OCORA

Open CCS On-board Reference Architecture

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Index 01 - Glossary

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Version	Change Description	Name (Initials)	Date of change
1.0	Release for final review	AL	2019-11-07
1.1	Review comments incorporated	AL	2019-11-11
2.0	Review comments from November 12 TELCO meeting incorporated.	AL	2019-11-12

Table of terms and definitions

Terms	Definition
Application	General definition in the context of IT: application software is a term which is used for software created for a specific purpose. It is generally a program or collection of programs used by end users. It can be called an application or simply an app. http://www.defit.org OCORA context: applications are pieces of software with a specific well-defined capability. An example for an OCORA application is the "vehicle supervisor" (VS).
Service	General definition in the context of IT: the term service refers to a software functionality or a set of software functionalities (such as the retrieval of specified information or the execution of a set of operations) with a purpose that different clients can reuse for different purposes, together with the policies that should control its usage (based on the identity of the client requesting the service, for example). https://www.wikipedia.org OCORA context: services are pieces of software providing common functionality used by multiple applications or an “input-output” conversion from and to other applications in coherence with the data model. An example of a service is the "vehicle locator" (VL) which is used by the "vehicle supervisor" (VS) and the "ATO vehicle" (AV).
Platform	General definition in the context of IT: a platform is a group of technologies that are used as a base upon which other applications, processes or technologies are developed. In computing, a platform is the basic hardware (computer) and software (operating system) on which software applications can be run. https://www.techopedia.com OCORA context: the hardware platform consists of the UVCCB, the CCUs and the gateway. From a functional point of view, the OCORA platform consists of the CCU hardware abstraction, the runtime environment and a number of services (yet to be defined).
Building Blocks	General definition: A building block is a unit from which a system is built. OCORA context: a building block is a top-level unit of the CCS on-board system (hardware and/or software), having well defined capabilities and interfaces towards other building blocks of the CCS system. Building blocks are regression free modifiable / adaptable and therefore portable / replaceable. As a result, every building block is exchangeable at any time within the lifespan of a given CCS on-board installation, without impacting other building blocks. OCORA building blocks shall be an optimal balance between "number of interfaces between building blocks" and "desire to exchange building blocks at a low granularity".

Table of abbreviations and acronyms

Abbreviation	Definition
API	Application Programming Interface
APS	Advanced Protection System
APS-MOT	APS Mobile Object Transactor
APS-MT	APS Movement Authority Transactor
AT	ATO Transactor
ATC	Automated Train Control
ATO	Automatic Train Operation
ATO	Automated Train Operations
ATO-AT	ATO Transactor
ATO-AV	ATO Vehicle
ATP	Automatic Train Protection
AV	ATO Vehicle
BIU	Break Interface Unit
BTM	Balise Transmission Module
CCS	Control-Command and Signalling
CCU	CCS Computing Unit: a computing unit hosting all or parts of the CCS on-board and eventually other software. The unit consists of 1 to n processors and has a single connection to the UVCCB.
CER	Community of European Railway and Infrastructure Companies
CMD	Cold Move Detection
CoC	Code of Conduct
DCM	Device & Configuration Management
DM	Diagnostics & Monitoring
DMI	Driver Machine Interface
EB	Emergency Breaking
EB	Emergency Breaks
EBA	Euro Balise Antenna
ERA	European Union Agency for Railways (former European Railway Agency)
ERTMS	European Rail Traffic Management System
ETCS	European Train Control System
EUG	ERTMS User Group
EVC	European Vital Computer
FFFIS	Form Fit Function Interface Specification
FIS	Functional Interface Specification
FRMCS	Future Railway Mobile Communication System

GNSS	Global Navigation Satellite System
GoA	Grade of Automation
GSM-R	Global System for Mobile Communications - Railway
HW	Hardware
IAM	Identity & Access Management
ID	Identification
IF	Interface
IM	Infrastructure Manager
IU	Interface Unit
IVV	Integration, Verification and Validation
IXL	Interlocking (new APS)
JRU	Juridical Recording Unit
LTM	Loop Transmission Module
MOT	Mobile Object Transactor
MoU	Memorandum of Understanding
MT	Movement Authority Transactor
MTC	Manoeuvre Train Control
NTC	National Train Control
OBU	On-board Unit
OCORA	Open CCS On-board Reference Architecture
OD	Object Detection
ODO	Odometry
OS	Operating System
RBC	Radio Block Center
RCA	Reference CCS Architecture
RIM	Radio Interface Module
RIU	Radio In-fill Unit
RU	Railway Undertaking
SB	Service Brakes
STM	Specific Transmission Module
SW	Software
TCMS	Train Control and Management System
TCN	Train Communication Network
TCO	Traction Cut-Off
TI	Track Intrusion
TIMS	Train Integrity Monitoring System
TIU	Train Interface Unit

TMS	Traffic Management System
TOBA	Telecom On-Board Architecture
TRB	Train Born
UI	User Interface
UIC	Union Internationale des Chemins de Fer
UVCCB	Universal Vital Control and Command Bus
VL	Vehicle Locator
VS	Vehicle Supervisor