· ·	
lass	Timeframe	Proposed Resolution	Description			Regional Appli	icability
ehicle-Centre	Urgent	C-V: Signal operations	Develop an ITS application s	pecification for providing intersection status information	n to vehicles from a centre for environmental benefits.	Australia, Euro United States	pean Unio
sue Description:	Performance, fu	nctionality, and the upper-layer	of the OSI stack have not been defin	ed for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
raffic Management Ce	enter	Vehicle OBE	intersection status	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not bee	en started.	
raffic Management Ce	enter	Vehicle OBE	intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not bee	en started.	
raffic Management Ce	enter	Vehicle OBE	intersection status	US: SAE Other J2735 - Mobile Internet (US)	Work on the upper layer standards related to this solution have not bee	en started.	
ssue Description:	There are ambig	guities as to how to (or if one sho	ould) couple the upper-layer standard	s defined in this solution with the indicated lower-layer	standards.	Severity	High
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
raffic Management Ce	enter	Vehicle OBE	intersection status	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
raffic Management Ce	enter	Vehicle OBE	intersection status	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		
				US: SAE Signal Control Messages - Mobile Internet			
raffic Management Ce	enter	Commercial Vehicle OBE	intersection status	(US)			
raffic Management Ce	enter	Emergency Vehicle OBE	intersection status	(US) US: SAE Signal Control Messages - Mobile Internet (US)	page use this particular use spec was not the fagus of the desir	Coverity	High
raffic Management Ce	enter	Emergency Vehicle OBE	intersection status	(US) US: SAE Signal Control Messages - Mobile Internet (US) rails may not meet performance or other requirements by	pecause this particular use case was not the focus of the desig	gn Severity	High
raffic Management Ce	enter While the indica	Emergency Vehicle OBE	intersection status	(US) US: SAE Signal Control Messages - Mobile Internet (US)	pecause this particular use case was not the focus of the design	gn Severity	High
raffic Management Cessue Description:	while the indica effort.	Emergency Vehicle OBE ted standards nominally address	intersection status the information flow, the design det	(US) US: SAE Signal Control Messages - Mobile Internet (US) rails may not meet performance or other requirements by Relevant Flow Solution Combinations		ending to the transit vehicle	
raffic Management Cessue Description: ource raffic Management Ce	while the indica effort.	Emergency Vehicle OBE ted standards nominally address Destination	intersection status the information flow, the design det	US: SAE Signal Control Messages - Mobile Internet (US) Tails may not meet performance or other requirements by the same of th	Notes The use case of collecting signal timing data within the TMC and then se	ending to the transit vehicle al latency issues. ending to the transit vehicle	e has not bee
raffic Management Cessue Description: Source Traffic Management Ces Traffic Management Ces	while the indica effort.	ted standards nominally address Destination Commercial Vehicle OBE	intersection status the information flow, the design det Flow intersection status	US: SAE Signal Control Messages - Mobile Internet (US) Tails may not meet performance or other requirements by Relevant Flow Solution Combinations SolutionName EU: Signal Control Messages - Mobile Internet (X.509) EU: Signal Control Messages - Mobile Internet	Notes The use case of collecting signal timing data within the TMC and then se considered in the development of standards and imposes unique, critical. The use case of collecting signal timing data within the TMC and then see	ending to the transit vehicle al latency issues. ending to the transit vehicle al latency issues. ending to the transit vehicle	e has not bee e has not bee
_	while the indicate effort. enter enter enter enter	Emergency Vehicle OBE ted standards nominally address Destination Commercial Vehicle OBE Emergency Vehicle OBE	intersection status the information flow, the design det Flow intersection status intersection status	US: SAE Signal Control Messages - Mobile Internet (US) Rails may not meet performance or other requirements by Relevant Flow Solution Combinations SolutionName EU: Signal Control Messages - Mobile Internet (X.509) EU: Signal Control Messages - Mobile Internet (X.509) EU: Signal Control Messages - Mobile Internet	Notes The use case of collecting signal timing data within the TMC and then se considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then se considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see	ending to the transit vehicle al latency issues.	e has not bee e has not bee e has not bee
raffic Management Cessue Description: Source raffic Management Ces raffic Management Ces raffic Management Ces raffic Management Ces	enter While the indica effort. enter enter enter enter	Emergency Vehicle OBE ted standards nominally address Destination Commercial Vehicle OBE Emergency Vehicle OBE Transit Vehicle OBE Vehicle OBE	intersection status The information flow, the design det Flow Intersection status Intersection status Intersection status Intersection status	(US) US: SAE Signal Control Messages - Mobile Internet (US) Rails may not meet performance or other requirements by the sails may not meet performance or other performan	Notes The use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the development of standards and	ending to the transit vehicle al latency issues.	e has not bee e has not bee e has not bee e has not bee
raffic Management Cessue Description: Source raffic Management Ces raffic Management Ces raffic Management Ces raffic Management Ces	enter While the indica effort. enter enter enter enter	Emergency Vehicle OBE ted standards nominally address Destination Commercial Vehicle OBE Emergency Vehicle OBE Transit Vehicle OBE Vehicle OBE	intersection status The information flow, the design det Flow Intersection status Intersection status Intersection status Intersection status	(US) US: SAE Signal Control Messages - Mobile Internet (US) Rails may not meet performance or other requirements by the sails may not meet performance or other performan	Notes The use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the development of standards and	ending to the transit vehicle al latency issues. ending to the transit vehicle al latency issues. ending to the transit vehicle al latency issues. ending to the transit vehicle al latency issues.	e has not bee e has not bee e has not bee e has not bee
raffic Management Cessue Description: Source Traffic Management Ces Traffic Management Ces	enter While the indica effort. enter enter enter enter	Emergency Vehicle OBE ted standards nominally address Destination Commercial Vehicle OBE Emergency Vehicle OBE Transit Vehicle OBE Vehicle OBE	intersection status The information flow, the design det Flow Intersection status Intersection status Intersection status Intersection status	US: SAE Signal Control Messages - Mobile Internet (US) Relevant Flow Solution Combinations SolutionName EU: Signal Control Messages - Mobile Internet (X.509)	Notes The use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the use case of collecting signal timing data within the TMC and then see considered in the development of standards and imposes unique, critical the development of standards and	ending to the transit vehicle al latency issues. ending to the transit vehicle al latency issues. ending to the transit vehicle al latency issues. ending to the transit vehicle al latency issues.	e has not bee e has not bee e has not bee

Class	Vehicle-Centre	Timeframe	Urgent	Proposed Resolution	C-V: Signal operations	Regional Applicability Australia, European Union, United States
Issue Description:	The performance	rules are not fully d	lefined for this inf	ormation flow.		Severity Medium
	_				Relevant Flow Solution Combinations	
Source		Destination		Flow	SolutionName	Notes
Traffic Management Ce	nter	Vehicle OBE		intersection status	(None-Data) - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Traffic Management Ce	nter	Vehicle OBE		intersection status	(None-Data) - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Fraffic Management Ce	nter	Commercial Vehicle O	ВЕ	intersection status	AU TRAFF - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Traffic Management Ce	nter	Transit Vehicle OBE		intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	ISO 19091 does not specify the application specification details for intersection status information sent from a TMC to a vehicle
Traffic Management Ce	nter	Transit Vehicle OBE		intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Traffic Management Ce	nter	Commercial Vehicle O	BE	intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Traffic Management Ce	nter	Vehicle OBE		intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Traffic Management Ce	nter	Vehicle OBE		intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Traffic Management Ce	nter	Vehicle OBE		intersection status	US: SAE Other J2735 - Mobile Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Test, NMEA, RTCM, and ICA messages
Traffic Management Ce	nter	Vehicle OBE		intersection status	US: SAE Other J2735 - Mobile Internet (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Fraffic Management Ce	nter	Commercial Vehicle O	BE	intersection status	US: SAE Signal Control Messages - Mobile Internet (US)	The conditions under which messages are sent; the rules defining which data fields to populate for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Note: Application data, minimum requireme
Issue Description:	A draft of the star	ndard has been dev	eloped by the wo	rking group, but it was still	under development at the time the HARTS analysis was perf	formed. Severity Medium
					Relevant Flow Solution Combinations	
Source		Destination		Flow	SolutionName	Notes
Traffic Management Ce	nter	Emergency Vehicle OB	E	intersection status	US: SAE Signal Control Messages - Mobile Internet (US)	The conditions under which messages are sent, the rules defining which data fields to populate for each condition, and the latency, accuracy, and performance requirements related to these messages are not fully defined and this document is still under dev

Class	Timeframe	Dunnand Danelution	Proposed Resolution C-V: S		Regional Applicability Australia, Europe		
Class Vehicle-Centre	Urgent	Proposed Resolution C-V: Situation data		eptable ITS application specification for the use case of cless and remote interested parties (e.g., centres).	of distributing collected situation data (e.g., BSMs/CAMs, sensors,	Regional App Australia, Euro United States	opean Union
ssue Description:	Performance, fu	nctionality, and the upper-layers of th	ne OSI stack have not been defined	for this information flow.		Severity	Ultra
<u> </u>	<u> </u>	, , , , ,		Relevant Flow Solution Combinations		·	
Source		Destination	Flow	SolutionName	Notes		
ehicle OBE		Connected Vehicle Roadside Equipment	vehicle route plan	(None-Data) - Local Unicast Wireless (US)	Work on the upper layer standards related to this solution have not been start	ed.	
ehicle OBE		Data Distribution System	vehicle situation data	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been start	ed.	
ssue Description:	There are ambig	uities as to how to (or if one should) o	couple the upper-layer standards d	efined in this solution with the indicated lower-layer	standards.	Severity	High
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
ehicle OBE		Transportation Information Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
ehicle OBE		Transportation Information Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		
ehicle OBE		Transportation Information Center	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
ehicle OBE		Transportation Information Center	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		
ansportation Informa	ation Center	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
ransportation Informa	ation Center	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		
ssue Description:	While the indica	ted standards nominally address the i	nformation flow, the design may n	ot meet practical constraints because this particular of	use case was not the focus of the design effort.	Severity	Medium
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
onnected Vehicle Roa	dside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which date each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
ransportation Informa	ation Center	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which date each condition; and the latency, accuracy, and performance requirements reladefined. Notes: Application data, mini		
	Some of the dat	a elements for this information flow a	re not fully defined.			Severity	Medium
ssue Description:				Relevant Flow Solution Combinations			
ssue Description:			Flow	SolutionName	Notes		
ource		Destination	FIOW		Durance for any positive DCNA/make data into appropriate data and related data		additional
<u> </u>	dside Equipment	Destination Traffic Management Center	traffic situation data	US: NTCIP Transportation Sensors - OMG DDS RPC	Process for converting BSM/probe data into aggregated data and related data configuration parameters) are not defined.	specifications (e.g.	, additional

Class	Vehicle-Centre	Timeframe Urgent	Proposed Resolution C-V: Situation	tion data	Regional Applicability Australia, Europ	ean Union, Unite	d States
Issue Description:	The performance	rules are not fully defined for this in	formation flow.			Severity	Medium
	-		<u> </u>	Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle Road	dside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, T	est, NMEA, RTCM, ar	nd ICA messages
Transportation Informat	tion Center	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Vehicle OBE		Transportation Information Center	vehicle environmental data	EU: DEN Service - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Vehicle OBE		Transportation Information Center	vehicle situation data	EU: Probe Data - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Vehicle OBE		Transportation Information Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Vehicle OBE		Transportation Information Center	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle situation data	JP: V-F Short Range Wireless Data (JP) - V-F Short Range Wireless Uplink Comm (JP)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Connected Vehicle Road	dside Equipment	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle situation data	US: SAE Other J2735 - Local Unicast Wireless (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Transportation Informat	tion Center	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, 7	est, NMEA, RTCM, ar	nd ICA messages
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
Vehicle-Centre	Urgent	C-V: Tailoring of TPEG2	Tailor TPEG2 for use within the US	for centre-vehicle communications.		United States	
Issue Description:	There are ambigu	uities as to how to (or if one should) o	couple the upper-layer standards define	ed in this solution with the indicated lower-layer s	tandards.	Severity	High
			<u> </u>	Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Transportation Informat	tion Center	Personal Information Device	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)			
Transportation Informat	tion Center	Vehicle OBE	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)			
Wide Area Information	Disseminator	Personal Information Device	wide area broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)			
Wide Area Information	Disseminator	Vehicle OBE	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)			
Nide Area Information	Disseminator	Vehicle OBE	wide area broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)			

Class	Vehicle-Centre	Timeframe Urgent	Proposed Resolution	C-V: Weather information	Regional Applicability Australia, Europe	ean Union, United	States
Class Vehicle-Centre	Timeframe Urgent	Proposed Resolution C-V: Weather information	Description Update the internation	al ITS application specification to address road weather adv	visories.	Regional Applic Australia, Europ United States	
Issue Description:		levelopment organization has establish g new or simply a lack of activity on the		pject standard but a draft is not available for this critical fea	ature to enable the interface. The draft may be missing due to the	Severity	High
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Transportation Inform	nation Center	Vehicle OBE	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	A draft of SAE J2945/3 is not yet available.		
ssue Description:	While the indica	ated standards nominally address the i	nformation flow, the desig	n may not meet practical constraints because this particula	er use case was not the focus of the design effort.	Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Transportation Inform	nation Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (US)	The conditions under which the message is sent; the rules indicating which date each condition; and the latency, accuracy, and performance requirements related defined. Notes: Application data, mini		
Transportation Inform	nation Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which da each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		
Class	Timeframe	Proposed Resolution	Description			Regional Applic	cability
Overlap	Urgent	C-C: ATIS/TMDD/TCIP for parking information	Standardise on a single alternative approaches	solution for providing parking information; currently this in).	nformation is defined within ATIS, TMDD, and TCIP (using	United States	
·		information	alternative approaches			United States Severity	Medium
·		information	alternative approaches).			Medium
Issue Description:		information	alternative approaches). clear which standard should be used to address this specific			Medium
ssue Description:	Multiple standa	rds have been developed to address the	alternative approaches). clear which standard should be used to address this specific Relevant Flow Solution Combinations	c information flow.	Severity	
Source Other Transportation I	Multiple standa	rds have been developed to address the Destination	alternative approaches nis information and it is und). clear which standard should be used to address this specific Relevant Flow Solution Combinations SolutionName	c information flow. Notes The ATIS, TMDD, and TCIP standards all include parking information; it is uncl	Severity ear which should be u	ised for this
Source Other Transportation I	Multiple standa Information Centers System	rds have been developed to address the Destination Transportation Information Center	alternative approaches nis information and it is une Flow parking information). clear which standard should be used to address this specific Relevant Flow Solution Combinations SolutionName US: ATIS - NTCIP Messaging	C information flow. Notes The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclined to the parking information	Severity ear which should be u	ised for this
Source Other Transportation I Parking Management S Parking Management S	Information Centers System System	Information rds have been developed to address the postination Transportation Information Center Traffic Management Center	alternative approaches nis information and it is und Flow parking information parking information	clear which standard should be used to address this specific Relevant Flow Solution Combinations SolutionName US: ATIS - NTCIP Messaging US: ATIS - NTCIP Messaging	C information flow. Notes The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow.	ear which should be u	ised for this
·	Information Centers System System System	Information rds have been developed to address the partial of the	alternative approaches nis information and it is und Flow parking information parking information parking information	Clear which standard should be used to address this specific Relevant Flow Solution Combinations SolutionName US: ATIS - NTCIP Messaging US: ATIS - NTCIP Messaging US: ATIS - NTCIP Messaging	The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow.	ear which should be usear which should be us	used for this used for this used for this
Source Other Transportation I Parking Management S Parking Management S Parking Management S	Information Centers System System System action Center	Information rds have been developed to address the Destination Transportation Information Center Traffic Management Center Transit Management Center Transportation Information Center	alternative approaches nis information and it is und Flow parking information parking information parking information parking information	Clear which standard should be used to address this specific Relevant Flow Solution Combinations SolutionName US: ATIS - NTCIP Messaging	The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow.	ear which should be usear which should be us	ised for this
Source Other Transportation I Parking Management S	Information Centers System System System action Center Information Centers	Information rds have been developed to address the Destination Transportation Information Center Traffic Management Center Transit Management Center Transportation Information Center Other Transportation Information Centers	alternative approaches nis information and it is und Flow parking information parking information parking information parking information parking information	clear which standard should be used to address this specific Relevant Flow Solution Combinations SolutionName US: ATIS - NTCIP Messaging	The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow.	ear which should be usear which should be us	used for this
Source Other Transportation I Parking Management S Parking Management S Parking Management S Parking Management S	Information Centers System System System Information Center Information Centers System	Information rds have been developed to address the Destination Transportation Information Center Traffic Management Center Transit Management Center Transportation Information Center Other Transportation Information Centers Transportation Information Centers	alternative approaches nis information and it is une Flow parking information	clear which standard should be used to address this specific Relevant Flow Solution Combinations SolutionName US: ATIS - NTCIP Messaging US: ATIS - NTCIP Messaging	The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow.	ear which should be usear which should be us	ised for this is is in the following for this ised for this is is in the following for this ised for this is is in the following for this ised for this is is in the following for this is in the following for the
Source Other Transportation I Parking Management S	Information Centers System System System Information Center Information Centers System System System	Information rds have been developed to address the Destination Transportation Information Center Traffic Management Center Transit Management Center Transportation Information Center Other Transportation Information Centers Transportation Information Center Traffic Management Center	alternative approaches nis information and it is und Flow parking information parking information	clear which standard should be used to address this specific Relevant Flow Solution Combinations SolutionName US: ATIS - NTCIP Messaging US: ATIS - OMG DDS US: ATIS - OMG DDS	The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow. The ATIS, TMDD, and TCIP standards all include parking information; it is unclinformation flow.	ear which should be usear which should be us	ised for this is is is in the following the

Class	Overlap	Timeframe Urgent	Proposed Resolution C	-C: TCIP/IM/TMDD/ATIS for incident information	Regional Applicability United States		
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
Overlap	Urgent	C-C: TCIP/IM/TMDD/ATIS for incident information	Standardise on a single solution IEEE 1512 (IM), ITE TMDD,		nformation; currently this information is defined within APTA TCIP,	United States	
ssue Description	n: Multiple stand	ards have been developed to address th	is information and it is unclea	r which standard should be used to address this specific	information flow.	Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Emergency Manager	ment Center	Transportation Information Center	incident information	(None-Data) - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	d.	
Emergency Manager	ment Center	Other Emergency Management Centers	incident report	US: Incident Management - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	d.	
ransportation Infor	rmation Center	Other Transportation Information Centers	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	d.	
Traffic Management	: Center	Wide Area Information Disseminator	traffic information for media	US: ATIS - Internet (US)	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	d.	
Traffic Management	: Center	Media	traffic information for media	US: ATIS - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	d.	
Transportation Infor	mation Center	Other Transportation Information Centers	multimodal information	US: ATIS - NTCIP Messaging	The ATIS and TCIP standards both include multimodal scheduile information.		
Traffic Management	: Center	Media	traffic information for media	US: ATIS - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	d.	
Fransportation Infor	mation Center	Other Transportation Information Centers	multimodal information	US: ATIS - OMG DDS	The ATIS and TCIP standards both include multimodal scheduile information.		
Other Emergency Ma	anagement Centers	Emergency Management Center	incident report	US: Incident Management - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	d.	
Emergency Manager	ment Center	Other Emergency Management Centers	incident report	US: Incident Management - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	d.	
Other Emergency Ma	anagement Centers	Emergency Management Center	incident report	US: Incident Management - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be use	rd.	
				Dags 260 of 247			

Class Overlap	Timeframe Urgent	Proposed Resolution	C-C: TCIP/IM/TMDD/ATIS for incident information	Regional Applicability United States
Transportation Information Center	Fleet and Freight Management Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Emergency Management Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Maint and Constr Management Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Emergency Management Center	Traffic Management Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Emergency Management Center	Transportation Information Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Other Traffic Management Centers	Traffic Management Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Other Transportation Information Centers	Transportation Information Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Other Traffic Management Centers	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Transit Management Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Transportation Information Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Transportation Information Center	Fleet and Freight Management Center	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.

Class Overlap	Timeframe Urgent	Proposed Resolution C-C: TCIP/IM	/TMDD/ATIS for incident information	Regional Applicability United States
Transportation Information Center	Other Transportation Information Centers	incident information	US: TMDD - NTCIP Messaging	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Emergency Management Center	Traffic Management Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Emergency Management Center	Transportation Information Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Other Traffic Management Centers	Traffic Management Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Other Transportation Information Centers	Transportation Information Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Emergency Management Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Maint and Constr Management Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Other Traffic Management Centers	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Transit Management Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.
Traffic Management Center	Transportation Information Center	incident information	US: TMDD - OMG DDS	Incident information is defined in: APTA TCIP, IEEE 1512 (IM), ITE TMDD, and SAE ATIS. The standards are unclear when the various standards should be used.

