

Deploying Cisco Service Provider Advanced Network Routing (SPADVROUTE)

Duration 5 Days

COURSE CONTENT

This Instructor Lead Training course is #2 of 4. It will prepare students for the SPADVROUTE exam required for the new CCNP-SP Certification. This certification is designed to prepare students to work at the Professional level in a Service Provider environment.

COURSE OBJECTIVES

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

- Configure the service provider network to support multiple BGP connections with customers and other autonomous systems.
- Describe common routing and addressing scalability issues in service provider network.
- Describe available BGP tools and features to secure and optimize the BGP routing protocol in a service provider environment.
- Introduce IP multicast services and the technologies present in IP multicasting.
- Introduce PIM-SM as the most current scalable IP multicast routing protocol.
- Describe service provider IP transition implementations.

COURSE OUTLINE

Module 1: Service Provider Connectivity with BGP

- Lesson 1: Defining Customer-to-Provider Connectivity Requirements
- Lesson 2: Connecting a Customer to Service Provider

Module 2: Scale Service Provider Network

- Lesson 1: Scaling BGP in Service Provider Networks
- Lesson 2: Introducing BGP Route Reflectors and Confederations

Module 3: Secure and Optimize BGP

- Lesson 1: Implementing Advanced BGP Operations
- Lesson 2: Improving BGP Convergence
- Lesson 3: Improving BGP Configuration Scalability

Module 4: Multicast Overview

- Lesson 1: Introducing IP Multicast

- Lesson 2: Defining Multicast Distribution Trees and Forwarding
- Lesson 3: Multicast on the LAN
- Lesson 4: Populating Mroute Table

Module 5: Intra- and Inter-Domain Multicast Routing

- Lesson 1: Introducing PIM-SM Protocol
- Lesson 2: Implementing PIM-SM Enhancements
- Lesson 3: Implementing Interdomain IP Multicast
- Lesson 4: Identifying Rendezvous Point Distribution Solutions

Module 6: Service Provider IP Transition Implementations

- Lesson 1: Introducing IP Services
- Lesson 2: Defining IP Transition Mechanisms
- Lesson 3: Deploying IP in the Service Provider Network

WHO SHOULD ATTEND

- Channel Partner / Reseller , Customer , Employee

PREREQUISITES

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

- Basic computer literacy
- Basic Microsoft Windows navigation skills
- Basic Internet usage skills
- Basic knowledge of networking concepts
- Basic knowledge of Cisco IOS / IOS XE and Cisco IOS XR software configuration
- Skills and knowledge equivalent to those learned in Building Cisco Service Provider Next-Generation Networks, Part 1 (SPNGN1) course.
- Skills and knowledge equivalent to those learned in Building Cisco Service Provider Next-Generation Networks, Part 2 (SPNGN2) course.
- Skills and knowledge equivalent to those learned in Deploying Cisco Service Provider Network Routing (SPROUTE) course.