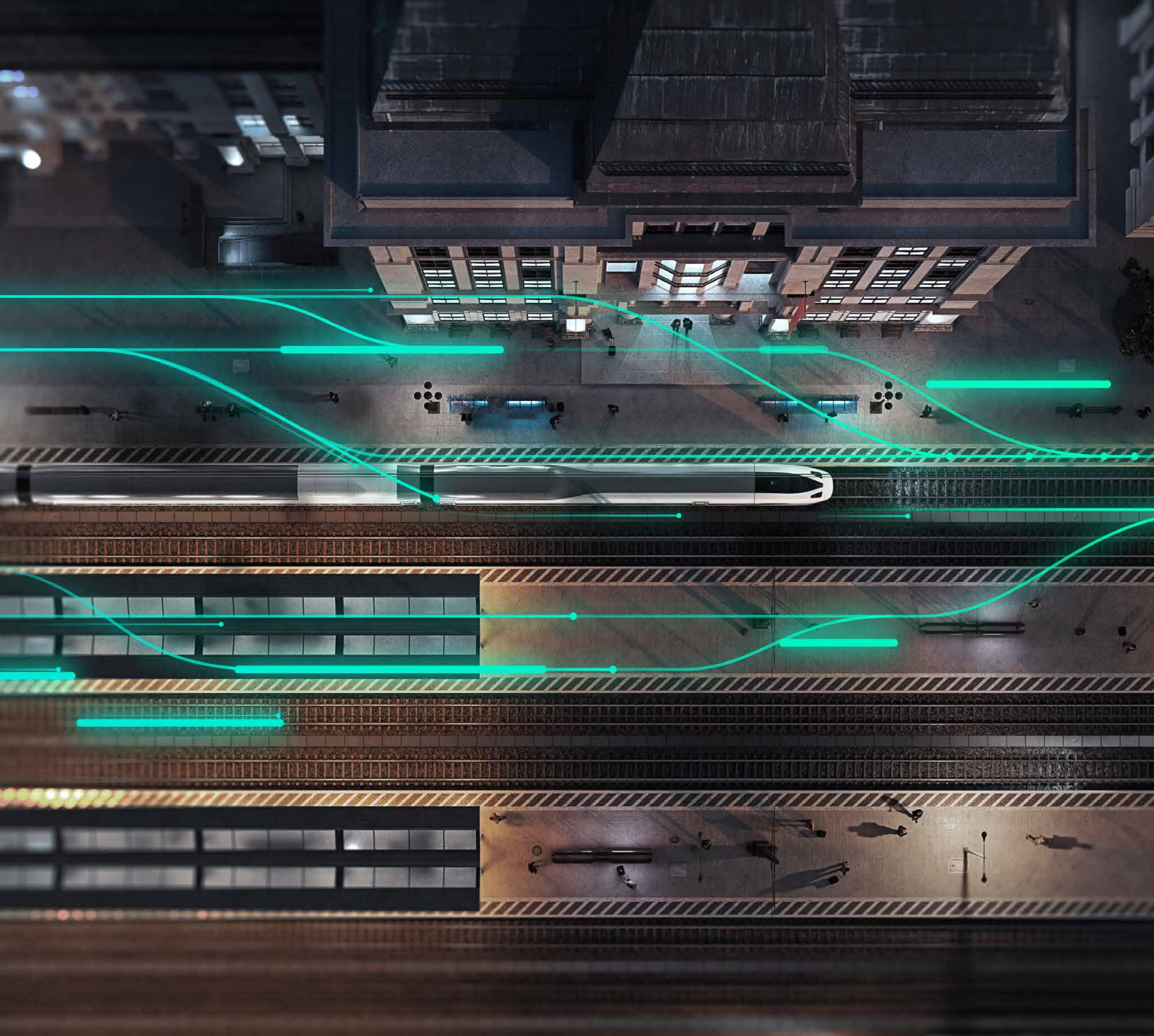




SIEMENS MOBILITY LTD.

