

## SP SECURITY DOMAIN

# Cybersecurity specifications – explanatory note

The Europe's Rail Joint Undertaking (EU-Rail) has published the Cybersecurity Specification V1.0. This specification enables interoperability for cybersecurity interfaces and facilitates the compliance to EU cybersecurity legislation and international cybersecurity standards for rail automation systems across Europe.

The specification is implementing the requirements from EU regulations and directives (NIS2, CSA, CRA, RED) and international standards (ISO 27001, IEC 62443-2-1 & 4-2, CENELEC TS 50701 and IEC PT 63452 (January 2025 draft)) in four main specification documents:

- **Secure Component Specification** – a Cybersecurity Requirements Specification (CRS) according to IEC 62443-3-2, CENELEC-CEN TS 50701 and IEC 63452. This specification implements non-interoperability security requirements from IEC 62443-4-2 and EU CRA.
- **Secure Communication Specification** – defines requirements for security profiles of commonly-used communication protocols (TLS, HTTPS, OPC UA SC) to ensure interoperability between Secure Components.
- **Shared Cybersecurity Services Specification** – interface definitions for central cybersecurity services enabling interoperability and a common market in Europe.
- **Secure Program Requirements** – detailing requirements of ISO 27001 and IEC 62443-2-1 for organizational cybersecurity processes using the best-practices defined in ISO 27002

Additionally, the following seven supporting documents are part of the specification.

- Regulatory Requirement tracing (tracing to EU legislations and international standards)
- Taxonomy and References
- Support for applying a reference system in accordance with CEN TS 50701 and IEC 63452
  - o System description
  - o Support for essential functions
  - o Initial Risk Assessment
  - o Threat Catalogue
- Product Documentation Template (to fulfil EU CRA Annex VII, IEC 62443-4-1 SG1 to SG8, IEC 62443-2-4, EN TS 50701 and IEC 63452).

The specification has received endorsement from the rail automation sector (industry and operators). It is expected that this specification reduces operator-specific security requirements to a minimum.

This specification was released in March 2025.

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Specification download link (including the four main specification documents and the seven supporting documents):

- System Pillar Cybersecurity Specification 1.0