

English version

**Railway applications -
Rolling stock -
Intercommunication between vehicles and train/wayside -
Part 2: Technical contents of standardization work in the field of
intercommunication**

Applications ferroviaires -
Matériel roulant -
Communications entre véhicules et
communications sol/train -
Partie 2: Contenu technique du travail de
normalisation dans le domaine de la
communication

Bahnanwendungen -
Interkommunikation zwischen Fahrzeugen
und Fahrweg -
Teil 2: Technischer Inhalt der Normung
auf dem Gebiet der Interkommunikation

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CENELEC

European Committee for Electrotechnical Standardization
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Foreword

This document (CLC/TR 50501-2:2012) has been prepared by CLC/SC 9XB "Electromechanical material on board rolling stock", of CLC/TC 9X, "Electrical and electronic applications for railways".

It provides information asked for by resolutions 33/03 and 34/04 of SC9XB.

| Rev. | Status | Date | Author | Modified (sub)clause number | Modification description |
|------|-----------------|------------|------------|-----------------------------|---|
| V1 | First draft | 2008/07/16 | G. Demars | | |
| V2 | Second draft | 2008/10/15 | G. Demars | Intro, 4.1; Annex A | Updates, and corrections following comments of S. Ingenhorst |
| V3 | Third draft | 2009/11/16 | G. Demars | All | Incorporation of information collected from InteGRail project, and sector organisations |
| V4.1 | Fourth draft | 2009/12/11 | G. Demars | 4.4 | Update after WG14 meeting #21 |
| V4.2 | | | G. Demars | 6.2 | Addition § functional open coupling |
| V4.3 | Working version | 2010/01/29 | G.Demars | various | Remarks on remaining actions |
| V4.4 | Final V4 draft | 2010/05/12 | JL Profizi | 6.4 | Inserted Mr Demars paragraphs on telematics in 6.4 Submitted to WG14 approval |
| V4.5 | Final version | 2011/08/18 | JL Profizi | 10 | Re-shaping of the bibliography as Clause 10 and references marked in yellow in the text . |

1 Scope

The scope of this Technical Report is to summarize all available data on standardization work in the field of Intercommunication including

1. the results of work of WG B14 carried out so far,
2. data from other related activities such as the research projects MODTRAIN and INTEGRAIL,
3. data from the sector organisation TMP.

NOTE "TMP", Technical Management Platform, is one of the structures created by the rail representatives associations in order to express common views on TSI open issues or standardization work programs (not active anymore).

2 Normative references

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

CLC/TR 50501-1:2007, Railway applications - Rolling stock - Intercommunication between vehicles and train/wayside - Part 1: Data dictionary and rules for functional standardisation

3 Terms and definitions

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

3.1

consist

train set

rake of coaches

single vehicle or a group of vehicles which are not separated during normal operation.

Note 1 to entry: A consist contains no, one or several consist networks.

assembly of vehicles (may be reduced to a single vehicle), which are permanently coupled while in service, and fitted with a "vehicle communication system", linking the devices, and providing one interface with the train level (such a communication system may be a vehicle bus, spanning over all the vehicle of the consist).

Note 2 to entry: A physical consist which is not capable of data communication with other consist or ground installation is not in the scope of the Reference Architecture. A consist is described by a set of static properties (as in UIC Leaflet 556 [BIB 2.])

3.2

entity

anything of interest (such as a person, material object, place or process) within a given **domain of discourse**.

Note 1 to entry: An **entity class** is a stereotyped class used to model long-lived information that may be persistent. An entity is said *complex* when it can be described by at least two other entities. Otherwise, it is called a *simple entity* or **primitive**.

3.3

functional requirement

an action that the target system is able to perform

3.4

functional specification

specification of functions performed by the **entities** in a given application, in a manner that is independent of the technology adopted to implement the specified functions