Trackguard® Simis IS – Interlocking standard for individual customer requirements

SIEMENS

Trackguard[®] Simis IS is/offers:

High performance

High availability

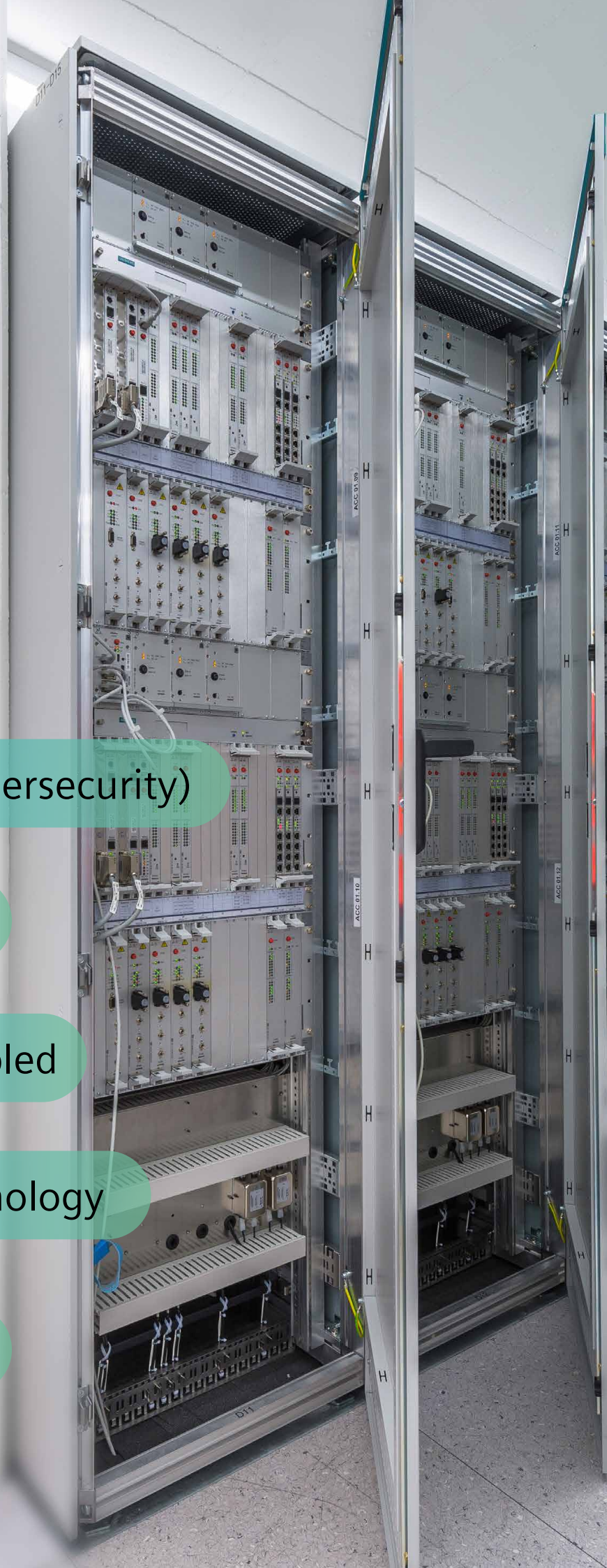
Secure network (cybersecurity)

ERTMS-ready

Cloud-enabled

State-of-the-art technology

Decentralizable





More than **20** years
of experience worldwide and
continual development



47 000
control units installed



#1 interlocking
for meter gauges



TRACKGUARD® SIMIS IS INTERLOCKING

The answer to the increased **demands** of railways

Increasing traffic volumes, shorter headways, and cyber-security are placing new demands on interlocking technology. Automation, centralized traffic control, and interconnectivity are just some of the keywords in this context. Trackguard® Simis IS is our answer to these requirements. It is a compact electronic interlocking with a modular structure, which meets state-of-the-art requirements and makes operations considerably more efficient.

