



## Interconnecting Cisco Network Devices Part 1 Version 2.0 (ICND1)

Course	Duration
Cisco Network Devices Part 1 Version 2.0 (ICND1)	30 Hrs

### **Course Overview**

Interconnecting Cisco Networking Devices, Part 1 (ICND1) v2.0b is a five-day, instructor-led training course that 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. Optionally, this course can be followed by the Interconnecting Cisco Network Devices Part 2 Version 2.0 (ICND2) 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

### **Target Audience**

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. CCENT/CCNA – ICND 1

### **Key job tasks:**

**Configure:** Implement the identified solution by applying the planned implementation processes using Cisco IOS commands and applications in the correct order to the selected devices and portions of the network.

**Verify:** Use the appropriate show commands and applications to ensure that the solution was correctly implemented and is performing as desired.

**Job roles:** Entry-level network engineer, network administrator, network support technician, and help desk technician

### **Prerequisites**

The knowledge and skills that a learner must have before attending this course are as follows

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

### **Course Objectives:**

Upon completing this course, you will be able to meet these objectives:

- .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



## Course Outline

### Introduction, Building a Simple Network

Module 1: Building a Simple Network

Lesson 1-1: Exploring the Functions of Networking

Lesson 1-2: Understanding the Host-to-Host Communications Model

Lesson 1-3: Introducing LANs

Lesson 1-4: Operating Cisco IOS Software

Lesson 1-5: Starting a Switch

**Practical** : Performing Switch Startup

Lesson 1-6: Understanding Ethernet and Switch Operation

Lesson 1-7: Troubleshooting common Switch Media Issues

**Practical** : Troubleshooting Switch Media Issues

### Managing Network Device Security

**Practical** : Connecting to the Internet

Module 3: Managing Network Device Security

Lesson 3-1: Securing Administrative Access

Lab 3-1: Enhancing the Security of the Initial Configuration

Lesson 3-2: Implementing Device Hardening

Lab 3-2: Device Hardening

Lesson 3-3: Implementing Traffic Filtering with ACLs

### Introducing IPv6

Module 5: Introducing IPv6

Lesson 5-1: Introducing basic IPv6

**Practical** : Configure and Verify Basic IPv6

Lesson 5-2: Understanding IPv6

Lab 5-2: Configure and Verify Stateless Autoconfiguration

Lesson 5-3: Configuring IPv6 Routing

Lab 5-3: Configure and Verify IPv6 Routing

Lab: ICND1 Superlab

### Establishing Internet Connectivity

Module 2: Establishing Internet Connectivity

Lesson 2-1: Understanding the TCP/IP Internet Layer

Lesson 2-2: IP Addressing and Subnets

Lesson 2-3: Understanding the TCP/IP Transport Layer

Lesson 2-4: Exploring the Functions of Routing

Lesson 2-5: Configuring a Cisco Router

**Practical** : Performing Initial Router Setup and Configuration

Lesson 2-6: Exploring the Packet-Delivery Process

Lesson 2-7: Enabling Static Routing

Lesson 2-8: Managing Traffic Using ACLs

Lesson 2-9: Enabling Internet Connectivity

### Building a Medium-Sized Network

**Practical** : Filtering Traffic with ACLs

Module 4: Building a Medium Sized Network

Lesson 4-1: Implementing VLANs and Trunks

Lesson 4-2: Routing Between VLANs

**Practical** : Configuring Expanded Switched Networks

Lesson 4-3: Using a Cisco

Network Device as a DHCP Server

Lab 4-2: Configuring a DHCP Server

Lesson 4-4: Introducing WAN Technologies

Lesson 4-5: Introducing Dynamic Routing Protocols

Lesson 4-6: Implementing OSPF

Lab 4-3: Implementing OSPF

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