



CCNP Route Cisco

Implementing Cisco IP Routing

36 Hours

Course Overview:

Cisco Certified Network Professional (CCNP) Routing and Switching certification validates the ability to plan, implement, verify and troubleshoot local and wide-area enterprise networks and work collaboratively with specialists on advanced security, voice, wireless and video solutions. The CCNP Routing and Switching certification is appropriate for those with at least one year of networking experience who are ready to advance their skills and work independently on complex network solutions. Those who achieve CCNP Routing and Switching have demonstrated the skills required in enterprise roles such as network engineer, support engineer, systems engineer or network technician. The routing and switching protocol knowledge from this certification will provide a lasting foundation as these skills are equally relevant in the physical networks of today and the virtualized network functions of tomorrow.

Delivery Method:

Facilitated, self-paced, classroom-delivery learning model with structured hands-on activities.

Prerequisites:

Valid CCNA certification or any CCIE Certification can act as a pre-requisite.

Course Objectives

Upon completing this course, the learner 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 protocols



Exam Info

Exam No. 300-101 Route

Implementing Cisco IP Routing (ROUTE 300-101) is a qualifying exam for the Cisco CCNP Routing and Switching and CCDP certifications. The ROUTE 300-101 exam certifies the routing knowledge and skills of successful candidates. They are certified in using advanced IP addressing and routing in implementing scalable and highly secure Cisco routers that are connected to LANs, WANs, and IPv6. The exam also covers the configuration of highly secure routing solutions to support branch offices and mobile workers.

Course Outline

Chapter 1 Characteristics of Routing Protocols

Chapter 2 Remote Site Connectivity

Chapter 3 IPv6 Review and RIPng

Chapter 4 Fundamental EIGRP Concepts

Chapter 5 Advanced EIGRP Concepts

Chapter 6 EIGRP for IPv6 and Named EIGRP

Chapter 7 Fundamental OSPF Concepts 259

Chapter 8 The OSPF Link-State Database

Chapter 9 Advanced OSPF Concepts

Chapter 10 Route Redistribution

Chapter 11 Route Selection

Chapter 12 Fundamentals of Internet Connectivity

Chapter 13 Fundamental BGP Concepts

Chapter 14 Advanced BGP Concepts

Chapter 15 IPv6 Internet Connectivity

Chapter 16 Fundamental Router Security Concepts

Chapter 17 Routing Protocol Authentication

Chapter 18 Final Preparation