



Interconnecting Cisco® Networking Devices, Part 2 (ICND2) v3.0

Duration: 5 Days

Method: Instructor-Led Training (ILT) | Live Online Training

Certification: Cisco Certified Network Associate (CCNA®) Routing and Switching —
Exam 2 of 2: 200-105 ICND2

Course Description

This training course is the second half of the ICND curriculum. It will teach learners how to perform basic troubleshooting steps in enterprise branch office networks, preparing learners for Cisco CCNA certification. It will also provide them with the knowledge and skills needed to install, configure, operate, and troubleshoot a small enterprise network. Key additions to this latest revision of this training include; understanding of Quality of Service (QoS) elements and their applicability, how virtualized and cloud services will interact and impact enterprise networks, along with an overview of network programmability and the related controller types and tools that are available to support software-defined network architectures.

Target Audience

This course is intended for:

- Network Engineers
- Network Administrators
- Network Support Technicians
- Help Desk Technicians
- Persons looking to achieve the *Cisco Certified Network Associate (CCNA)* certification

Prerequisites

To attend this course, participants must have:

- Completed the *ICND1 — Interconnecting Cisco® Network Devices Part 1* course **OR** have the following skills and knowledge:
 - Understanding of network fundamentals
 - Ability to implement LANs
 - Proficiency in implementing Internet connectivity
 - Basic network management skills
 - Basic network security skills
 - Ability to implement basic IPv6 connectivity



Course Objectives

Upon successful completion of this course, attendees will be able to:

- Operate a medium-sized LAN with multiple switches, supporting VLANs, trunking, and spanning tree
- Troubleshoot IP connectivity
- Describe how to configure and troubleshoot EIGRP in an IPv4 environment, and configure EIGRP for IPv6
- Configure and troubleshoot OSPF in an IPv4 environment and configure OSPF for IPv6
- Define the characteristics, functions, and components of a WAN
- Describe how device management can be implemented using traditional and intelligent ways.
- Install, operate, and troubleshoot a medium-sized network, including connecting to a WAN and implementing network security.
- Describe the effects of new technologies such as IoE, IoT, IWAN, and SDN on network evolution.

Course Topics

Module 1: Implementing Scalable Medium-Sized Networks

- Troubleshooting VLAN Connectivity
- Building Redundant Switched Topologies
- Improving Redundant Switched Topologies with EtherChannel
- Understanding Layer 3 Redundancy

Module 2: Troubleshooting Basic Connectivity

- Troubleshooting IPv4 Network Connectivity
- Troubleshooting IPv6 Network Connectivity

Module 3: Implementing an EIGRP-Based Solution

- Implementing EIGRP
- Implementing EIGRP for IPv6
- Troubleshooting EIGRP

Module 4: Summary Challenge

- Implementing and Troubleshooting Scalable Medium-Sized Network-1
- Implementing and Troubleshooting Scalable Medium-Sized Networks-2

Module 5: Implement a Scalable OSPF-Based Solution

- Understanding OSPF
- Implementing Multiarea OSPF IPv4
- Implementing OSPFv3 for IPv6
- Troubleshooting Multiarea OSPF



Course Topics *Continued*

Module 6: Wide-Area Networks

- Understanding WAN Technologies
- Understanding Point-to-Point Protocols
- Configure GRE Tunnels
- Configuring Single-Homed EBGP

Module 7: Network Device Management

- Implementing Basic Network Device Management and Security
- Evolution of Intelligent Networks
- Introducing QoS

Module 8: Summary Challenge

- Implementing and Troubleshooting Scalable Multiarea Network-1
- Implementing and Troubleshooting Scalable Multiarea Network-2

LABS INCLUDED