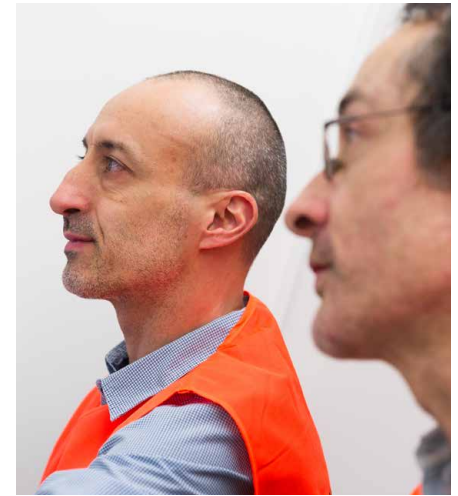
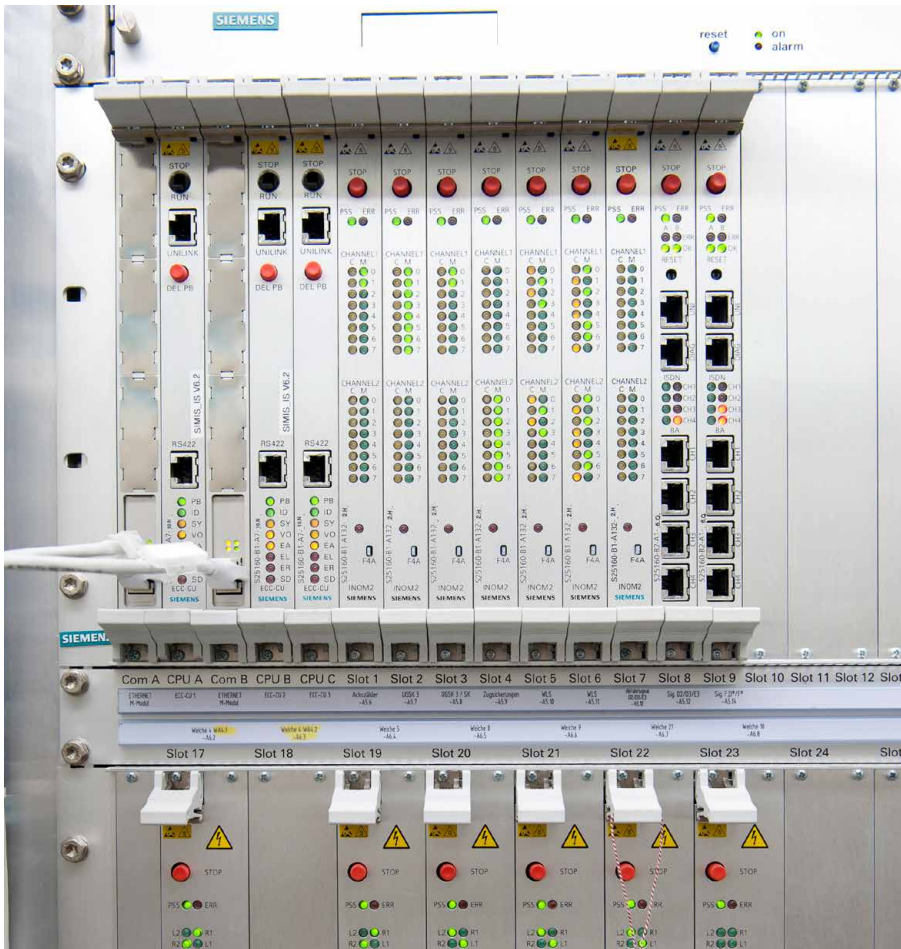
Thanks to its modular design, this interlocking generation can be adapted quickly and easily to local conditions and the operational requirements of the particular railway companies. By cleverly combining standardized interfaces with flexible software, the interlocking can be adapted exactly to the needs by means of parameters. Control and monitoring tasks can therefore be fulfilled cost efficiently and with minimal outlay on technical equipment.



Trackguard® Simis IS is our solution for your needs

- Maximum safety SIL 4 (proven Simis principle with microcomputer systems)
- High availability with a 2-out-of-3 configuration system
- Automated rail operations
- Flexible system interfaces
- Quick diagnostics and maintenance
- Online and remote diagnostics
- Proven system continually developed for more than 20 years
- Hardened operating systems
- Generic type approval

Switzerland is a country of tunnels – interlocking technology must be able to ensure the safety of passengers and staff at all times and in all areas.



Trackguard® Simis IS automates interlockings so that staff can concentrate exclusively on rail operations.

Highlights

- **Modular and configurable**
 - o Simple, adaptable table principle
 - o Modular software and hardware design
 - o Modules can be replaced without interrupting rail operations
- **Compact and small – low space requirement**
 - o Compact 19" rack
 - o High-performance industrial PC platform with centralized overhead computer
 - o Modular design that fits in existing buildings, containers, or outdoor cabinets
- **Minimum life cycle costs**
 - o Low maintenance hardware
 - o Fewer module types, reduces the need for spare parts
 - o Low power consumption
- **Large distance between controller and outdoor elements**
 - o Distance to element controller > 10km
 - o ISDN or Ethernet bus system to outdoor elements

TRACKGUARD® SIMIS IS INTERLOCKING

Optimum combination of **performance** and **excellent cost-efficiency**

Existing components or systems in your indoor or outdoor installation can be largely incorporated with Simis IS. Quick assembly and cabling of the system results in low downtimes, while the small number of module types significantly reduces spare part and maintenance costs.



Simis IS interlockings can be transported pre-assembled. This ensures quick installation and cabling locally and reduces downtimes in rail operations.