Class	Overlap	Timeframe Urgent	Proposed Resolution V	/-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, Europ	ean Union
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Overlap	Urgent	V-L: BTP/GeoNetworking/G5 and FNTP/M5		lution for providing DSRC communications within Europe a nat are not interoperable at the Subnet or Transnet layers.	nd Australia; currently BTP/GeoNetworking/G5 and FNTP/M5	Australia, European Union
Issue Description:	Multiple standa	rds have been developed to address th	is information and it is unclea	ar which standard should be used to address this specific ir	nformation flow.	Severity Medium
	_			Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	_ Notes	
Connected Vehicle Roa	adside Equipment	Vehicle OBE	traffic gap information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments us	sing 5.9 GHz channels.
Connected Vehicle Roa	adside Equipment	Vehicle OBE	traffic gap information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the F	
Connected Vehicle Roa	adside Equipment	Vehicle OBE	traffic gap information	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 16	609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roa	adside Equipment	Vehicle OBE	vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
onnected Vehicle Roa	adside Equipment	Vehicle OBE	vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments us	sing 5.9 GHz channels.
ersonal Information D	Device	Vehicle OBE	personal location	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
ehicle OBE		Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
ehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
ehicle OBE		Other Vehicle OBEs	vehicle road information	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
onnected Vehicle Roa	adside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
onnected Vehicle Roa	adside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator broadcaster of the message (e.g., a message generated by a central system a	
onnected Vehicle Roa	adside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 16	609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roa	adside Equipment	Vehicle OBE	roadway geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not be	een proven
onnected Vehicle Roa	adside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
onnected Vehicle Roa	adside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator broadcaster of the message (e.g., a message generated by a central system a	
onnected Vehicle Roa	adside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 16	609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roa	adside Equipment	Personal Information Device	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not be	een proven
ehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
ehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments us	sing 5.9 GHz channels.
ehicle OBE		Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the F	
onnected Vehicle Roa	adside Equipment	Personal Information Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
onnected Vehicle Roa	adside Equipment	Personal Information Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments us	sing 5.9 GHz channels.
onnected Vehicle Roa	adside Equipment	Personal Information Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the F	
onnected Vehicle Roa	adside Equipment	Personal Information Device	pedestrian safety information	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 16	609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roa	adside Equipment	Vehicle OBE	traffic gap information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
onnected Vehicle Roa	adside Equipment	Vehicle OBE	vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is the message (e.g., a message generated by a central system and sent to the F	
connected Vehicle Roa	adside Equipment	Vehicle OBE	vehicle payment request	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 16	509.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs		Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs I	LPD and Geonetworking.
Other Vehicle OBEs		Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments us	sing 5.9 GHz channels.

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTI	P/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ersonal Information Device	Connected Vehicle Roadside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ersonal Information Device	Connected Vehicle Roadside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Personal Information Device	Connected Vehicle Roadside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ersonal Information Device	Connected Vehicle Roadside Equipment	personal location	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ersonal Information Device	Vehicle OBE	personal location	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ersonal Information Device	Vehicle OBE	personal location	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ersonal Information Device	Vehicle OBE	personal location	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ersonal Information Device	Vehicle OBE	personal location	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
/ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Other Vehicle OBEs	intersection infringement info	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Other Vehicle OBEs	vehicle road information	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
/ehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
/ehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Personal Information Device	pedestrian safety information	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	traffic gap information	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ersonal Information Device	Connected Vehicle Roadside Equipment	personal location	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	vehicle travel time data	(None-Data) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission)
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Overlap	Timeframe Urgent Vehicle OBE	Proposed Resolution V-L: BTP/GeoNetworking/G5 and FNTP/M5		Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment		arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	location correction	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
connected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	map updates	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
connected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	parking facility geometry	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
S Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
TS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
TS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
TS Roadway Equipment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
TS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
TS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTP	/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	roadway dynamic signage status	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic detector data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ITS Roadway Equipment	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	roadway dynamic signage data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	traffic detector control	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle road information	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTP	/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Other Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
her Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ther Vehicle OBEs	Vehicle OBE	vehicle travel time data	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ersonal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Personal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ersonal Information Device	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
'ehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Connected Vehicle Roadside Equipment	driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
/ehicle OBE	Connected Vehicle Roadside Equipment	private location and address flow	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Connected Vehicle Roadside Equipment	service response	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
/ehicle OBE	Connected Vehicle Roadside Equipment	vehicle profile	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
/ehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Other Vehicle OBEs	vehicle headlight dim request	(None-Data) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTP/Ge	oNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle payment request	(Out of Scope) - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle payment information	(Out of Scope) - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	service advertisement	[Null] - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTP/Geo	oNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	AU TRAFF - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	AU TRAFF - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ransit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTP/Geo	oNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class	Overlap Timeframe Urgent	Proposed Resolution V-L: BTP/Ge	oNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Other Vehicle OBEs	Connected Vehicle Roadside Equipmer	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipmen	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipmer	nt vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Connected Vehicle Roadside Equipmen	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipmer	nt vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipmer	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipmer	t vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Connected Vehicle Roadside Equipmer	vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipmer	t vehicle ID	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipmer	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipmer	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Connected Vehicle Roadside Equipmen	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipmer	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipmen	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipmer	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Connected Vehicle Roadside Equipmen	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipmer	vehicle location and motion for surveillance	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Other Vehicle OBEs	vehicle location and motion	EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class	verlap Timeframe	Urgent Proposed Resolution	V-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Vehicle OBE	Other Vehicle OBEs	vehicle location and moti	on EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
/ehicle OBE	Other Vehicle OBEs	vehicle location and moti	on EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Other Vehicle OBEs	vehicle location and moti	on EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Personal Information D	Device vehicle location and moti	on EU: CA Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
/ehicle OBE	Personal Information D	Device vehicle location and moti	on EU: CA Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Vehicle OBE	Personal Information D	Device vehicle location and moti	on EU: CA Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Personal Information D	Device vehicle location and moti	on EU: CA Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Commercial Vehicle OBE	Connected Vehicle Roa	adside Equipment local signal priority reque	st EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Connected Vehicle Roa	dside Equipment vehicle location and moti	on EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Connected Vehicle Roa	ndside Equipment local signal preemption re	equest EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Roa	adside Equipment vehicle location and moti	on EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OB	E Vehicle OBE	special vehicle type alert	EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Connected Vehicle Roa	adside Equipment vehicle location and moti	on EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ther Vehicle OBEs	Vehicle OBE	vehicle control event	EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ther Vehicle OBEs	Vehicle OBE	vehicle location and moti	on EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ransit Vehicle OBE	Connected Vehicle Roa	dside Equipment vehicle location and moti	on EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roa	ndside Equipment vehicle ID	EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roa	ndside Equipment vehicle location and moti	on EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roa	ndside Equipment vehicle location and moti	on for surveillance EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	vehicle control event	EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	vehicle location and moti	on EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Personal Information D	Device vehicle location and moti	on EU: CA Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Connected Vehicle Roa	adside Equipment local signal preemption re	equest EU: CA Service - Local Broadcast Wireless	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
mergency Vehicle OBE	Connected Vehicle Roa	ndside Equipment local signal preemption re	equest EU: CA Service - Local Broadcast Wireless	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission)
mergency Vehicle OBE	Connected Vehicle Roa	ndside Equipment local signal preemption re	equest EU: CA Service - Local Broadcast Wireless	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
mergency Vehicle OBE	Connected Vehicle Roa	adside Equipment local signal preemption re	equest EU: CA Service - Local Broadcast Wireless	(AU/EU) The mechanism by which trust is revoked from misbehaving actors has not been proven
/ehicle OBE	Connected Vehicle Roa	ndside Equipment vehicle location and moti	on for surveillance EU: CA Service - Local Broadcast Wireless	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
'ehicle OBE	Connected Vehicle Roa	ndside Equipment vehicle location and moti	on for surveillance EU: CA Service - Local Broadcast Wireless	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission)
ehicle OBE	Connected Vehicle Roa	adside Equipment vehicle location and moti	on for surveillance EU: CA Service - Local Broadcast Wireless	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
/ehicle OBE	Connected Vehicle Roa	ndside Equipment vehicle location and moti	on for surveillance EU: CA Service - Local Broadcast Wireless	(AU/EU) The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside	Equipment Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service Broadcast Wireless (AU/EU)	e - Local BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside	Equipment Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission)

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTF	P/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
onnected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	EU: Data Probe Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
ommercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
onnected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
onnected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
onnected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
onnected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTP/	GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Naint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ther Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Other Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ther Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ther Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Fransit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
/ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTP	/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Vehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
'ehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
ehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
ehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
ommercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
ommercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
onnected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: BTP/Ge	eoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle collision warning	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle collision warning	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle hazard event	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	wrong way vehicle detected	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	wrong way vehicle detected	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	intersection infringement info	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle collision warning	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	vehicle hazard event	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Other Vehicle OBEs	wrong way vehicle detected	EU: DEN Service - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	queue warning information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class	Timeframe Urgent	Proposed Resolution	V-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class	Overlap	Timeframe Urgent	Proposed Resolution	V-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roads	side Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	side Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roads	side Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE		Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE		Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roads	side Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	side Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roads	side Equipment	Vehicle OBE	current charging status	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roads	side Equipment	Vehicle OBE	electric charging services inve	entory EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roads	side Equipment	Vehicle OBE	electric charging services inve	entory EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roads	side Equipment	Vehicle OBE	electric charging services inve	entory EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roads	side Equipment	Vehicle OBE	electric charging services inve	entory EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Hot Spot - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Overlap	Timeframe Urgent	Proposed Resolution	V-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	current charging status	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle charging profile	EU: Electric Charging Management - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management informati	ion EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management informati	ion EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management informati	ion EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management informati	ion EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class Overlap	Timeframe Urgent	Proposed Resolution	V-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	EU: Probe Data - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.

Class Overlap	Timeframe Urgent	Proposed Resolution	V-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	GeoNetworking multi-hop has not been proven in wide-scale deployments using 5.9 GHz channels.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	Security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	EU: Signal Control Messages - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	intersection status	EU: Signal Control Messages - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	EU: Signal Control Messages - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	EU: Signal Control Messages - FNTP/M5	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
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Class Overlap	Timeframe Urgent	Proposed Resolution V	/-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Personal Information Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.

Class Overlap	Timeframe Urgent	Proposed Resolution	V-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	parking availability	EU: TPEG2 Parking Information - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
mergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	BTP/G5 and FNTP/M5 are competing standards due to differences in EPD vs LPD and Geonetworking.
Maint and Constr Vehicle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	Geonetworking security is inadequate for multi-hop and where the generator of a message is not the same of the broadcaster of the message (e.g., a message generated by a central system and sent to the RSE for transmission).

Class	Overlap	Timeframe	Urgent	Proposed Resolution	V-L: BTP/GeoNetworking/G5 and FNTP/M5	Regional Applicability Australia, European Union
Maint and Constr Vehi	icle OBE	Vehicle OBE		work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The ETSI 102 890 service announcement is not interoperable with the IEEE 1609.3 WSA or ISO 22418 FSAP.
Maint and Constr Vehi	cle OBE	Vehicle OBE		work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	The mechanism by which trust is revoked from misbehaving actors has not been proven

Class	Overlap	Timeframe Urgent	Proposed Resolution V-L: CA	AM and DENM	Regional Applicability Australia, Euro	pean Union
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
verlap	Urgent	V-L: CAM and DENM	Standardise on a single solution	for providing vehicle event information; currently th	is information can be transmitted using CAM or DENM.	Australia, European Union
ssue Description:	The performan	ce rules are not defined for this inform	nation flow.			Severity High
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Commercial Vehicle O	BE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Commercial Vehicle O	BE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information	
Commercial Vehicle O	BE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
commercial Vehicle O	BE	Fleet and Freight Management Center	vehicle environmental data	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Other Vehicle OBEs		Vehicle OBE	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Unclear rules on when to send CAM vs. DENM for this information	
ehicle OBE		Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
/ehicle OBE		Connected Vehicle Roadside Equipment	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Unclear rules on when to send CAM vs. DENM for this information	
ehicle OBE		Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
ehicle OBE		Other Vehicle OBEs	vehicle environmental data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Unclear rules on when to send CAM vs. DENM for this information	
ehicle OBE		Transportation Information Center	vehicle environmental data	EU: DEN Service - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
/ehicle OBE		Transportation Information Center	vehicle environmental data	EU: DEN Service - Mobile Internet (X.509)	Unclear rules on when to send CAM vs. DENM for this information	

Overlap Timeframe Urgent Proposed Reso	ution V-L: CAM and DENM	Regional Applicability Australia, European Union
Multiple standards have been developed to address this information as	d it is unclear which standard should be used to address this specific	c information flow.
	Relevant Flow Solution Combinations	
Destination Flow	SolutionName	Notes Notes
E Vehicle OBE special vehicle ty	e alert EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
E Vehicle OBE special vehicle ty	e alert EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE special vehicle ty	e alert EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE special vehicle ty	e alert EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Connected Vehicle Roadside Equipment vehicle control e	ent EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
E Vehicle OBE special vehicle ty	e alert EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
E Vehicle OBE special vehicle ty	e alert EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE special vehicle ty	e alert EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE special vehicle ty	e alert EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
ele OBE Vehicle OBE special vehicle ty	e alert EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
le OBE Vehicle OBE special vehicle ty	e alert EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE vehicle control e	EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE special vehicle ty	e alert EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE special vehicle ty	e alert EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Connected Vehicle Roadside Equipment vehicle control e	EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Other Vehicle OBEs vehicle control e	EU: CA Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
E Vehicle OBE special vehicle ty	e alert EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
E Vehicle OBE special vehicle ty	e alert EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE special vehicle ty	e alert EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE special vehicle ty	e alert EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
ele OBE Vehicle OBE special vehicle ty	e alert EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
ele OBE Vehicle OBE special vehicle ty	e alert EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE vehicle control e	ent EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Other Vehicle OBEs vehicle control e	EU: CA Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE	vehicle control eve	vehicle control event EU: CA Service - FNTP/M5

Class Overlap	Timeframe Urgent	Proposed Resolution V-L: CAM a	nd DENM	Regional Applicability Australia, European Union
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Other Vehicle OBEs	vehicle control event	EU: DEN Service - BTP/GeoNetworking/G5	Unclear rules on when to send CAM vs. DENM for this information
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Emergency Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Other Vehicle OBEs	Vehicle OBE	vehicle control event	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information

Class	Overlap	Timeframe Urgent	Proposed Resolution V-L: CAN	d and DENM	Regional Applicability Australia, Eur	opean Union
Vehicle OBE		Other Vehicle OBEs	vehicle control event	EU: DEN Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Vehicle OBE		Other Vehicle OBEs	vehicle control event	EU: DEN Service - FNTP/M5	Unclear rules on when to send CAM vs. DENM for this information	
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Overlap	Urgent	V-L: CAM and SRM	Standardise on a single solution f	or requesting signal priority; currently this request	can be transmitted using CAM or SRM.	Australia, European Union
Issue Description	on: Multiple stand	ards have been developed to address the	his information and it is unclear which	h standard should be used to address this specific i	nformation flow.	Severity Medium
<u> </u>	<u> </u>	·		Relevant Flow Solution Combinations		· · · · · · · · · · · · · · · · · · ·
Source		Destination	Flow	SolutionName	Notes	
Commercial Vehicle	e OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Commercial Vehicle	e OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Emergency Vehicle	OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Emergency Vehicle	OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - BTP/GeoNetworking/G5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Commercial Vehicle	e OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - FNTP/M5	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Commercial Vehicle	e OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Emergency Vehicle	OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - FNTP/M5	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Emergency Vehicle	OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - FNTP/M5	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Emergency Vehicle	OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Emergency Vehicle	OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: CA Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Commercial Vehicle	e OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - CEN 5.8Ghz DSRC	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Commercial Vehicle	e OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - CEN 5.8Ghz DSRC	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Commercial Vehicle	e OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Commercial Vehicle	e OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Emergency Vehicle	OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Emergency Vehicle	OBE	Connected Vehicle Roadside Equipment	local signal preemption request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	
Transit Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	ISO 19091 does not give clear guidelines on when CAM should be used vs	SRM
Transit Vehicle OBE		Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which each condition; and the latency, accuracy, and performance requirements defined. Notes: Application data, mini	

Class	Overlap	Timeframe Urgent	Proposed Resolution V-X: I	DENM, IVI, TPEG2, TMC and Contextual Speed Inform	mation Regional Applicability Australia, Europe	ean Union
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Overlap	Urgent	V-X: DENM, IVI, TPEG2, TMC and Contextual Speed Information	be sent via DENM, IVI, TPEG2,		formation and speed information; currently this information can mation only). Use cases need to consider the various environments	Australia, European Unior
Issue Description	Performance, fo	unctionality, and the upper-layers of	the OSI stack have not been defined	I for this information flow.		Severity Ultra
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Transportation Inform	mation Center	Vehicle OBE	road weather advisories	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been star	rted.
Transportation Inforn	mation Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been star	rted.
Transportation Inforn	mation Center	Vehicle OBE	road weather advisories	TPEG2 - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been star	rted.
Transportation Inforn	mation Center	Vehicle OBE	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been star	rted.
Issue Description	: There are ambi	guities as to how to (or if one should) couple the upper-layer standards o	defined in this solution with the indicated lower-laye	er standards.	Severity High
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Maint and Constr Ma	anagement Center	Vehicle OBE	work zone information	EU: DEN Service - Mobile Internet (X.509)	While both DEN and mobile Internet are well defined, there is no an interope pair the two together and address which port numbers to use and how to ide information should be sent.	
Traffic Management (Center	Vehicle OBE	lane closure information	EU: DEN Service - Mobile Internet (X.509)	While both DEN and mobile Internet are well defined, there is no an interope pair the two together and address which port numbers to use and how to ide information should be sent.	
Traffic Management (Center	Vehicle OBE	vehicle signage data	EU: DEN Service - Mobile Internet (X.509)	While both DEN and mobile Internet are well defined, there is no an interope pair the two together and address which port numbers to use and how to ide information should be sent.	
Vehicle OBE		Transportation Information Center	vehicle environmental data	EU: DEN Service - Mobile Internet (X.509)	While both DEN and mobile Internet are well defined, there is no an interope pair the two together and address which port numbers to use and how to ide information should be sent.	

Class Overlap	Timeframe Urgent	Proposed Resolution V-X: DEN	NM, IVI, TPEG2, TMC and Contextual Speed Informa	tion Regional Applicability Australia, European Union
Issue Description: Multiple standa	ards have been developed to address	this information and it is unclear which	h standard should be used to address this specific in	nformation flow.
			Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	_ Notes
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	Overlap between IVI and Contextual Speed Information
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Traffic Management Center	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Mobile Internet (X.509)	Overlap between IVI and Contextual Speed Information
Traffic Management Center	Vehicle OBE	speed management information	EU: Contextual Speed Information Service - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Lane closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Road closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN Services
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Vehicle signage data can be transmitted with ISO 19321 or DEN Services (V2V)
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: DEN Service - Local Broadcast Wireless (AU/EU)	Vehicle signage data can be transmitted with ISO 19321 or DEN Services (V2V)
Connected Vehicle Roadside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an interoperability profile that defines how to pair the two.
Traffic Management Center	Vehicle OBE	lane closure information	EU: DEN Service - Mobile Internet (X.509)	Lane closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Traffic Management Center	Vehicle OBE	vehicle signage data	EU: DEN Service - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Fraffic Management Center	Vehicle OBE	vehicle signage data	EU: DEN Service - Mobile Internet (X.509)	Vehicle signage data can be transmitted with ISO 19321, TPEG2, or DEN Services
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Lane closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Road closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
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Class Overlap	Timeframe Urgent	Proposed Resolution V-X: DENM, I	VI, TPEG2, TMC and Contextual Speed Informa	Regional Applicability Australia, European Union
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between IVI and Contextual Speed Information
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Overlap between ETSI 102 638 and ISO 14823
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	Performance requirements for IVI data transmission are not specified.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Traffic Management Center	Vehicle OBE	lane closure information	EU: In-Vehicle Information - Mobile Internet (X.509)	Lane closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Traffic Management Center	Vehicle OBE	speed management information	EU: In-Vehicle Information - Mobile Internet (X.509)	Overlap between IVI and Contextual Speed Information
Traffic Management Center	Vehicle OBE	speed management information	EU: In-Vehicle Information - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Traffic Management Center	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.509)	Overlap between ETSI 102 638 and ISO 14823
Traffic Management Center	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.509)	Performance requirements for IVI data transmission are not specified.
Traffic Management Center	Vehicle OBE	vehicle signage data	EU: In-Vehicle Information - Mobile Internet (X.509)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Lane closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Road closure information can be transmitted with ISO 19321, TPEG2, or DEN Services
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which data fields should be populated for each condition; and the latency, accuracy, and performance requirements related to these messages are not defined. Notes: Application data, mini
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an interoperability profile that defines how to pair the two.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an interoperability profile that defines how to pair the two.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (US)	Lane closure information can be transmitted with ISO 19321, TPEG2, or DEN Services

Class	Overlap	Timeframe	Urgent	Proposed Resolution	V-X: DENM, IVI, TPEG2, TMC and Contextual Speed Information	tion Regional Applicability Australia, Euro	pean Union		
Traffic Management	t Center	Vehicle OBE		lane closure information	TPEG2 - Mobile Internet (US)	Lane closure information can be transmitted with ISO 19321, TPEG2, or DE) 19321, TPEG2, or DEN Services		
Traffic Management	t Center	Vehicle OBE		lane closure information	TPEG2 - Mobile Internet (X.509)	Lane closure information can be transmitted with ISO 19321, TPEG2, or DE	N Services		
Class	Timeframe	Proposed Resolution	on	Description			Regional App	olicability	
Foundational	Near-term	Object registration	and discovery	Investigate mechanism	s to register and discover objects within the ITS network.		Australia, Eur United States	ropean Union,	
Issue Descriptio	n: Performance, fu	unctionality, and the u	pper-layers of th	e OSI stack have not been	defined for this information flow.		Severity	Ultra	
					Relevant Flow Solution Combinations				
Source		Destination		Flow	SolutionName	Notes			
Center		Object Registration and	l Discovery Service	object registration	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Connected Vehicle F	Roadside Equipment	Object Registration and	l Discovery Service	object registration	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Data Distribution Sy	ystem	Object Registration and	l Discovery Service	object registration	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Object Registration	and Discovery Service	Center		object discovery	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Object Registration	and Discovery Service	Connected Vehicle Roa	dside Equipment	object discovery	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Object Registration	and Discovery Service	Data Distribution Syste	m	object discovery	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Object Registration	and Discovery Service	Wide Area Information	Disseminator	object discovery	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Wide Area Informat	tion Disseminator	Object Registration and	l Discovery Service	object registration	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Object Registration	and Discovery Service	Personal Information D	evice	object discovery	(None-Data) - Guaranteed Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Object Registration	and Discovery Service	Vehicle OBE		object discovery	(None-Data) - Guaranteed Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been s	tarted.		
Object Registration	and Discovery Service	Wide Area Information	Disseminator	object discovery	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been s	tarted.		
Wide Area Informat	tion Disseminator	Object Registration and	l Discovery Service	object registration	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been s	tarted.		

