

ROUTE v2.0 - Implementing Cisco IP Routing



Course outline

Module 1: Basic Network and Routing Concepts

- Lesson 1: Differentiating Routing Protocols
- Lesson 2: Understanding Network Technologies
- Lesson 3: Connecting Remote Locations with the Headquarters
- Lesson 4: Implementing RIPng

Module 2: EIGRP Implementation

- Lesson 1: Establishing EIGRP Neighbor Relationships
- Lesson 2: Building the EIGRP Topology Table
- Lesson 3: Optimizing EIGRP Behavior
- Lesson 4: Configuring EIGRP for IPv6
- Lesson 5: Discovering Named EIGRP Configuration

Module 3: OSPF Implementation

- Lesson 1: Establishing OSPF Neighbor Relationships
- Lesson 2: Building the Link-State Database
- Lesson 3: Optimizing OSPF Behavior
- Lesson 4: Configuring OSPFv3

Module 4: Configuration of Redistribution

- Lesson 1: Implementing Basic Routing Protocol Redistribution
- Lesson 2: Manipulating Redistribution Using Route Filtering

Module 5: Path Control Implementation

- Lesson 1: Using Cisco Express Forwarding Switching
- Lesson 2: Implementing Path Control

Module 6: Enterprise Internet Connectivity

- Lesson 1: Planning Enterprise Internet Connectivity
- Lesson 2: Establishing Single-Homed IPv4 Internet Connectivity
- Lesson 3: Establishing Single-Homed IPv6 Internet Connectivity
- Lesson 4: Improving Resilience of Internet Connectivity
- Lesson 5: Considering Advantages of Using BGP
- Lesson 6: Implementing Basic BGP Operations
- Lesson 7: Using BGP Attributes and the Path Selection Process
- Lesson 8: Controlling BGP Routing Updates
- Lesson 9: Implementing BGP for IPv6 Internet Connectivity

Module 7: Routers and Routing Protocol Hardening

- Lesson 1: Securing Cisco Routers
- Lesson 2: Describing Routing Protocol Authentication Options
- Lesson 3: Configuring EIGRP Authentication
- Lesson 4: Configuring OSPF Authentication
- Lesson 5: Configuring BGP Authentication

Lab Outline

- Discovery 1: Configuring RIPng
- Discovery 2: Configuring and Investigating Basic EIGRP
- Discovery 3: Building the EIGRP Topology Table
- Discovery 4: EIGRP Stub Routing
- Discovery 5: EIGRP Summarization
- Discovery 6: EIGRP Load Balancing
- Discovery 7: EIGRP for IPv6 Configuration
- Discovery 8: Discovering the Named EIGRP Configuration
- Discovery 9: Basic OSPF Configuration Introduction
- Discovery 10: Building the Link-State Database
- Discovery 11: OSPF Path Selection
- Discovery 12: OSPF Route Summarization
- Discovery 13: OSPF Stub Areas
- Discovery 14: Implementing OSPFv3
- Discovery 15: Basic Redistribution
- Discovery 16: Manipulate Redistribution
- Discovery 17: Manipulate Redistribution Using Route Maps
- Discovery 18: Analyzing Cisco Express Forwarding
- Discovery 19: Implementing PBR
- Discovery 20: Configuring NAT Virtual Interface
- Discovery 21: Basic IPv6 Internet Connectivity
- Discovery 22: Basic BGP Configuration
- Discovery 23: Influencing BGP Path Selection
- Discovery 24: BGP for IPv6
- Discovery 25: Configuring EIGRP Authentication
- Discovery 26: OSPF Authentication Configuration

Challenge 1: Configure RIPng

Challenge 2: Configure EIGRP

Challenge 3: Configure and Optimize EIGRP for IPv6

Challenge 4: Implement EIGRP for IPv4 and IPv6 Through Named Configuration

Challenge 5: Configure OSPF

Challenge 6: Optimize OSPF

Challenge 7: Configure OSPFv3

Challenge 8: Implement Redistribution Using Route Filtering

Challenge 9: Implement Path Control

Challenge 10: Configure BGP

Challenge 11: Configure Authentication for EIGRP Routes

Challenge 12: Configure BGP Authentication