Intelligent software-UPDATE technologies for SASE high performance MCCPS

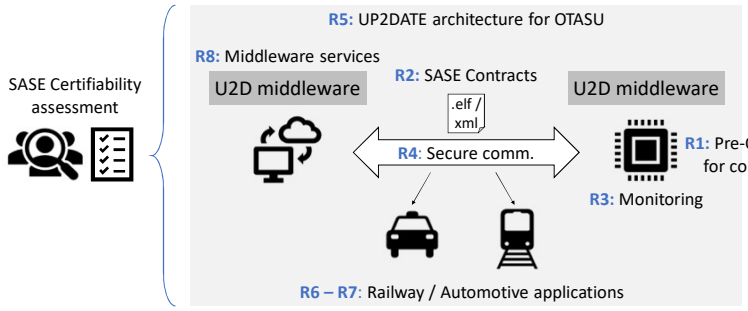
www.h2020up2date.eu

Motivation

Bringing together the trend towards **Over The Air Software Updates** (OTASU) and **heterogeneous** computing **platforms** in **Mixed Criticality Cyber-Physical Systems** (MCCPS)

Objectives

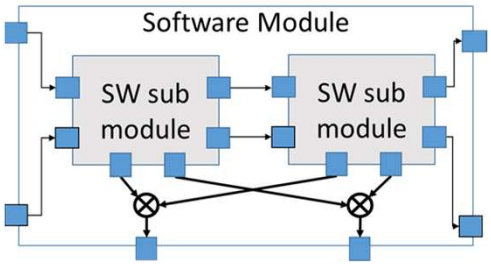
- **O1:** Provide **design strategies** to tackle down safety/security issues for MCCPS implemented on complex hardware platforms (R1).
- **O2:** Define **SASE contracts** outlining the main foundations, modularity and composability, to support MCCPS update continuum (R2, R5).
- **O3:** Elaborate **observability**, **controllability** and **feedback strategies** (R3, R5).
- **O4:** UP2DATE **software architecture** integrating: SASE criteria for contracts, UP2DATE middleware to support the update cycle, and Secure communication library (R4, R5).



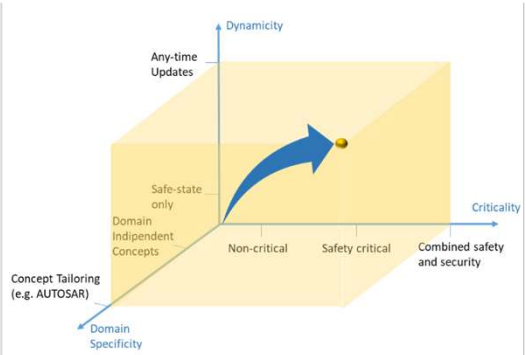
- **O5:** UP2DATE architecture demonstrator applied to two case-studies: automotive and railway (R6, R7, R8).
- O6: Assessment of safety and security certifiability of the concepts for OTASU in MCCPS (R6, R7).
- O7: foster dissemination and technology transfer activities.

UP2DATE Main Concepts

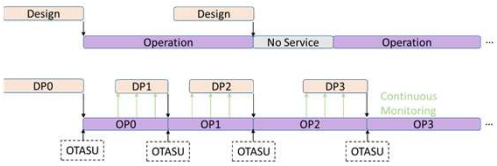
SASE CONTRACTS



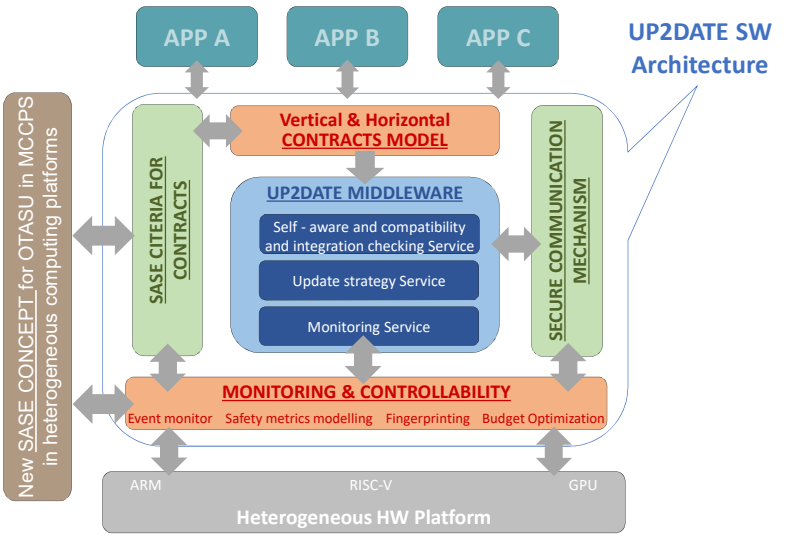
UPDATE CONTINUUM

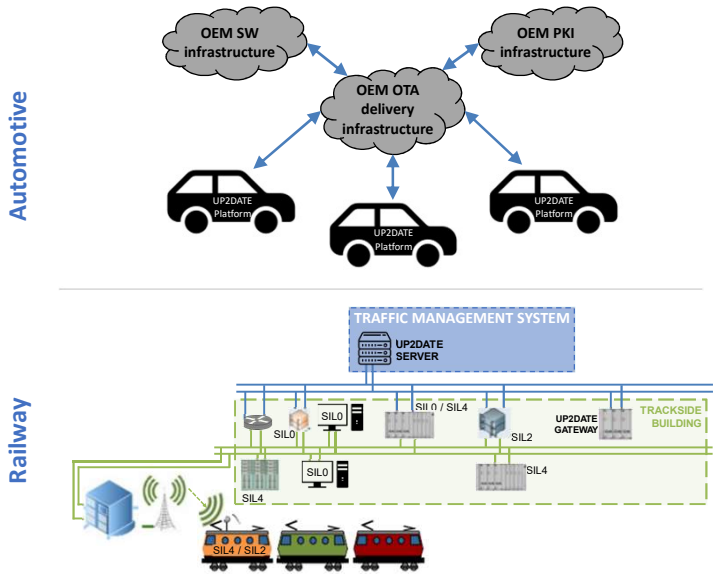


DEVOPS DEVELOPMENT



UP2DATE Software Architecture





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