

Implementing Cisco Service Provider Advanced Routing Solutions

ID SPRI **Price** CHF 4,950.—(excl. VAT) **Duration** 5 days

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

This course is part of the following Certifications

Cisco Certified Network Professional Service Provider (CCNP SERVICE PROVIDER)

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 \(SPCOR\)](#)

Course Objectives

- 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

Training Centres worldwide



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