Managing Industrial Networks with Cisco Networking Technologies (IMINS)

ID CI-IMINS  Price US$ 3,745  Duration 5 days

Who should attend

This course is designed for information technology (IT) or operations technology (OT) professionals who will be involved with the implementation, operation, and support of networked industrial products and solutions for the following industries:

- Manufacturing
- Process control
- Oil and gas
- Other industries as applicable

Prerequisites

The knowledge and skills that you must have before attending this course include a college degree with two to three years of experience, or equivalent industry experience. Also you should take the following Cisco Electronic Learning and Training (ELT) courses to achieve basic understanding of networking and industrial protocols:

- Networking Fundamentals for Industrial Control Systems (INICS)
- Industrial Control Systems Fundamentals for Network Engineers (ICINS)

Course Objectives

- Describe Cisco Industrial Ethernet (IE) and Connected Grid switches (CGS), and Cisco Connected Grid routers (CGR)
- Interpret design and drawings, recognize industrial topologies and access reference materials
- Install industrial network components
- Deploy industrial network components
- Perform basic maintenance tasks
- Troubleshoot network and control issues

Course Content

The Cisco course Managing Industrial Networks with Cisco Networking Technologies, is designed to help ensure that Industrial Network Engineer professionals have foundational skills for the implementation, operation, and support of networked industrial products and solutions. This course prepares you to take the Cisco Industrial Networking Specialist Certification exam (exam ID 200-401).

This course will enable you to achieve competency and skills to install, maintain, and troubleshoot industrial network systems while helping ensure network availability, reliability, and cyber security in your company.

Detailed Course Outline

Module 1: Cisco Industrial Networking Solution

- Cisco Industry-Specific Solutions
DELIVERY METHODS

ILT – Instructor-Led Classroom Training
ILT sessions are conducted in a physical classroom environment.

ILO – Instructor-Led Online Training
ILO sessions are conducted via WebEx in a VoIP environment

FLEX Classroom™ – Combined ILT & ILO
FLEX Classroom sessions are delivered via ILT and ILO giving you the ultimate flexibility.

Module 2: Industrial Network Design and Connections

- Network and Control Designs and Drawings
- Describing Industrial Networking Deployment Considerations

Module 3: Installation

- Cabling Installation and Testing for Industrial Networks
- Installing the Switch or Router

Module 4: Deployment

- Initial Switch or Router Parameters
- Layer 2 Switch Parameters
- Layer 3 Switch Parameters
- Configuring Industrial Ethernet
- Installing End-Point Devices
- Cyber Security

Module 5: Maintenance

- Maintenance Tasks for Industrial Infrastructure Devices
- Monitoring End-Device Operations
- Cisco Configuration Files and Software Images

Module 6: Troubleshooting

- Monitoring System Status
- Troubleshooting Layer 1-3
- Troubleshooting with Vendor Support

Labs

- Platform Discovery of the Cisco IE 2000, IE

2000U, and IE 3000 Series Switches, Cisco 2520 Connected Grid Switch and Cisco 2010 Connected Grid Router
- Interpreting network and control designs and drawings
- Configuring Initial Switch Parameters
- Configuring Layer 2 Switch Parameters
- Configuring IP and DHCP
- Configuring PTP
- Configuring CIP
- Configuring Switch Security
- Configure SSH and HTTTPS
- Performing IE Switch Maintenance
- Troubleshooting Layer 2 Network Issues
- Troubleshooting Control Issues