TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

CLC/TR 50501-2

August 2012

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

This Technical Report was approved by CENELEC on 2012-02-13.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

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