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Intelligent transport systems — Framework for collaborative Telematics Applications for Regulated commercial freight Vehicles (TARV) —

Part 5: Generic vehicle information

Systèmes intelligents de transport — Cadre pour applications télématiques collaboratives pour véhicules de fret commercial réglementé (TARV) —

Partie 5: Informations génériques sur le véhicule

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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. www.iso.org/directives

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

ISO 15638 consists of the following parts, under the general title *Intelligent transport systems — Framework for collaborative Telematics Applications for Regulated commercial freight Vehicles (TARV)*:

— *Part 1 Framework and architecture*

— *Part 2: Common platform parameters using CALM*

— *Part 3: Operating requirements, 'Approval Authority' procedures, and enforcement provisions for the providers of regulated services*

— *Part 5:Generic vehicle information*

— *Part 6: Regulated applications* [Technical Specification]

— *Part 7: Other applications*

— *Part 8: Vehicle access monitoring (VAM)* [Technical Specification]

— *Part 9: Remote electronic tachograph monitoring (RTM)* [Technical Specification]

— *Part 10: Emergency messaging system/eCall (EMS)* [Technical Specification]

— *Part 11: Driver work records (work and rest hours compliance) (DWR)* [Technical Specification]

— *Part 12: Vehicle mass monitoring (VMM)* [Technical Specification]

— *Part 14: Vehicle access control (VAC)* [Technical Specification]

— *Part 15: Vehicle location monitoring (VLM)* [Technical Specification]

— *Part 16: Vehicle speed monitoring (VSM)* [Technical Specification]

— *Part 17: Consignment and location monitoring (CLM)* [Technical Specification]

— *Part 18: ADR (Dangerous Goods) transport monitoring (ADR)* [Technical Specification]

— *Part 19: Vehicle parking facilities (VPF)* [Technical Specification]

The following parts are under preparation:

— *Part 4: System security requirements* [Technical Specification]

— *Part 13: Mass Penalties and Levies (VMC)*

Introduction

Many *ITS* technologies have been embraced by commercial transport operators and freight owners, in the areas of fleet management, safety and security. Telematics applications have also been developed for governmental use. While the regulatory services in use or being considered varies from country to country, these include services such as charging, digital tachograph, hazardous goods tracking and e-call. Additional applications with a regulatory impact being developed include access monitoring, on-board mass monitoring, fatigue management, speed monitoring and heavy vehicle charging based on mass, location, distance and time.

In such an emerging environment of regulatory and commercial applications, it is timely to consider an overall architecture (business and functional) that could support these functions from a single platform within a commercial vehicle that operate within such regulations. Such International Standards will allow for a speedy development and specification of new applications that build upon the functionality of a generic specification platform. This suite of standards deliverables describes and defines the framework and requirements so that the *in-vehicle system* [4.7] can be commercially designed in an open market to meet common requirements.

This suite of standards deliverables will provide the basis for future development of cooperative telematics applications for *regulated commercial freight vehicles* [4.14]. Many elements to accomplish this are already available. Existing relevant standards will be referenced, and the specifications will use existing standards (such as *CALM*) wherever practicable.

This suite of standards deliverables will also allow for a powerful platform for highly cost-effective delivery of a range of telematics applications for *regulated commercial freight vehicles* [4.14].

Finally, a business architecture based on a (multiple) *service provider* [4.15] oriented approach will also require consideration of legal and regulatory aspects for the *approval authority* [4.3] approval and auditing of *service providers [4.7].*

This suite of standards deliverables is timely as many governments (Europe, North America, Asia and Australia/New Zealand) are considering the use of telematics for a range of regulatory purposes. Ensuring that a single in-vehicle platform can deliver a range of services to both government and industry through open standards and competitive markets is a strategic objective.

This suite of standards deliverables addresses and defines the framework for a range of cooperative telematics applications for *regulated commercial freight vehicles* [4.14] (such as access monitoring, driver fatigue management, speed monitoring, on-board mass monitoring and charging). The overall scope includes the concept of operation, legal and regulatory issues, and the generic cooperative *ITS* service platform. The framework will be based on a (multiple) *service provider* [4.15] oriented approach provisions for the *approval authority* [4.3] approval and auditing of *service providers.*

This part of the ISO 15638 family of standards deliverables provides specifications for generic *basic vehicle data* [4.4] that it is required for all *IVSs* to support and make available to application *service providers* [4.15] using the *IVS* wireless communications link(s), in order to support the provision of regulated and commercial application services for *TARVs*; and provides *basic vehicle data* for cooperative intelligent transport systems.

NOTE The definition of what comprises a ‘regulated’ vehicle is regarded as an issue for national decision, and may vary from country to country. This suite of standards deliverables does not impose any requirements on nations in respect of how they define a regulated vehicle.

NOTE The definition of what comprises a ‘regulated’ service is regarded as an issue for national decision, and may vary from country to country. This suite of standards deliverables does not impose any requirements on nations in respect of which services for regulated vehicles countries will require, or support as an option, but will provide standardised sets of requirements descriptions for identified services to enable consistent and cost efficient implementations where implemented.

NOTE Cooperative *ITS* applications, in this context, are defined as the use of an in-vehicle *ITS* platform to meet both commercial and regulatory needs from a (functionally) single on-board platform.