

## Course Outline

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### Implementing Cisco IP Routing (ROUTE) 2.0

**Duration:** 5 days (30 hours)

#### Course Content:

ROUTE v2.0 includes major updates and follows an updated blueprint. However, note that this course does not cover all items listed on the blueprint. Some older topics have been removed or simplified, while several new IPv6 routing topics have been added. Course content has been adapted to Cisco IOS Software Release 15 and technically updated. Course also introduces new type of labs, called discovery labs. Discovery labs are instructor guided lab through which student explores new topics in an interactive way. All labs are developed only as virtual labs. To get the full course experience, you should cover everything, including Introduction, Discovery labs, Summary, and Module Self-Check.

#### Learning Objectives:

Upon completing this course, the student will be able to meet these overall objectives:

- Describe routing protocols, different remote connectivity options and their impact on routing and implement RIPng
- Configure EIGRP in IPv4 and IPv6 environment
- Configure OSPF in IPv4 and IPv6 environment
- Implement route redistribution using filtering mechanisms
- Implement path control using policy based routing and IP SLA
- Implement enterprise Internet connectivity
- Secure Cisco routers according to best practices and configure authentication for routing protocols

#### Prerequisites:

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

- Describing network fundamentals
- Establishing Internet and WAN connectivity (IPv4 and IPv6)
- Managing network device security
- Operating a medium-sized LAN with multiple switches, supporting VLANs, trunking, and spanning tree
- Troubleshooting IP connectivity (IPv4 and IPv6)
- Configuring and troubleshooting EIGRP and OSPF (IPv4 and IPv6)
- Configuring devices for SNMP, Syslog, and NetFlow access
- Managing Cisco device configurations, Cisco IOS images, and licenses
- It is highly recommended that this course be taken after the following Cisco courses:
- Interconnecting Cisco Networking Devices v2.0, Part 1 (ICND1 v2.0) and Part 2 (ICND2 v2.0)
- Interconnecting Cisco Networking Devices: Accelerated version 2.0 (CCNAX v2.0)

#### Target Audience:

- Channel Partner / Reseller
- Customer
- Employee

**Topics Covered:**

- Module 1: Basic Network and Routing Concepts
- Module 2: EIGRP Implementation
- Module 3: OSPF Implementation
- Module 4: Configuration of Redistribution
- Module 5: Path Control Implementation
- Module 6: Enterprise Internet Connectivity
- Module 7: Routers and Routing Protocol Hardening