TTC技術レポート
Technical Report

TR-M2M-0058v0.0.1

鉄道分野への適用

Railway Domain Enablement

2023 年 3 月 17 日制定

一般社団法人
情報通信技術委員会

THE TELECOMMUNICATION TECHNOLOGY COMMITTEE

本書は、一般社団法人情報通信技術委員会が著作権を保有しています。
内容の一部又は全部を一般社団法人情報通信技術委員会の許諾を得ることなく複製、転載、改変、転用及びネットワーク上での送信、配布を行うことを禁止します。

TR-M2M-0058v0.0.1

鉄道分野への適用 [Railway Domain Enablement]

＜参考＞ [Remarks]

１．国際勧告等の関連 [Relationship with international recommendations and standards]

本技術レポートは、oneM2M で作成された Technical Report TR-0058-V0.0.1 に準拠している。

[This Technical Report is transposed based on the Technical Report TR-0058-V0.0.1 developed by oneM2M.]

２．作成専門委員会 [Working Group]

oneM2M 専門委員会 [oneM2M Working Group]

oneM2M
Technical Report

Document Number	oneM2M-TR-0058-V-0.0.1
Document Name:	Railway Domain Enablement
Date:	<2018-12-03>
Abstract:	This Technical Report investigates how to enable oneM2M system working in the railway vertical domain. This TR includes use cases, studies on essential features and summaries of other standards organizations on the railway vertical domain for the next oneM2M release(s) which considers and supports railway domain devices and services.

Template Version: January 2017 (Do not modify)

The present document is provided for future development work within oneM2M only. The Partners accept no liability for any use of this report.

The present document has not been subject to any approval process by the oneM2M Partners Type 1. Published oneM2M specifications and reports for implementation should be obtained via the oneM2M Partners' Publications Offices.

About oneM2M

The purpose and goal of oneM2M is to develop technical specifications which address the need for a common M2M Service Layer that can be readily embedded within various hardware and software, and relied upon to connect the myriad of devices in the field with M2M application servers worldwide.

More information about oneM2M may be found at: http//www.oneM2M.org

Copyright Notification

© 2017, oneM2M Partners Type 1 (ARIB, ATIS, CCSA, ETSI, TIA, TSDSI, TTA, TTC).

All rights reserved.

The copyright and the foregoing restriction extend to reproduction in all media.

Notice of Disclaimer & Limitation of Liability

The information provided in this document is directed solely to professionals who have the appropriate degree of experience to understand and interpret its contents in accordance with generally accepted engineering or other professional standards and applicable regulations. No recommendation as to products or vendors is made or should be implied.

NO REPRESENTATION OR WARRANTY IS MADE THAT THE INFORMATION IS TECHNICALLY ACCURATE OR SUFFICIENT OR CONFORMS TO ANY STATUTE, GOVERNMENTAL RULE OR REGULATION, AND FURTHER, NO REPRESENTATION OR WARRANTY IS MADE OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS. NO oneM2M PARTNER TYPE 1 SHALL BE LIABLE, BEYOND THE AMOUNT OF ANY SUM RECEIVED IN PAYMENT BY THAT PARTNER FOR THIS DOCUMENT, WITH RESPECT TO ANY CLAIM, AND IN NO EVENT SHALL oneM2M BE LIABLE FOR LOST PROFITS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. oneM2M EXPRESSLY ADVISES ANY AND ALL USE OF OR RELIANCE UPON THIS INFORMATION PROVIDED IN THIS DOCUMENT IS AT THE RISK OF THE USER.

Contents

Contents 3

1 Scope 4

2 References 4
2.1 Normative references 4
2.2 Informative references 4

3 Definitions, symbols and abbreviations 4
3.1 Definitions 4
3.2 Symbols 5
3.3 Abbreviations 5

4 Conventions, ... 5

5 Introduction to Railway Domain 5
5.1 Introduction 5

6 Railway Domain Use Cases 6
6.1 Use Case1 6

7 Potential Requirements for Railway Domain 6
7.1 Requirements1 6

8 High Level Architecture 6
8.1 Architecture 6

9 Key Issues for Enablement of Railway Domain 6
9.1 Key Issue1 6

10 Potential Solutions for the Key Issues 6
10.1 Solution1 6

11 External Organization Activities on Railway Domain 7
11.1 3GPP 7
11.2 UIC 7
11.3 TTA 7
11.4 ITU 7

Annex <A>: oneM2M Data Model for Railway Domain 7

Annex <y>: Bibliography 8

History 8

This is a draft oneM2M document and should not be relied upon; the final version, if any, will be made available by oneM2M Partners Type 1.

