Implementing Cisco Service Provider Advanced Routing Solutions (SPRI) – e-Learning

Cisco

- **Nível:** Avançado
- **Duração:** h

Sobre o curso

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

This course helps you prepare for the Implementing Cisco Service Provider Advanced Routing Solutions (300-510 SPRI) exam.

Certification

- Associated Certification: CCNP Service Provider
- Associated Exam: 300-510 SPRI

This course includes

- Access duration: 180 days
- Labs
- Self-paced training
- Video training
- Continuing Education Credits: 40

This course is also available in an Instructor-Led Training (ILT) format. For more information, select this link: Implementing Cisco Service Provider Advanced Routing Solutions (SPRI)

Destinatários

- Network administrators

- System engineers
- Project managers
- Network designers

Objetivos

After taking 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 (IS-IS) 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, IS-IS, 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 verify the Protocol-Independent Multicast – Sparse Mode (PIM-SM) protocol
- Implement enhanced PIM-SM features
- Implement Multicast Source Discovery Protocol (MSDP) in the interdomain environment
- Implement mechanisms for dynamic Rendezvous Point (RP) distribution

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Pré-requisitos

Before taking this course, you should have the following knowledge and skills:

- Intermediate to advanced knowledge of 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 IS-IS routing protocols
- Understanding of MPLS technologies
- Understanding of multicast technologies
- Familiarity with segment routing

The following Cisco courses can help you gain the knowledge you need to prepare for this course:

- Building Cisco Service Provider Next-Generation Networks Part 1 (SPNGN1)
- Building Cisco Service Provider Next-Generation Networks Part 2 (SPNGN2)
- Deploying Cisco Service Provider Network Routing (SPROUTE)
- Implementing and Administering Cisco Solutions (CCNA)
- Understanding Cisco Service Provider Network Foundations (SPFNDU)
- Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR)