

Deploying Cisco Service Provider Network Routing

Duration: 5 Days Course Code: SPROUTE

Overview:

The Deploying Cisco Service Provider Network Routing (SPROUTE) course is designed to provide service provider professionals with information on the use of advanced routing in implementing scalability for Cisco routers that are connected to LANs and WANs. The goal is to train professionals to dramatically increase the number of routers and sites using these techniques instead of redesigning the network when additional sites or wiring configurations are added. The SPROUTE training reinforces the instruction by providing students with hands-on labs to ensure that they thoroughly understand how to implement advanced routing within their networks. The course also includes classroom activities with remote labs that are useful to gain practical skills on deploying Cisco IOS/IOS XE and Cisco IOS XR features to operate and support a service provider network.

Target Audience:

This course is designed for: Network administrators, network engineers, network managers, and systems engineers who would like to implement IP routing in service provider environments Network designers and project managers. The course is also recommended for all individuals preparing for CCNP Service Provider certification

Objectives:

- Upon completing this course, the learner will be able to meet these overall objectives:
- Identify the typical routing requirements and list the routing protocols in service provider networks
- Describe steps needed to implement OSPF in the service provider network
- Describe the importance of the Integrated IS-IS routing protocol for internal routing and list the steps in implementing Integrated IS-IS into the service provider network
- Implement BGP to connect an enterprise to a service provider, and a service provider to an upstream service provider
- Describe tools used for routing protocol manipulation, route redistribution, and BGP route selection

Prerequisites:

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

- Intermediate knowledge of Cisco IOS/IOS XE and Cisco IOS XR Software configuration
- To gain the prerequisite skills and knowledge, Cisco strongly recommends the knowledge of the following courses:
- Building Cisco Service Provider Next-Generation Networks, Part 1 (SPNGN1)
 - Building Cisco Service Provider Next-Generation Networks, Part 2 (SPNGN2)

Testing and Certification

- SPROUTE is one of four courses required for the Cisco Certified Network Professional (CCNP) Service Provider Certification

Follow-on-Courses:

Follow-on Courses:

- Deploying Cisco Service Provider Advanced Network Routing (SPADVROUTE)
- Implementing Cisco Service Provider Next-Generation Core Network Services (SPCORE)
- Implementing Cisco Service Provider Next-Generation Edge Network Services (SPEDGE)

Content:

Service Provider Routing

- Understanding Service Provider Routing Protocols

Implement OSPF in the Service Provider Network

- Introducing OSPF Routing
- Understanding OSPF Operation
- Implementing OSPF Routing
- Implementing OSPF Special Area Types

Implement Integrated IS-IS in the Service Provider Network

- Introducing IS-IS Routing
- Implementing Integrated IS-IS Routing

Implement BGP in the Service Provider Network

- Introducing BGP Routing
- Implementing Basic BGP Routing

Routing Protocol Tools and Route Manipulation

- Introducing Routing Protocol Tools
- Implementing Route Redistribution
- Influencing BGP Route Selection

Further Information:

For More information, or to book your course, please call us on +254 713 027 191

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