Implementing and Administering Cisco Solutions (CCNA) v1.0 - On Demand

Modality: On Demand

Duration: 40 Hours

CLC: 8 Units

Course Information

About this course:

The Implementing and Administering Cisco Solutions (CCNA) v1.0 course will help you learn how to install, operate, configure, and verify basic IPv4 and IPv6 networks. The course gives you a foundation in network programmability, automation, and software-defined networking, while also covering configuring network components such as switches, routers, and wireless LAN controllers; managing network devices; and identifying basic security threats.

After completing this course, you will be well-prepared to take the 200-301 Cisco® Certified Network Associate (CCNA®) exam, passing which you will earn a CCNA certification.

Course Objective:

After taking this course, you should be able to:

- Implement basic configurations on a Cisco router
- Identify the components of a computer network and explain their basic characteristics
- Identify and resolve common switching and routing networking issue
- Describe the features and functions of the Cisco IOS Software
- Describe network and device architectures and explain virtualization
- Describe the smart network management solutions like Cisco DNA Center, SD-Access and SD-WAN
- Explain IPv4 and IPv6 addressing scheme
- Outline threat defense technologies
- And many, many more aspects of a basic IPv4 and IPv6 network

Audience:

- Entry-level network engineer
- Help desk technician
- Network support technician
- Network administrator

Prerequisite:

Before taking this course, you should have:

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

There are no formal prerequisites for CCNA certification but having a good understanding of the exam topics will help excel.

Course Outline:

- **Discovery 1: Get Started with Cisco CLI**
- **Discovery 2: Observe How a Switch Operates**
- **Discovery 3: Perform Basic Switch Configuration**
- **Discovery 4: Inspect TCP/IP Applications**
- **Discovery 5: Configure an Interface on a Cisco Router**
- **Discovery 6: Configure and Verify Layer 2 Discovery Protocols**
- **Discovery 7: Configure Default Gateway**
- **Discovery 8: Explore Packet Forwarding**
- **Discovery 9: Troubleshoot Switch Media and Port Issues**
- **Discovery 10: Troubleshoot Port Duplex Issues**
- **Discovery 11: Configure Basic IPv6 Connectivity**
- **Discovery 12: Configure and Verify IPv4 Static Routes**
- **Discovery 13: Configure IPv6 Static Routes**
- **Discovery 14: Configure VLAN and Trunk**
- **Discovery 15: Configure a Router on a Stick**
- **Discovery 16: Configure and Verify Single-Area OSPF**
- **Discovery 17: Configure and Verify EtherChannel**
- **Discovery 18: Configure and Verify IPv4 ACLs**
- **Discovery 19: Configure a Provider-Assigned IPv4 Address**
- **Discovery 20: Configure Static NAT**
- **Discovery 21: Configure Dynamic NAT and PAT**
- **Discovery 22: Log into the WLC**
- **Discovery 23: Monitor the WLC**
- **Discovery 24: Configure a Dynamic (VLAN) Interface**
- **Discovery 25: Configure a DHCP Scope**
- **Discovery 26: Configure a WLAN**
- **Discovery 27: Define a RADIUS Server**
- **Discovery 28: Explore Management Options**
- **Discovery 29: Explore the Cisco DNA Center**
- **Discovery 30: Configure and Verify NTP**
- **Discovery 31: Create the Cisco IOS Image Backup**
- **Discovery 32: Upgrade Cisco IOS Image**
- **Discovery 33: Configure WLAN Using WPA2 PSK Using the GUI**
- **Discovery 34: Secure Console and Remote Access**
- **Discovery 35: Enable and Limit Remote Access Connectivity**
- **Discovery 36: Configure and Verify Port Security**
- **FASTLab 1: Implement the Initial Switch Configuration**

- **FASTLab 2: Implement an Initial Router Configuration**
- **FASTLab 3: Implement IPv4 Static Routing**
- **FASTLab 4: Implement IPv6 Static Routing**
- **FASTLab 5: Troubleshoot VLANs and Trunk**
- **FASTLab 6: Implement Multiple VLANs and Basic Routing Between the VLANs**
- **FASTLab 7: Improve Redundant Switched Topologies with EtherChannel**
- **FASTLab 8: Implement Numbered and Named IPv4 ACLs**
- **FASTLab 9: Implement PAT**
- **FASTLab 10: Configure System Message Logging**
- **FASTLab 11: Secure Device Administrative Access**
- **FASTLab 12: Implement Device Hardening**