

Cisco CCNA 2014

Interconnecting Cisco Networking Devices: Accelerated



Course Specifications

Course number: CCNAX

Course length: 5 days

Course Description

The Cisco CCNA® curriculum, *Interconnecting Cisco Networking Devices: Accelerated* (CCNAX), a derivative works course consisting of *Interconnecting Cisco Networking Devices, Part 1* (ICND1) and *Interconnecting Cisco Networking Devices, Part 2* (ICND2) content in its entirety, but with the content merged into a single course. Overlapping content between ICND1 and ICND2 is eliminated and content is rearranged for the purpose of the course flow.

This course teaches learners how to install, operate, configure, and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, identifying basic security threats, understanding redundant topologies, troubleshooting common network issues, connecting to a WAN, configuring EIGRP and OSPF in both IPv4 and IPv6, understanding wide-area network technologies, and becoming familiar with device management and Cisco licensing. CCNAX v2.0 is augmented by a virtual classroom presentation, which has additional slides and interactions for instructor use. In addition to the classic hardware-based lab, Cisco will offer a new set of Learning Partner Cisco Learning Labs. The learner will encounter more troubleshooting and more lab time than with the previous version of CCNAX.

Prerequisites:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills
- Basic IP address knowledge

Delivery Method: Instructor-led and labs

Performance-Based Objectives

Upon completing this course, you will be able to meet these objectives:

- Describe how networks function, identifying major components, functions of network components, and the OSI reference model
- Describe network fundamentals and build simple LANs
- Establish Internet connectivity
- Manage network device security
- Describe IPv6 basics
- Troubleshoot VLAN issues, explain how STP works, configure EtherChannel, and understand the idea behind Layer 3 redundancy
- Troubleshoot IP connectivity
- Define the characteristics, functions, and components of a WAN
- Configure and troubleshoot EIGRP in an IPv4 environment, and configure EIGRP for IPv6
- Configure, verify, and troubleshoot multiarea OSPF, describe SNMP, syslog, and NetFlow, and manage Cisco device configurations, IOS images, and licenses

Lesson 1: Building a Simple Network

- Topic 1A: Exploring the Functions of Networking
- Topic 1B: Understanding the Host-to-Host Communications Model
- Topic 1D: Introducing LANs
- Topic 1D: Operating Cisco IOS Software
- Topic 1E: Starting a Switch
- Topic 1F: Understanding Ethernet and Switch Operation
- Topic 1G: Troubleshooting Common Switch Media Issues

Lesson 2: Establishing Internet Connectivity

- Topic 2A: Understanding the TCP/IP Internet Layer
- Topic 2B: Understanding IP Addressing and Subnets
- Topic 2C: Understanding the TCP/IP Transport Layer
- Topic 2D: Exploring the Functions of Routing
- Topic 2E: Configuring a Cisco Router
- Topic 2F: Exploring the Packet Delivery Process
- Topic 2G: Enabling Static Routing
- Topic 2H: Managing Traffic Using ACLs
- Topic 2I: Enabling Internet Connectivity

Lesson 3: Managing Network Device Security

- Topic 3A: Securing Administrative Access
- Topic 3B: Implementing Device Hardening
- Topic 3C: Implementing Traffic Filtering with ACLs

Lesson 4: Introducing IPv6

- Topic 4A: Introducing Basic IPv6
- Topic 4B: Understanding IPv6
- Topic 4C: Configuring IPv6 Routing
- Topic 4D: Starting a Cisco Router

Lesson 5: Building a Medium-Sized Network

- Topic 5A: Implementing VLANs and Trunks
- Topic 5B: Routing Between VLANs
- Topic 5C: Using a Cisco Network Device as a DHCP Server
- Topic 5D: Troubleshooting VLAN Connectivity
- Topic 5E: Building Redundant Switched Topologies
- Topic 5F: Improving Redundant Switched Topologies with EtherChannel
- Topic 5G: Understanding Layer 3 Redundancy

Lesson 6: Troubleshooting Basic Connectivity

- Topic 6A: Troubleshooting IPv4 Network Connectivity
- Topic 6B: Troubleshooting IPv6 Network Connectivity

Lesson 7: Wide-Area Networks

- Topic 7A: Understanding WAN Technologies
- Topic 7B: Configuring Serial Encapsulation
- Topic 7C: Establishing a WAN Connection Using Frame Relay
- Topic 7D: Introducing VPN Solutions
- Topic 7E: Configuring GRE Tunnels

Lesson 8: Implementing an EIGRP-Based Solution

- Topic 8A: Implementing EIGRP
- Topic 8B: Troubleshooting EIGRP
- Topic 8C: Implementing EIGRP for IPv6

Lesson 9: Implementing a Scalable OSPF-Based Solution

- Topic 9A: Implementing OSPF
- Topic 9B: Multiarea OSPF IPv4 Implementation
- Topic 9C: Troubleshooting Multiarea OSPF
- Topic 9D: Examining OSPFv3

Lesson 10: Network Device Management

- Topic 10A: Configuring Network Devices to Support Network Management Protocols
- Topic 10B: Managing Cisco Devices
- Topic 10C: Licensing

Exam Description: The 200-120 composite CCNA v2 exam is a 1-½ hour test with 50–60 questions. The 200-120 CCNA exam is the composite exam associated with the CCNA Routing and Switching certification. Candidates can prepare for this exam by taking the Interconnecting Cisco Networking Devices: Accelerated (CCNAX) version 2.0 course. This exam tests a candidate's knowledge and skills required to install, operate, and troubleshoot a small to medium-size enterprise branch network. The topics include all the areas covered under the 200-120 CCNA exam.