OCORA

Open CCS On-board Reference Architecture

Release Notes

OCORA Release R2

Document ID: OCORA-BWS01-010

Version: 1.00

Date: 01.07.2022

Revision history

Version	Change Description	Initial	Date of change
0.90	• DRAFT version for Review	RM	10.06.2022
1.00	Official version for Release	RM	01.07.2022

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1   Release

The OCORA Release R2 is the sixth release (after Alpha, Beta, Gamma, Delta and R1) of documents prepared by the OCORA cooperation.

- OCORA R2 adds new content and provides deeper insight into a selection of topics.
- It completely replaces the OCORA Alpha, Beta, Gamma, Delta and R1 Release.

OCORA Release R2 provides its content in a structured manner and provides topic specific documents. An overview is given in chapter 5 Content, highlights are:

- An updated Economic Model, including Power BI visualization
- Significantly enriched Operational & System Analysis
- The results of the Proof of Concept on Communication Network
- A new Design Guideline including Return on Experience for the Functional Vehicle Adapter
- First artefacts on Monitoring, Configuration, Diagnoses and Maintenance
- A first line out of the Proof of Concept as Concept on Online Monitoring System SS-149

2   Imprint

- Publisher: OCORA Cooperation
- Channel: OCORA publishes exclusively over https://github.com/OCORA-Public/Publication
- OCORA liaison partners: UIC TOBA, EUG, RCA, CER
- Any feedback for OCORA is welcome! If you would like to attend a workshop or give a feedback, please contact jean-baptiste.simonnet@sncf.fr . For specific feedback the *OCORA-BWS01-040 – Feedback Form* shall be used.
- For active collaboration (within the OCORA framework) the OCORA Code of Conduct must be accepted and signed. In case of interest for active collaboration and you are eligible to become a partner according to the OCORA Code of conduct, please drop a "interest of becoming a OCORA member by E-mail" to rolf.muehlemann2@sbb.ch .
- All OCORA deliverables and work will be published and licensed under the dual licensing Terms EUPL 1.2 (Commission Implementing Decision (EU) 2017/863 of 18 May 2017) and the terms and condition of the Attributions- ShareAlike 3.0 Unported license or its national version (in particular CC-BY -SA 3.0 DE).

3   Capella Model publishing Announcement

In addition to the official OCORA releases, frequent publications of the Capella Model shall facilitate discussions with other initiatives (e.g. RCA, X2Rail4, LinX4Rail) and/or potential suppliers without overreaching someone. Model updates will be available for download on OCORA public GitHub.

4   Authors and Reviewers

The OCORA Release has been reviewed by several technical experts, approved by the OCORA Coreteam and endorsed for publication by the OCORA Steering Committee.

