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BSI Standards Publication

Intelligent transport systems — Cooperative ITS

Part 9: Compliance and enforcement aspects

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National foreword

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Intelligent transport systems — Cooperative ITS —

Part 9: Compliance and enforcement aspects

Systèmes intelligents de transport — Systèmes intelligents de transport coopératifs —

Partie 9: Conformité et aspects relatifs à l'application

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
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Foreword

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The committee responsible for this document is ISO/TC 204, *Intelligent transport systems*.

ISO 17427 consists of the following parts, under the general title *Intelligent transport systems — Cooperative ITS*:

— *Part 2: Framework overview* [Technical Report]

— *Part 3: Concept of operations (ConOps) for 'Core' systems* [Technical Report]

— *Part 4: Minimum system requirements and behaviour for core systems* [Technical Report]

— *Part 6: Core systems risk assessment methodology* [Technical Report]

— *Part 7: Privacy aspects* [Technical Report]

— *Part 8: Liability aspects* [Technical Report]

— *Part 9: Compliance and enforcement aspects* [Technical Report]

— *Part 10: Driver distraction and information display* [Technical Report]

The following parts are under preparation:

— *Part 1: Roles and responsibilities in the context of co-operative ITS architechtures(s)*

— *Part 5: Common approaches to security* [Technical Report]

— *Part 11: Compliance and enforcement aspects* [Technical Report]

— *Part 12: Release processes* [Technical Report]

— *Part 13: Use case test cases* [Technical Report]

— *Part 14: Maintenance requirements and processes* [Technical Report]

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This Technical Report provides an informative consideration of 'Compliance and Enforcement Aspects' for Cooperative Intelligent Transport Systems (C-ITS). It is intended to be used alongside ISO 17427-1, ISO/TR 17465-1, other parts of the ISO 17465 series and ISO 21217. Detailed specifications for the application context will be provided by other ISO, CEN and SAE deliverables, and communications specifications will be provided by ISO, IEEE and ETSI.

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Introduction

Intelligent transport systems (ITS) (2.7) are transport systems in which advanced information, communication, sensor and control technologies, including the internet, are applied to increase safety, sustainability, efficiency, and comfort.

A distinguishing feature of *'ITS'* are their communication with outside entities.

Some *ITS* systems operate autonomously, for example, 'adaptive cruise control' uses radar/lidar/and/or video to characterize the behaviour of the vehicle in front and adjust its vehicle speed accordingly. Some *ITS* systems are informative, for example, 'Variable Message Signs' at the roadside, or transmitted into the vehicle, provide information and advice to the driver. Some *ITS* systems are semi-autonomous, in that they are largely autonomous, but rely on 'static' or 'broadcast' data, for example, *GNSS* (2.6) based 'SatNav' systems operate autonomously within a vehicle but are dependent on receiving data broadcast from satellites in order to calculate the location of the vehicle.

Cooperative Intelligent Transport Systems (C-ITS) are a group of *ITS* technologies where service provision is enabled by, or enhanced by, the use of "live", present situation related, dynamic data/information from other entities of similar functionality [for example from one vehicle to other vehicle(s)], and/or between different elements of the transport network, including vehicles and infrastructure [for example from the vehicle to an infrastructure managed system or from an infrastructure managed system to vehicle(s)]. Effectively, these systems allow vehicles to "talk" to each other and to the infrastructure. These systems have significant potential to improve the transport network.

A distinguishing feature of *'C-ITS'* is that data is used across *application*/service boundaries.

It will be immediately clear to the reader that such systems present possibilities for 'Compliance and Enforcement'. However such issues are highly sensitive, bound closely with issues of personal privacy, and may have a major impact on the whole public acceptance of *cooperative ITS*.

Further Technical Reports in this series are expected to follow. Please also note that these TRs are expected to be updated from time to time as the *C-ITS* evolves.

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TECHNICAL REPORT **ISO/TR 17427-9:2015(E)**

Intelligent transport systems — Cooperative ITS —

Part 9:
Compliance and enforcement aspects

1 Scope

This Technical Report identifies potential critical compliance and enforcement aspects issues that C-ITS service provision may face or introduce; to consider strategies for how to identify, control, limit or mitigate such issues. The objective of this Technical Report is to raise awareness of and consideration of such issues and to give pointers, where appropriate, to standards deliverables existing that provide specifications for all or some of these aspects. This Technical Report does not provide specifications for solutions of these issues.

2 Terms and definitions

2.1
application
app
software application

2.2
application service
service provided by a service provider accessing data from the in-vehicle system (within the vehicle), in the case of *C-ITS* (2.4), via a wireless communications network, or provided on-board the vehicle as the result of software (and potentially also hardware and firmware) installed by a service provider or to a service provider's instruction

2.3
compliance
assurance that equipment or a service behaves within a set of predetermined, declared and accepted parameters

2.4
cooperative ITS
C-ITS
group of ITS technologies where service provision is enabled, or enhanced by, the use of 'live', present situation related, data/information from other entities of similar functionality (for example, from one vehicle to other vehicle(s)), and/or between different elements of the transport network, including vehicles and infrastructure (for example, from the vehicle to an infrastructure managed system or from an infrastructure managed system to vehicle(s))

2.5
enforcement
regulatory measures to ensure observance with certain requirements

2.6
global navigation satellite system
GNSS
several networks of satellites that transmit radio signals containing time and distance data that can be picked up by a receiver, allowing the user to identify the location of its receiver anywhere around the globe

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