

Module Title : Interconnecting Cisco Networking Devices: Accelerated (CCNAX) 3.0

Duration : 5 days

Prerequisites

Before taking the CCNAX course, learners should be familiar with:

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

Course Content

This course consists of Interconnecting Cisco Networking Devices, Part 1 (ICND1) and Interconnecting Cisco Networking Devices, Part 2 (ICND2) 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. Students will learn 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. It also includes more in-depth topics that teach learners how to perform basic troubleshooting steps in enterprise branch office networks, preparing students for the Cisco CCNA certification. Upon completing this course, you will have the skills and knowledge to:

- 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 Outline

Module 1: Building a Simple Network

- Exploring the Functions of Networking
- Understanding the Host-to-Host Communication Model
- Introducing LANs
- Operating Cisco IOS Software
- Starting a Switch
- Understanding Ethernet & Switch Operation
- Troubleshooting Common Switch Media Issues

Module 2: Establishing Internet connectivity

- Understanding the TCP/IP Internet Layer
- Understanding IP Addressing & Subnets
- Understanding the TCP/IP Transport Layer
- Exploring the Functions of Routing
- Configuring a Cisco Router
- Exploring the Packet Delivery Process
- Enabling Static Route
- Learning the Basics of ACL
- Enabling Internet Connectivity

Module 3: Summary Challenge

- Establish Internet Connectivity
- Troubleshooting Internet Connectivity

Module 4: Implementing Scalable Medium-Sized Networks

- Implementing and Troubleshooting VLANs & Trunks
- Building Redundant Switched Topologies
- Improving Redundant Switched Topologies with Etherchannel
- Routing Between VLANs
- Using a Cisco IOS Network Device as a DHCP Server
- Understanding Layer 3 Redundancy
- Implementing RIPv2

Module 5: Introducing IPv6

- Introducing Basic IPv6
- Understanding IPv6 Operation
- Configuring IPv6 Static Routes

Module 6: Troubleshooting Basic Connectivity

- Troubleshooting IPv4 Network Connectivity
- Troubleshooting IPv6 Network Connectivity

Module 7: Implementing Network Device Security

- Securing Administrative Access
- Implementing Device Hardening
- Implementing Advance Security

Module 8: Implementing EIGRP Based Solution

- Implementing EIGRP
- Implementing EIGRP for IPv6
- Troubleshooting EIGRP

Module 9: Summary Challenge

- Troubleshooting a Medium-Sized Network
- Troubleshooting a Scalable Medium-Sized Network

Module 10: Implement a Scalable OSPF Based Solution

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

Module 11: Implementing Wide Area Network

- Understanding WAN Technologies
- Understanding Point-to-Point Protocol
- Configuring GRE Tunnel
- Configuring Single Homed EBGp

Module 12: Network Device Management

- Implementing Basic Network Device Management and Security
- Evolution of Intelligent Network
- Introducing QoS
- Managing Cisco Devices
- Licensing

Module 13: Summary Challenge

- Troubleshooting Scalable Multiarea Network



- Implementing and Troubleshooting Scalable Multiarea Network

Who Should Attend

- Channel Partners
- Customers
- Employees