Security in Industrial Networks with SCALANCE

Industrial Networks Education

Description

It is difficult to imagine day-to-day industrial operations without Ethernet connections. From large-scale production systems to the smallest Industrial Ethernet communication networks, nearly everything has come to depend on their reliability and security. The opportunities on the one hand are countered by risks on the other hand. Access by outsiders or manipulations in the network always have catastrophic consequences for production or in-house expertise. Therefore, functioning security systems are an absolute must.

With the training module „Security in Industrial Networks" of the Industrial Networks Education - Certification Program, you will learn the potential dangers and risks in industrial networks and how to assess them.

siemens.com/industrial-networks-education

Objective

You will be shown numerous ways to improve the protection of know-how and process sequences from attacks, espionage, and manipulations. During the course you will become familiar with products that feature Integrated Security and learn how to use them. Because the course does not just cover theoretical security concepts, there is also ample opportunity to implement them in practical exercises. At the end of this course, you will know the requirements and fundamentals needed to plan, implement, and provide support for industrial security measures in network security.

You can deepen your theoretical knowledge with numerous practical exercises on products from the SIMATIC NET product line.

Contents

- Current trends and security risks
- Defense-in-depth with Siemens - a holistic security concept
- Update and replacement of security components
- Potential threats in a network
- Basic security measures
  (ports, passwords, protocols, etc.)
- Cell protection concept
- Access restriction
- Connection of serial machines to networks
- Remote access via VPN
- Comprehensive exercises using the SIMATIC NET product portfolio

Target Group

Decision makers, sales personnel
Industry: COOs, planners, commissioning engineers, project engineers, maintenance and service personnel
IT: CIOs, network planners and administrators

Requirements

Knowledge according to course "Ethernet Fundamentals in Industrial Networks": Participant shall have basic knowledge of Ethernet and should be familiar with network topologies, transfer processes, addressing, data transport, and associated technical vocabulary. It is also helpful if you are familiar with the principles of operation of switches, hubs and the OSI reference model. Participants are encouraged to attend the "Switching and Routing in Industrial Networks with SCALANCE" training course.

Certification (Siemens CPIN-LEVEL)

After the training course, you have the opportunity to become certified as "Siemens Certified Professional for Industrial Networks - Security". A voluntary certification examination takes place at the end of this training. As an option, the examination may be taken at a later time.

www.siemens.com/industrial-networks-education