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## **Interconnecting Cisco Network Devices (ICND) v1.1 (CCNA)**

### **Course Content**

Interconnecting Cisco Network Devices (ICND) includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. This course focuses on using Cisco Catalyst Switches and Cisco routers connected in local-area networks (LANs) and wide-area networks (WANs) typically found at small to medium network sites. Upon completion of this training course, you will be able to select, connect, configure, and troubleshoot the various Cisco networking devices.

### **Course Objectives**

After completing this course, the student will be able to:

- Select the appropriate device (hub, Ethernet switch, or router) to meet the needs requirement, given a list of specifications.
- Use Cisco software to identify interfaces, protocols, addresses, and connectivity status, given a network containing several interconnected Cisco products.
- Interconnect switches and routers according to the specification, given a network specification.
- Configure the switches and routers to support the listed services and protocols, given a list of services and protocols used in a network.
- Set up a functional subnetting plan and related addressing utilities (for example, static and dynamic name-to-address mapping), given a basic network design and process for administering IP addresses.
- Configure access lists, given a need to control access to devices and general network traffic.
- Verify that the switches and routers and their configured network services and protocols operate as intended, given a network specification.
- Use the available tools to identify the source of a network problem and resolve it.

### **Who Should Attend**

The target audience for this course is as follows:

- Customers or channel resellers who are new to Cisco products or just entering the internetworking industry
- Network technicians new to Cisco products and services
- Network administrators responsible for implementing and managing small and medium business networks
- Network support staff who will perform a help desk role in a medium or enterprise-sized company that has an internal network support escalation staff
- Network support staff who will act as network device installers and first-line support in a small business environment
- CCNA candidates
- CCNP candidates

### **Prerequisites**

To fully benefit from ICND, you should already possess certain prerequisite skills, which can be gained from completing the Cisco Certified Network Associate (CCNA) Basics CD-ROM or e-learning course or through work experience.

The participant should have a working knowledge of the following:

- Commonly used networking terms and topologies
- The basic functions of a network protocol
- Fundamental network device roles (for example, hub, bridge, router, and switch)
- The Open System Interconnection (OSI) reference model
- The use of Windows 95/NT to run multiple applications
- Accessing the Internet or an intranet
- Binary and hexadecimal numbering
- Course Outline
- Getting Started with Cisco Networks
- Interconnecting Cisco Network Devices Introduction
- Internetworking Concepts Overview
- Assembling and Cabling Cisco Devices
- Operating and Configuring a Cisco IOS Device
- Managing Your Network Environment
- Interconnecting Catalyst Switches
- Catalyst 1900 Switch Operations
- Extending Switched Networks with Virtual LANs
- Interconnecting Cisco Routers
- Interconnecting Networks with TCP/IP
- Determining IP Routes
- Basic IP Traffic Management with Access Lists
- Configuring Novell IPX
- Extending the Network to WANs
- Establishing Serial Point-to-Point Connections
- Completing an ISDN BRI Call
- Establishing a Frame Relay PVC Connection