Class	Foundational	Timeframe Near-term	Proposed Resolution Updates for	or data distribution (critical flows)	Regional Applicability United States		
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
Foundational	Near-term	Updates for data distribution (critical flows)	appropriate. This may include upda	pdate data dictionary standards to conform to the chosen Data Distribution Technology for those interfaces where this technology might be oppropriate. This may include updates to standards such as: TMDD, TCIP, J2735, NTICP, etc. (i.e., this would potentially convert ASN.1 data into the ormat that is native to the chosen DDT.)			
Issue Description:	There are ambig	uities as to how to (or if one should) co	ouple the upper-layer standards define	ed in this solution with the indicated lower-layer s	tandards.	Severity	High
			<u>R</u>	elevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Fransportation Informa		Emergency Management Center	corridor operational strategies	DDS: TMDD - OMG DDS			
ransportation Informa	ation Center	Emergency Management Center	road network conditions	DDS: TMDD - OMG DDS			
Transportation Informa	ation Center	Emergency Management Center	road weather advisories	DDS: TMDD - OMG DDS			
ransportation Informa	ition Center	Emissions Management Center	corridor operational strategies	DDS: TMDD - OMG DDS			
ransportation Informa	ntion Center	Fleet and Freight Management Center	incident information	DDS: TMDD - OMG DDS			
ransportation Informa	ntion Center	Fleet and Freight Management Center	road network conditions	DDS: TMDD - OMG DDS			
Connected Vehicle Road	dside Equipment	ITS Roadway Equipment	roadway dynamic signage data	DDS: NTCIP Message Sign - OMG DDS RPC			
TS Roadway Equipmen	nt	Connected Vehicle Roadside Equipment	ITS roadway equipment information	DDS: NTCIP Message Sign - OMG DDS RPC			
ΓS Roadway Equipmen	t	Connected Vehicle Roadside Equipment	roadway dynamic signage status	DDS: NTCIP Message Sign - OMG DDS RPC			
TS Roadway Equipmen	nt	Maint and Constr Management Center	roadway dynamic signage status	DDS: NTCIP Message Sign - OMG DDS RPC			
ΓS Roadway Equipmen	t	Other ITS Roadway Equipment	dynamic sign coordination	DDS: NTCIP Message Sign - OMG DDS RPC			
TS Roadway Equipmen	t	Traffic Management Center	roadway dynamic signage status	DDS: NTCIP Message Sign - OMG DDS RPC			
TS Roadway Equipmen	t	Traffic Management Center	roadway warning system status	DDS: NTCIP Message Sign - OMG DDS RPC			
ΓS Roadway Equipmen	t	Traffic Management Center	variable speed limit status	DDS: NTCIP Message Sign - OMG DDS RPC			
Maint and Constr Mana	agement Center	ITS Roadway Equipment	roadway dynamic signage data	DDS: NTCIP Message Sign - OMG DDS RPC			
mergency Managemer	nt Center	Traffic Management Center	emergency traffic control request	DDS: TMDD - OMG DDS			
mergency Managemer	nt Center	Traffic Management Center	incident information	DDS: TMDD - OMG DDS			
mergency Managemer	nt Center	Transportation Information Center	incident information	DDS: TMDD - OMG DDS			
missions Management	t Center	Transportation Information Center	air quality information	DDS: TMDD - OMG DDS			
leet and Freight Mana	gement Center	Commercial Vehicle Administration Center	route restrictions	DDS: TMDD - OMG DDS			
Maint and Constr Mana	agement Center	Center	equipment maintenance status	DDS: TMDD - OMG DDS			
Maint and Constr Mana	agement Center	Commercial Vehicle Administration Center	current infrastructure restrictions	DDS: TMDD - OMG DDS			
Maint and Constr Mana	agement Center	Emergency Management Center	road weather information	DDS: TMDD - OMG DDS			
Maint and Constr Mana	agement Center	Map Update System	current infrastructure restrictions	DDS: TMDD - OMG DDS			
Naint and Constr Mana	agement Center	Surface Transportation Weather Service	road weather information	DDS: TMDD - OMG DDS			
ΓS Roadway Equipmen	t	Maint and Constr Management Center	traffic images	DDS: NTCIP CCTV - OMG DDS RPC			
ΓS Roadway Equipmen	nt	Traffic Management Center	traffic images	DDS: NTCIP CCTV - OMG DDS RPC			
Maint and Constr Mana		ITS Roadway Equipment	video surveillance control	DDS: NTCIP CCTV - OMG DDS RPC			
raffic Management Ce		ITS Roadway Equipment	video surveillance control	DDS: NTCIP CCTV - OMG DDS RPC			
Connected Vehicle Road		Emissions Management Center	emissions situation data	DDS: NTCIP Environmental Sensors - OMG DDS RPC			

Class Foundational	Timeframe Near-term	Proposed Resolution Updates for d	lata distribution (critical flows)	Regional Applicability	United States
Emissions Management Center	ITS Roadway Equipment	air quality sensor control	DDS: NTCIP Environmental Sensors - OMG DDS RPC		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	environmental sensor data	DDS: NTCIP Environmental Sensors - OMG DDS RPC		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	DDS: NTCIP Environmental Sensors - OMG DDS RPC		
ITS Roadway Equipment	Emissions Management Center	air quality sensor data	DDS: NTCIP Environmental Sensors - OMG DDS RPC		
ITS Roadway Equipment	Maint and Constr Management Center	environmental sensor data	DDS: NTCIP Environmental Sensors - OMG DDS RPC		
ITS Roadway Equipment	Traffic Management Center	environmental sensor data	DDS: NTCIP Environmental Sensors - OMG DDS RPC		
Maint and Constr Management Center	ITS Roadway Equipment	environmental sensors control	DDS: NTCIP Environmental Sensors - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	environmental sensors control	DDS: NTCIP Environmental Sensors - OMG DDS RPC		
Other ITS Roadway Equipment	ITS Roadway Equipment	dynamic sign coordination	DDS: NTCIP Message Sign - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	lane management control	DDS: NTCIP Message Sign - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	roadway dynamic signage data	DDS: NTCIP Message Sign - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	roadway warning system control	DDS: NTCIP Message Sign - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	variable speed limit control	DDS: NTCIP Message Sign - OMG DDS RPC		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal preemption request	DDS: NTCIP Signal Priority - OMG DDS RPC		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal priority service request	DDS: NTCIP Signal Priority - OMG DDS RPC		
ITS Roadway Equipment	Traffic Management Center	right-of-way request notification	DDS: NTCIP Signal Priority - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	signal control commands	DDS: NTCIP Signal System Masters - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	signal control device configuration	DDS: NTCIP Signal System Masters - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	signal system configuration	DDS: NTCIP Signal System Masters - OMG DDS RPC		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	pedestrian location information	DDS: NTCIP Traffic Signal - OMG DDS RPC		
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	signal service request	DDS: NTCIP Traffic Signal - OMG DDS RPC		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	conflict monitor status	DDS: NTCIP Traffic Signal - OMG DDS RPC		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	intersection control status	DDS: NTCIP Traffic Signal - OMG DDS RPC		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	DDS: NTCIP Traffic Signal - OMG DDS RPC		
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	pedestrian crossing status	DDS: NTCIP Traffic Signal - OMG DDS RPC		
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control coordination	DDS: NTCIP Traffic Signal - OMG DDS RPC		
ITS Roadway Equipment	Other ITS Roadway Equipment	signal control data	DDS: NTCIP Traffic Signal - OMG DDS RPC		
ITS Roadway Equipment	Traffic Management Center	pedestrian safety warning status	DDS: NTCIP Traffic Signal - OMG DDS RPC		
ITS Roadway Equipment	Traffic Management Center	signal control status	DDS: NTCIP Traffic Signal - OMG DDS RPC		
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control coordination	DDS: NTCIP Traffic Signal - OMG DDS RPC		
Other ITS Roadway Equipment	ITS Roadway Equipment	signal control data	DDS: NTCIP Traffic Signal - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	pedestrian safety warning control	DDS: NTCIP Traffic Signal - OMG DDS RPC		
Traffic Management Center	ITS Roadway Equipment	signal control plans	DDS: NTCIP Traffic Signal - OMG DDS RPC		

Class Foundational	Timeframe Near-term	Proposed Resolution Updates for o	data distribution (critical flows)	Regional Applicability United States
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	traffic situation data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
Connected Vehicle Roadside Equipment	Traffic Management Center	traffic situation data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
Connected Vehicle Roadside Equipment	Transportation Information Center	traffic situation data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
ITS Roadway Equipment	Maint and Constr Management Center	speed monitoring information	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
ITS Roadway Equipment	Maint and Constr Management Center	traffic detector data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
ITS Roadway Equipment	Other ITS Roadway Equipment	roadway detector coordination	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
ITS Roadway Equipment	Traffic Management Center	speed monitoring information	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
ITS Roadway Equipment	Traffic Management Center	traffic detector data	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
Maint and Constr Management Center	ITS Roadway Equipment	speed monitoring control	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
Maint and Constr Management Center	ITS Roadway Equipment	traffic detector control	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
Other ITS Roadway Equipment	ITS Roadway Equipment	roadway detector coordination	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
Traffic Management Center	ITS Roadway Equipment	speed monitoring control	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
Traffic Management Center	ITS Roadway Equipment	traffic detector control	DDS: NTCIP Transportation Sensors - OMG DDS RPC	
Alternate Mode Transportation Center	Transit Management Center	multimodal service data	DDS: TCIP - OMG DDS	
Alternate Mode Transportation Center	Transit Management Center	service information response	DDS: TCIP - OMG DDS	
Alternate Mode Transportation Center	Transportation Information Center	multimodal service data	DDS: TCIP - OMG DDS	
Emergency Management Center	Transit Management Center	emergency transit service request	DDS: TCIP - OMG DDS	
Other Transit Management Centers	Transit Management Center	transit service coordination	DDS: TCIP - OMG DDS	
Other Transportation Information Centers	Transportation Information Center	transit service information	DDS: TCIP - OMG DDS	
Traffic Management Center	Transit Management Center	transit service change request	DDS: TCIP - OMG DDS	
Traffic Management Center	Transportation Information Center	transit service change request	DDS: TCIP - OMG DDS	
Transit Management Center	Alternate Mode Transportation Center	service information request	DDS: TCIP - OMG DDS	
Transit Management Center	Alternate Mode Transportation Center	transit multimodal information	DDS: TCIP - OMG DDS	
Transit Management Center	Emergency Management Center	emergency transit service response	DDS: TCIP - OMG DDS	
Transit Management Center	Emissions Management Center	transit and fare schedules	DDS: TCIP - OMG DDS	
Transit Management Center	Other Transit Management Centers	transit service coordination	DDS: TCIP - OMG DDS	
Transit Management Center	Parking Management System	transit schedule adherence information	DDS: TCIP - OMG DDS	
Transit Management Center	Parking Management System	transit schedule information	DDS: TCIP - OMG DDS	
Transit Management Center	Traffic Management Center	traffic control priority request	DDS: TCIP - OMG DDS	
Transit Management Center	Traffic Management Center	transit system data	DDS: TCIP - OMG DDS	

Total Mangement Control Total Control Information Control description of Control Control Control First Mangement Control France of Control Control Control Control Control Control First Mangement Control France of Control Control Control Control Control Control First Mangement Control Transcription Information Protection Information Control Protection Information Control Control Control Transposal Protection Control Control Control Control Control Control Control Control Control Control Control Control Transposal Protection Control Control Control Control Control Control Control Control Control Control Control Control Transposal Protection Control Control Control Control Control Control Control Control Control Control Control Control Transposal Protection Control Control Control Control Control Control Control Control Control Control Control Control Control Contro	Class Foundational	Timeframe Near-term	Proposed Resolution Updates for d	lata distribution (critical flows)	Regional Applicability United States
Year Management Center Tong standard collection Sold the standard collection Sold the standard collection Sold the standard collection Float Management Center Imagement Center Imagement Center Tong standard collection Sold the standard collection Trans Standard Center Tong standard collection Sold the standard collection Sold the standard collection Trans Standard Center Tong standard collection Sold the standard collection Sold Tong Standard Collection Trans Standard Center Other Superagement Center Sold the standard Collection Sold Tong Standard Collection Transport Actor Collection Other Superagement Center Souther Superagement Center Sold the Superagement Center Transport Actor Collection Assistance Center Sold the Superagement Center Sold the Superagement Center Transport Actor Collection Assistance Center Sold the Superagement Center Sold the Superagement Center Collection Assistance Center Sold the Superagement Center Sold the Superagement Center Collection Assistance Center Sold the Superagement Center Sold the Superagement Center Sold the Superagement Center Sold the Superagement Center	Transit Management Center	Transportation Information Center	demand responsive transit plan	DDS: TCIP - OMG DDS	
Time In Name (Income Income	Transit Management Center	Transportation Information Center	emergency transit schedule information	DDS: TCIP - OMG DDS	
Transit Maragement Centre	Transit Management Center	Transportation Information Center	transit and fare schedules	DDS: TCIP - OMG DDS	
Total Malagement Certer Processor Management Certer Freshold Management Certer Versiche Markel Management Certer Versiche Management Certer Versiche Management Certer Versich Management Certer	Transit Management Center	Transportation Information Center	transit incident information	DDS: TCIP - OMG DDS	
Transporterish information Control Meriman Manatan Control Aller Transporterish information Control Control Control Control Transporterish information Control 100 Mart Designation information 100 Mart Designation information 100 Mart Management Center <	Transit Management Center	Transportation Information Center	transit schedule adherence information	DDS: TCIP - OMG DDS	
Personal Information Exercited Debt Internation Exercited Security Procession Information Information Information Exercited Security Procession Information Information Exercited Security Procession Information Information Exercited Security Procession Exercited Security Processio	Transit Management Center	Transportation Information Center	transit trip plan	DDS: TCIP - OMG DDS	
Transportation from the Centre Transportation formation (Centre Centre Control Memograme (Centre Centre	Transportation Information Center	Alternate Mode Transportation Center	service information request	DDS: TCIP - OMG DDS	
Part	Transportation Information Center	Other Transportation Information Centers	transit service information	DDS: TCIP - OMG DDS	
Konfer Inspirednin System Traffer Kongerien Engerien System Control Congestion System Congestion System Control Congestion System Congestion S	Transportation Information Center	Transit Management Center	demand responsive transit request	DDS: TCIP - OMG DDS	
Rote (rispettin) system Transport (rispettin) system Only 1000 - 000 1000 -	Transportation Information Center	Transit Management Center	transit service change request	DDS: TCIP - OMG DDS	
Certar Marian Wind Data Certar Certar Active Data Data Data Data Data Data Data Dat	Border Inspection System	Traffic Management Center	border wait times data	DDS: TMDD - OMG DDS	
Center Data Distribution System creater information distribution data OSE-MODE - OMG DISTRICT Center Assist matical Contral Management Center of England Management Center of Engla	Border Inspection System	Transportation Information Center	border crossing status information	DDS: TMDD - OMG DDS	
Center Data Distribution System Invested information date and constry Antangement Center convented without Administration Center Make and Constry Antangement Center Construction of Management Center	Center	Archived Data Center	center archive data	DDS: TMDD - OMG DDS	
Contrer Maint and Contry Management Certer equipment maintenance request 005,1100.0 - 0MG D05 Commencial Vehicle Administration Certer Other CVA Ministration Certer Transportation Information Certer Other Secretary Certer Other Secre	Center	Data Distribution System	operational data	DDS: TMDD - OMG DDS	
Commercial Vehicle Administration Centre Commercial Vehicle Administration Cen	Center	Data Distribution System	traveler information distribution data	DDS: TMDD - OMG DDS	
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Commercial Vehicle Administration Center Trasportation Information Center over certifictions Dots 1981 (Mode and Mode and Mode and Mode and and Mode and A	Commercial Vehicle Administration Center	Fleet and Freight Management Center	route restrictions	DDS: TMDD - OMG DDS	
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Dist Distribution System Gener	Commercial Vehicle Administration Center	Transportation Information Center	route restrictions	DDS: TMDD - OMG DDS	
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Maint and Constr Management Center Traffic Management Center vor training vor zone information vor zone informatio	Maint and Constr Management Center	Traffic Management Center	current infrastructure restrictions	DDS: TMDD - OMG DDS	
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Maint and Constr Management Center Transportation Information Center current infrastructure restrictions DDS: TMDD - OMG DDS Maint and Constr Management Center Transportation Information Center current infrastructure restrictions DDS: TMDD - OMG DDS Maint and Constr Management Center Transportation Information Center current infrastructure restrictions DDS: TMDD - OMG DDS Maint and Constr Management Center Transportation Information Center current infrastructure restrictions DDS: TMDD - OMG DDS Maint and Constr Management Center Transportation Information Center current cu	Maint and Constr Management Center	Traffic Management Center	equipment maintenance status	DDS: TMDD - OMG DDS	
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Other CV Administration Centers Commercial Vehicle Administration Center route restrictions DDS: TMDD - OMG DDS Other Traffic Management Centers Traffic Man	Maint and Constr Management Center	Transportation Information Center	road weather information	DDS: TMDD - OMG DDS	
Other Traffic Management Centers Other Traffic Management Centers Traffic M	Maint and Constr Management Center	Transportation Information Center	work zone information	DDS: TMDD - OMG DDS	
Other Traffic Management Centers Traffic Mana	Other CV Administration Centers	Commercial Vehicle Administration Center	route restrictions	DDS: TMDD - OMG DDS	
Other Traffic Management Centers Traffic Managem	Other Traffic Management Centers	Traffic Management Center	device control request	DDS: TMDD - OMG DDS	
Other Traffic Management Centers Traffic Management Center Traffic	Other Traffic Management Centers	Traffic Management Center	device data	DDS: TMDD - OMG DDS	
Other Traffic Management Centers Traffic Management Center road network conditions DDS: TMDD - OMG DDS	Other Traffic Management Centers	Traffic Management Center	device status	DDS: TMDD - OMG DDS	
	Other Traffic Management Centers	Traffic Management Center	incident information	DDS: TMDD - OMG DDS	
Other Traffic Management Centers Traffic Management Center traffic image meta data DDS: TMDD - OMG DDS	Other Traffic Management Centers	Traffic Management Center	road network conditions	DDS: TMDD - OMG DDS	
	Other Traffic Management Centers	Traffic Management Center	traffic image meta data	DDS: TMDD - OMG DDS	

Class Foundational	Timeframe Near-term	Proposed Resolution Updates for 0	data distribution (critical flows)	Regional Applicability United States
Other Traffic Management Centers	Traffic Management Center	traffic images	DDS: TMDD - OMG DDS	
Other Transportation Information Centers	Transportation Information Center	emergency traveler information	DDS: TMDD - OMG DDS	
Other Transportation Information Centers	Transportation Information Center	incident information	DDS: TMDD - OMG DDS	
Other Transportation Information Centers	Transportation Information Center	road network conditions	DDS: TMDD - OMG DDS	
Other Transportation Information Centers	Transportation Information Center	traffic image meta data	DDS: TMDD - OMG DDS	
Other Transportation Information Centers	Transportation Information Center	traffic images	DDS: TMDD - OMG DDS	
Service Monitor System	Center	RSE fault data	DDS: TMDD - OMG DDS	
Service Monitor System	Maint and Constr Management Center	RSE fault data	DDS: TMDD - OMG DDS	
Surface Transportation Weather Service	Emergency Management Center	transportation weather information	DDS: TMDD - OMG DDS	
Surface Transportation Weather Service	Maint and Constr Management Center	transportation weather information	DDS: TMDD - OMG DDS	
Surface Transportation Weather Service	Traffic Management Center	transportation weather information	DDS: TMDD - OMG DDS	
Surface Transportation Weather Service	Transportation Information Center	transportation weather information	DDS: TMDD - OMG DDS	
Traffic Management Center	Emergency Management Center	emergency traffic control information	DDS: TMDD - OMG DDS	
Traffic Management Center	Emergency Management Center	incident information	DDS: TMDD - OMG DDS	
Traffic Management Center	Emergency Management Center	road network conditions	DDS: TMDD - OMG DDS	
Traffic Management Center	Emissions Management Center	road network conditions	DDS: TMDD - OMG DDS	
Traffic Management Center	Fleet and Freight Management Center	road network conditions	DDS: TMDD - OMG DDS	
Traffic Management Center	Fleet and Freight Management Center	route restrictions	DDS: TMDD - OMG DDS	
Traffic Management Center	Maint and Constr Management Center	equipment maintenance request	DDS: TMDD - OMG DDS	
Traffic Management Center	Maint and Constr Management Center	field equipment status	DDS: TMDD - OMG DDS	
Traffic Management Center	Maint and Constr Management Center	incident information	DDS: TMDD - OMG DDS	
Traffic Management Center	Maint and Constr Management Center	road network conditions	DDS: TMDD - OMG DDS	
Traffic Management Center	Other Traffic Management Centers	device control request	DDS: TMDD - OMG DDS	
Traffic Management Center	Other Traffic Management Centers	device data	DDS: TMDD - OMG DDS	
Traffic Management Center	Other Traffic Management Centers	device status	DDS: TMDD - OMG DDS	
Traffic Management Center	Other Traffic Management Centers	incident information	DDS: TMDD - OMG DDS	
Traffic Management Center	Other Traffic Management Centers	road network conditions	DDS: TMDD - OMG DDS	
Traffic Management Center	Other Traffic Management Centers	traffic image meta data	DDS: TMDD - OMG DDS	
Traffic Management Center	Other Traffic Management Centers	traffic images	DDS: TMDD - OMG DDS	
Traffic Management Center	Transit Management Center	incident information	DDS: TMDD - OMG DDS	
Traffic Management Center	Transit Management Center	road network conditions	DDS: TMDD - OMG DDS	
Traffic Management Center	Transportation Information Center	incident information	DDS: TMDD - OMG DDS	
Traffic Management Center	Transportation Information Center	regional situation data	DDS: TMDD - OMG DDS	
Traffic Management Center	Transportation Information Center	road network conditions	DDS: TMDD - OMG DDS	
Traffic Management Center	Transportation Information Center	traffic control information	DDS: TMDD - OMG DDS	
Traffic Management Center	Transportation Information Center	traffic image meta data	DDS: TMDD - OMG DDS	
Traffic Management Center	Transportation Information Center	traffic images	DDS: TMDD - OMG DDS	
Transportation Information Center	Archived Data Center	regional situation data	DDS: TMDD - OMG DDS	