1 Scope

The present document …

EXAMPLE: The present document provides the necessary adaptions to the endorsed document.

*The Scope **shall not** contain requirements.*

2 References

The following text block applies.

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references,only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

2.1 Normative references

As a Technical Report (TR) is entirely informative it shall not list normative references.

The following referenced documents are necessary for the application of the present document.

Not applicable.

2.2 Informative references

Clause 2.2 shall only contain informative references which are cited in the document itself.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] oneM2M Drafting Rules (http://member.onem2m.org/Static_pages/Others/Rules_Pages/oneM2M-Drafting-Rules-V1_0.doc)

3 Definitions, symbols and abbreviations

Delete from the above heading the word(s) which is/are not applicable.

3.1 Definitions

Clause numbering depends on applicability.

- ***A definition shall not take the form of, or contain, a requirement.***
- ***The form of a definition shall be such that it can replace the term in context. Additional information shall be given only in the form of examples or notes (see below).***
- ***The terms and definitions shall be presented in alphabetical order.***

For the purposes of the present document, the [following] terms and definitions [given in ... and the following] apply:

Definition format

<defined term>: <definition>

If a definition is taken from an external source, use the format below where [N] *identifies the external document which must be listed in Section 2 References.*

<defined term>[N]: <definition>

example 1: text used to clarify abstract rules by applying them literally

NOTE: This may contain additional information.

3.2 Symbols

Clause numbering depends on applicability.

For the purposes of the present document, the [following] symbols [given in ... and the following] apply:

Symbol format

<symbol> <Explanation>
<2nd symbol> <2nd Explanation>
<3rd symbol> <3rd Explanation>

3.3 Abbreviations

Abbreviations should be ordered alphabetically.

Clause numbering depends on applicability.

For the purposes of the present document, the [following] abbreviations [given in ... and the following] apply:

Abbreviation format

<ABBREVIATION1> <Explanation>
<ABBREVIATION2> <Explanation>
<ABBREVIATION3> <Explanation>

4 Conventions,

The key words “Shall”, ”Shall not”, “May”, ”Need not”, “Should”, ”Should not” in this document are to be interpreted as described in the oneM2M Drafting Rules [i.1]

5 Introduction to Railway Domain

<Text>

5.1 Introduction

<Text>

6 Railway Domain Use Cases

<Text>

6.1 Use Case1

<Text>

7 Potential Requirements for Railway Domain

<Text>

7.1 Requirements1

<Text>

8 High Level Architecture

<Text>

8.1 Architecture

<Text>

9 Key Issues for Enablement of Railway Domain

<Text>

9.1 Key Issue1

<Text>

10 Potential Solutions for the Key Issues

<Text>

10.1 Solution1

<Text>

This is a draft oneM2M document and should not be relied upon; the final version, if any, will be made available by oneM2M Partners Type 1.

11 External Organization Activities on Railway Domain

<Text>

11.1 3GPP

<Text>

11.2 UIC

<Text>

11.3 TTA

<Text>

11.4 ITU

<Text>

Annex <A>: oneM2M Data Model for Railway Domain

A.1 Annex

<Text>

A.1.1 First subdivided clause of the annex

<Text>

<PAGE BREAK>

Annex <y>:
Bibliography

The annex entitled "Bibliography" is optional.

It shall contain a list of standards, books, articles, or other sources on a particular subject which are not mentioned in the document itself.

It shall not include references mentioned in the document.

*Use the **Heading 9 style** for the title and B1+ or Normal for the text.*

- <Publication>: "<Title>".

OR

<Publication>: "<Title>".

<PAGE BREAK>

History

This clause shall be the last one in the document and list the main phases (all additional information will be removed at the publication stage).

Publication history		
V1.1.1	<yyyy-mm-dd>	<Milestone>

Draft history (to be removed on publication)		
V1.1.1	<yyyy-mm-dd>	<CR ID> applied – <Summary of changes>

This is a draft oneM2M document and should not be relied upon; the final version, if any, will be made available by oneM2M Partners Type 1.