Signals and balises can be integrated effortlessly into the Trackguard® Simis IS interlocking, for example, by means of an MSTT signal

Existing components or systems can be connected either directly or via an interface unit. For instance:

- Train control systems such as LEU, Balise, EuroLoop
- Coded track circuits
- Block systems
- Level-crossing protection systems
- Command-button cases
- RBC (Radio Block Center)
- and much more

Advantages

- Low acquisition costs
- Minimum life cycle costs
- High cost-effectiveness
 - o Lower costs owing to the use of a standardized system platform
 - o Small footprint thanks to compact design with a high level of personal protection and protection from external influences
 - o Minimal spare parts inventory thanks to the small number of modules
 - o Minimized hardware expenditure due to the use of integrated peripheral modules
 - o Efficient operation owing to route coupling and partial route release
- Peripheral modules can be removed and inserted again when the system is live
- Low power consumption thanks to electronic control devices
- Changes to hardware and software can be made during short breaks in operation
- Simple configuration thanks to modular software design
- Can be easily converted and extended owing to the interface concept

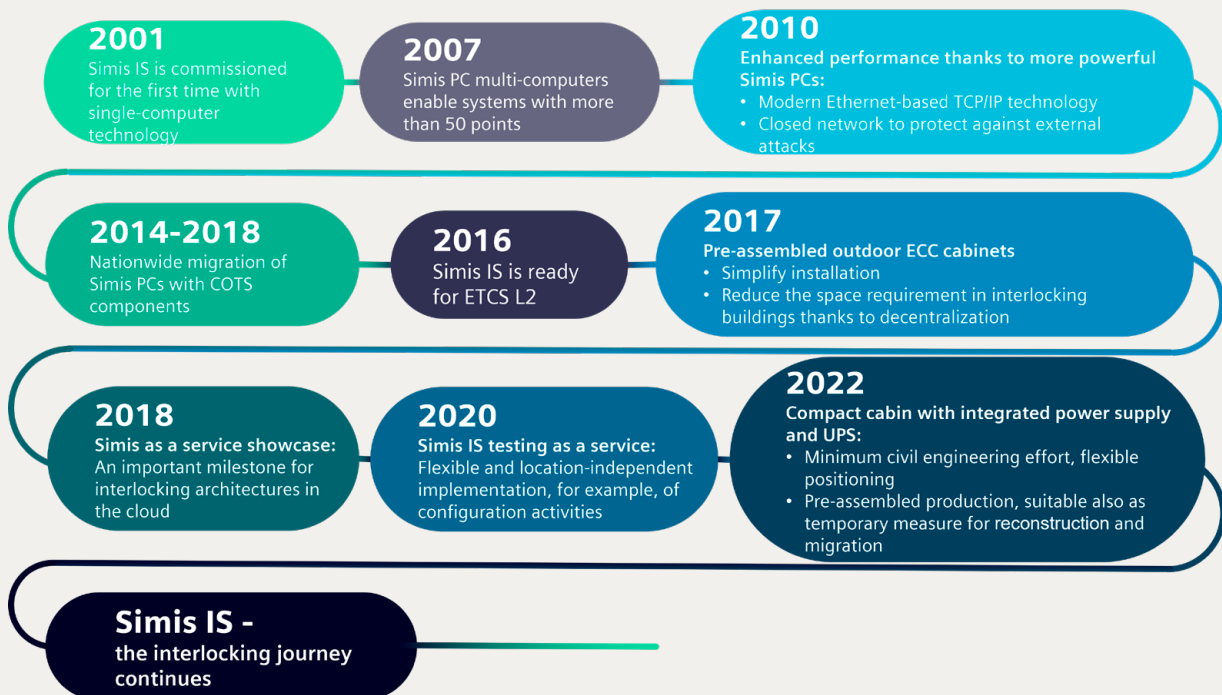


Trackguard® Simis IS is more flexible than ever. The technology can not only be accommodated in an existing building or pre-installed in a container, but also in outdoor cabinets and walk-in compact cabins.

CONTINUED SUCCESS FOR MORE THAN 20 YEARS

Fit for the future with Trackguard® Simis IS

Continuous developments and innovations in Simis IS protect your investments and enable smooth migration to future interlocking architectures, too.



Siemens Mobility Ltd.

Hammerweg 1
8304 Wallisellen
Switzerland

Phone +41 585 580 111
[siemens.ch/mobility](https://www.siemens.ch/mobility)

Order No. MORI-B10017-00-76CH / HTS 9118/323

© Siemens Mobility Ltd, May 2023
Subject to changes