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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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TECHNICAL
REPORT

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17427-9

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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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Contents

	Page
Foreword	iv
Introduction	vi
1 Scope	1
2 Terms and definitions	1
3 Abbreviations and acronyms	7
4 How to use this Technical Report	2
4.1 Acknowledgements.....	2
4.2 Guidance.....	2
4.3 ITS and ‘compliance and enforcement aspects’.....	3
4.3.1 Compliance.....	3
4.3.2 Enforcement.....	3
4.3.3 Compliance and enforcement within the context of C-ITS.....	3
4.4 C-ITS compliance and enforcement aspects issues.....	3
4.4.1 Private vehicles.....	3
4.4.2 Commercial vehicles.....	5
4.4.3 Surveillance devices.....	7
4.4.4 Comparative systems.....	7
5 What are the key compliance and enforcement aspect issues	10
5.1 General.....	10
5.1.1 Application to C-ITS.....	10
5.2 International approaches.....	10
5.2.1 United States.....	10
5.2.2 Europe.....	11
5.2.3 Australia.....	11
5.2.4 Other countries.....	12
6 Policy questions and options	12
6.1 Option 1: Continue current approach.....	12
6.2 Option 2: Amend current road rules.....	12
6.3 Option 3: Create guidelines or principles for manufacturers.....	12
6.4 Option 4: Examine technology options as they develop.....	12
7 Summary of findings	13
Bibliography	16

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

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: Rules and responsibilities in the context of co-operative ITS architectures(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]

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.

Intelligent transport systems — Cooperative ITS —

Part 9: Compliance and enforcement aspects

1 Scope

This Technical Report identifies potential critical compliance and enforcement aspects 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