Class Foundat	tional Timeframe Near-term	Proposed Resolution Updates for	or data distribution (critical flows)	Regional Applicability United State	S
ransportation Information Center	Fleet and Freight Management Center	road weather advisories	DDS: TMDD - OMG DDS		
ransportation Information Center	Maint and Constr Management Center	corridor operational strategies	DDS: TMDD - OMG DDS		
ransportation Information Center	Other Transportation Information Centers	emergency traveler information	DDS: TMDD - OMG DDS		
ransportation Information Center	Other Transportation Information Centers	incident information	DDS: TMDD - OMG DDS		
ransportation Information Center	Other Transportation Information Centers	road network conditions	DDS: TMDD - OMG DDS		
ransportation Information Center	Other Transportation Information Centers	traffic image meta data	DDS: TMDD - OMG DDS		
ransportation Information Center	Other Transportation Information Centers	traffic images	DDS: TMDD - OMG DDS		
ransportation Information Center	Traffic Management Center	corridor operational strategies	DDS: TMDD - OMG DDS		
ransportation Information Center	Traffic Management Center	regional situation data	DDS: TMDD - OMG DDS		
ransportation Information Center	Transit Management Center	corridor operational strategies	DDS: TMDD - OMG DDS		
unnel Management System	Maint and Constr Management Center	field equipment status	DDS: TMDD - OMG DDS		
onnected Vehicle Roadside Equipm	nent Field Support Equipment	RSE status	US: NTCIP Generic Objects - OMG DDS RPC		
onnected Vehicle Roadside Equipm	nent Service Monitor System	RSE status	US: NTCIP Generic Objects - OMG DDS RPC		
ield Support Equipment	Connected Vehicle Roadside Equipment	RSE status	US: NTCIP Generic Objects - OMG DDS RPC		
eld Support Equipment	ITS Roadway Equipment	field equipment commands	US: NTCIP Generic Objects - OMG DDS RPC		
eld Support Equipment	ITS Roadway Equipment	field equipment configuration settings	US: NTCIP Generic Objects - OMG DDS RPC		
rs Roadway Equipment	Field Support Equipment	field equipment status	US: NTCIP Generic Objects - OMG DDS RPC		
S Roadway Equipment	Maint and Constr Management Center	field device status	US: NTCIP Generic Objects - OMG DDS RPC		
S Roadway Equipment	Maint and Constr Management Center	field equipment status	US: NTCIP Generic Objects - OMG DDS RPC		
lass Timefrai	me Proposed Resolution	Description			Regional Applicability
ecurity Near-ter	m Core authorization - coordination among centres	Develop an internationally acceptal Authorization Service Package.	ble standard for the user permission request c	oordination information triples contained within the Core	Australia, European Union, United States
ssue Description: Performa	nce, functionality, and the upper-layers of th	e OSI stack have not been defined for	this information flow.		Severity Ultra
		<u>R</u>	Relevant Flow Solution Combinations		
ource	Destination	Flow	SolutionName	Notes	
uthorizing Center	Other Authorizing Centers	permission request coordination	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been	n started.
ther Authorizing Centers	Authorizing Center	permission request coordination	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been	n started.
uthorizing Center	Other Authorizing Centers	permission request coordination	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been	n started.
ther Authorizing Centers	Authorizing Center	permission request coordination	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been	n started.
uthorizing Center	Other Authorizing Centers	permission request coordination	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been	n started.
than Authorizing Contars	Authorizing Center	permission request coordination	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been	n started.
ther Authorizing Centers					
uthorizing Center	Other Authorizing Centers	permission request coordination	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been	n started.

Class	Security	Timeframe Near-term	Proposed Resolution Security	and credentials management - coordination amor	ng CCMS Regional Applicability Australia, Europ	ean Union, Unite	ed States
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
Security	Near-term	Security and credentials management - coordination among CCMS	authorization credentialing, misbe	Develop internationally acceptable standardised solutions that facilitate Credential Management Systems coordination of enrolment credentialing, authorization credentialing, misbehavior analysis and certificate revocation processes, so that actions undertaken by one CCMS may be properly referenced and/or utilized by other CCMS, and so that relevant information for these activities may be appropriately shared between CCMS.			
ssue Description	Performance, fu	inctionality, and the upper-layers of the	OSI stack have not been defined for	r this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Cooperative ITS Crede System	entials Management	Other CCMS	authorization coordination	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Other CCMS		Cooperative ITS Credentials Management System	authorization coordination	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Other CCMS		Cooperative ITS Credentials Management System	enrollment coordination	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Other CCMS		Cooperative ITS Credentials Management System	misbehavior analysis coordination	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Other CCMS		Cooperative ITS Credentials Management System	revocation coordination	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Cooperative ITS Crede System	entials Management Other CCMS enrollment coordination (None-Data) - Guaranteed Internet (US) Work on the upper layer standards related to this solution have not been		rted.				
Cooperative ITS Crede System	edentials Management Other CCMS misbehavior analysis coordination (None-Data) - Guaranteed Internet (US) Work on the upper layer standards related to this solution have not been so		rted.				
Cooperative ITS Crede System	entials Management	Other CCMS	revocation coordination	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
Security	Near-term	V-L: Develop security requirements for DSRC communication (AIRB-T75)		DSRC are only a general guideline. Detailed secur	ity requirements need to be developed.	Japan	
Issue Description	: The solution do	es not provide adequate communicatio	ns security for the information triple	e, which potentially jeopardizes C-ITS operations.		Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle Ro	oadside Equipment	Transit Vehicle OBE	vehicle signage data	JP: F-V Short Range Wireless Data(JP) - F-V Short Range Wireless Downlink Comm (JP)	Only general guideline given		
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	lane closure information	JP: F-V Short Range Wireless Data(JP) - F-V Short Range Wireless Downlink Comm (JP)	Only general guideline given		
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	reduced speed notification	JP: F-V Short Range Wireless Data(JP) - F-V Short Range Wireless Downlink Comm (JP)	Only general guideline given		
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	road weather advisories	JP: F-V Short Range Wireless Data(JP) - F-V Short Range Wireless Downlink Comm (JP)	Only general guideline given		
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	vehicle signage data	JP: F-V Short Range Wireless Data(JP) - F-V Short Range Wireless Downlink Comm (JP)	Only general guideline given		
/ehicle OBE		Connected Vehicle Roadside Equipment	vehicle ID	JP: V-F Short Range Wireless Data (JP) - V-F Short Range Wireless Uplink Comm (JP)	Only general guideline given		
Vehicle OBE		Connected Vehicle Roadside Equipment	vehicle situation data	JP: V-F Short Range Wireless Data (JP) - V-F Short	Only general guideline given		

Class	Centre	Timeframe Near-term	Proposed Resolution C-C: AU en	nergency traffic control	Regional Applicability Australia		
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
Centre	Near-term	C-C: AU emergency traffic control	Update DATEX to support the provis	sion of emergency traffic control information	on with a complete application specification.	Australia	
Issue Descripti	ion: Performance, f	unctionality, and the upper-layers of th	e OSI stack have not been defined for t	his information flow.		Severity	Ultra
			<u>R</u>	elevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Emergency Manag	gement Center	Traffic Management Center	emergency traffic control request	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been standards	arted.	
Traffic Manageme	ent Center	Emergency Management Center	emergency traffic control information	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been standards	arted.	
Emergency Manag	gement Center	Traffic Management Center	emergency traffic control request	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	arted.	
Traffic Manageme	ent Center	Emergency Management Center	emergency traffic control information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	arted.	
Emergency Manag	gement Center	Traffic Management Center	emergency traffic control request	(None-Data) - ODG-OCIT-C	Work on the upper layer standards related to this solution have not been sta	arted.	
Traffic Manageme	ent Center	Emergency Management Center	emergency traffic control information	(None-Data) - ODG-OCIT-C	Work on the upper layer standards related to this solution have not been sta	arted.	
Emergency Manag	gency Management Center Traffic Management Center emergency traffic control request DDS: TMDD - OMG DDS Work on the upper layer standards related to		Work on the upper layer standards related to this solution have not been sta	arted.			
Traffic Manageme	ent Center	Emergency Management Center	emergency traffic control information	DDS: TMDD - OMG DDS	Work on the upper layer standards related to this solution have not been sta	arted.	
Emergency Manag	gement Center	Traffic Management Center	emergency traffic control request	US: TMDD - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	arted.	
Traffic Manageme	ent Center	Emergency Management Center	emergency traffic control information	US: TMDD - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	arted.	
Emergency Manag	gement Center	Traffic Management Center	emergency traffic control request	US: TMDD - OMG DDS	Work on the upper layer standards related to this solution have not been sta	arted.	
Traffic Manageme	ent Center	Emergency Management Center	emergency traffic control information	US: TMDD - OMG DDS	Work on the upper layer standards related to this solution have not been sta	arted.	
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
Centre	Near-term	C-C: AU weather information	Adopt an existing weather informat	ion centre-to-centre data profile for use wi	ithin the region.	Australia	
Issue Descripti	ion: Performance, f	unctionality, and the upper-layers of th	e OSI stack have not been defined for t	his information flow.		Severity	Ultra
			<u>R</u>	elevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Surface Transport	tation Weather Service	Traffic Management Center	transportation weather information	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	arted.	
Surface Transport	tation Weather Service	Traffic Management Center	transportation weather information	DDS: TMDD - OMG DDS	Work on the upper layer standards related to this solution have not been sta	arted.	
Surface Transport	tation Weather Service	Traffic Management Center	transportation weather information	EU: DATEX - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	arted.	
Surface Transporta	tation Weather Service	Traffic Management Center	transportation weather information	US: TMDD - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	arted.	
Surface Transport	tation Weather Service	Traffic Management Center	transportation weather information	US: TMDD - OMG DDS	Work on the upper layer standards related to this solution have not been sta	arted.	

Class	Centre	Timeframe Near-term	Proposed Resolution	C-C: Equipment maintenance coordination	Regional Applicability Australia, Europ	ean Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description			Regional Appli	icability
Centre	Near-term	C-C: Equipment maintenance coordination	Develop an internation	lly acceptable ITS application specification for C-C exchang	e of equipment maintenance and status information	Australia, Euro United States	pean Union,
Issue Description	: Performance, f	unctionality, and the upper-layers of th	e OSI stack have not been	lefined for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Center		Maint and Constr Management Center	equipment maintenance req	est (None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Center		Service Monitor System	service maintenance request	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Data Distribution Syst	tem	Service Monitor System	service maintenance request	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Center	RSE fault data	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Center	service maintenance status	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Data Distribution System	service maintenance status	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Maint and Constr Management Center	RSE fault data	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Wide Area Information Disseminator	service maintenance status	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Wide Area Informatio	on Disseminator	Service Monitor System	service maintenance request	(None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Center	RSE fault data	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Maint and Constr Management Center	RSE fault data	(None-Data) - Guaranteed Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Wide Area Information Disseminator	service maintenance status	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Vide Area Informatio	on Disseminator	Service Monitor System	service maintenance request	(None-Data) - Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Center	service maintenance status	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Data Distribution System	service maintenance status	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been sta	rted.	
ata Distribution Syst	tem	Service Monitor System	service maintenance request	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been sta	rted.	
Center		Maint and Constr Management Center	equipment maintenance req	est (None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Center		Service Monitor System	service maintenance request	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Data Distribution Syst	tem	Service Monitor System	service maintenance request	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Maint and Constr Mar	nagement Center	Center	equipment maintenance stat	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Center	RSE fault data	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Center	service maintenance status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Data Distribution System	service maintenance status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Service Monitor Syste	em	Maint and Constr Management Center	RSE fault data	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
ervice Monitor Syste		Wide Area Information Disseminator	service maintenance status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Nide Area Informatio		Service Monitor System	service maintenance request	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been sta	rted.	
Center		Service Monitor System	service maintenance request	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been sta	rted.	
Maint and Constr Mar	nagement Center	Center	equipment maintenance stat		Work on the upper layer standards related to this solution have not been sta	rted.	
Center	-	Maint and Constr Management Center	equipment maintenance req		Work on the upper layer standards related to this solution have not been sta	rted.	
Maint and Constr Mar	nagement Center	Center	equipment maintenance stat		Work on the upper layer standards related to this solution have not been sta		
Center	J 22	Maint and Constr Management Center	equipment maintenance req		Work on the upper layer standards related to this solution have not been sta		
Maint and Constr Mar	nagement Center	Center	equipment maintenance stat		Work on the upper layer standards related to this solution have not been sta		

Class	Centre	Timeframe	Near-term	Proposed Resolution	C-C: Equipment maintenance coordination	Regional Applicability Austra	llia, European Union, Unite	d States
Center		Maint and Constr Man	agement Center	equipment maintenance requ	uest US: TMDD - OMG DDS	Work on the upper layer standards related to this solution have	not been started.	
Maint and Consti	r Management Center	Center		equipment maintenance state	us US: TMDD - OMG DDS	Work on the upper layer standards related to this solution have	not been started.	
Class	Timeframe	Proposed Resoluti	on	Description	Description			icability
Centre	Near-term	C-C: EU emergency traffic control		Update DATEX to suppo	Update DATEX to support the provision of emergency traffic control information with a complete application specification.			on
Issue Descript	tion: Performance, f	unctionality, and the u	pper-layers of th	e OSI stack have not been o	defined for this information flow.		Severity	Ultra
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes Notes		
Emergency Mana	agement Center	Traffic Management Co	enter	emergency traffic control req	uest (None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have	not been started.	
Traffic Managem	ent Center	Emergency Manageme	nt Center	emergency traffic control info	ormation (None-Data) - DATEX Messaging TCP	Work on the upper layer standards related to this solution have	not been started.	
Traffic Managem	ent Center	Emergency Manageme	nt Center	emergency traffic control info	ormation (None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have	not been started.	
Emergency Mana	agement Center	Traffic Management Co	enter	emergency traffic control req	uest (None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have	not been started.	
Emergency Mana	agement Center	Traffic Management Co	enter	emergency traffic control req	uest (None-Data) - ODG-OCIT-C	Work on the upper layer standards related to this solution have	not been started.	
Traffic Managem	ent Center	Emergency Manageme	nt Center	emergency traffic control info	ormation (None-Data) - ODG-OCIT-C	Work on the upper layer standards related to this solution have	not been started.	
Emergency Mana	agement Center	Traffic Management Co	enter	emergency traffic control req	uest DDS: TMDD - OMG DDS	Work on the upper layer standards related to this solution have	not been started.	
Traffic Managem	ent Center	Emergency Manageme	nt Center	emergency traffic control info	ormation DDS: TMDD - OMG DDS	Work on the upper layer standards related to this solution have	not been started.	
Emergency Mana	agement Center	Traffic Management Co	enter	emergency traffic control req	uest US: TMDD - NTCIP Messaging	Work on the upper layer standards related to this solution have	not been started.	
Traffic Managem	ent Center	Emergency Manageme	nt Center	emergency traffic control info	ormation US: TMDD - NTCIP Messaging	Work on the upper layer standards related to this solution have	not been started.	
Emergency Mana	agement Center	Traffic Management Co	enter	emergency traffic control req	uest US: TMDD - OMG DDS	Work on the upper layer standards related to this solution have	not been started.	
Traffic Managem	ent Center	Emergency Manageme	nt Center	emergency traffic control info	ormation US: TMDD - OMG DDS	Work on the upper layer standards related to this solution have	not been started.	

Class	Centre	Timeframe Near-term	Proposed Resolution C-C: TN	ИDD	Regional Applicability United States		
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
entre	Near-term	C-C: TMDD		OD need to occur to support several use cases aintenance and construction work plans.	including the addition of: sensor data accuracy; air quality information;	United States	
sue Descriptio	n: Some of the da	ta elements for this information flow a	are not fully defined.			Severity	Medium
				Relevant Flow Solution Combinations			
urce		Destination	Flow	SolutionName	Notes		
issions Managem	nent Center	Transportation Information Center	air quality information	US: TMDD - NTCIP Messaging	The TMDD provides for exchanging sensor readings and for air quality incident aggregated region-wide air quality data.	t information, but o	loes not define
ssions Managem	nent Center	Transportation Information Center	air quality information	US: TMDD - OMG DDS	The TMDD provides for exchanging sensor readings and for air quality incident aggregated region-wide air quality data.	t information, but o	loes not define
ue Descriptio	The standard pode defined structu		be more than one way to convey th	ne information contained in this information fl	ow and the standard provides little or no guidance on how to use the	Severity	Low
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
int and Constr M	anagement Center	Transportation Information Center	maint and constr work plans	US: TMDD - NTCIP Messaging			
int and Constr M	anagement Center	Transportation Information Center	maint and constr work plans	US: TMDD - OMG DDS			

Class Centre	Timeframe Near-term	Proposed Resolution C-C: TMDD		Regional Applicability United States		
Issue Description: The standa	rd is missing accuracy requirements for som	e of its data, which may result in anom	alous behaviour.		Severity	Low
		Re	levant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes		
Transportation Information Center	Other Transportation Information Centers	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
Fransportation Information Center	Emergency Management Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
Fransportation Information Center	Fleet and Freight Management Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Emergency Management Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Emissions Management Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Fleet and Freight Management Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
Other Traffic Management Centers	Traffic Management Center	device data	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
Other Traffic Management Centers	Traffic Management Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
Other Transportation Information Cen	nters Transportation Information Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Maint and Constr Management Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Other Traffic Management Centers	device data	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Other Traffic Management Centers	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Transit Management Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Transportation Information Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
ransportation Information Center	Emergency Management Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
ransportation Information Center	Fleet and Freight Management Center	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
ransportation Information Center	Other Transportation Information Centers	road network conditions	US: TMDD - NTCIP Messaging	The accuracy of the sensors is not currently defined in the TMDD		
ther Traffic Management Centers	Traffic Management Center	device data	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
ther Traffic Management Centers	Traffic Management Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
ther Transportation Information Cen	ters Transportation Information Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Emergency Management Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Emissions Management Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Fleet and Freight Management Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Maint and Constr Management Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Other Traffic Management Centers	device data	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Other Traffic Management Centers	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
raffic Management Center	Transit Management Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		
Fraffic Management Center	Transportation Information Center	road network conditions	US: TMDD - OMG DDS	The accuracy of the sensors is not currently defined in the TMDD		

Class	Centre	Timeframe Near-term	Proposed Resolution C-C: Upd	late SIRI for other transport modes	Regional Applicability Australia, Eu	ropean Union, Unite	d States	
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability	
Centre	Near-term	C-C: Update SIRI for other transport Revise the SIRI application specification to support the exchange of ferry, airline, and inter-city rail information between centres. modes					Australia, European Union, United States	
Issue Description	Performance, f	unctionality, and the upper-layers of t	he OSI stack have not been defined fo	r this information flow.		Severity	Ultra	
				Relevant Flow Solution Combinations				
Source		Destination	Flow	SolutionName	Notes			
Alternate Mode Trai	ansportation Center	Transportation Information Center	alternate mode incident information	(None-Data) - Guaranteed Internet (US)	Work on the upper layer standards related to this solution have not been	started.		
ssue Descriptio	n: Required data	elements are not defined.				Severity	High	
				Relevant Flow Solution Combinations				
ource		Destination	Flow	SolutionName	Notes			
Iternate Mode Trai	ansportation Center	Traffic Management Center	alternate mode service demand info	EU: SIRI - DATEX Messaging TCP	SIRI is designed for transit systems and does not specifically handle ferry	or rail informaiton		
lternate Mode Trai	ansportation Center	Traffic Management Center	alternate mode service demand info	EU: SIRI - Guaranteed Internet (X.509)	SIRI is designed for transit systems and does not specifically handle ferry	or rail informaiton		
lternate Mode Trai	ansportation Center	Traffic Management Center	alternate mode service demand info	EU: SIRI - ODG-OCIT-C	SIRI is designed for transit systems and does not specifically handle ferry	or rail informaiton		
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability	
ield	Near-term	I-F: Environmental sensor stations	Develop an internationally acceptable ITS application specification for managing environmental sensor stations for secure communications with proper access control.				pean Union,	
ssue Descriptio	n: Performance, f	unctionality, and the upper-layers of t	he OSI stack have not been defined fo	r this information flow.		Severity	Ultra	
				Relevant Flow Solution Combinations				
Source		Destination	Flow	SolutionName	Notes			
raffic Management	nt Center	ITS Roadway Equipment	environmental sensors control	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been	n started.		
ΓS Roadway Equipn	ment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been	n started.		
TS Roadway Equipn	ment	Connected Vehicle Roadside Equipment	environmental sensor data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been	started.		
ΓS Roadway Equipn	ment	Traffic Management Center	environmental sensor data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been	started.		
ssue Descriptio	Data has been	defined for SNMPv1, but needs to be	updated to SNMPv3 format.			Severity	Medium	
				Relevant Flow Solution Combinations				
Source		Destination	Flow	SolutionName	Notes			
onnected Vehicle R	Roadside Equipment	Emissions Management Center	emissions situation data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 data needs to be upgraded to SNMPv3.			
missions Managem	ment Center	ITS Roadway Equipment	air quality sensor control	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 data needs to be upgraded to SNMPv3.			
ΓS Roadway Equipn	ment	Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 data needs to be upgraded to SNMPv3.			
S Roadway Equipm	ment	Connected Vehicle Roadside Equipment	ITS roadway equipment information	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 data needs to be upgraded to SNMPv3.			
S Roadway Equipn	ment	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 data needs to be upgraded to SNMPv3.			
		Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 data needs to be upgraded to SNMPv3.			
TS Roadway Equipm	ment							
TS Roadway Equipn TS Roadway Equipn		Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 data needs to be upgraded to SNMPv3.			
TS Roadway Equipn		Traffic Management Center ITS Roadway Equipment	environmental sensor data environmental sensors control	US: NTCIP Environmental Sensors - SNMPv3 US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 data needs to be upgraded to SNMPv3. NTCIP 1204 data needs to be upgraded to SNMPv3.			

