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English Version

Intelligent transport systems - Ecall - Additional data concept specification for heavy goods vehicles

Systèmes de transports intelligents - Sécurité - Spécification de conception de données additionnelles pour les poids lourds

Intelligente Verkehrssysteme - E-Sicherheit - Zusätzliche Datenkonzept-Spezifikation für Lastkraftwagen

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The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (CEN/TS 16405:2017) has been prepared by Technical Committee CEN/TC 278 “Intelligent transport systems”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TR 16405:2013.

A Technical Report on this subject, proposing these specifications, was approved in 2012 (CEN/TR 16405), for field testing. The proposed specifications have subsequently been tested in the field (by EC Project HeERO and others). The semantic content of this Technical Specification remains unchanged. However the parent Standard EN 15722 (eCall Minimum Set of Data) has been revised and updated, and this Technical Specification is consistent with the layout and specifications of the revised EN 15722.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

An *eCall* is an emergency call generated either automatically via activation of in-vehicle sensors or manually by the *vehicle occupants*; when activated, to provide notification and relevant location information to the most appropriate 'Public Safety Answering Points' (PSAP), by means of *mobile wireless communications networks* and carries a defined standardized 'Minimum Set of Data' (MSD), notifying that there has been an incident that requires response from the emergency services and establishes an audio channel between the occupants of the vehicle and the most appropriate PSAP.

The MSD (specified in EN 15722) contains static information regarding the vehicle, dynamic information regarding its location, direction of travel etc., at the time of the incident, and makes provision for additional data to be provided.

This Technical Specification provides specification for an optional additional data concept for commercial vehicles to provide dynamic data about the load that it is carrying at the time of the incident that triggered the *eCall*, with specific emphasis on identification of dangerous goods. Two variants are provided, one (schema A) for use where information about the goods (ADR classified or not) is known in the eCall device; the second variant (schema B) is for use where information about the load has to be fetched from other sources.

It is the intention that this Technical Specification is tested in demonstration projects (such as HeERO) with a view to becoming the basis for a future European or International Standard.

In order to claim conformance with this Technical Specification, communication is to be established using accepted wireless communication standards, and it is to be able to demonstrate that the MSD transferred together with any standardized optional data elements defined herein comply with the specifications of this Technical Specification, to the extent that such data are available from the vehicle.

1 Scope

This Technical Specification defines an additional data concept that may be transferred as an 'optional additional data concept' as defined in EN 15722 eCall MSD, that may be transferred from a goods vehicle to a PSAP in the event of a crash or emergency via an *eCall* communication session. Two variants are provided, one (schema A) for use where information about the goods (ADR classified or not) is known in the eCall device; the second variant (schema B) is for use where such information is to be fetched from elsewhere.

NOTE This Technical Specification is complementary and additional to EN 15722; and contains as little redundancy as possible.

The communications media protocols and methods for the transmission of the *eCall* message are not specified in this Technical Specification.

Additional data concepts may also be transferred, and any such data concepts should be registered using a data registry as defined in EN ISO 24978. See www.esafetydata.com for an example.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15722, *Intelligent transport systems - ESafety - ECall minimum set of data*

ISO/IEC 8825-2, *Information technology — ASN.1 encoding rules: Specification of Packed Encoding Rules (PER) — Part 2*

EN ISO 24978, *Intelligent transport systems - ITS Safety and emergency messages using any available wireless media - Data registry procedures (ISO 24978)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
112
single European emergency call number supporting Teleservice 12 [ETSI/TS 122 003]

3.2
ASN.1
abstract syntax notation one as specified in the various parts of ITU Recs 8824 and 8825 (ISO 8824 and ISO 8825 various parts)

3.3
commercial vehicle
mechanically propelled road vehicle (vehicle type N1, N2 or N3) that is of a construction primarily suited for the carriage of goods or burden of any kind (not including people) and travelling on a road laden

Note 1 to entry: This includes vehicles designed or adapted to have a maximum weight exceeding 3,500 tonnes, but explicitly excludes busses or other vehicles designed and constructed for the carriage of passengers (ie. vehicle types M1, M2 or M3)

3.4
dangerous goods
categories of goods carried by road defined by the 'European Agreement concerning the 'International Carriage of Dangerous Goods by Road' (ADR) as dangerous; these are characterised as articles or substances which are capable of posing a significant risk to health, safety or to property when transported

3.5
eCall
emergency call generated either automatically via activation of in-vehicle sensors or manually by the vehicle occupants; when activated it provides notification and relevant location information to the most appropriate 'Public Safety Answering Point', by means of mobile wireless communications networks, carries a defined standardized 'Minimum Set of Data' notifying that there has been an incident that requires response from the emergency services, and establishes an audio channel between the occupants of the vehicle and the most appropriate 'Public Safety Answering Point'

3.6
Kemler code
ADR Hazard Identification Number (HIN), carried on placards on tank cars and tank containers running by road under international ADR regulations

3.7
uniform resource identifier
URI
string of characters used to identify a name or a resource on the Internet

3.8
uniform resource locator
URL
URI that in addition to identifying a resource provides a means of locating the resource by describing its primary access mechanism

EXAMPLE Its network location

4 Symbols and abbreviations

ADR Accord européen relative au transport international des marchandises Dangereuses par Route

ETSI European Telecommunications Standards Institute

M Mandatory

MSD Minimum set of data