

## Netzwerk Monitoring und Konfiguration SINEC NMS mit SCALANCE (IK-MONCS)

### Short Description

The complexity and number of participants in Ethernet-based production networks are constantly increasing due to growing requirements. Failure of single devices in such networks may result in loss of production and, at the worst, cause a downtime of the whole production chain. To minimize unproductive times and the resulting costs, transparency and a continuous monitoring of the network is crucial. Additionally, manual setup and managing of device and firewall-/NAT configurations as well as firmware updates can be inefficient and error prone. SINEC NMS is a central solution for monitoring a wide range of different devices in a network as well as for configuration and management of the SCALANCE and RUGGEDCOM network portfolio.

### Objectives

In this course, participants will learn how to use the network monitoring and management system SINEC NMS to monitor, document and configure their network from a central location, as well as to plan, implement and maintain their network monitoring solution. Through in-depth practical exercises you will put the theoretical knowledge into practice.

At the end of the course, you will be familiar with the requirements and solutions for monitoring and managing industrial networks with SINEC NMS, and you will be able to monitor, document and configure industrial networks with SINEC NMS.

### Target Group

- Plant Engineers
- Control Engineers
- System Engineers
- Commission Engineers
- Application Engineers
- Service and Maintenance Personnel
- OT and IT Network Engineers
- Technical Sales Personnel

### Content

- Fundamentals of network monitoring
- Documentation and inventory of networks to create transparency
- Detection and diagnostics of network events
- Customized and clear depiction of the monitored network
- Evaluation and optimization of the network performance
- Monitoring of third-party devices (manufacturer-independent network monitoring)
- Central user management with UMC (User Management Component)
- Integration of the network monitoring data into a higher-level HMI system
- Implementation of policy-based network configurations with SINEC NMS
- Central Firewall- and NAT-Management
- Network monitoring with multiple SINEC NMS Operations
- Practical exercises

### Prerequisites

Knowledge in accordance with the course "Ethernet Fundamentals in Industrial Networks (IK-ETHBAS)":

Participants should be familiar with topologies, transmission methods, addressing and transport of data, and understand the associated technical vocabulary. It is also helpful to be familiar with the functionality of routers and switches, as well as the OSI reference model.

To prepare for the training, please work through the WBT [Data communication with Industrial Ethernet](#).

### Note

Certification (Siemens CEIN-LEVEL):

Following the training, there is an option of taking a certification test. This test is part of the certification to become a "Siemens Certified Expert for Industrial Networks", which consists of several individual tests.

Please note that before the examination you have to identify yourself by showing a valid photo identification.

### Type

Face-to-face training

### Duration

3.5 days

### Language

de