Class	Vehicle-Local	Timeframe Ne	ar-term Proposed Resolution	/-L: Develop data accuracy requirements for probe data (D	OSRC-A11400)	Regional Applicability Japan		
Class	Timeframe	Proposed Resolution	Description				Regional Applicability	
Vehicle-Local	Near-term	V-L: Develop data accur requirements for probe A11400)	, , ,	Define accuracy requirements for probe data for various uses.			Japan	
Issue Description	The standard is	missing accuracy requirem	ents for some of its data, which may resu	ult in anomalous behaviour.			Severity	Low
				Relevant Flow Solution Combinations				
Source		Destination	Flow	SolutionName	Notes			
Vehicle OBE		Connected Vehicle Roadside	Equipment vehicle ID	JP: V-F Short Range Wireless Data (JP) - V-F Short Range Wireless Uplink Comm (JP)	Accuracy of data is not o	lefine		
Vehicle OBE		Connected Vehicle Roadside	Equipment vehicle situation data	JP: V-F Short Range Wireless Data (JP) - V-F Short Range Wireless Uplink Comm (JP)	Accuracy of data is not o	lefine		
Class	Timeframe	Proposed Resolution	Description				Regional App	icability
Vehicle-Local	Near-term	V-L: Driver display confl	cts Develop an ITS application entities.	n specification for identifying that a vehicle is displaying the	e incorrect information	to a driver and alerting appropriate	Australia, Euro	pean Union
Issue Description	n: Performance, fu	nctionality, and the upper	layers of the OSI stack have not been de	fined for this information flow.			Severity	Ultra
				Relevant Flow Solution Combinations				
Source		Destination	Flow	SolutionName	Notes			
Connected Vehicle Ro	oadside Equipment	Vehicle OBE	driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper laye	standards related to this solution have not been sta	arted.	
Vehicle OBE		Connected Vehicle Roadside	Equipment driver display conflict warning	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper laye	standards related to this solution have not been sta	arted.	
Vehicle OBE		Connected Vehicle Roadside	Equipment driver display snapshots	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper laye	standards related to this solution have not been sta	arted.	

Class	Vehicle-Local	Timeframe Near-term	Proposed Resolution V-L: 1	TPEG2	Regional Applicability Australia, Europe	ean Union, United	States
Class	Timeframe	Proposed Resolution	Description			Regional Applic	ability
ehicle-Local	Near-term	V-L: TPEG2	Develop an ITS application spe	ecification for transmission of TPEG2 to a vehicle from	n a local broadcast source.	Australia, Europ United States	ean Union,
ssue Description:		evelopment organization has estab new or simply a lack of activity on		andard but a draft is not available for this critical feat	ure to enable the interface. The draft may be missing due to the	Severity	High
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
connected Vehicle Roa	adside Equipment	Transit Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2945/4 is still under development.		
connected Vehicle Roa	adside Equipment	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2945/4 is still under development.		
mergency Vehicle OB	BE	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2945/4 is still under development.		
laint and Constr Vehi	icle OBE	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2945/4 is still under development.		
Traffic Management Co	enter	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Mobile Internet (US)	SAE J2945/4 is still under development.		
ssue Description:	There are ambig	ruities as to how to (or if one shoul	d) couple the upper-laver standards of	defined in this solution with the indicated lower-layer	standards.	Severity	High
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,,,,	Relevant Flow Solution Combinations		•	J
iource		Destination	Flow	SolutionName	Notes		
Connected Vehicle Roa	adside Equipment	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an int to pair the two.	eroperability profile t	nat defines ho
Connected Vehicle Roa	adside Equipment	Vehicle OBE	lane closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an int to pair the two.	eroperability profile t	hat defines ho
connected Vehicle Roa	adside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an int to pair the two.	eroperability profile t	hat defines ho
connected Vehicle Roa	adside Equipment	Vehicle OBE	road weather advisories	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an int to pair the two.	eroperability profile t	nat defines ho
onnected Vehicle Roa	adside Equipment	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an int to pair the two.	eroperability profile t	nat defines ho
mergency Vehicle OB	BE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an int to pair the two.	eroperability profile t	nat defines ho
Maint and Constr Vehi	icle OBE	Vehicle OBE	vehicle signage data	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an int to pair the two.	eroperability profile t	nat defines ho
Naint and Constr Vehi	icle OBE	Vehicle OBE	work zone information	TPEG2 - Local Broadcast Wireless (AU/EU)	While TPEG2 and local broadcast wireless are well defined, there is not an int to pair the two.	eroperability profile t	nat defines ho
raffic Management Co	enter	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Mobile Internet (US)			
ssue Description:	While the indica	ted standards nominally address th	ne information flow, the design may r	not meet practical constraints because this particular	use case was not the focus of the design effort.	Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Connected Vehicle Roa	adside Equipment	Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	Road closure information can be transmitted with ISO 19321, TPEG2, or DEN	Services	
Connected Vehicle Roa		Vehicle OBE	road closure information	TPEG2 - Local Broadcast Wireless (AU/EU)	The conditions under which the message is sent; the rules indicating which do each condition; and the latency, accuracy, and performance requirements rel defined. Notes: Application data, mini		

Class	Vehicle-Local	Timeframe	Near-term	Proposed Resolution	V-L: Update SAE J2735 to conform to ISO 14817	Regional Applicability Australia, Europ	ean Union, Unite	d States
Class	Timeframe	Proposed Resolution	on	Description			Regional Appli	icability
Vehicle-Local	Near-term	V-L: Update SAE J2 to ISO 14817	735 to conform	Update the format of the experts	e standard to conform to the rules of ISO 14817-1 so that da	ta can easily be placed in the CIDCR and understood by all ITS	Australia, Euro United States	pean Union,
Issue Description:	The definition o	f data concepts shoul	d conform to ISO	14817-1 to promote reuse	among ITS.		Severity	Low
	_				Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Map Update System		Connected Vehicle Roa	adside Equipment	intersection geometry	DDS: SAE Other J2735 - OMG DDS	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Emergency Vehicle OB	BE	Connected Vehicle Roa	adside Equipment	local signal preemption reques	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Fraffic Management C	Center	Commercial Vehicle OF	BE	intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Fraffic Management C	Center	Emergency Vehicle OB	E	intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Traffic Management C	Center	Transit Vehicle OBE		intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Commercial Vehicle OF	BE	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Emergency Vehicle OB	E	intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	ITS Roadway Equipmer	nt	intersection status monitoring	EU: Signal Control Messages - BTP/GeoNetworking/G5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Transit Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Vehicle OBE		intersection status	EU: Signal Control Messages - BTP/GeoNetworking/G5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Commercial Vehicle O	BE	Connected Vehicle Roa	adside Equipment	local signal priority request	EU: Signal Control Messages - CEN 5.8Ghz DSRC	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Commercial Vehicle OF	BE	intersection status	EU: Signal Control Messages - CEN 5.8Ghz DSRC	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Commercial Vehicle OF	BE	signal priority status	EU: Signal Control Messages - CEN 5.8Ghz DSRC	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Map Update System		Center		intersection geometry	EU: Signal Control Messages - DATEX Messaging TCP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Map Update System		Connected Vehicle Roa	adside Equipment	intersection geometry	EU: Signal Control Messages - EU-ICIP-C2F	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Commercial Vehicle OF	BE	intersection status	EU: Signal Control Messages - FNTP/M5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Emergency Vehicle OB	E	intersection status	EU: Signal Control Messages - FNTP/M5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	ITS Roadway Equipmer	nt	intersection status monitoring	EU: Signal Control Messages - FNTP/M5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Ro	adside Equipment	Transit Vehicle OBE		intersection status	EU: Signal Control Messages - FNTP/M5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Vehicle OBE		intersection status	EU: Signal Control Messages - FNTP/M5	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Commercial Vehicle O	DBE	Connected Vehicle Roa	adside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Commercial Vehicle OF	BE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Emergency Vehicle OB	E	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
Connected Vehicle Roa	adside Equipment	Personal Information D	Device	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 1	4817-1.	
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Class Vehicle-Local	Timeframe Near-term	Proposed Resolution V-L: Update S	AE J2735 to conform to ISO 14817	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	EU: Signal Control Messages - Local Broadcast Wireless (AU/EU)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System	Personal Information Device	intersection geometry	EU: Signal Control Messages - Mobile Internet (X.509)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System	Vehicle OBE	intersection geometry	EU: Signal Control Messages - Mobile Internet (X.509)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Vehicle OBE	intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	EU: Signal Control Messages - Internet (X.509)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Transportation Information Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System	Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - SNMPv3	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - WAVE UDP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	intersection status	US: SAE Signal Control Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle path prediction	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Personal Information Device	vehicle path prediction	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Vehicle OBE	vehicle path prediction	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	US: SAE Basic Safety Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Vehicle OBEs	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Vehicle OBEs	Transit Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Vehicle OBEs	Vehicle OBE	vehicle control event	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Vehicle OBEs	Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Other Vehicle OBEs	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Personal Information Device	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle control event	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle location and motion for surveillance	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Emergency Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Maint and Constr Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Other Vehicle OBEs	vehicle control event	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Other Vehicle OBEs	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.

Class Vehicle-Local	Timeframe Near-term	Proposed Resolution V-L: Update S	SAE J2735 to conform to ISO 14817	Regional Applicability Australia, European Union, United States
Vehicle OBE	Personal Information Device	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Transit Vehicle OBE	vehicle location and motion	US: SAE Basic Safety Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System	Center	intersection geometry	US: SAE Other J2735 - Guaranteed Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Fleet and Freight Management Center	Commercial Vehicle OBE	road weather advisories	US: SAE Other J2735 - Guaranteed Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Maint and Constr Management Center	Personal Information Device	road weather advisories	US: SAE Other J2735 - Guaranteed Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Maint and Constr Management Center	Vehicle OBE	road weather advisories	US: SAE Other J2735 - Guaranteed Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Vehicle OBE	Other EV OBEs	work zone warning notification	US: SAE Other J2735 - Guaranteed Mobile Internet (US), with WAVE alternative	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other EV OBEs	Emergency Vehicle OBE	work zone warning notification	US: SAE Other J2735 - Guaranteed Mobile Internet (US), with WAVE alternative	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transportation Information Center	Wide Area Information Disseminator	broadcast traveler information	US: SAE Other J2735 - Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Commercial Vehicle OBE	Emergency Vehicle OBE	vehicle collision information	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Maint and Constr Vehicle OBE	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Personal Information Device	location correction	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Personal Information Device	personal safety warning	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Personal Information Device	signal service status	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	restricted lanes application info	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	arriving train information	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	lane closure information	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	location correction	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	rail crossing warning	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	restricted lanes application info	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	road closure information	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Vehicle OBE	Personal Information Device	personal safety warning	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.

Class Vehicle-Local	Timeframe Near-term	Proposed Resolution V-L: Update S	AE J2735 to conform to ISO 14817	Regional Applicability Australia, European Union, United States
Maint and Constr Vehicle OBE	Connected Vehicle Roadside Equipment	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Maint and Constr Vehicle OBE	Other MCV OBEs	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other MCV OBEs	Maint and Constr Vehicle OBE	work zone warning notification	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Vehicle OBEs	Vehicle OBE	vehicle environmental data	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle environmental data	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Emergency Vehicle OBE	vehicle collision information	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Other Vehicle OBEs	vehicle environmental data	US: SAE Other J2735 - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Personal Information Device	Connected Vehicle Roadside Equipment	personal signal service request	US: SAE Other J2735 - Local Unicast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Connected Vehicle Roadside Equipment	vehicle situation data	US: SAE Other J2735 - Local Unicast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Commercial Vehicle OBE	Fleet and Freight Management Center	vehicle environmental data	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Data Distribution System	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Vehicle OBE	Emergency Management Center	emergency vehicle tracking data	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Surface Transportation Weather Service	Vehicle OBE	transportation weather information	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Vehicle OBE	intersection status	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Vehicle OBE	lane closure information	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transportation Information Center	Vehicle OBE	vehicle situation data parameters	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Data Distribution System	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Map Update System	vehicle location and motion for mapping	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Transportation Information Center	vehicle situation data	US: SAE Other J2735 - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	US: SAE Other J2735 - OMG DDS RPC	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	US: SAE Other J2735 - OMG DDS RPC	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Wayside Equipment	ITS Roadway Equipment	arriving train information	US: SAE Other J2735 - OMG DDS RPC	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
ITS Roadway Equipment	Connected Vehicle Roadside Equipment	arriving train information	US: SAE Other J2735 - SNMPv3	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System	Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Other J2735 - SNMPv3	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Wayside Equipment	Connected Vehicle Roadside Equipment	arriving train information	US: SAE Other J2735 - SNMPv3	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Wayside Equipment	ITS Roadway Equipment	arriving train information	US: SAE Other J2735 - SNMPv3	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Personal Information Device	intersection safety warning	US: SAE Other J2735 - WAVE UDP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Commercial Vehicle OBE	Vehicle OBE	special vehicle type alert	US: SAE Other J2735 - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection safety warning	US: SAE Other J2735 - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Maint and Constr Vehicle OBE	Personal Information Device	personal safety warning	US: SAE Other J2735 - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Maint and Constr Vehicle OBE	Vehicle OBE	special vehicle type alert	US: SAE Other J2735 - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Vehicle OBEs	Vehicle OBE	intersection infringement info	US: SAE Other J2735 - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Vehicle OBE	special vehicle type alert	US: SAE Other J2735 - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vehicle OBE	Connected Vehicle Roadside Equipment	intersection infringement info	US: SAE Other J2735 - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.

Class	ehicle-Local	Timeframe Near-term	Proposed Resolution V-L: Update S	AE J2735 to conform to ISO 14817	Regional Applicability Australia, European Union, United States
Vehicle OBE		Other Vehicle OBEs	intersection infringement info	US: SAE Other J2735 - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transportation Information C	Center	Personal Information Device	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
ransportation Information (Center	Vehicle OBE	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vide Area Information Disse	eminator	Personal Information Device	wide area broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vide Area Information Disse	eminator	Vehicle OBE	broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Vide Area Information Disse	eminator	Vehicle OBE	wide area broadcast traveler information	US: SAE Other J2735 - Wide Area Broadcast (Upper)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
mergency Vehicle OBE		Personal Information Device	personal safety warning	US: SAE Safety Awareness Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
mergency Vehicle OBE		Vehicle OBE	emergency vehicle alert	US: SAE Safety Awareness Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Vehicle OBE		Vehicle OBE	special vehicle type alert	US: SAE Safety Awareness Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Vehicle OBEs		Vehicle OBE	vehicle hazard event	US: SAE Safety Awareness Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
/ehicle OBE		Other Vehicle OBEs	vehicle hazard event	US: SAE Safety Awareness Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside	Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside	Equipment	Personal Information Device	intersection geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside	Equipment	Vehicle OBE	intersection geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside	Equipment	Vehicle OBE	roadway geometry	US: SAE Signal Control Messages - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System		Personal Information Device	intersection geometry	US: SAE Signal Control Messages - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System		Vehicle OBE	intersection geometry	US: SAE Signal Control Messages - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Лар Update System		Vehicle OBE	roadway geometry	US: SAE Signal Control Messages - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
raffic Management Center		Commercial Vehicle OBE	intersection status	US: SAE Signal Control Messages - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
raffic Management Center		Emergency Vehicle OBE	intersection status	US: SAE Signal Control Messages - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Nap Update System		Center	intersection geometry	US: SAE Signal Control Messages - NTCIP Messaging	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System		Center	intersection geometry	US: SAE Signal Control Messages - OMG DDS	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Лар Update System		Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - OMG DDS RPC	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Иар Update System		Connected Vehicle Roadside Equipment	roadway geometry	US: SAE Signal Control Messages - OMG DDS RPC	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Map Update System		Connected Vehicle Roadside Equipment	intersection geometry	US: SAE Signal Control Messages - SNMPv3	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside	Equipment	Emergency Vehicle OBE	intersection status	US: SAE Signal Control Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside	Equipment	ITS Roadway Equipment	intersection status monitoring	US: SAE Signal Control Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.

Class Vehicle-Local	Timeframe Near-term	Proposed Resolution V-L: Update	SAE J2735 to conform to ISO 14817	Regional Applicability Australia, European Union, United States
Connected Vehicle Roadside Equipment	Personal Information Device	intersection status	US: SAE Signal Control Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Personal Information Device	pedestrian safety information	US: SAE Signal Control Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	intersection status	US: SAE Signal Control Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	intersection status	US: SAE Signal Control Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Commercial Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	US: SAE Signal Preemption - Local Unicast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Commercial Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Emergency Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	signal priority status	US: SAE Signal Preemption - Local Unicast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Vehicle OBE	Connected Vehicle Roadside Equipment	local signal preemption request	US: SAE Signal Preemption - Local Unicast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	local signal priority request	US: SAE Signal Preemption - Local Unicast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Personal Information Device	local traveler information	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	local traveler information	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	reduced speed notification	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	speed management information	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Vehicle OBE	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Maint and Constr Vehicle OBE	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Vehicle OBE	speed management information	US: SAE Traveler Info - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Vehicle OBE	vehicle signage data	US: SAE Traveler Info - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Personal Information Device	Connected Vehicle Roadside Equipment	personal location	US: SAE VRU Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Personal Information Device	Emergency Vehicle OBE	personal location	US: SAE VRU Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Personal Information Device	Maint and Constr Vehicle OBE	personal location	US: SAE VRU Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Personal Information Device	Transit Vehicle OBE	personal location	US: SAE VRU Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Personal Information Device	Vehicle OBE	personal location	US: SAE VRU Messages - WAVE WSMP	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Vehicle OBE	road weather advisories	US: SAE Weather Info - Local Broadcast Wireless (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Management Center	Emergency Vehicle OBE	road weather advisories for emergency response	US: SAE Weather Info - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.
Fleet and Freight Management Center	Commercial Vehicle OBE	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by ISO 14817-1.

Class	Vehicle-Local	Timeframe Near-term	Proposed Resolution V-L: Upda	te SAE J2735 to conform to ISO 14817	Regional Applicability Australia, Eur	opean Union, Unite	ed States
aint and Constr Ma	nagement Center	Personal Information Device	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by IS	O 14817-1.	
nt and Constr Ma	nagement Center	Vehicle OBE	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by IS	O 14817-1.	
nsportation Inforn	mation Center	Vehicle OBE	road weather advisories	US: SAE Weather Info - Mobile Internet (US)	SAE J2735 does not explicitly define the meta-attributes as required by IS	O 14817-1.	
SS	Timeframe	Proposed Resolution	Description			Regional App	licability
nicle-Centre	Near-term	C-V: Transit vehicle schedule management	Develop an ITS application specifica	ation for managing transit vehicle schedule per	formance data from transit vehicles to a centre.	Australia, Euro	pean Union
ue Description	Performance, fu	unctionality, and the upper-layers of the	he OSI stack have not been defined for	this information flow.		Severity	Ultra
			<u>F</u>	Relevant Flow Solution Combinations			
rce		Destination	Flow	SolutionName	Notes		
sit Management	Center	Transit Vehicle OBE	transit schedule information	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been	started.	
sit Vehicle OBE		Transit Management Center	transit vehicle schedule performance	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been	started.	
sit Management	Center	Transit Vehicle OBE	transit schedule information	EU: Data Transmodel - Mobile XML	Work on the upper layer standards related to this solution have not been	started.	
sit Vehicle OBE		Transit Management Center	transit vehicle schedule performance	EU: Data Transmodel - Mobile XML	Work on the upper layer standards related to this solution have not been	started.	
sit Management	Center	Transit Vehicle OBE	transit schedule information	US: TCIP - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been	started.	
it Vehicle OBE		Transit Management Center	transit vehicle schedule performance	US: TCIP - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been	started.	
e Description	: While the indica	ated standards nominally address the	information flow, the design may not n	neet practical constraints because this particula	ar use case was not the focus of the design effort.	Severity	Medium
<u> </u>		·		Relevant Flow Solution Combinations			
urce		Destination	Flow	SolutionName	Notes		
nsit Vehicle OBE		Transit Management Center	transit vehicle schedule performance	EU: Data Transmodel - Mobile XML	The conditions under which the message is sent; the rules indicating whice each condition; and the latency, accuracy, and performance requirement defined. Notes: Application data, mini		
SS	Timeframe	Proposed Resolution	Description			Regional App	licability
nicle-Centre	Near-term	C-V: Work zone status		ation for a maintenance and construction vehic	cle to report and update the status of a work zone to a centre.	Australia, Euro United States	
ue Description	Performance, fu	unctionality, and the upper-layers of the	he OSI stack have not been defined for	this information flow.		Severity	Ultra
			F	Relevant Flow Solution Combinations			
ırce		Destination	- Flow	SolutionName	Notes		
nt and Constr Veh	nicle OBE	Maint and Constr Management Center	work zone status	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been	started.	
nt and Constr Veh	nicle OBE	Maint and Constr Management Center	work zone status	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been	started.	
e Description	: There are ambig	guities as to how to (or if one should)	couple the upper-layer standards define	ed in this solution with the indicated lower-laye	er standards.	Severity	High
			F	Relevant Flow Solution Combinations			
ırce		Destination	Flow	SolutionName	Notes		
uice		Vehicle OBE	work zone information	EU: DEN Service - Mobile Internet (X.509)	While both DEN and mobile Internet are well defined, there is no an inter		lefines how to

