

English Version

Intelligent transport systems - ESafety - Interoperability  
and user choice in eCall aftermarket and third party eCall  
services

Système de transports intelligent - E Sécurité -  
Interopérabilité et choix de l'utilisateur dans les  
services après-vente eCall et les services eCall de  
fournisseurs privés

Intelligente Verkehrssysteme - eSicherheit -  
Austauschbarkeit und Nutzerwahl im eSicherheit-  
Zubehörmarkt und Drittanbieter eCall-Dienste

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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## European foreword

This document (CEN/TS 17313:2019) has been prepared by Technical Committee CEN/TC 278 “Intelligent transport systems”, the secretariat of which is held by NEN.

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## Introduction

An *eCall* is an *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* (PSAP)' 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 a voice channel between the occupants of the vehicle and the 'most appropriate PSAP'.

There are two principal variants of *eCall*:

- a) *112-eCall* (also known as Pan-European *eCall*);
- b) Third Party Service supported *eCall* (*TPS-eCall* ; also known as Third Party *eCall*).

*112-eCalls* progress automatically from the vehicle directly to the *Public Safety Answering Point* (PSAP).

Third Party Service supported *eCall* involves the service and the support of a Third Party *Service provider* (TPSP) as an intermediary entity, who may filter out false calls, determine if an *emergency call* requires the emergency service or other services (such as breakdown assistance), and may provide additional information requested by the owner of the vehicle to be passed to emergency services in the event of an *emergency call*, or where the vehicle does not have the capability to send the full MSD *data* set, may add *data* and consolidate the MSD before forwarding it to the PSAP. A TPSP may typically offer *TPS-eCall* as a part of a bundle of wider support services.

The deployment of *112-eCall* service in Europe is mandatory for all new models (classes M1, N1) as of 31 March 2018. According to Regulation (EU) 2015/758 a *TPS-eCall* service can co-exist provided that the measures necessary to ensure continuity in the provision of the service to the consumer are adopted; according to Regulation (EU) 2015/758 (3 c), the vehicle *user* must have the option to elect to use a 112-based *eCall* in-vehicle system at any time.

Third Party *eCall* service is a private commercial service which may be offered optionally and supplementary to *112-eCall* service.

However, the possibility to choose and to change third party *eCall service provider* has not so far been defined regarding in-vehicle systems for third party *eCall* service, although interoperability and *user* choice are significant aspects for fair competition in the European Service Market.

According to Regulation (EU) 2015/758<sup>1</sup>, open choice for users and fair competition should be ensured, as well as innovation should be encouraged, in order to boost the competitiveness of the European Union's information technology industry in the global market.

This document provides specification for such interoperability.

NOTE It is recognized that some *vehicle manufacturers* and *service providers* may not want or are unable to participate in such an open market. This document is therefore developed for voluntary use by parties who may wish to participate in an open market for service provision.

<sup>1</sup> See Regulation (EU) 2015/758 Recital 16.

## 1 Scope

This document provides a description for voluntarily consenting vendors (subsequently referred to as '*participating service providers*'), who wish to provide *TPS-eCall* service in an open market environment, where *users* can select and change the *service provider*. It focusses on the use case '*TPS-eCall* service', as standardized in EN 16102, only (and for clarification, does not apply in respect of *112-eCall*, where no TPS provider is involved.)

The document determines the preconditions, requirements and functional means needed in order that *users* of a *TPS-eCall* service can choose and change her/his preferred *service provider* (TPSP) out of a range of available TPSPs, who are participating in the open market provisions determined in this specification.

Outside the scope of this document are:

- a) any commercial considerations (e.g. whether the service is offered for free or a charged service or part of a commercial service package offer),
- b) any contractual considerations (e.g. how a service contract between an user and a TPSP is established),
- c) any IT-security related issues in conjunction with the TPS in-vehicle system,
- d) any considerations regarding communication costs (for voice and *data*) related to the *TPS-eCall* service
- e) any PSAP related considerations (towards the PSAPs there is no impact related to provider change, since any TPSP needs to negotiate acceptance of its service offering with the PSAPs in the countries where the service is provided, before such service can be provided).

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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*

EN 16072:2015, *Intelligent transport systems – ESafety - Pan-European eCall operating requirements*

EN 16102, *Intelligent transport systems – eCall - Operating requirements for third party support*

EN 16454, *Intelligent transport systems – ESafety - ECall end to end conformance testing*

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.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **112**

single European *emergency call* number

#### 3.2

##### **112-eCall**

'eCall' provided by a 'Teleservice 12' mobile communication network, as defined in EN 16072 and EN 16062 or CEN/TS 17148

#### 3.3

##### **beneficiary**

occupants/riders of the vehicle receiving the benefit of the *TPS-eCall* service/*112-eCall* service

Note 1 to entry: The occupants/riders of the vehicle may or may not be the owner or registered keeper of the vehicle, and may or may not have the ability to change *TPS-eCall* service provider.

#### 3.4

##### **data**

representations of static or dynamic objects in a formalized manner suitable for communication, interpretation, or processing by humans or by machines

#### 3.5

##### **data dictionary**

organized and constructed (electronic data base) compilation of descriptions of *data concepts* that provides a consistent means for documenting, storing and retrieving the syntactical form (i.e. representational form) and the meaning and connotation of '*eCall*' 'data concept'

Note 1 to entry: A *data registry* provides definition of the metadata concept, it does not store the values of individual instances. For example a *data registry* with a *data* concept 'registration plate identification of a vehicle' defines how the identification numbers/letters are represented. It does not contain a list of particular licence plates.

#### 3.6

##### **data element**

single unit of information of interest (such as a fact, proposition, observation, etc.) about some (entity) class of interest (e.g. a person, place, process, property, concept, *association*, state, event) considered to be indivisible in a particular context

#### 3.7

##### **data registry**

registration process to store *data* definitions, characterized in a consistent manner, as determined according to the provisions of an international standard, in a *data dictionary*

Note 1 to entry: Neither a *data registry* nor a *data dictionary* provides a *database* of specific values of instances of the use of the registry/dictionary in an implementation.