



CCNAX Routing and Switching Boot Camp v3

Course ID #: 1575-924-v3-W

Hours: 35

Course Content

Course Description:

Interconnecting Cisco Networking Devices: Accelerated (CCNAX) v3.0 is a 5-day instructor-led training course that teaches learners how to install, operate, configure, and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, connecting to a WAN, and identifying basic security threats. Also covers topics in more depth and teaches learners how to perform basic troubleshooting steps in enterprise branch office networks, preparing learners for the Cisco CCNA certification.

At Course Completion:

Upon completing the course, students will be able to meet the following objectives:

- 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.

Target Student:

This course is intended for:

- Network Engineers
- Network Administrators
- Network Support Technicians
- Help Desk Technicians

Prerequisites:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage knowledge
- Good understanding of network fundamentals

Deliver Method:

This course is delivered through a mix of instructor-led training (ILT) and hands-on labs.



CCNAX Routing and Switching Boot Camp v3

Course ID #: 1575-924-v3-W

Hours: 35

Topics:

Module 1: Building a Simple Network

- Lesson 1: Exploring Functions of Networking
- Lesson 2: Understanding Host-to-Host Communications Model
- Lesson 3: Introducing LAN
- Lesson 4: Operation Cisco IOS Software
- Lesson 5: Starting a Switch
- Lesson 6: Understanding Ethernet and Switch Operation
- Lesson 7: Troubleshoot Common Switch Media Issues

Module 2: Establishing Internet Connectivity

- Lesson 1: Understanding the TCP/IP Internet Layer
- Lesson 2: Understanding IP Addressing and Subnets
- Lesson 3: Understanding the TCP/IP Transport Layer
- Lesson 4: Exploring Functions of Routing
- Lesson 5: Configuring a Cisco Router
- Lesson 6: Exploring Packet Delivery Process
- Lesson 7: Enabling Static Routing
- Lesson 8: Learning Basics of ACL

Module 3: Summary Challenge

- Lesson 1: Establishing Internet Connectivity
- Lesson 2: Troubleshooting Internet Connectivity

Module 4: Implementing Scalable Medium Sized Network

- Lesson 1: Implementing and Troubleshooting VLANs and Trunks
- Lesson 2: Building Redundant Switched Topologies
- Lesson 3: Improving Redundant Switched Topologies with EtherChannel

- Lesson 4: Routing between VLANs
- Lesson 5: Using a Cisco ISO Network Device as a DHCP Server
- Lesson 6: Understanding layer 3 Redundancy
- Lesson 7: Implementing RIPv2

Module 5: Introducing IPv6

- Lesson 1: Introducing Basic IPv6
- Lesson 2: Understanding IPv6 Operation

Module 6: Troubleshooting Basic Connectivity

- Lesson 1: Troubleshooting IPv4 Network Connectivity
- Lesson 2: Troubleshooting IPv6 Network Connectivity

Module 7: Implementing Network Device Security

- Lesson 1: Securing Administrative Access
- Lesson 2: Implementing Device Hardening
- Lesson 3: Implementing Advance Security

Module 8: Implementing an EIGRP-Based Solution

- Lesson 1: Implementing EIGRP
- Lesson 2: Implementing EIGRP for IPv6
- Lesson 3: Troubleshooting EIGRP

Module 9: Summary Challenge

- Lesson 1: Troubleshooting a Medium-Sized Network
- Lesson 2: Troubleshooting a Medium-Sized Network



CCNAX Routing and Switching Boot Camp v3

Course ID #: 1575-924-v3-W

Hours: 35

Module 10: Implement a Scalable OSPF-Based Solution

- Lesson 1: Understanding OSPF
- Lesson 2: Multiarea OSPF IPv4 Implementation
- Lesson 3: Implementing OSPFv3 for IPv6
- Lesson 4: Troubleshooting Multiarea OSPF

Module 11: Implementing Wide-Area Networks

- Lesson 1: Understanding WAN Technologies
- Lesson 2: Understanding Point-to-Point Protocols
- Lesson 3: Configuring GRE Tunnels
- Lesson 4: Configuring Single-Homed EBGp

Module 12: Network Device Management

- Lesson 1: Implementing Basic Network Device Management
- Lesson 2: Evolution of Intelligent Networks
- Lesson 3: Introducing QoS
- Lesson 4: Managing Cisco Devices
- Lesson 5: Licensing

Module 13: Summary Challenge

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