Foundational	ent Center mation Centers mation Centers	Proposed Resolution Updates for data discritical flows) uities as to how to (or Destination ITS Roadway Equipment Transportation Informati Transportation Informati Transportation Informati Traffic Management Cen	tribution (non- if one should) co	appropriate. This may in potentially convert ASN		ed lower-layer standards.		·
Issue Description: The Source Traffic Management Center Fleet and Freight Management Other Transportation Inform Other Transportation Inform Parking Management System	ere are ambigu ent Center mation Centers mation Centers	critical flows) Lities as to how to (or Destination ITS Roadway Equipment Transportation Information Transportation Information Transportation Information	if one should) co	appropriate. This may in potentially convert ASN puple the upper-layer stan	clude updates to standards such as: J3067; A 1 data into the format that is native to the clards defined in this solution with the indicate Relevant Flow Solution Combinate SolutionName	TIS; Incident management; UBL; some J2735; nosen DDT.) ed lower-layer standards.	 uld	
Source Traffic Management Center Fleet and Freight Management Other Transportation Inform Other Transportation Inform Parking Management System	ent Center mation Centers mation Centers	Destination ITS Roadway Equipment Transportation Informati Transportation Informati Transportation Informati	ion Center	Flow lighting system control data	Relevant Flow Solution Combinat SolutionName	ons .	Severity	High
Traffic Management Center Fleet and Freight Manageme Other Transportation Inform Other Transportation Inform Parking Management System	ent Center mation Centers mation Centers m	ITS Roadway Equipment Transportation Informati Transportation Informati Transportation Informati	ion Center	lighting system control data	SolutionName			
Traffic Management Center Fleet and Freight Manageme Other Transportation Inform Other Transportation Inform Parking Management System	ent Center mation Centers mation Centers m	ITS Roadway Equipment Transportation Informati Transportation Informati Transportation Informati	ion Center	lighting system control data		Notes		
Fleet and Freight Managemen Other Transportation Inform Other Transportation Inform Parking Management System	ent Center mation Centers mation Centers m	Transportation Information	ion Center		DDS: NTCIP Lighting - OMG DDS F			
Other Transportation Inform Other Transportation Inform Parking Management System	mation Centers mation Centers m	Transportation Informati		route request		PC		
Other Transportation Inform Parking Management System	mation Centers m	Transportation Informati	ion Center		DDS: ATIS - OMG DDS			
Parking Management Syster	m	•		multimodal information	DDS: ATIS - OMG DDS			
		Traffic Management Cen	ion Center	parking information	DDS: ATIS - OMG DDS			
Parking Management Syster	m		ter	parking information	DDS: ATIS - OMG DDS			
,		Transit Management Cer	nter	parking information	DDS: ATIS - OMG DDS			
Parking Management Syster	m	Transportation Informati	ion Center	parking information	DDS: ATIS - OMG DDS			
Traffic Management Center		Media		traffic information for media	DDS: ATIS - OMG DDS			
Transportation Information	Center	Fleet and Freight Manage	ement Center	route plan	DDS: ATIS - OMG DDS			
Transportation Information	Center	Media		traffic information for media	DDS: ATIS - OMG DDS			
Transportation Information	Center	Media		traveler information for med	DDS: ATIS - OMG DDS			
Transportation Information	Center	Other Transportation Inf	ormation Centers	multimodal information	DDS: ATIS - OMG DDS			
Transportation Information	Center	Other Transportation Inf	ormation Centers	parking information	DDS: ATIS - OMG DDS			
Travel Services Provider Syst	stem	Transportation Informati	ion Center	travel service information	DDS: ATIS - OMG DDS			
Emergency Management Ce	enter	Emergency Telecommun	ications System	incident information for publ	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Maint and Constr Manag	gement Center	emergency plan coordination	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Maint and Constr Manag	gement Center	evacuation information	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Other Emergency Manag	gement Centers	emergency plan coordination	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Other Emergency Manag	gement Centers	incident report	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Rail Operations Center		emergency plan coordination	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Rail Operations Center		evacuation information	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Traffic Management Cen	ter	emergency plan coordination	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Traffic Management Cen	ter	emergency route request	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Traffic Management Cen	ter	evacuation information	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Transit Management Cer	nter	emergency plan coordination	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Transit Management Cer	nter	evacuation information	DDS: Incident Management - OM	G DDS		
Emergency Management Ce	enter	Transportation Informati	ion Center	evacuation information	DDS: Incident Management - OM	G DDS		
Fleet and Freight Manageme	ent Center	Emergency Management	t Center	hazmat information	DDS: Incident Management - OM	G DDS		
Maint and Constr Managem	nent Center	Emergency Management	t Center	emergency plan coordination	DDS: Incident Management - OM	G DDS		
Other Emergency Managem	nent Centers	Emergency Management	t Center	emergency plan coordination	DDS: Incident Management - OM	G DDS		
Other Emergency Managem	nent Centers	Emergency Management	t Center	incident report	DDS: Incident Management - OM	G DDS		

Class Foundational	Timeframe Medium-term	Proposed Resolution Updates for	data distribution (non-critical flows)	Regional Applicability United States	
Rail Operations Center	Emergency Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS		
helter Provider Center	Emergency Management Center	shelter information	DDS: Incident Management - OMG DDS		
Shelter Provider Center	Transportation Information Center	shelter information	DDS: Incident Management - OMG DDS		
Traffic Management Center	Emergency Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS		
Traffic Management Center	Emergency Management Center	emergency routes	DDS: Incident Management - OMG DDS		
Transit Management Center	Emergency Management Center	emergency plan coordination	DDS: Incident Management - OMG DDS		
TS Roadway Equipment	Traffic Management Center	lighting system status	DDS: NTCIP Lighting - OMG DDS RPC		
TS Roadway Equipment	Traffic Management Center	traffic metering status	DDS: NTCIP Ramp Meters - OMG DDS RPC		
Fraffic Management Center	ITS Roadway Equipment	traffic metering control	DDS: NTCIP Ramp Meters - OMG DDS RPC		
raffic Management Center	Transit Management Center	traffic control priority status	DDS: NTCIP Signal Priority - OMG DDS	These standards are not intended to operate together, but they propvide mo	st of the information necessary
Emergency Management Center	ITS Roadway Equipment	work zone warning device control	DDS: NTCIP Warning Device - OMG DDS RPC		
TS Roadway Equipment	Emergency Management Center	work zone warning status	DDS: NTCIP Warning Device - OMG DDS RPC		
TS Roadway Equipment	Maint and Constr Management Center	work zone warning status	DDS: NTCIP Warning Device - OMG DDS RPC		
Maint and Constr Management Center	ITS Roadway Equipment	work zone warning device control	DDS: NTCIP Warning Device - OMG DDS RPC		
Commercial Vehicle Check Equipment	Commercial Vehicle Administration Center	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS		
Commercial Vehicle OBE Service Provider	Commercial Vehicle Check Equipment	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS		
Commercial Vehicle OBE Service Provider	Fleet and Freight Management Center	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS		
Commercial Vehicle OBE Service Provider	Other CVOBE Service Provider	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS		
Connected Vehicle Roadside Equipment	Commercial Vehicle Administration Center	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS		
leet and Freight Management Center	Commercial Vehicle Administration Center	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS		
Other CVOBE Service Provider	Commercial Vehicle OBE Service Provider	driver log	DDS: SAE J3067 (J2735 SE) - OMG DDS		
Connected Vehicle Roadside Equipment	Parking Management System	commercial vehicle identification	DDS: SAE J3067 (J2735 SE) - OMG DDS RPC		
Лар Update System	Connected Vehicle Roadside Equipment	intersection geometry	DDS: SAE Other J2735 - OMG DDS	SAE J2735 was not designed to be implemented over DDS; interface details n	eed to be defined.
Fleet and Freight Management Center	Freight Distribution and Logistics Center	freight transportation status	DDS: UBL - OMG DDS		
reight Distribution and Logistics Center	Intermodal Customer System	freight transportation status	DDS: UBL - OMG DDS		
reight Distribution and Logistics Center	Intermodal Terminal	freight transportation status	DDS: UBL - OMG DDS		
ntermodal Customer System	Freight Distribution and Logistics Center	freight transport booking	DDS: UBL - OMG DDS		
Class Timeframe	Proposed Resolution	Description			Regional Applicability
Security Medium-term	Core authorization - requests	Develop an internationally acceptable within the Core Authorization Service		ermission application receipt information triples contained	Australia, European Union, United States
Issue Description: Performance, fu	inctionality, and the upper-layers of the	e OSI stack have not been defined for this	s information flow.		Severity Ultra
		<u>Rele</u>	evant Flow Solution Combinations		
Source	Destination	Flow	SolutionName	Notes	
Center	Personal Information Device	permission application receipt	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rted.
Center	Personal Information Device	permission application receipt	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.
Personal Information Device	Center	permission application	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been sta	rted.
Personal Information Device	Center	permission application	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been sta	rtod

Class	Centre	Timeframe	Medium-term	Proposed Resolution	C-C: Road maintenance status	Regional Applicability Australia, Euro	pean Union, United	d States
Class	Timeframe	Proposed Resolution	on	Description			Regional Appli	cability
Centre	Medium-term	C-C: Road maintena	ance status	Develop an internationa	ally acceptable ITS application specification for C-C of	exchange of seasonal maintenance data.	Australia, Euro United States	pean Union,
Issue Description:	Performance, fur	nctionality, and the u	pper-layers of the	OSI stack have not been d	defined for this information flow.		Severity	Ultra
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Maint and Constr Manag	gement Center	Vehicle OBE		roadway maintenance status	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been s	tarted.	
Maint and Constr Manag	gement Center	Emergency Managemen	nt Center	roadway maintenance status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been so	tarted.	
Maint and Constr Manag	gement Center	Transportation Informa	tion Center	roadway maintenance status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been st	tarted.	
Maint and Constr Manag	gement Center	Emergency Managemen	nt Center	roadway maintenance status	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been s	tarted.	
Maint and Constr Manag	gement Center	Transportation Informa	tion Center	roadway maintenance status	(None-Data) - OMG DDS	Work on the upper layer standards related to this solution have not been s	tarted.	

Update TCIP for encoding rules details Is to how to (or if one should) couplination It Vehicle OBE It Management Center Inal Information Device It Vehicle OBE It Vehicle OBE It Vehicle OBE	downloading schedule information. ple the upper-layer standards defined in		ansit Management Centre to Transit Vehicle flows such as standards. Notes	Regional Appli United States Severity	cability High
Update TCIP for encoding rules details Is to how to (or if one should) couplination It Vehicle OBE It Management Center Inal Information Device It Vehicle OBE It Vehicle OBE It Vehicle OBE	Update the TCIP standard to conform to provide encoding rules and examples. A downloading schedule information. ple the upper-layer standards defined in Relevant Re	Also provide dialog and exchange rules for Train this solution with the indicated lower-layer vant Flow Solution Combinations SolutionName US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US)	standards.	United States	
ination it Vehicle OBE it Management Center nal Information Device it Vehicle OBE it Vehicle OBE it Vehicle OBE	Flow alarm acknowledge transit stop request personal transit information alarm acknowledge	Vant Flow Solution Combinations SolutionName US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US)		Severity	High
it Vehicle OBE it Management Center nal Information Device it Vehicle OBE it Vehicle OBE it Vehicle OBE	Flow alarm acknowledge transit stop request personal transit information alarm acknowledge	US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US)	Notes		
it Vehicle OBE it Management Center nal Information Device it Vehicle OBE it Vehicle OBE it Vehicle OBE	alarm acknowledge transit stop request personal transit information alarm acknowledge	US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US)	Notes		
it Management Center nal Information Device it Vehicle OBE it Vehicle OBE it Vehicle OBE	transit stop request personal transit information alarm acknowledge	US: TCIP - Mobile Internet (US) US: TCIP - Mobile Internet (US)			
nal Information Device it Vehicle OBE it Vehicle OBE it Vehicle OBE	personal transit information alarm acknowledge	US: TCIP - Mobile Internet (US)			
it Vehicle OBE it Vehicle OBE it Vehicle OBE	alarm acknowledge				
it Vehicle OBE	-	US: TCIP - Mobile Internet (US)			
it Vehicle OBE	connection protection instructions				
		US: TCIP - Mobile Internet (US)			
it Vehicle OBE	fare management information	US: TCIP - Mobile Internet (US)			
	transit schedule information	US: TCIP - Mobile Internet (US)			
it Vehicle OBE	transit stop request	US: TCIP - Mobile Internet (US)			
it Vehicle OBE	transit traveler information	US: TCIP - Mobile Internet (US)			
it Vehicle OBE	transit vehicle operator information	US: TCIP - Mobile Internet (US)			
gency Management Center	alarm notification	US: TCIP - Mobile Internet (US)			
it Management Center	alarm notification	US: TCIP - Mobile Internet (US)			
it Management Center	demand response passenger and use data	US: TCIP - Mobile Internet (US)			
it Management Center	fare collection data	US: TCIP - Mobile Internet (US)			
it Management Center	transit vehicle conditions	US: TCIP - Mobile Internet (US)			
it Management Center	transit vehicle loading data	US: TCIP - Mobile Internet (US)			
it Management Center	transit vehicle location data	US: TCIP - Mobile Internet (US)			
it Management Center	transit vehicle schedule performance	US: TCIP - Mobile Internet (US)			
it it it	Management Center	Management Center alarm notification Management Center demand response passenger and use data Management Center fare collection data Management Center transit vehicle conditions Management Center transit vehicle loading data Management Center transit vehicle location data	Management Center alarm notification US: TCIP - Mobile Internet (US) Management Center demand response passenger and use data US: TCIP - Mobile Internet (US) Management Center fare collection data US: TCIP - Mobile Internet (US) Management Center transit vehicle conditions US: TCIP - Mobile Internet (US) Management Center transit vehicle loading data US: TCIP - Mobile Internet (US) Management Center transit vehicle location data US: TCIP - Mobile Internet (US)	Management Center alarm notification US: TCIP - Mobile Internet (US) Management Center demand response passenger and use data US: TCIP - Mobile Internet (US) Management Center fare collection data US: TCIP - Mobile Internet (US) Management Center transit vehicle conditions US: TCIP - Mobile Internet (US) Management Center transit vehicle loading data US: TCIP - Mobile Internet (US) Management Center transit vehicle location data US: TCIP - Mobile Internet (US) Management Center transit vehicle location data US: TCIP - Mobile Internet (US)	Management Center alarm notification US: TCIP - Mobile Internet (US) Management Center demand response passenger and use data US: TCIP - Mobile Internet (US) Management Center fare collection data US: TCIP - Mobile Internet (US) Management Center transit vehicle conditions US: TCIP - Mobile Internet (US) Management Center transit vehicle loading data US: TCIP - Mobile Internet (US) Management Center transit vehicle loading data US: TCIP - Mobile Internet (US) Management Center transit vehicle location data US: TCIP - Mobile Internet (US)

Class	Timeframe Medium-term	Proposed Resolution	C-C: Update TCIP for encoding rules and details	Regional Applicability United States
Issue Description: The standards do	not unambiguously define which set	of encoding rules to use.		Severity High
			Relevant Flow Solution Combinations	
Source	Destination	Flow	SolutionName	Notes
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	transit stop request	US: TCIP - Local Unicast Wireless (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Personal Information Device	Transit Vehicle OBE	transit stop request	US: TCIP - Local Unicast Wireless (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Emergency Management Center	Transit Vehicle OBE	alarm acknowledge	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Personal Information Device	Transit Management Center	transit stop request	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Personal Information Device	personal transit information	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	alarm acknowledge	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Alternate Mode Transportation Center	Transit Management Center	multimodal service data	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Alternate Mode Transportation Center	Transit Management Center	service information response	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Alternate Mode Transportation Center	Transportation Information Center	multimodal service data	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Connected Vehicle Roadside Equipment	Public Information Device	transit vehicle information	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Emergency Management Center	Public Information Device	alarm acknowledge	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Public Information Device	Connected Vehicle Roadside Equipment	transit stop request	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Public Information Device	Connected Vehicle Roadside Equipment	transit traveler information	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Public Information Device	Emergency Management Center	alarm notification	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Public Information Device	Transit Management Center	alarm notification	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Public Information Device	Transit Management Center	transit fare and passenger sta	tus US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.

Class Centre	Timeframe Medium-term	Proposed Resolution C-C: Update	TCIP for encoding rules and details	Regional Applicability United States
Public Information Device	Transit Management Center	transit stop request	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Alternate Mode Transportation Center	service information request	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Alternate Mode Transportation Center	transit multimodal information	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Public Information Device	transit fare information	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Public Information Device	transit traveler information	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transportation Information Center	Alternate Mode Transportation Center	service information request	US: TCIP - Guaranteed Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Connected Vehicle Roadside Equipment	Personal Information Device	transit stop guidance	US: TCIP - Local Broadcast Wireless (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	transit vehicle information	US: TCIP - Local Broadcast Wireless (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Personal Information Device	transit vehicle information	US: TCIP - Local Broadcast Wireless (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	connection protection instructions	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	fare management information	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	transit schedule information	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	transit stop request	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	transit traveler information	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	transit vehicle operator information	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Emergency Management Center	alarm notification	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Transit Management Center	alarm notification	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Transit Management Center	demand response passenger and use data	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.

Class Centre	Timeframe Medium-term	Proposed Resolution C-C: Upda	te TCIP for encoding rules and details	Regional Applicability United States
Transit Vehicle OBE	Transit Management Center	fare collection data	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Transit Management Center	transit vehicle conditions	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Transit Management Center	transit vehicle loading data	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Transit Management Center	transit vehicle location data	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Vehicle OBE	Transit Management Center	transit vehicle schedule performance	US: TCIP - Mobile Internet (US)	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Alternate Mode Transportation Center	Transit Management Center	multimodal service data	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Alternate Mode Transportation Center	Transit Management Center	service information response	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Alternate Mode Transportation Center	Transportation Information Center	multimodal service data	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Connected Vehicle Roadside Equipment	Public Information Device	transit vehicle information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Emergency Management Center	Transit Management Center	emergency transit service request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Other Transit Management Centers	Transit Management Center	transit service coordination	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Other Transportation Information Centers	Transportation Information Center	transit service information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Personal Information Device	Transit Management Center	transit stop request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Public Information Device	Connected Vehicle Roadside Equipment	transit stop request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Public Information Device	Connected Vehicle Roadside Equipment	transit traveler information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Public Information Device	Transit Management Center	transit stop request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Traffic Management Center	Transit Management Center	transit service change request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Traffic Management Center	Transportation Information Center	transit service change request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.

Class Centre	Timeframe Medium-term	Proposed Resolution C-C: Update	e TCIP for encoding rules and details	Regional Applicability United States
Transit Management Center	Alternate Mode Transportation Center	service information request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Alternate Mode Transportation Center	transit multimodal information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Emergency Management Center	emergency transit service response	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Emissions Management Center	transit and fare schedules	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Other Transit Management Centers	transit service coordination	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Parking Management System	transit schedule adherence information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Parking Management System	transit schedule information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Public Information Device	transit traveler information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Traffic Management Center	traffic control priority request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Traffic Management Center	transit system data	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	connection protection instructions	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transit Vehicle OBE	transit stop request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	demand responsive transit plan	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	emergency transit schedule information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	transit and fare schedules	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	transit incident information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	transit schedule adherence information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	transit trip plan	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.

Class Centre	Timeframe Medium-term	Proposed Resolution C-C: Update	e TCIP for encoding rules and details	Regional Applicability United States
Transportation Information Center	Alternate Mode Transportation Center	service information request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transportation Information Center	Other Transportation Information Centers	transit service information	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transportation Information Center	Transit Management Center	demand responsive transit request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transportation Information Center	Transit Management Center	transit service change request	US: TCIP - NTCIP Messaging	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Emergency Management Center	Transit Management Center	emergency transit service request	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Other Transit Management Centers	Transit Management Center	transit service coordination	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Other Transportation Information Centers	Transportation Information Center	transit service information	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Traffic Management Center	Transit Management Center	transit service change request	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Traffic Management Center	Transportation Information Center	transit service change request	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Emergency Management Center	emergency transit service response	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Emissions Management Center	transit and fare schedules	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Other Transit Management Centers	transit service coordination	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Parking Management System	transit schedule adherence information	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Parking Management System	transit schedule information	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Traffic Management Center	traffic control priority request	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Traffic Management Center	transit system data	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	demand responsive transit plan	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	emergency transit schedule information	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.

Class Centre	Timeframe Medium-term	Proposed Resolution C-C: Upda	ate TCIP for encoding rules and details	Regional Applicability United States
Transit Management Center	Transportation Information Center	transit and fare schedules	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	transit incident information	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	transit schedule adherence information	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transit Management Center	Transportation Information Center	transit trip plan	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transportation Information Center	Other Transportation Information Centers	transit service information	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transportation Information Center	Transit Management Center	demand responsive transit request	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.
Transportation Information Center	Transit Management Center	transit service change request	US: TCIP - OMG DDS	The standard mentions encoding rule options such as XML and DER but allows each implementation to choose its own set of rules while failing to provide sample wording for specifications to ensure that an agency correctly specificies the rules.

