Implementing Cisco Service Provider Advanced Routing Solutions

Duración: 4 Días **Código del Curso: SPRI** **Version: 1.0**

Temario:

The Implementing Cisco Service Provider Advanced Routing Solutions (SPRI) course teaches you the theories and practices required to integrate advanced routing technologies including routing protocols, multicast routing and policy language, Multiprotocol Label Switching (MPLS), and segment routing, expanding your knowledge and skills in service provider core networks.

Dirigido a:

Engineers who maintain and operate advanced Service Provider core networks.

Objetivos:

- **After completing this course you should be able to:**
- Describe the main characteristics of routing protocols that are used in Service provider environments
- Implement advanced features of multiarea Open Shortest Path First (OSPFv2) running in Service Provider networks
- Implement advanced features of multilevel Intermediate System to Intermediate System (ISIS) running in Service Provider networks
- Configure route redistribution
- Configure Border Gateway Protocol (BGP) in order to successfully connect the Service Provider network to the customer or upstream Service Provider
- Configure BGP scalability in Service Provider networks
- Implement BGP security options
- Implement advanced features in order to improve convergence in BGP networks
- Troubleshoot OSPF, ISIS, and BGP
- Implement and verify MPLS
- Implement and troubleshoot MPLS traffic engineering
- Implement and verify segment routing technology within an interior gateway protocol
- Describe how traffic engineering is used in segment routing networks
- Implement IPv6 tunneling mechanisms
- Describe and compare core multicast concepts
- Implement and verifying the PIM-SM protocol
- Implement enhanced Protocol-Independent Multicast - Sparse Mode (PIM-SM) features
- Implement Multicast Source Discovery Protocol (MSDP) in the interdomain environment
- Implement mechanisms for dynamic Rendezvous Point (RP) distribution

Prerequisitos:

Attendees should meet the following prerequisites:

- Intermediate to advanced knowledge of Cisco Internetwork Operating System (Cisco IOS®) or IOS XE and Cisco IOS XR Software configuration
- Knowledge of IPv4 and IPv6 TCP/IP networking
- Intermediate knowledge of BGP, OSPF, and ISIS routing protocols
- Understanding of MPLS technologies
- Understanding of multicast technologies
- Familiarity with segment routing

Exámenes y certificación

Recommended as preparation for the following exams:

- **300-510 -** Implmenting Cisco Service Provider Advanced Routing Solutions (SPRI) exam

After you pass **300-510** SPRI, you earn the Cisco Certified Specialist - Service Provider Advanced Routing Implementation certification, and you satisfy the concentration exam requirement for the CCNP Service Provider certification.

- SPCOR - Implementing and Operating Cisco Service Provider Network Core Technologies
- SPFNDU - Understanding Cisco Service Provider Network Foundations

Contenido:

Implementing and Verifying Open Shortest Path First Multiarea Networks

Implementing and Verifying Intermediate System to Intermediate System Multilevel Networks

Introducing Routing Protocol Tools, Route Maps, and Routing Policy Language

Implementing Route Redistribution

Influencing Border Gateway Protocol Route Selection

Scaling BGP in Service Provider Networks

Securing BGP in Service Provider Networks

Improving BGP Convergence and Implementing Advanced Operations

Troubleshooting Routing Protocols

Implementing and Verifying MPLS

Implementing Cisco MPLS Traffic Engineering

Implementing Segment Routing

Describing Segment Routing Traffic Engineering (SR TE)

Deploying IPv6 Tunneling Mechanisms

Implementing IP Multicast Concepts and Technologies

Implementing PIM-SM Protocol

Implementing PIM-SM Enhancements

Implementing Interdomain IP Multicast

Implementing Distributed Rendezvous Point Solution in Multicast Network

Labs

- Implement OSPF Special Area Types (IPv4 and IPv6)
- Implement Multiarea IS-IS
- Implement Route Redistribution
- Influence BGP Route Selection
- Implement BGP Route Reflectors
- Implement BGP Security Options
- Troubleshoot Routing Protocols
- Implement MPLS in the Service Provider Core
- Implement Cisco MPLS TE
- Configure and Verify Interior Gateway Protocol (IGP) Segment Routing
- Implement Tunnels for IPv6
- Enable and Optimize PIM-SM
- Implement PIM-SM Enhancements
- Implement Rendezvous Point Distribution

Más información:

Para más información o para reservar tu plaza llámanos al (34) 91 425 06 60

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