



# Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR)

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

#### Who should attend

- · Network Administrators
- · Network Engineers
- Network Managers
- 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 knowledge of Cisco IOS or IOS XE
- Familiarity with Cisco IOS or IOS XE and Cisco IOS XR software configuration
- Knowledge of IPv4 and IPv6 transmission control protocol (TCP)/IP networking
- Intermediate knowledge of IP routing protocols
- Understanding of MPLS technologies
- Familiarity with VPN technologies

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

- Implementing and Administering Cisco Solutions (CCNA)
- Understanding Cisco Service Provider Network Foundations (SPFNDU)

#### **Course Objectives**

- Describe the service provider network architectures, concepts, and transport technologies
- Describe the Cisco IOS software architectures, main internetwork operating system (IOS) types, and their

- differences
- Implement open shortest path first (OSPF) in the service provider network
- Implement integrated intermediate system to intermediate system (IS-IS) in the service provider network
- Implement border gateway protocol (BGP) routing in service provider environments
- Implement route maps and routing policy language
- Describe IPv6 transition mechanisms used in the service provider networks
- Implement high availability mechanisms in Cisco IOS XR software
- Implement traffic engineering in modern service provider networks for optimal resource utilization
- Describe segment routing and segment routing traffic engineering concepts
- Describe the virtual private network (VPN) technologies used in the service provider environment
- Configure and verify multi-protocol label switching (MPLS) L2VPN in service provider environments
- Configure and verify MPLS L3VPN in service provider environments
- Implement IP multicast services
- Describe the QoS architecture and QoS benefits for service provider networks
- Implement QoS in service provider environment
- Implement control plane security in Cisco devices
- Implement management plane security in Cisco devices
- Implement data plane security in Cisco devices
- · Describe the YANG data modeling language
- Implement automation and assurance tools and protocols
- Describe the role of Cisco Network Services Orchestrator (NSO) in service provider environments
- Implement virtualization technologies in service provider environment

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## **Training Centres worldwide**





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