Class Centre	Timeframe Medium-term	Proposed Resolution C-C: Update	TCIP for encoding rules and details	Regional Applicability United States		
Issue Description: The definition of	data concepts should conform to ISO	14817-1 to promote reuse among ITS.			Severity	Low
		Rele	evant Flow Solution Combinations			
Source	Destination	Flow	SolutionName	Notes		
Alternate Mode Transportation Center	Transit Management Center	multimodal service data	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
lternate Mode Transportation Center	Transit Management Center	service information response	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
lternate Mode Transportation Center	Transportation Information Center	multimodal service data	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
mergency Management Center	Transit Management Center	emergency transit service request	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Other Transit Management Centers	Transit Management Center	transit service coordination	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ther Transportation Information Centers	Transportation Information Center	transit service information	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
raffic Management Center	Transit Management Center	transit service change request	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
raffic Management Center	Transportation Information Center	transit service change request	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Fransit Management Center	Alternate Mode Transportation Center	service information request	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Fransit Management Center	Alternate Mode Transportation Center	transit multimodal information	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Fransit Management Center	Emergency Management Center	emergency transit service response	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Fransit Management Center	Emissions Management Center	transit and fare schedules	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Fransit Management Center	Other Transit Management Centers	transit service coordination	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Parking Management System	transit schedule adherence information	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Fransit Management Center	Parking Management System	transit schedule information	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Traffic Management Center	traffic control priority request	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Traffic Management Center	transit system data	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Transportation Information Center	demand responsive transit plan	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Transportation Information Center	emergency transit schedule information	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Transportation Information Center	transit and fare schedules	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Transportation Information Center	transit incident information	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Transportation Information Center	transit schedule adherence information	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Transportation Information Center	transit trip plan	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Fransportation Information Center	Alternate Mode Transportation Center	service information request	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransportation Information Center	Other Transportation Information Centers	transit service information	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransportation Information Center	Transit Management Center	demand responsive transit request	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransportation Information Center	Transit Management Center	transit service change request	DDS: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Connected Vehicle Roadside Equipment	Transit Vehicle OBE	transit stop request	US: TCIP - Local Unicast Wireless (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ersonal Information Device	Transit Vehicle OBE	transit stop request	US: TCIP - Local Unicast Wireless (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
mergency Management Center	Transit Vehicle OBE	alarm acknowledge	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ersonal Information Device	Transit Management Center	transit stop request	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Personal Information Device	personal transit information	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
ransit Management Center	Transit Vehicle OBE	alarm acknowledge	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Fransit Management Center	Transit Vehicle OBE	connection protection instructions	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
Alternate Mode Transportation Center	Transit Management Center	multimodal service data	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1		
			Page 334 of 347			

Class Centre	Timeframe Medium-term	Proposed Resolution C-C: Update	TCIP for encoding rules and details	Regional Applicability United States
Alternate Mode Transportation Center	Transit Management Center	service information response	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Alternate Mode Transportation Center	Transportation Information Center	multimodal service data	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Public Information Device	transit vehicle information	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Management Center	Public Information Device	alarm acknowledge	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Connected Vehicle Roadside Equipment	transit stop request	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Connected Vehicle Roadside Equipment	transit traveler information	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Emergency Management Center	alarm notification	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Transit Management Center	alarm notification	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Transit Management Center	transit fare and passenger status	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Transit Management Center	transit stop request	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Alternate Mode Transportation Center	service information request	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Alternate Mode Transportation Center	transit multimodal information	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Public Information Device	transit fare information	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Public Information Device	transit traveler information	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transportation Information Center	Alternate Mode Transportation Center	service information request	US: TCIP - Guaranteed Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Personal Information Device	transit stop guidance	US: TCIP - Local Broadcast Wireless (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Connected Vehicle Roadside Equipment	transit vehicle information	US: TCIP - Local Broadcast Wireless (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Personal Information Device	transit vehicle information	US: TCIP - Local Broadcast Wireless (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transit Vehicle OBE	fare management information	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transit Vehicle OBE	transit schedule information	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transit Vehicle OBE	transit stop request	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transit Vehicle OBE	transit traveler information	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transit Vehicle OBE	transit vehicle operator information	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Emergency Management Center	alarm notification	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Transit Management Center	alarm notification	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Transit Management Center	demand response passenger and use data	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Transit Management Center	fare collection data	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Transit Management Center	transit vehicle conditions	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Transit Management Center	transit vehicle loading data	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Transit Management Center	transit vehicle location data	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Vehicle OBE	Transit Management Center	transit vehicle schedule performance	US: TCIP - Mobile Internet (US)	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Alternate Mode Transportation Center	Transit Management Center	multimodal service data	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Alternate Mode Transportation Center	Transit Management Center	service information response	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Alternate Mode Transportation Center	Transportation Information Center	multimodal service data	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Connected Vehicle Roadside Equipment	Public Information Device	transit vehicle information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Management Center	Transit Management Center	emergency transit service request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Transit Management Centers	Transit Management Center	transit service coordination	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
	Transportation Information Center	transit service information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.

Class Centre	Timeframe Medium-term	Proposed Resolution C-C: Update	TCIP for encoding rules and details	Regional Applicability United States
Personal Information Device	Transit Management Center	transit stop request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Connected Vehicle Roadside Equipment	transit stop request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Connected Vehicle Roadside Equipment	transit traveler information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Public Information Device	Transit Management Center	transit stop request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Transit Management Center	transit service change request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Transportation Information Center	transit service change request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Alternate Mode Transportation Center	service information request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Alternate Mode Transportation Center	transit multimodal information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Emergency Management Center	emergency transit service response	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Emissions Management Center	transit and fare schedules	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Other Transit Management Centers	transit service coordination	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Parking Management System	transit schedule adherence information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Parking Management System	transit schedule information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Public Information Device	transit traveler information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Traffic Management Center	traffic control priority request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Traffic Management Center	transit system data	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transit Vehicle OBE	connection protection instructions	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transit Vehicle OBE	transit stop request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transportation Information Center	demand responsive transit plan	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transportation Information Center	emergency transit schedule information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transportation Information Center	transit and fare schedules	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transportation Information Center	transit incident information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transportation Information Center	transit schedule adherence information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Transportation Information Center	transit trip plan	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transportation Information Center	Alternate Mode Transportation Center	service information request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transportation Information Center	Other Transportation Information Centers	transit service information	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transportation Information Center	Transit Management Center	demand responsive transit request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transportation Information Center	Transit Management Center	transit service change request	US: TCIP - NTCIP Messaging	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Emergency Management Center	Transit Management Center	emergency transit service request	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Transit Management Centers	Transit Management Center	transit service coordination	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Other Transportation Information Centers	Transportation Information Center	transit service information	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Transit Management Center	transit service change request	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Traffic Management Center	Transportation Information Center	transit service change request	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Emergency Management Center	emergency transit service response	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Emissions Management Center	transit and fare schedules	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Other Transit Management Centers	transit service coordination	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.
Transit Management Center	Parking Management System	transit schedule adherence information	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.

Class	tre Timeframe Medium-te	rm Proposed Resolution C-C: Updat	e TCIP for encoding rules and details	Regional Applicability United States	
ransit Management Center	Traffic Management Center	traffic control priority request	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
ransit Management Center	Traffic Management Center	transit system data	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
ransit Management Center	Transportation Information Center	demand responsive transit plan	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
ransit Management Center	Transportation Information Center	emergency transit schedule information	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
ransit Management Center	Transportation Information Center	transit and fare schedules	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
ansit Management Center Transportation Information Center		transit incident information	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
nsit Management Center Transportation Information Center		transit schedule adherence information	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
nsit Management Center Transportation Information Center		transit trip plan	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
Insportation Information Center Other Transportation Information Centers		ers transit service information	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
ransportation Information Cen	nter Transit Management Center	demand responsive transit request	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
ransportation Information Cen	nter Transit Management Center	transit service change request	US: TCIP - OMG DDS	TCIP does not explicitly define the meta-attributes as required by ISO 14817-1.	
lass Time	eframe Proposed Resolution	Description		Regional Applicabil	ility
-	: t	The data and different all a TMADD			
entre Medi	ium-term C-C: Update TMDD (Mid-term)	equipment maintenance requests, a	* *	s including the addition of: managing the exchange of equipment faults, United States	
	of the data elements for this information flo	equipment maintenance requests, a	* *		Medium
	,	equipment maintenance requests, a	* *		Medium
sue Description: Some	,	equipment maintenance requests, a	and equipment maintenance status.		Medium
sue Description: Some	of the data elements for this information flo	equipment maintenance requests, a ware not fully defined.	elevant Flow Solution Combinations	Severity N	oes not
sue Description: Some ource nter	of the data elements for this information flo Destination Maint and Constr Management Center	w are not fully defined. Ref	elevant Flow Solution Combinations SolutionName	Notes The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operational status.	oes not ation only i
sue Description: Some ource enter aint and Constr Management	of the data elements for this information flo Destination Maint and Constr Management Center	equipment maintenance requests, a w are not fully defined. Re Flow equipment maintenance request	elevant Flow Solution Combinations SolutionName US: TMDD - NTCIP Messaging	Notes The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operat the maintenance center knows th The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operational status of devices; however, it do define a mechanism to explicitly ask for maintenance.	oes not only
sue Description: Some Durce enter aint and Constr Management ervice Monitor System	of the data elements for this information flo Destination Maint and Constr Management Center Center Center	equipment maintenance requests, as we are not fully defined. Ref Flow equipment maintenance request equipment maintenance status	elevant Flow Solution Combinations SolutionName US: TMDD - NTCIP Messaging US: TMDD - NTCIP Messaging	Notes The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operate the maintenance center knows th The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operate the maintenance center knows th	oes not ation only
	of the data elements for this information flo Destination Maint and Constr Management Center Center Center Center	equipment maintenance requests, a w are not fully defined. Ref Flow equipment maintenance request equipment maintenance status RSE fault data	elevant Flow Solution Combinations SolutionName US: TMDD - NTCIP Messaging US: TMDD - NTCIP Messaging US: TMDD - NTCIP Messaging	Notes The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operate the maintenance center knows th The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operate the maintenance center knows th The TMDD defines generic on/off/failed status, but not the level of detail required by this flow	oes not oes not oes not only
sue Description: Some ource enter laint and Constr Management ervice Monitor System ervice Monitor System enter	of the data elements for this information flo Destination Maint and Constr Management Center Center Center Maint and Constr Management Center Maint and Constr Management Center	equipment maintenance requests, a w are not fully defined. Ref Flow equipment maintenance request equipment maintenance status RSE fault data RSE fault data	elevant Flow Solution Combinations SolutionName US: TMDD - NTCIP Messaging	Notes The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operat the maintenance center knows th The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operat the maintenance center knows th The TMDD defines generic on/off/failed status, but not the level of detail required by this flow The TMDD defines generic on/off/failed status, but not the level of detail required by this flow The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operation.	oes not ation only oes not ation only oes not ation only oes not ation only
Durce Enter Laint and Constr Management Pervice Monitor System Pervice Monitor System	of the data elements for this information flo Destination Maint and Constr Management Center Center Center Maint and Constr Management Center Maint and Constr Management Center	equipment maintenance requests, a w are not fully defined. Ref Flow equipment maintenance request equipment maintenance status RSE fault data RSE fault data equipment maintenance request	elevant Flow Solution Combinations SolutionName US: TMDD - NTCIP Messaging US: TMDD - OMG DDS	Notes The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operat the maintenance center knows th The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operat the maintenance center knows th The TMDD defines generic on/off/failed status, but not the level of detail required by this flow The TMDD defines generic on/off/failed status, but not the level of detail required by this flow The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operat the maintenance center knows th The TMDD defines how to exchange information about the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operation and the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operation and the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance. The existing definition would allow for this operation and the operational status of devices; however, it do define a mechanism to explicitly ask for maintenance.	oes not ation only oes not ation only oes not ation only oes not ation only

Class	Centre	Timeframe	/ledium-term	Proposed Resolution	C-C: US signal priority/preemption	Regional Applicability United States		
Class	Timeframe	Proposed Resolution		Description			Regional App	licability
Centre	Medium-term	C-C: US signal priority,	/preemption	Develop an ITS applicat	tion specification for centres to exchange requests and state	tus for signal priority/preemption along a route.	United States	3
ssue Descriptio	n: Performance, f	unctionality, and the upp	er-layers of the	OSI stack have not been	defined for this information flow.		Severity	Ultra
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes Notes		
raffic Management	t Center	Transit Management Cente	er	traffic control priority status	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been start	ed.	
ransit Managemen	t Center	Traffic Management Cente	r	traffic control priority reque	st (None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been start	ed.	
raffic Management	t Center	Transit Management Cente	er	traffic control priority status	DDS: NTCIP Signal Priority - OMG DDS	Work on the upper layer standards related to this solution have not been start	ed.	
ransit Managemen	t Center	Traffic Management Cente	r	traffic control priority reque	st DDS: TCIP - OMG DDS	Work on the upper layer standards related to this solution have not been start	ed.	
raffic Management	t Center	Transit Management Cente	er	traffic control priority status	EU: Data Transmodel - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been start	ed.	
ransit Managemen	t Center	Traffic Management Cente	r	traffic control priority reque	st EU: Data Transmodel - DATEX Messaging TCP	Work on the upper layer standards related to this solution have not been start	ed.	
raffic Management	t Center	Transit Management Cente	er	traffic control priority status	EU: Data Transmodel - ODG-OCIT-C	Work on the upper layer standards related to this solution have not been start	ed.	
ransit Managemen	t Center	Traffic Management Cente	r	traffic control priority reque	st EU: Data Transmodel - ODG-OCIT-C	Work on the upper layer standards related to this solution have not been start	ed.	
raffic Management	t Center	Transit Management Cente	er	traffic control priority status	US: NTCIP Signal Priority - NTCIP Messaging	Work on the upper layer standards related to this solution have not been start	ed.	
raffic Management	t Center	Transit Management Cente	er	traffic control priority status	US: NTCIP Signal Priority - OMG DDS	Work on the upper layer standards related to this solution have not been start	ed.	
ransit Managemen	t Center	Traffic Management Cente	r	traffic control priority reque	st US: TCIP - NTCIP Messaging	Work on the upper layer standards related to this solution have not been start	ed.	
ransit Managemen	t Center	Traffic Management Cente	r	traffic control priority reque	st US: TCIP - OMG DDS	Work on the upper layer standards related to this solution have not been start	ed.	
ssue Description	n: There are ambi	guities as to how to (or if	one should) co	uple the upper-layer star	ndards defined in this solution with the indicated lower-lay	er standards.	Severity	High
					Relevant Flow Solution Combinations			
ource		Destination		Flow	SolutionName	Notes		
raffic Management	t Center	Transit Management Cente	er	traffic control priority status	US: NTCIP Signal Priority - NTCIP Messaging	these standards are not designed to work together, but they provide much of solution can be created.	the technical deta	ils from which a
ssue Descriptio	n: Some of the da	ta elements for this infor	mation flow are	not fully defined.			Severity	Medium
					Relevant Flow Solution Combinations			
ource		Destination		Flow	SolutionName	Notes		
mergency Manager	ment Center	Traffic Management Cente	r	emergency traffic control re	quest US: TMDD - NTCIP Messaging	Centre-to-centre requests for signal preemption and priority are not defined.		
raffic Management	t Center	Emergency Management (Center	emergency traffic control inf	formation US: TMDD - NTCIP Messaging	Centre-to-centre information for signal preemption and priority are not define	d.	
mergency Manager	ment Center	Traffic Management Cente	er	emergency traffic control re	quest US: TMDD - OMG DDS	Centre-to-centre requests for signal preemption and priority are not defined.		
raffic Management	t Center	Emergency Management (`enter	emergency traffic control inf	formation US: TMDD - OMG DDS	Centre-to-centre information for signal preemption and priority are not define	d.	

Class	Field	Timeframe Medium-term	Proposed Resolution	I-F: CCTV	Regional Applicability Australia, Europe	ean Union, Unit	ed States
Class	Timeframe	Proposed Resolution	Description			Regional App	licability
Field	Medium-term	I-F: CCTV	Develop an international centre-to-field protocol	lly acceptable ITS application specification for exchanging C	CCTV camera data with a management entity that uses the secure	ure Australia, European United States	
Issue Description	n: Performance, fu	nctionality, and the upper-layers of the	e OSI stack have not been o	efined for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
ITS Roadway Equipm	nent	Maint and Constr Management Center	traffic images	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
ITS Roadway Equipm	nent	Traffic Management Center	traffic images	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Maint and Constr Ma	anagement Center	ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
Traffic Management	Center	ITS Roadway Equipment	video surveillance control	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been star	ted.	
ITS Roadway Equipm	nent	Maint and Constr Management Center	traffic images	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ITS Roadway Equipm	nent	Traffic Management Center	traffic images	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
Maint and Constr Ma	anagement Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
Traffic Management	Center	ITS Roadway Equipment	video surveillance control	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been star	ted.	
ITS Roadway Equipm	nent	Maint and Constr Vehicle OBE	traffic images	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been star	ted.	
Maint and Constr Ve	ehicle OBE	ITS Roadway Equipment	video surveillance control	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been star	ted.	
Other Transportation	n Information Centers	Transportation Information Center	traffic images	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been star	ted.	
Traffic Management	Center	Transportation Information Center	traffic images	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been star	ted.	
Transportation Infor	mation Center	Other Transportation Information Centers	traffic images	(None-Data) - NTCIP Messaging	Work on the upper layer standards related to this solution have not been star	ted.	
Issue Description	n: Data has been d	efined for SNMPv1, but needs to be up	odated to SNMPv3 format.			Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
ITS Roadway Equipm	nent	Maint and Constr Management Center	traffic images	US: NTCIP CCTV - SNMPv3	NTCIP 1205 data needs to be upgraded to SNMPv3.		
ITS Roadway Equipm	nent	Traffic Management Center	traffic images	US: NTCIP CCTV - SNMPv3	NTCIP 1205 data needs to be upgraded to SNMPv3.		
Maint and Constr Ma	anagement Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv3	NTCIP 1205 data needs to be upgraded to SNMPv3.		
Traffic Management	Center	ITS Roadway Equipment	video surveillance control	US: NTCIP CCTV - SNMPv3	NTCIP 1205 data needs to be upgraded to SNMPv3.		

Class	Field	Timeframe Medium-term	Proposed Resolution I-	F: Highway advisory radio	Regional Applicability Australia, Europ	pean Union, Unite	d States
Class	Timeframe	Proposed Resolution	Description			Regional App	icability
Field	Medium-term	I-F: Highway advisory radio	Develop an internationally access control.	acceptable ITS application specification for managing hi	ghway advisory radios for secure communications with proper	Australia, Euro United States	pean Union,
Issue Descripti	on: Performance, fu	nctionality, and the upper-layers of th	e OSI stack have not been def	ined for this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
ITS Roadway Equip	oment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	arted.	
Traffic Manageme	nt Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	arted.	
TS Roadway Equip	oment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	arted.	
TS Roadway Equip	oment	Traffic Management Center	roadway advisory radio status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	arted.	
Maint and Constr	Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been sta	arted.	
ITS Roadway Equip	oment	Maint and Constr Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	arted.	
ITS Roadway Equip	oment	Traffic Management Center	roadway advisory radio status	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	arted.	
Maint and Constr	Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	arted.	
Traffic Manageme	nt Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been sta	arted.	
TS Roadway Equip	oment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been sta	arted.	
TS Roadway Equip	oment	Traffic Management Center	roadway advisory radio status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been sta	arted.	
Maint and Constr	Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been sta	arted.	
/laint and Constr	Vehicle OBE	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Local Broadcast Wireless (AU/EU)	Work on the upper layer standards related to this solution have not been sta	arted.	
TS Roadway Equip	oment	Maint and Constr Vehicle OBE	roadway advisory radio status	(None-Data) - Mobile SNMPv3	Work on the upper layer standards related to this solution have not been sta	arted.	
Maint and Constr		ITS Roadway Equipment	roadway advisory radio data	(None-Data) - Mobile SNMPv3	Work on the upper layer standards related to this solution have not been sta	arted.	
TS Roadway Equip	oment	Traffic Management Center	roadway advisory radio status	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	arted.	
	Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	arted.	
raffic Manageme	_	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been sta	arted.	
TS Roadway Equip		Maint and Constr Management Center	roadway advisory radio status	(None-Data) - SNMPv1	Work on the upper layer standards related to this solution have not been sta		
TS Roadway Equip		Traffic Management Center	roadway advisory radio status	(None-Data) - SNMPv1	Work on the upper layer standards related to this solution have not been sta		
	Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1	Work on the upper layer standards related to this solution have not been sta		
Fraffic Manageme	-	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1	Work on the upper layer standards related to this solution have not been sta		
TS Roadway Equip		Maint and Constr Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been sta		
		Traffic Management Center	roadway advisory radio status	(None-Data) - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been sta		
TS Roadway Equip		-			Work on the upper layer standards related to this solution have not been standards related to this solution have not been standards.		
	Management Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS			
raffic Manageme		ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv1/TLS	Work on the upper layer standards related to this solution have not been sta		
ITS Roadway Equip		Maint and Constr Management Center	roadway advisory radio status	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been sta		
Traffic Manageme	nt Center	ITS Roadway Equipment	roadway advisory radio data	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been sta	arted.	

