Interconnecting Cisco Networking Devices ICND1

Description

The Interconnecting Cisco Networking Devices, Part 1 (ICND1) v3.0 course provides you with the knowledge and skills that are needed how to install, operate, configure, and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, managing network devices, and identifying basic security threats. The course focuses on the functions of networking, knowledge of Cisco routers and switches, establishing internet connectivity, managing ACLs, configuring device security, implementing VLANs and trunks, configuring static routing and RIPv2, and becoming familiar with IPv6. You will also learn how to perform basic troubleshooting steps in enterprise branch office networks, preparing learners for Cisco CCNA certification.

Several topics have been added including; understanding the interactions and network functions of firewalls, wireless controllers and access points, along with additional focus on IPv6 and basic network security.

Delegates will learn how 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

Audience

Target candidates: Individuals seeking the Cisco CCENT certification, or Cisco CCNA Routing and Switching certification. The course is also appropriate for support technicians involved in the basic installation, operation, and verification of LAN networks.

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Outline

Building a Simple Network

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

Establishing Internet Connectivity

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

Summary Challenge

- Establish Internet Connectivity
- Troubleshoot Internet Connectivity

Building a Medium-Sized Network

- Implementing VLANs and Trunks
- Routing Between VLANs
- Using a Cisco IOS Network Device as a DHCP Server
- Implementing RIPv2

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Network Device Management and Security

- Securing Administrative Access
- Implementing Device Hardening
- Configuring System Message Logging
  Managing Cisco Devices
- Licensing

Summary Challenge

- Implementing a Medium-Sized Network
- Troubleshooting a Medium-Sized Network

Introducing IPv6

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

Prerequisites

We recommend but do not require that you have the following knowledge and skills before taking this course:

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