

Security Testing in Industrial Networks with SINEC Security Inspector

OEM: Siemens • Code: IC-STINSIP

COURSE DESCRIPTION

Security and reliability of machines are becoming increasingly important in the industrial environment. Access by outsiders or manipulations in the network would have serious consequences for production and internal know-how. A good security concept can minimize the risk of being affected by such an attack. This not only includes having transparency about the industrial network and its devices but also ensuring that these devices always have a secure configuration and being aware of possible vulnerabilities. Security testing and network analysis are therefore essential to ensure the integrity of an OT network.

AUDIENCE PROFILE

- Decision Makers
- Technical Sales Personnel
- COOs
- Planners
- Commissioning Engineers
- Project Engineers
- Maintenance and Service Personnel
- OT and IT Network Engineers
- CIOs
- Network Planners and Administrators

PREREQUISITES

- Participants shall have basic knowledge of topics like Industrial Ethernet, Cybersecurity and Programming. You should be familiar with topologies, transfer processes, addressing, data transport, and understand the associated technical vocabulary.
- It is also helpful if you are familiar with the principles of operation of routers, switches and the OSI reference model. Participants are encouraged to attend the training course "Ethernet Fundamentals in Industrial Networks". Basic programming skills are required.

Note

- Certification (Siemens CPIN-LEVEL): After the training course, you have the opportunity to become certified as "Siemens Certified Professional for Industrial Networks – Security Testing". The certification examination takes place at the end of this training. As an option, the examination may be taken at a later time.

COURSE OBJECTIVES

By the end of this course, participants will be able to:

- Analyzing OT networks and testing them for security can be very complex and time-consuming. In the course "Security Testing in Industrial Networks with SINEC Security Inspector" you will learn about the SINEC Security Inspector, an application that offers you a wide range of security tools and a detailed report of results.
- At the end of the course, you will be able to get an overview of the security status of your OT network and rate the risks to it. You will learn about various measures to meet required security standards and will gain the necessary knowledge to plan and implement these security requirements in your industrial networks.
- You can deepen your theoretical knowledge with numerous practical exercises, by using the SINEC Security Inspector to identify the assets and detect possible vulnerabilities and threats in an OT environment.

COURSE OUTLINE

Module 1: Content

- Vulnerability detection and robustness testing
- Port Scans and identification of used services
- Active Asset Discovery
- Practical exercises with multiple standard SINEC SI Test Cases
- Developing customized test cases with SINEC SI
- Evaluating and documentation of security risks and scanning results
- Specification compliance Testing
- Internal Scans of devices
- API integration of SINEC SI
- Guided hands-on installation of SINEC SI
- Recommendations and Integration of SINEC SI in OT environment