

OCORA

Open CCS On-board Reference Architecture

Release Notes

OCORA Release R6

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Revision history

Version	Change Description	Initial	Date of change
0.90	DRAFT version for Review	LDL	09.01.2025
1.00	Final version for R6	LDL	31.01.2025

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1 Release

The OCORA Release R6 is the tenth full release (after Alpha, Beta, Gamma, Delta, R1, R2, R3, R4 and R5) of documents prepared by the OCORA cooperation.

- OCORA R6 includes the introduced changes of the maintenance release R5.1, adds new content and provides deeper insight into a selection of topics.
- It completely replaces the OCORA Alpha, Beta, Gamma, Delta, R1, R2, R3, R4 and R5 Release.

OCORA Release R6 provides its content in a structured manner and provides topic specific documents. An overview is given in chapter 5 Content, highlights are:

- Updated CCS – TCMS interface specifications, TSI-2023 Subset SS-119 & SS-139 Addendums
- Updated Addendums for TSI-2023 Subset SS-147, incl. separation for the TrainTimeLocationService and CCS Consist Network
- First Results of PoC Train Display System
- Results of PoC OMS SS-149
- PoC Configuration Management Test Report, taking care of Safe- and Non-Safe Software Update over the air
- First draft of harmonized technical CCS onboard requirements that serve as input for OCORA's EuroSpec initiative.


