Interconnecting Cisco Networking Devices 1 (ICND1 v2.0)

Length: Five Days

Course Content: The Interconnecting Cisco Networking Devices, Part 1 (ICND1) v2.0 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, connecting to a WAN, and identifying basic security threats. This course can be followed by the Interconnecting Cisco Networking Devices, Part 2 (ICND2) v2.0 course, which covers topics in more depth and teaches learners how to perform basic troubleshooting steps in enterprise branch office networks, preparing learners for Cisco CCNA certification.

If you are new to networking, need a good understanding for management or sales responsibilities, or are starting along the path to achieve CCNA certification, this is the right course for you.

Course Objectives: Upon completion of this course, students will be able to:

- Describe network fundamentals and build simple LANs
- Establish Internet connectivity
- Manage network device security
- Expand small- to medium-sized networks with WAN connectivity
- Describe IPv6 basics

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Course Content

BUILDING A SIMPLE NETWORK

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

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 the Functions of Routing
- Lesson 5: Configuring a Cisco Router
- Lesson 6: Exploring the Packet Delivery Process
- Lesson 7: Enabling Static Routing
- Lesson 8: Managing Traffic Using ACLs
- Lesson 9: Enabling Internet Connectivity

MANAGING NETWORK DEVICE SECURITY

- Lesson 1: Securing Administrative Access
- Lesson 2: Implementing Device Hardening
- Lesson 3: Implementing Traffic Filtering with ACLs

BUILDING A MEDIUM-SIZED NETWORK

- Lesson 1: Implementing VLANs and Trunks
- Lesson 2: Routing Between VLANs
- Lesson 3: Using a Cisco Network Device as a DHCP Server
- Lesson 4: Introducing WAN Technologies
- Lesson 5: Introducing Dynamic Routing Protocols
- Lesson 6: Implementing OSPF

INTRODUCING IPV6

- Lesson 1: Introducing Basic IPv6
- Lesson 2: Understanding IPv6
- Lesson 3: Configuring IPv6 Routing

ICND1 SUPERLAB

- Lab S-1: ICND1 Superlab
- Task 1: Configure Basic Settings, VLANs, Trunks, and Port Security on Switches
- Task 2: Configure Inter-VLAN Routing
- Task 3: Configure Internet Connectivity
- Task 4: Configure WAN Connectivity and a Dynamic Routing Protocol
- Task 5: Configure IPv6 Connectivity in the LAN
- Task 6: Configure the OSPFv3 Routing Protocol