

Implementing Cisco Service Provider Advanced Routing Solutions (CPLL-SPRI)

Duration: 180 days

The Implementing Cisco Service Provider Advanced Routing Solutions (SPRI) Learning Path 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 Learning Path prepares you for the 300-510 SPRI v1.1 exam. If passed, you earn the Cisco Certified Specialist – Service Provider Advanced Routing Implementation certification and satisfy the concentration exam requirement for the Cisco Certified Network Professional (CCNP) Service Provider certification.

Skills You'll Learn

- Explore best practice methodologies for troubleshooting and OSPF, ISIS, and BGP routing protocols
- Examine the basics of route redistribution, including reasons to use more than one protocol
- Discover the method to configure MPLS on Cisco platforms

Learning Path Objectives

1. Deploying Internal Routing Protocols in Service Provider Network: Learn how to configure and optimize multiarea OSPF, special OSPF area types, and multilevel IS-IS networks.
2. Deploying BGP in Service Provider Network: Discover how to influence outbound and inbound BGP route selection and configure BGP in service provider networks.
3. Manipulating Routes in Service Provider Network: Examine the key characteristics of routing protocol tools used in service provider environments, implement routing policy language, configure route redistribution, and troubleshoot routing protocols within a service provider network.
4. Implementing and Troubleshooting MPLS in Service Provider Network: Explain, implement, and troubleshoot MPLS in a service provider network.
5. Implementing Segment Routing in Service Provider Network: Explore segment routing technology in detail, including its concepts and how to implement it specifically with IPv6.
6. Ensuring Security, Convergence, and Resilience in Service Provider Networks: Learn about the implementation of security options, advanced convergence features, and TI-LFA in BGP networks.
7. Deploying Transport Services in Service Provider Network: Describe MPLS traffic engineering, traffic engineering in segment routing networks, advanced SR-TE feature implementation and configuration, and IPv6 tunneling mechanisms.
8. Deploying Multicast in Service Provider Network: Discover IP multicast concepts and technologies, implement and verify the PM-SM protocol, implement enhanced PIM-SM

features, implement MSDP in the interdomain environment, and implement mechanisms for dynamic RP distribution.