5 Content

Doc ID	Doc Title	Change	Version
Release Documentation from Business Workstream BWS01			
OCORA-BWS01-010	Release Notes	Update for R2	1.00
OCORA-BWS01-020	Glossary	Minimal update for R2	3.10
OCORA-BWS01-030	Question and Answers	Minimal update for R2	4.00
OCORA-BWS01-040	Feedback Form	Updated Doc list for R2	1.00
Communication Material from Business Workstream BWS02			
OCORA-BWS02-010	Executive Summary Slide Deck	Update for R2	1.00
OCORA-BWS02-020	Program Slide Deck	Update for R2	1.00
OCORA-BWS02-030	Technical Slide Deck	Update for R2	2.20
OCORA-BWS02-040	Program Posters	Update for R2	1.00
OCORA-BWS02-050	Technical Posters	Update for R2	2.20
Program Documentation from Business Workstreams BWS03-09			
OCORA-BWS03-010	Introduction to OCORA	Minimal update for R2	6.00
OCORA-BWS03-020	Guiding Principles	Minimal update for R2	2.01
OCORA-BWS04-010	Problem Statements	No change	4.00
OCORA-BWS05-010	Road Map	Update for R2	2.00
OCORA-BWS06-010	Economic Model – Guiding Principles - Assumptions - Assessment Criteria	No change	2.01
OCORA-BWS06-020	Economic Model	Model in Excel, PowerBi add-on	1.00
OCORA-BWS06-030	Economic Model – Model Description	No change	2.01
OCORA-BWS06-040	Economic Model – User Manual	Update with launch note	2.01
OCORA-BWS06-050	Economic Model – CCS System Life Cycle Costing Scenario Studies	No change	1.01
OCORA-BWS06-060	Economic Model – CCS Impact on Vehicle System Life Cycle Costing Scenario Studies	New document for R2	1.00
OCORA-BWS07-010	Alliances	Update for R2	4.00
OCORA-BWS08-010	Methodology	Minimal update for R2	3.01
OCORA-BWS08-020	Tooling	Minimal update for R2	3.10
OCORA-BWS09-010	Acceptance of Global Standards – Overview	No change	3.01
OCORA-BWS09-020	Acceptance of Global Standards – Focus on Safety in CCS	Update for R2	2.01
OCORA-BWS09-030	Acceptance of Global Standards – Cartography of Standards	Update for R2	1.01
OCORA-BWS09-040	Acceptance of Global Standards – Assessment of Railway Sectoral Needs	New for R2	2.10
Technical Documentation from Technical Workstreams TWS01-15			
OCORA-TWS01-010	Design Requirements	Minimal update for R2	2.10
OCORA-TWS01-020	Operational & System Analysis	title changed / update for R2	2.00
OCORA-TWS01-030	System Architecture	Update for R2	2.20
OCORA-TWS01-035	CCS On-Board (CCS-OB) – Architecture	New for R2 (split from System Architecture)	2.20
OCORA-TWS01-040	Capella Modelling	Update for R2	3.00
OCORA-TWS01-041	MBSE Modelling Guidelines	New for R2	1.00
OCORA-TWS01-050	Capella Model Export	Update for R2	01.07.22
OCORA-TWS01-100	Localisation On-Board (LOC-OB) – Introduction	Update for R2	2.20
OCORA-TWS01-101	Localisation On-Board (LOC-OB) – Requirements	Update for R2	2.00
EUG 22E126	LOC-OB System Definition & Operational Context	New for R2	1.00
EUG 22E135	LOC-OB Risk Analysis	New for R2	1.00
OCORA-TWS01-112	Automated Train Protection On-Board (ATP-OB) - MLM Interface Analysis	Minimal update for R2	1.10
OCORA-TWS02-010	CCS Communication Network – Evaluation	Minimal update for R2	3.00
OCORA-TWS02-020	CCS Communication Network – Proof of Concept (PoC)	Update for R2	3.00
OCORA-TWS03-010	SCP – Whitepaper Computing Platform for Railway Applications	No change	1.10
OCORA-TWS03-020	SCP – High-Level Requirements	Minimal update for R2	3.10
OCORA-TWS03-030	SCP – Specification of the PI API between Application and Platform	Update for R2	2.00
OCORA-TWS04-010	Functional Vehicle Adapter – Introduction	Minimal update for R2	5.00
OCORA-TWS04-011	Functional Vehicle Adapter – Requirements	Update for R2	3.00
OCORA-TWS04-012	Functional Vehicle Adapter – Standard Communication Interface Specification	Update for R2	3.00
OCORA-TWS04-013	Functional Vehicle Adapter – Design Guideline	Minimal update for R2	2.10
OCORA-TWS05-010	Requirements – Management Guideline	Update for R2	2.20
OCORA-TWS05-020	Stakeholder Requirements	Update for R2	2.10
OCORA-TWS05-021	Program Requirements	Minimal update for R2	2.10
OCORA-TWS06-010	(Cyber-) Security – Project Security Management Plan	Update for R2	3.00
OCORA-TWS06-030	(Cyber-) Security – Concept	New for R2	1.00
OCORA-TWS07-010	RAMS – Modular Safety Strategy	Update for R2	2.20
OCORA-TWS07-020	RAMS – Evolution Management	Update for R2	2.20
OCORA-TWS07-030	RAMS – SRAC/AC Management	Update for R2	2.60
OCORA-TWS07-040	RAMS – Discussion on Optimized Approval Process	New for R2	1.10
OCORA-TWS07-050	RAMS – RAM Strategy	New for R2	1.01
OCORA-TWS07-100	CENELEC Phase 1 – Concept	Update for R2	2.30
OCORA-TWS08-010	MDCM-OB – Introduction	New document for R2	1.01
OCORA-TWS09-010	Testing – Strategy	Update for R2	3.01
OCORA-TWS09-011	Testing – Requirements	New for R2 (Polarion export)	1.00
OCORA-TWS09-030	Testing – Software Test and Integration Engineering acc. EN50657 or EN50128	Update for R2	2.00
OCORA-TWS09-031	Assessment Strategy and Software Development	New document for R2	1.00
OCORA-TWS09-110	Train Adapter Block Integration Plan	New document for R2	1.00
OCORA-TWS15-050	PoC OMS SS-149 - Concept	New document for R2	1.00

Table 1   Release Documents and Content