

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

Before taking this course, you should have Service Provider knowledge at the professional level, equivalent to the material in the following Cisco courses:

- 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
- Knowledge at the professional level equivalent to those learned in the following certifications:
 - [Implementing and Administering Cisco Solutions \(CCNA\)](#)
 - [Understanding Cisco Service Provider Network Foundations \(SPFNDU\)](#)
 - [Implementing and Operating Cisco Service Provider Network Core Technologies \(SPCOR\)](#)

Course Objectives

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

Training Centres worldwide



Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3
CH-8304 Wallisellen
Tel. +41 44 832 50 80

info@flane.ch, <https://www.flane.ch>