



Security Gateway

Secure network separation for rail vehicles.

Separate up to four Ethernet networks, control permitted data flows and reduce cyber risk in onboard rail architectures.

The Security Gateway provides physical interfaces and controlled communication between separated onboard networks. Only explicitly permitted data telegrams are forwarded; other traffic is blocked.



SELECTRON

Security Gateway

Designed for rail networks.



Network separation

Separate TCMS, PIS, CCTV, passenger Wi-Fi or other onboard domains



Controlled access

Apply L2 and L3 filtering rules to connections between network zones.



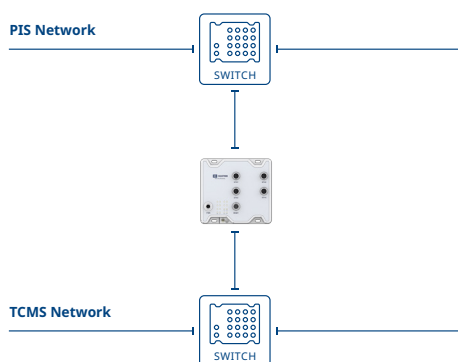
Rail-ready platform

Designed for harsh mobile environments according to EN 50155.

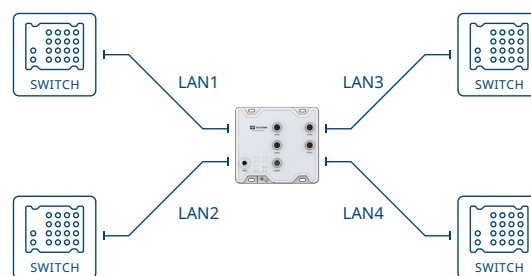
TCMS: Train Control and Management System,
PIS: Passenger Information System,
CCTV: Closed-Circuit Television.

Separate networks. Control data flows. Reduce cyber risk.

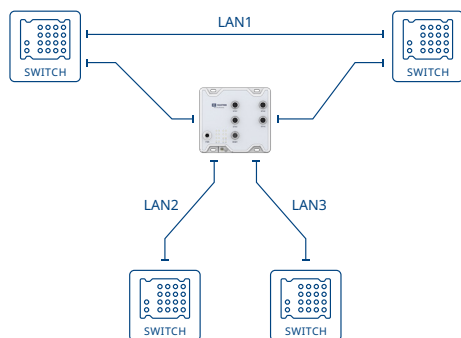
Separation between the PIS and TCMS networks



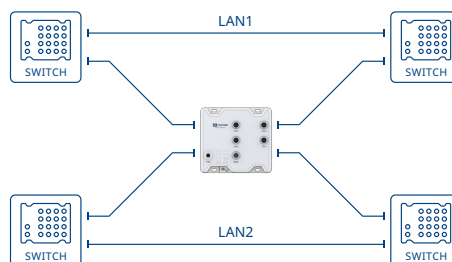
Separation of up to four different networks



Separation between three networks with redundancy



Separation between two networks with redundancy



SELECTION

Reliability & Cybersecurity

Built for dependable rail applications.



Cybersecurity by design

Compliant with IEC 62443-4-2, Security Level 2 (SL-C 2).
*) Certification planned for Q2 2027



Network resilience

Redundancy and bypass options ensure communication during failures.



Defense in depth

Multiple protection mechanisms help reduce the risk of accidental or intentional network manipulation.



Developed for rail networks

Designed for Ethernet communication within demanding onboard rail environments.

Engineering & lifecycle support



Network architecture

Support for Ethernet Train Backbone, consist network and onboard subsystem integration.



Configuration & commissioning

Engineering support for network topology, device configuration, testing and vehicle commissioning.



Lifecycle & retrofit

Support for network extensions, vehicle modernisation and long-term operation.

Technical highlights

Technical data

- 4 × Fast Ethernet or 4 × Gigabit Ethernet ports (depending on model)
- 24 ... 110 V DC power supply
- Operating: -40 to +70 °C

Firewall capabilities

- Connection control between separated networks
- L2 and L3 filtering
- Input traffic limitation and output traffic shaping
- Filters may be applied to any ports

Built for your reliable rail network



Reduced attack surface

Limit communication paths between onboard networks.



Flexible & scalable

Adapt separation to vehicle architecture and project needs.



Rail-ready operation

Designed for harsh mobile conditions.



Easy maintenance

Configuration and software can be updated.

Next steps | Find the right Security Gateway for your onboard cybersecurity architecture.



Get in touch

Expert advice and tailored support for your projects.



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