Class	Field	Timeframe Medium-term	Proposed Resolution I-F: Mul	ltimodal crossing	Regional Applicability Australia, Euro	pean Union, Unite	ed States
Class	Timeframe	Proposed Resolution	Description			Regional Appl	licability
Field	Medium-term	I-F: Multimodal crossing	Develop an internationally acceptorossing.	otable ITS application specification that defines t	the rules for a centre to inhibit the operation of a multimodal	Australia, Euro United States	•
Issue Descripti	ion: Performance, fu	nctionality, and the upper-layers of th	ne OSI stack have not been defined fo	or this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
Multi-Modal Cross	sing	Connected Vehicle Roadside Equipment	multimodal crossing status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	tarted.	
Multi-Modal Cross	sing	ITS Roadway Equipment	multimodal crossing status	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been st	tarted.	
Class	Timeframe	Proposed Resolution	Description			Regional Appl	licability
Field	Medium-term	I-F: Pedestrian crossing	Develop an internationally accep	otable ITS application specification for securely e	exchanging pedestrian crossing, location, and warning information.	Australia, Euro United States	•
Issue Descripti	ion: Required data el	lements are not defined.				Severity	High
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes Notes		
Connected Vehicle	e Roadside Equipment	ITS Roadway Equipment	pedestrian location information	US: NTCIP Traffic Signal - OMG DDS RPC	The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped		
Connected Vehicle	e Roadside Equipment	ITS Roadway Equipment	pedestrian location information	US: NTCIP Traffic Signal - SNMPv3	The standards support basic detection of pedestrians, but do not suport mo crosswalks or define the displays and warnings to send to drivers when ped		
							3
Issue Descripti	ion: Some of the data	a elements for this information flow a	re not fully defined.			Severity	
Issue Descripti	ion: Some of the data	a elements for this information flow a	re not fully defined.	Relevant Flow Solution Combinations		Severity	Medium
<u> </u>	ion: Some of the data	a elements for this information flow a Destination	re not fully defined.	Relevant Flow Solution Combinations SolutionName	Notes	Severity	
Source					Notes The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped	onitoring pedestrian lo	Medium
Source ITS Roadway Equi _l	ipment	Destination	Flow	SolutionName	The standards support basic detection of pedestrians, but do not suport mo	onitoring pedestrian lo lestrians are occupying onitoring pedestrian lo	Medium
Source ITS Roadway Equip ITS Roadway Equip	ipment	Destination Traffic Management Center	Flow pedestrian safety warning status	SolutionName US: NTCIP Traffic Signal - SNMPv3	The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mo	onitoring pedestrian lo lestrians are occupying onitoring pedestrian lo lestrians are occupying onitoring pedestrian lo	Medium ocation in g a cross walk. ocation in g a cross walk. ocation in
Source ITS Roadway Equip ITS Roadway Equip ITS Roadway Equip	ipment ipment ipment	Destination Traffic Management Center Connected Vehicle Roadside Equipment	Flow pedestrian safety warning status pedestrian crossing status	US: NTCIP Traffic Signal - SNMPv3 US: NTCIP Traffic Signal - OMG DDS RPC	The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped	ponitoring pedestrian lo lestrians are occupying ponitoring pedestrian lo lestrians are occupying ponitoring pedestrian lo lestrians are occupying ponitoring pedestrian lo	Medium ocation in g a cross walk. ocation in g a cross walk. ocation in g a cross walk. ocation in
Source ITS Roadway Equip ITS Roadway Equip ITS Roadway Equip ITS Roadway Equip Traffic Manageme	ipment ipment ipment ent Center	Destination Traffic Management Center Connected Vehicle Roadside Equipment Traffic Management Center	pedestrian safety warning status pedestrian crossing status pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv3 US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC	The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped	ponitoring pedestrian lo lestrians are occupying ponitoring pedestrian lo lestrians are occupying ponitoring pedestrian lo lestrians are occupying ponitoring pedestrian lo lestrians are occupying ponitoring pedestrian lo	Medium ocation in g a cross walk.
Source ITS Roadway Equip ITS Roadway Equip ITS Roadway Equip Traffic Manageme	ipment ipment ipment ent Center ipment	Destination Traffic Management Center Connected Vehicle Roadside Equipment Traffic Management Center ITS Roadway Equipment	pedestrian safety warning status pedestrian crossing status pedestrian safety warning status pedestrian safety warning control	US: NTCIP Traffic Signal - SNMPv3 US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC	The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped The standards support basic detection of pedestrians, but do not suport mocrosswalks or define the displays and warnings to send to drivers when ped	ponitoring pedestrian lo destrians are occupying ponitoring pedestrian lo destrians are occupying ponitoring pedestrian lo destrians are occupying ponitoring pedestrian lo destrians are occupying ponitoring pedestrian lo	Medium ocation in g a cross walk.
Source ITS Roadway Equip ITS Roadway Equip ITS Roadway Equip Traffic Manageme ITS Roadway Equip Traffic Manageme	ipment ipment ipment ent Center ipment ent Center	Destination Traffic Management Center Connected Vehicle Roadside Equipment Traffic Management Center ITS Roadway Equipment Traffic Management Center	pedestrian safety warning status pedestrian crossing status pedestrian safety warning status pedestrian safety warning control pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv3 US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - SNMPv1	The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped.	ponitoring pedestrian lo destrians are occupying ponitoring pedestrian lo destrians are occupying	Medium ocation in g a cross walk.
Source ITS Roadway Equip ITS Roadway Equip ITS Roadway Equip Traffic Manageme	ipment ipment ipment ipment ipment ipment ipment ipment ipment	Destination Traffic Management Center Connected Vehicle Roadside Equipment Traffic Management Center ITS Roadway Equipment Traffic Management Center ITS Roadway Equipment	pedestrian safety warning status pedestrian crossing status pedestrian safety warning status pedestrian safety warning control pedestrian safety warning status pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv3 US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - SNMPv1 US: NTCIP Traffic Signal - SNMPv1	The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped. The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when ped.	ponitoring pedestrian lo lestrians are occupying ponitoring pedestrian lo lestrians are occupying	Medium ocation in g a cross walk. ocation in
Source ITS Roadway Equip ITS Roadway Equip ITS Roadway Equip Traffic Manageme ITS Roadway Equip Traffic Manageme	ipment ient Center	Destination Traffic Management Center Connected Vehicle Roadside Equipment Traffic Management Center ITS Roadway Equipment Traffic Management Center ITS Roadway Equipment Traffic Management Center	pedestrian safety warning status pedestrian crossing status pedestrian safety warning status pedestrian safety warning control pedestrian safety warning status pedestrian safety warning status pedestrian safety warning status	US: NTCIP Traffic Signal - SNMPv3 US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - OMG DDS RPC US: NTCIP Traffic Signal - SNMPv1 US: NTCIP Traffic Signal - SNMPv1 US: NTCIP Traffic Signal - SNMPv1	The standards support basic detection of pedestrians, but do not suport more crosswalks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots walks or define the displays and warnings to send to drivers when pedestroots was also detection of pedestroots.	ponitoring pedestrian local lestrians are occupying pedestrian local lestrians are occu	Medium ocation in g a cross walk. ocation in

Class	Field	Timeframe Medium-term	Proposed Resolution I-	-F: Update ESS (non-critical)	Regional Applicability Australia, Europ	ean Union, United	States
Class	Timeframe	Proposed Resolution	Description			Regional Applic	ability
Field	Medium-term	I-F: Update ESS (non-critical)	Update NTCIP 1204 to ena enough.	able the representation of accuracy of sensor data so that ex	xternal systems are able to determine if the data is accurate	Australia, Europ United States	ean Union,
Issue Description:	The standard is r	missing accuracy requirements for som	ne of its data, which may resu	ult in anomalous behaviour.		Severity	Low
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
ITS Roadway Equipment	:	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
Maint and Constr Vehicle	e OBE	Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - WAVE SNMPv3	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
Connected Vehicle Road	lside Equipment	Maint and Constr Vehicle OBE	environmental sensor data	US: NTCIP Environmental Sensors - Local Broadcast Wireless (US)	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
Maint and Constr Vehicl	e OBE	Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - Local Broadcast Wireless (US)	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
Maint and Constr Vehicl	e OBE	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - Mobile Internet (US)	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
Maint and Constr Vehicl	e OBE	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - Mobile SNMPv1/TLS	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
Maint and Constr Vehicl	e OBE	Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - Mobile SNMPv3	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment	:	Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - OMG DDS RPC	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment	:	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - OMG DDS RPC	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - OMG DDS RPC	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - OMG DDS RPC	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment	:	Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv1	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment	:	Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv1/TLS	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Connected Vehicle Roadside Equipment	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Emissions Management Center	air quality sensor data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Maint and Constr Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
ITS Roadway Equipment		Traffic Management Center	environmental sensor data	US: NTCIP Environmental Sensors - SNMPv3	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they
Connected Vehicle Road	lside Equipment	Maint and Constr Vehicle OBE	environmental sensor data	US: NTCIP Environmental Sensors - WAVE SNMPv3	NTCIP 1204 does not provide accuracy data related to the sensor readings; the know what the data can be used for.	nis is needed by system	s so that they

Class	Vehicle-Local	Timeframe Medium-term	Proposed Resolution V-L: Ele	ctrical charging	Regional Applicability Australia, Europe	ean Union, United States
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
Vehicle-Local	Medium-term	V-L: Electrical charging	Develop an internationally accep an electric charging application.	table ITS application specification, including paym	ent for services, for a vehicle to interface with an RSE as a part of	Australia, European Union, United States
Issue Description	The information	flow is unclear as to what precisely is r	needed; the standard may not fully	support the needs of the information flow, depen	ding on how it is interpreted.	Severity Low
				Relevant Flow Solution Combinations		
Source		Destination	Flow	SolutionName	Notes	
Personal Information	Device	Connected Vehicle Roadside Equipment	service payment information	US: WAVE Tolling - Local Unicast Wireless (US)	Specific data for deployments may need additional data	
Connected Vehicle Ro	adside Equipment	Vehicle OBE	vehicle payment request	US: WAVE Tolling - WAVE UDP	Specific data for deployments may need additional data	
Connected Vehicle Ro	adside Equipment	Vehicle OBE	vehicle payment update	US: WAVE Tolling - WAVE UDP	Specific data for deployments may need additional data	
TS Roadway Paymen	t Equipment	Vehicle OBE	vehicle payment request	US: WAVE Tolling - WAVE UDP	Specific data for deployments may need additional data	
TS Roadway Paymen	t Equipment	Vehicle OBE	vehicle payment update	US: WAVE Tolling - WAVE UDP	Specific data for deployments may need additional data	
ehicle OBE		Connected Vehicle Roadside Equipment	service payment information	US: WAVE Tolling - WAVE UDP	Specific data for deployments may need additional data	
ehicle OBE		ITS Roadway Payment Equipment	service payment information	US: WAVE Tolling - WAVE UDP	Specific data for deployments may need additional data	
Connected Vehicle Ro	adside Equipment	Vehicle OBE	vehicle payment request	US: WAVE Tolling - WAVE WSMP	Specific data for deployments may need additional data	
Connected Vehicle Ro	adside Equipment	Vehicle OBE	vehicle payment update	US: WAVE Tolling - WAVE WSMP	Specific data for deployments may need additional data	
ehicle OBE		Connected Vehicle Roadside Equipment	service payment information	US: WAVE Tolling - WAVE WSMP	Specific data for deployments may need additional data	
/ehicle OBE		ITS Roadway Payment Equipment	service payment information	US: WAVE Tolling - WAVE WSMP	Specific data for deployments may need additional data	
Class	Timeframe	Proposed Resolution	Description			Regional Applicability
/ehicle-Centre	Medium-term	C-V: Automated lane control data	Develop an internationally accep systems, including platooning op		ntrol commands and operating parameters for automated vehicle	Australia, European Union, United States
ssue Description	Performance, fur	nctionality, and the upper-layers of the	e OSI stack have not been defined fo	or this information flow.		Severity Ultra
				Relevant Flow Solution Combinations		
ource		Destination	Flow	SolutionName	Notes	
raffic Management (Center	Vehicle OBE	automated lane control data	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been star	ted.
raffic Management (Center	Vehicle OBE	automated lane control data	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been star	ted.

Class	Vehicle-Centre	Timeframe	Medium-term	Proposed Resolution	C-V: EU signal priority/preemption	Regional Applicability Australia, Europ	pean Union	
Class	Timeframe	Proposed Resolution	n	Description			Regional Appli	cability
Vehicle-Centre	Medium-term	C-V: EU signal prior	ty/preemption	Develop an ITS applicat	ion specification for a centre to exchange requests and statu	s for signal priority/preemption along a route with a vehicle.	Australia, Euro	pean Union
Issue Description:	Performance, fui	nctionality, and the u	oper-layers of the	OSI stack have not been	defined for this information flow.		Severity	Ultra
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Emergency Managemer	nt Center	Emergency Vehicle OBE		green wave information	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.	
Emergency Managemer	nt Center	Emergency Vehicle OBE		green wave information	(None-Data) - Guaranteed Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been st	arted.	
Emergency Vehicle OBE		Emergency Manageme	nt Center	green wave request	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been st	started.	
Issue Description:	The performance	e rules are not fully de	efined for this info	ormation flow.			Severity	Medium
					Relevant Flow Solution Combinations			
Source		Destination		Flow	SolutionName	Notes		
Traffic Management Ce	nter	Emergency Vehicle OBE		intersection status	AU TRAFF - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which dat and the latency, accuracy, and performance requirements related to these rapplication data, minimum requireme		
Traffic Management Ce	nter	Emergency Vehicle OBE		intersection status	EU: Signal Control Messages - Mobile Internet (X.509)	The conditions under which messages are sent; the rules defining which dat and the latency, accuracy, and performance requirements related to these rapplication data, minimum requireme		
Traffic Management Ce	nter	Emergency Vehicle OBE		intersection status	US: SAE Signal Control Messages - Mobile Internet (US)	The conditions under which messages are sent; the rules defining which dat and the latency, accuracy, and performance requirements related to these rapplication data, minimum requireme		

Class	Timeframe	Proposed Resolution	Description			Regional Appl	licability
ehicle-Centre	Medium-term	C-V: Fleet management		ication for managing fleet vehicles, including ma	naging the location of fleet vehicles such as emergency vehicles and	Australia, Euro United States	
ssue Description:	Performance, fu	nctionality, and the upper-layers of the	ne OSI stack have not been defined fo	or this information flow.		Severity	Ultra
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes		
ehicle OBE		Service Monitor System	OBE status	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been start	ed.	
ersonal Information I	Device	Service Monitor System	PID status	(None-Data) - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been start	ed.	
mergency Vehicle OB	BE .	Emergency Management Center	emergency vehicle tracking data	(None-Data) - Mobile Internet (X.509)	Could be based on CAM, DENM, or TPEG-TEC		
mergency Vehicle OB	BE	Emergency Management Center	emergency vehicle tracking data	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been start	ed.	
ersonal Information I	Device	Service Monitor System	PID status	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been start	ed.	
ehicle OBE		Service Monitor System	OBE status	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been start	ed.	
ersonal Information [Device	Service Monitor System	PID status	(None-Data) - Mobile SNMPv3	Work on the upper layer standards related to this solution have not been start	ed.	
mergency Vehicle OB	BE	Emergency Management Center	emergency vehicle tracking data	US: SAE Other J2735 - Mobile Internet (US)	Work on the upper layer standards related to this solution have not been start	ed.	
ssue Description:	Required data el	lements are not defined.		^		Severity	High
	_			Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
mergency Vehicle OB	BE	Emergency Management Center	emergency vehicle tracking data	(None-Data) - Mobile Internet (X.509)	Could be based on CAM, DENM, or TPEG-TEC		
ssue Description:	There are ambig	uities as to how to (or if one should)	couple the upper-layer standards def	ined in this solution with the indicated lower-laye	er standards.	Severity	High
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
mergency Vehicle OB	BE	Emergency Management Center	emergency vehicle tracking data	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
mergency Vehicle OB	E	Emergency Management Center	emergency vehicle tracking data	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		
ssue Description:	The performance	e rules are not fully defined for this ir	formation flow.			Severity	Medium
				Relevant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes Notes		
mergency Vehicle OB	BE	Emergency Management Center	emergency vehicle tracking data	(None-Data) - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Te	st, NMEA, RTCM, a	nd ICA message
mergency Vehicle OB	BE	Emergency Management Center	emergency vehicle tracking data	US: SAE Other J2735 - Mobile Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Te	st, NMEA, RTCM, a	nd ICA message
lass	Timeframe	Proposed Resolution	Description			Regional App	licability
ehicle-Centre	Medium-term	C-V: Routing of emergency vehicles		ation specification for a center to provide sugges hich already claims support for this feature.	ted routes to emergency vehicles during emergency response,	United States	
sue Description:	The document m	nay be publicly available but it is not o	currently available as a formal standa	rd and details may change prior to adoption as a	standard.	Severity	Mediun
				Relevant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
Emergency Manageme	ent Center	Emergency Vehicle OBE	suggested route	US: SAE J3067 (J2735 SE) - Mobile Internet (US)	SAE J3067 is only an informational report, not a standard. It is a preliminary re enhancements and extensions to SAE J2735, but significant technical changes standardization.		

Class	Vehicle-Centre	Timeframe Medium-term	Proposed Resolution C-V: Update	central map database	Regional Applicability Australia, Europe	an Union, Unite	d States, Japan
Class	Timeframe	Proposed Resolution	Description			Regional Appl	icability
/ehicle-Centre	Medium-term	C-V: Update central map database		e ITS application specification that defines th -world data readings from vehicles and trans	e rules for updating a central map database, including roadway and smitted to a map update system.	Australia, Euro United States,	•
ssue Description	: Performance, fu	nctionality, and the upper-layers of the	e OSI stack have not been defined for th	is information flow.		Severity	Ultra
			<u>Re</u>	levant Flow Solution Combinations			
Source		Destination	Flow	SolutionName	Notes Notes		
onnected Vehicle Ro	padside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been start	ted.	
onnected Vehicle Ro	oadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been start	ted.	
onnected Vehicle Ro	oadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - Internet (X.509)	Work on the upper layer standards related to this solution have not been start	ted.	
hicle OBE		Map Update System	vehicle location and motion for mapping	(None-Data) - Mobile Internet (X.509)	Work on the upper layer standards related to this solution have not been start	ted.	
nnected Vehicle Ro	oadside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - OMG DDS RPC	Work on the upper layer standards related to this solution have not been start	ted.	
nnected Vehicle Ro	padside Equipment	Map Update System	vehicle location data for mapping	(None-Data) - SNMPv3	Work on the upper layer standards related to this solution have not been start	ted.	
sue Description	: There are ambig	uities as to how to (or if one should) co	ouple the upper-layer standards defined	l in this solution with the indicated lower-lay	er standards.	Severity	High
			<u>Re</u>	levant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes Notes		
hicle OBE		Map Update System	vehicle location and motion for mapping	US: SAE Other J2735 - Mobile Internet (US)	A port number has not been assigned to this message set.		
hicle OBE		Map Update System	vehicle location and motion for mapping	US: SAE Other J2735 - Mobile Internet (US)	Application-level authentication not provided		
ssue Description	: The performance	e rules are not fully defined for this inf	ormation flow.			Severity	Medium
			<u>Re</u>	levant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
ehicle OBE		Map Update System	vehicle location and motion for mapping	(None-Data) - Mobile Internet (X.509)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Te	est, NMEA, RTCM, ar	nd ICA messages
ehicle OBE		Map Update System	vehicle location and motion for mapping	US: SAE Other J2735 - Mobile Internet (US)	SAE J2945/x standards have not yet been proposed for the CSR, PDM, PVD, Te	est, NMEA, RTCM, ar	nd ICA messages
lass	Timeframe	Proposed Resolution	Description			Regional Appl	icability
eld	Future	I-F: Speed enforcement	Develop an internationally acceptable application within ITS Roadway Equip		e of allowing a center to remotely control a speed enforcement	Australia, Euro	pean Union
sue Description	: Performance, fui	nctionality, and the upper-layers of the	e OSI stack have not been defined for th	is information flow.		Severity	Ultra
			<u>Re</u>	levant Flow Solution Combinations			
ource		Destination	Flow	SolutionName	Notes		
S Roadway Equipme	ent	Maint and Constr Management Center	speed monitoring information	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been start	ted.	
S Roadway Equipme	ent	Traffic Management Center	speed monitoring information	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been start	ted.	
aint and Constr Mar	nagement Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been start	ted.	
affic Management C	Center	ITS Roadway Equipment	speed monitoring control	(None-Data) - AU IFCP	Work on the upper layer standards related to this solution have not been start	ted.	
S Roadway Equipme	ent	Maint and Constr Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been start	ted.	
S Roadway Equipme		Traffic Management Center	speed monitoring information	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been start	ted.	
aint and Constr Mar		ITS Roadway Equipment	speed monitoring control	(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been start		
raffic Management (ITS Roadway Equipment		(None-Data) - EU-ICIP-C2F	Work on the upper layer standards related to this solution have not been standards		
anic ividilagement (CEITLEI	113 Noauway Equipment	speed monitoring control	(NOTIC-Data) - EU-ICIP-CZF			

Class	Field	Timeframe	Future	Proposed Resolution	I-F: US signal control coordination	Regional Applicability United States			
Class	s Timeframe Propose			Description			Regional Applicability		
Field	Future	I-F: US signal control coordination		Develop an ITS application specification for peer-to-peer, secure traffic signal coordination with preemption and priority for authorized vehicles.			United States		
Issue Descriptio	n: The specific dia	alogs for exchanging this o	data have not k	peen fully defined.			Severity	Medium	
					Relevant Flow Solution Combinations				
Source		Destination		Flow	SolutionName	Notes			
ITS Roadway Equipment		Other ITS Roadway Equipment		signal control coordination	DDS: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.			
Other ITS Roadway Equipment		ITS Roadway Equipment		signal control coordination	DDS: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.			
Other ITS Roadway Equipment		ITS Roadway Equipment		signal control coordination	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.			
TS Roadway Equipment		Other ITS Roadway Equipment		signal control coordination	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.			
Other ITS Roadway Equipment		ITS Roadway Equipment		signal control coordination	US: NTCIP Traffic Signal - OMG DDS RPC	Generic SNMP dialogs exist, but the complex logic of how individual GET and SET operations are used is not defined.		used is not	
TS Roadway Equipn	ment	Other ITS Roadway Equipr	ment	signal control coordination	US: NTCIP Traffic Signal - SNMPv3	Generic SNMP dialogs exist, but the complex logic of how individual GET and defined.	SET operations are	used is not	
Class	Timeframe	Proposed Resolution		Description			Regional App	licability	
Vehicle-Local	Future	V-L: Update J2735 for hazmat sensors		Update SAE J2735 to include data concepts for on-board hazmat sensors.			United States		
Issue Descriptio	n: The informatio	n flow is unclear as to wh	nat precisely is	needed; the standard may	not fully support the needs of the information flow, dep	pending on how it is interpreted.	Severity	Low	
					Relevant Flow Solution Combinations				
Source		Destination		Flow	SolutionName	Notes			
Commercial Vehicle OBE		Emergency Management Center		hazmat spill notification	US: SAE J3067 (J2735 SE) - Guaranteed Mobile Internet (US)	Does not define data for hazmat sensors that detect the release of hazmat n	ot define data for hazmat sensors that detect the release of hazmat materials		