2 Imprint

- Publisher: OCORA Cooperation
- Channel: OCORA publishes exclusively over <https://github.com/OCORA-Public/Publication>
- Any feedback for OCORA is welcome! If you would like to attend a workshop or give a feedback, please contact luca.de_libero@sbb.ch. 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 luca.de_libero@sbb.ch.
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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. X2Rail4, EU-Rail System-Pillar) 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 Core Team 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 R6	1.00
OCORA-BWS01-020 – Glossary	No update for R6	3.41
OCORA-BWS01-030 – Question and Answers	Update for R6	4.20
OCORA-BWS01-040 – Feedback Form	No update for R6	1.00
Communication Material from Business Workstream BWS02		
OCORA-BWS02-020 – Program Slide Deck	Update for R6	1.00
OCORA-BWS02-030 – Technical Slide Deck	No update for R6	5.10
Program Documentation from Business Workstreams BWS03-08		
OCORA-BWS03-010 – Introduction to OCORA	Minimal update for R6	6.40
OCORA-BWS03-020 – Guiding Principles	Minimal update for R6	2.20
OCORA-BWS04-010 – Problem Statements	Update for R6	5.00
OCORA-BWS05-010 – Road Map	Update for R6	2.40
OCORA-BWS06-010 – Economic Model – Guiding Principles - Assumptions - Assessment Criteria	No update for R6	2.12
OCORA-BWS06-020 – Economic Model	No update for R6	1.00
OCORA-BWS06-030 – Economic Model – Model Description	No update for R6	2.12
OCORA-BWS06-040 – Economic Model – User Manual	No update for R6	2.12
OCORA-BWS06-050 – Economic Model – CCS System Life Cycle Costing Scenario Studies	No update for R6	1.12
OCORA-BWS06-060 – Economic Model – CCS Impact on Vehicle System Life Cycle Costing Scenario Studies	No update for R6	1.11
OCORA-BWS06-070 – Economic Model – Evolution of the modeling	No update for R6	1.11
OCORA-BWS07-010 – Alliances	Minimal update for R6	4.40
OCORA-BWS08-010 – Methodology	No update for R6	3.02
OCORA-BWS08-020 – Tooling	No update for R6	3.20
Technical Documentation from Technical Workstreams TWS01-15		
OCORA-TWS01-010 – Design Requirements	No update for R6	2.21
OCORA-TWS01-020 – Operational & System Analysis	No update for R6	4.01
OCORA-TWS01-025 – Modularisation Roadmap Proposal	No update for R6	1.21
OCORA-TWS01-030 – System Architecture	No update for R6	5.11
OCORA-TWS01-035 – CCS On-Board (CCS-OB) – Architecture	No update for R6	5.11
OCORA-TWS01-040 – Capella Modelling	No update for R6	3.21
OCORA-TWS01-041 – MBSE Modelling Guidelines	No update for R6	2.10
OCORA-TWS01-050 – Capella Model Export	No update for R6	30.11.23
OCORA-TWS01-100 – Localisation On-Board (LOC-OB) – Introduction	No update for R6	4.01
OCORA-TWS01-101 – Localisation On-Board (LOC-OB) – Requirements	No update for R6	3.11
EUG 22E126 – LOC-OB System Definition & Operational Context	No update for R6	1.2
EUG 22E135 – LOC-OB Risk Analysis	No update for R6	2.0
OCORA-TWS01-112 – Automated Train Protection On-Board (ATP-OB) - MLM Interface Analysis	No update for R6	1.11
OCORA-TWS01-201 – Train Display System – Concept	Update for R6	4.0
OCORA-TWS01-202 – Train Display System – Specification	New for R6	1.0
OCORA-TWS01-210 – Train Display System – SS-121 Modelling Report	No update for R6	1.01
OCORA-TWS01-220 – Train Display System – PoC Concept	No update for R6	1.0
OCORA-TWS01-221 – Train-Display-System - PoC Results	New for R6	1.0
OCORA-TWS01-222 – Train-Display-System - PoC Use Case 1	New for R6	1.0
OCORA-TWS01-223 – Train-Display-System - PoC Use Case 2	New for R6	1.0
OCORA-TWS01-224 – Train-Display-System - PoC Use Case 3	New for R6	1.0
OCORA-TWS01-250 – Synchronisation Concept - Train Operation Data	New for R6	1.0
OCORA-TWS01-301 – Virtual ETCS Transponder Service – Discussion Paper	Update for R6	2.0
OCORA-TWS02-010 – CCS Communication Network – Evaluation	No update for R6	5.02
OCORA-TWS02-020 – CCS Communication Network – Proof of Concept (PoC)	No update for R6	5.01
OCORA-TWS02-030 – OCORA Addendum to SUBSET-147 (CCN) - CCS Consist Network	Update for R6	3.00
OCORA-TWS02-031 – OCORA Addendum to SUBSET-147 (TTLS) - Train Time and Location Services	New for R6	1.00
OCORA-TWS03-010 – SCP – Whitepaper Computing Platform for Railway Applications	No update for R6	1.10
OCORA-TWS03-020 – SCP – High-Level Requirements	No update for R6	3.11
OCORA-TWS03-030 – SCP – Specification of the PI API between Application and Platform	No update for R6	2.00
OCORA-TWS04-010 – Functional Vehicle Adapter – Introduction	No update for R6	6.10
OCORA-TWS04-011 – Functional Vehicle Adapter – Requirements	Update for R6	4.0
OCORA-TWS04-012 – Standard Communication Interface Specification - SCI-TCMS	Update for R6	5.40
OCORA-TWS04-015 – OCORA Addendum to SUBSET-119	Update for R6	1.00
OCORA-TWS04-016 – OCORA Addendum to SUBSET-139	Update for R6	1.00
OCORA-TWS04-020 – Generic Vehicle Adapter Requirement Specification	New for R6	1.00
OCORA-TWS04-021 – Generic Vehicle Adapter Mapping Table Template	New for R6	1.00
OCORA-TWS05-010 – Requirements – Management Guideline	No update for R6	2.40
OCORA-TWS05-020 – Stakeholder Requirements	No update for R6	2.21
OCORA-TWS05-021 – Program Requirements	No update for R6	2.21
OCORA-TWS05-030 – CCS-OB Procurement - Technical Requirements	New for R6	1.00
OCORA-TWS07-010 – RAMS – Modular Safety Strategy	No update for R6	3.52
OCORA-TWS07-020 – RAMS – Evolution Management	No update for R6	3.52
OCORA-TWS07-030 – RAMS – SRAC/AC Management	No update for R6	2.72
OCORA-TWS07-040 – RAMS – Optimised Approval Process	No update for R6	2.32
OCORA-TWS07-050 – RAMS – RAM Strategy	No update for R6	2.12
OCORA-TWS07-060 – Configuration Management – Concept	No update for R6	2.0
OCORA-TWS07-100 – CENELEC Phase 1 – Concept	No update for R6	2.40
OCORA-TWS07-202 – QRAMSS – Plan	No update for R6	1.01
OCORA-TWS07-203 – RAMSS – Policy	No update for R6	1.00
OCORA-TWS08-010 – MDCM-OB – Introduction	No update for R6	1.03
OCORA-TWS08-030 – MDCM-OB – SRS	No update for R6	1.02
OCORA-TWS15-040 – CCS-OB Retrofit - Guideline for Projects	No update for R6	1.04
OCORA-TWS15-050 – PoC OMS SS-149 - Concept	No update for R6	0.40
OCORA-TWS15-051 – PoC OMS SS-149 - Results	New for R6	2.0
OCORA-TWS15-060 – PoC Configuration Management - Concept	No update for R6	1.1

Table 1 Release Documents and Content