

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

Description

The Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) v1.0 course teaches you how to configure, verify, troubleshoot, and optimize next-generation, Service Provider IP network infrastructures. It provides a deep dive into Service Provider technologies including core architecture, services, networking, automation, quality of services, security, and network assurance.

Course Content

- Describing Service Provider Network Architectures
- Describing Cisco IOS Software Architectures
- Implementing OSPF
- Implementing IS-IS
- Implementing BGP
- Implementing Route Maps and Routing Protocol for LLN [Low-Power and Lossy Networks] (RPL)
- Transitioning to IPv6
- Implementing High Availability in Networking
- Implementing MPLS
- Implementing Cisco MPLS Traffic Engineering
- Describing Segment Routing
- Describing VPN Services
- Configuring L2VPN Services
- Configuring L3VPN Services
- Implementing Multicast
- Describing QoS Architecture
- Implementing QoS
- Implementing Control Plane Security
- Implementing Management Plane Security
- Implementing Data Plane Security
- Introducing Network Programmability
- Implementing Automation and Assurance
- Introducing Cisco NSO
- Implementing Virtualization in Service Provider Environments

Lab / Exercises

- Deploy Cisco IOS XR and IOS XE Basic Device Configuration
- Implement OSPF Routing
- Implement Integrated IS-IS Routing
- Implement Basic BGP Routing
- Filter BGP Prefixes Using RPL
- Implement MPLS in the Service Provider Core
- Implement Cisco MPLS Traffic Engineering (TE)
- Implement Segment Routing
- Implement Ethernet over MPLS (EoMPLS)

- Implement MPLS L3VPN
- Implement BGP Security
- Implement Remotely Triggered Black Hole (RTBH) Filtering

Documentation

- Digital courseware included

Exam

- This course prepares you to the 350-501 SPCOR Implementing and Operating Cisco® Service Provider Network Core Technologies exam. If you wish to take this exam, please contact our secretariat who will let you know the cost of the exam and will take care of all the necessary administrative procedures for you.

Participant profiles

- Administrators, engineers, network managers
- System engineers

Prerequisites

- Intermediate knowledge of Cisco IOS or IOS XE and Cisco IOS XR
- Understanding of MPLS and VPN technologies

Objectives

- Describe the network architectures and technologies used by service providers
- Describe Cisco Internetworking Architectures (Cisco IOS®) and their differences
- Implement Open Shortest Path First (OSPF) and (IS-IS)
- Implement Border Gateway Protocol (BGP) routing Implement High Availability in Cisco IOS XR Software
- Implement traffic engineering
- Configure and verify MPLS L3VPN Implement IP multicast services
- Describe the architecture and benefits of Quality of Service (QoS)
- Implement the security of the control, management and data plan
- Describe the Yet Another Next Generation (YANG) modeling language

Niveau

Avancé

Virtual Classroom Registration Price (CHF)

4350

Duration (in Days)

5

Reference

CIS-SPCOR