SPRI - IMPLEMENTING CISCO SERVICE PROVIDER ADVANCED ROUTING SOLUTIONS V2.0

Course Code: 100508

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

The SPRI - Implementing Cisco Service Provider Advanced Routing Solutions v2.0 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 training is eligible for 37 Continuing Education Credits (ILT & ELT Modality).

What You'll Learn

- Gain the high-demand skills to maintain and operate advanced technologies related to Service Provider core networks
- Increase your knowledge and skills for implementing Service Provider core advanced technologies through hands-on application and practical instruction
- Configure OSPF Multiarea Networks
- Configure OSPF Special Area Types
- Configure OSPF Optimization Features
- Configure IS-IS Multilevel Networks
- Configure IS-IS Optimization Features
- Introducing Routing Protocol Tools
- Introducing Routing Policy Language
- Influencing Outbound BGP Route Selection
- Influencing Inbound BGP Route Selection
- Scaling BGP in Service Provider Networks
- Implementing Route Redistribution
- Troubleshooting Routing Protocols
- Improving BGP Convergence and Implementing Advanced Operations
- Multiprotocol Label Switching
- Cisco MPLS Traffic Engineering
- Troubleshooting MPLS

- Segment Routing
- Implementing Segment Routing
- Segment Routing for IPv6
- Implementing Segment Routing for IPv6
- Segment Routing TI-LFA
- Segment Routing Traffic Engineering
- Advanced Segment Routing Traffic Engineering Features
- Securing BGP
- Deploying IPv6 Tunneling Mechanisms
- IP Multicast Concepts and Technologies
- Implementing PIM-SM Protocol
- Implementing PIM-SM Enhancements
- Implementing Interdomain IP Multicast
- Implementing MPLS
- Implementing Distributed Rendezvous Point Solution in Multicast Network

Who Needs to Attend

This course is for professionals who need knowledge about implementing various Service Provider core technologies and advanced routing technologies:

- Network administrators
- System engineers
- Project managers
- Network designers

Prerequisites

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- 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

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VIRTUAL CLASSROOM LIVE	$5,695 CAD	5 Day

Virtual Classroom Live Outline

- Configuring multiarea OSPF
- Configuring OSPF special area types and optimization features
- Configuring IS-IS multilevel networks and optimization features
- Configuring BGP to influence outbound and inbound BGP route selection
- Implement BGP route reflectors and confederations
- Describing the main characteristics of routing protocol tools that are used in service provider environments
- Implementing the Routing Policy Language
- Configuring route redistribution
- Troubleshooting routing protocols in the service provider network
- Describing, implementing, and troubleshooting MPLS in service provider network
- Describing and implementing segment routing technology
- Introducing and implementing segment routing IPv6
- Implementing BGP security options
- Implementing advanced features to improve convergence in BGP networks
- Implementing Topology Independent Loop-Free Alternate (TI-LFA)
- Describing Cisco MPLS traffic engineering
- Describing how traffic engineering is used in segment routing networks
- Implementing and configuring advanced SR-TE features
- Implementing IPv6 tunneling mechanisms
- Describing IP multicast concepts and technologies
- Implementing and verifying the PM-SM protocol
- Implementing enhanced PIM-SM features
- Implementing MSDP in the interdomain environment

- Implementing mechanisms for dynamic RP distribution

Dec 8 - 12, 2025 | 8:30 AM - 4:30 PM EST

Mar 16 - 20, 2026 | 9:00 AM - 5:00 PM EDT

May 4 - 8, 2026 | 9:00 AM - 5:00 PM EDT

Jul 27 - 31, 2026 | 9:00 AM - 5:00 PM EDT

Sep 14 - 18, 2026 | 9:00 AM - 5:00 PM EDT

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ON-DEMAND	$1,300 CAD

On-Demand Outline

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Visit us at www.globalknowledge.com or call us at 1-866-716-6688.