Implementing Cisco Service Provider Advanced Routing Solutions (SPRI)

Category: Networking & Security | **Vendor:** Cisco

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format:	Instructor Led - Online
Certification:	Cisco Certified Specialist – Service Provider Advanced Routing Implementation, Cisco Certified Network Professional (CCNP) Service Provider, Cisco Certified Network Professional Service ProviderCCNP SERVICE PROVIDER
Related Exam:	300-510

Course Overview

The Implementing Cisco Service Provider Advanced Routing Solutions (SPRI) training 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 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. This training also earns you 37 Continuing Education (CE) credits toward recertification.

How You'll Benefit

This training will help you:

- 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
- Prepare for the 300-510 SPRI v1.1 exam
- Earn 37 CE credits toward recertification

What to Expect in the Exam

Implementing Cisco Service Provider Advanced Routing Solutions (300-510 SPRI) v1.1 is a 90-minute exam associated with the Cisco Certified Specialist – Service Provider certification and satisfies the concentration exam requirement for the Cisco Certified Network Professional Service ProviderCCNP SERVICE PROVIDER certification.

This exam tests your knowledge of implementing service provider advanced routing technologies, including:

- Routing protocols

- Policy language
- MPLS
- Segment routing

About This Course

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Who Should 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 & Entry Requirements

General 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

These skills can be found in the following Cisco Learning Offerings:

- Implementing and Administering Cisco Solutions (CCNA)
- Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

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

Detailed Course Outline

- 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

Certification Path

Cisco Certified Specialist – Service Provider Advanced Routing Implementation, Cisco Certified Network Professional (CCNP) Service Provider, Cisco Certified Network Professional Service ProviderCCNP SERVICE PROVIDER

Exam: 300-510

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Frequently Asked Questions

Q: What delivery options are available for Implementing Cisco Service Provider Advanced Routing Solutions (SPRI)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: What certification does this course prepare me for?

The Implementing Cisco Service Provider Advanced Routing Solutions (SPRI) course helps prepare you for the Cisco Certified Specialist – Service Provider Advanced Routing Implementation, Cisco Certified Network Professional (CCNP) Service Provider, Cisco Certified Network Professional Service ProviderCCNP SERVICE PROVIDER certification path.

Q: Which exam does this course prepare me for?

This course prepares you for the 300-510 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 5-day Implementing Cisco Service Provider Advanced Routing Solutions (SPRI) course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Implementing Cisco Service Provider Advanced Routing Solutions (SPRI) training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Implementing Cisco Service Provider Advanced Routing Solutions (SPRI)?

Yes, we provide corporate training, dedicated training, and closed classes for Implementing Cisco Service Provider Advanced Routing Solutions (SPRI). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Implementing Cisco Service Provider Advanced Routing Solutions, Cisco Professional Level Service Provider - CCNP, SPRI

Q: Why choose Nexus Human for Implementing Cisco Service Provider Advanced Routing Solutions (SPRI)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Implementing Cisco Service Provider Advanced Routing Solutions (SPRI) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

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