

Essentials of Industrial Ethernet Networks for an OT Professional

OEM: Rockwell Automation • Duration: 2 Days (16 hrs) • Code: CCP182

COURSE MODULES & TOPICS

Objectives

- Interpreting an Ethernet network hardware layout
- Verifying communications between two Ethernet devices
- Interpreting basic data flow of host-to-host Ethernet communications
- Recognizing Ethernet data transmission types
- Recognizing Layer 2 switching functions on an Ethernet network
- Recognizing Ethernet network loop avoidance protocols
- Interpreting the Network Address Translation (NAT) scheme for an Ethernet network
- Accessing Ethernet switch information using CLI commands
- Recognizing Layer 3 switching functions on an Ethernet network
- Copying and removing IOS configuration files on an Ethernet switch

Student Materials

- Student Manual includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback
- EtherNet/IP Procedures Guide provides the steps required to complete tasks common to configuring devices to communicate over an EtherNet/IP network
- Cisco IOS Configuration Fundamentals Command Reference contains comprehensive list of switch and router commands
- Using the Command-line Interface part of the Cisco Systems Software Configuration Guide (Industrial Ethernet 2000 Switch) shows more detailed breakdown of Cisco interface

Course Agenda

Day 1

- Interpreting an Ethernet Network Hardware Layout
- Verifying Communications between Two Ethernet Devices
- Interpreting Basic Data Flow of Host-to-Host Ethernet Communications
- Recognizing Ethernet Data Transmission Types
- Recognizing Layer 2 Switching Functions on an Ethernet Network

Day 2

- Recognizing Ethernet Network Loop Avoidance Protocols
- Interpreting the Network Address Translation (NAT) Scheme for an Ethernet Network
- Accessing Ethernet Switch Information Using CLI Commands
- Recognizing Layer 3 Switching Functions on an Ethernet Network
- Copying and Removing IOS Configuration Files on an Ethernet Switch