Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) V1.1

WHERE GREAT TRAINING HAPPENS EVERYDAY!

Current Technologies
Computer Learning Centers

+1 (219) 764-3800

6210 Central Ave, Portage IN

sales@ctclc.com

www.ctclc.com

CISCO Partner
Platinum Learning

WHERE GREAT TRAINING HAPPENS EVERYDAY!

Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) V1.1

Course Duration

5 Days

Course Price

$4,295.00
43 CLCs

Methods of Delivery

In-Person ILT
Virtual ILT
Onsite ILT

About this Class

The Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) v1.1 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.

This course also helps you prepare to take the 350-501 Implementing and Operating Cisco®Service Provider Network Core Technologies (SPCOR) exam, which is part of the new CCNP® Service Provider certification and the Cisco Certified Specialist–Service Provider Core certification. This course also earns you 64 Continuing Education (CE) credits towards recertification.

+1 (219) 764-3800

6210 Central Ave, Portage IN

sales@ctclc.com

www.ctclc.com

CISCO
Partner

Platinum Learning

WHERE GREAT TRAINING HAPPENS EVERYDAY!

Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) V1.1

How you will benefit

This class will help you:

- Configure, verify, troubleshoot, and optimize next-generation, Service Provider IP network infrastructures
- Deepen your understanding of Service Provider technologies including core architecture, services, networking, automation, quality of services, security, and network assurance
- Prepare to take the 350-501 Implementing and Operating Cisco® Service Provider Network Core Technologies (SPCOR)
- Earn 64 CE credits toward recertification

Why Attend with Current Technologies CLC

- Our Instructors are the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The job roles best suited to the material in this course are:

- Network Engineers
- Network Administrators
- Network Managers
- Network Designers
- Systems Engineers
- Project Managers

Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) V1.1

Objectives

After taking this course, you should be able to:

- Describe the Service Provider network architectures, concepts, and transport technologies
- Describe the Service Provider network architectures, concepts, and transport technologies
- Describe the Cisco Internetwork Operating System (Cisco IOS®) software architectures, main 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, including its maps and policy language, in Service Provider environments
- 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 VPN technologies used in the Service Provider environment
- Configure and verify Multiprotocol Label Switching (MPLS) L2VPN and L3VPN in Service Provider environments
- Implement IP multicast services, virtualization technologies in Service Provider environments, and automation and assurance tools and protocols
- Describe the Quality of Service (QoS) architecture, benefits, and implementation for SP networks
- Implement control, management, and data plane security in Cisco devices
- Describe the Yet Another Next Generation (YANG) data modeling language
- Describe the role of Cisco Network Services Orchestrator (NSO) in Service Provider environments

+1 (219) 764-3800

6210 Central Ave, Portage IN

sales@ctclc.com

www.ctclc.com

CISCO Partner
Platinum Learning

WHERE GREAT TRAINING HAPPENS EVERYDAY!

Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) V1.1

Course Outline

Module 1: Describing Service Provider Network Architectures

Module 2: Describing Cisco IOS Software Architectures

Module 3: Implementing OSPF

Module 4: Implementing IS-IS

Module 5: Implementing BGP

Module 6: Implementing Route Maps and Routing Protocol for LLN [Low-Power and Lossy Networks] (RPL)

Module 7: Transitioning to IPv6

Module 8: Implementing High Availability in Networking

Module 9: Implementing MPLS

Module 10: Implementing Cisco MPLS Traffic Engineering
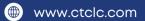
Module 11: Describing Segment Routing

Module 12: Describing VPN Services

Module 13: Configuring L2VPN Services

Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) V1.1

Course Outline

Module 14: Configuring L3VPN Services

Module 15: Implementing Multicast

Module 16: Describing QoS Architecture

Module 17: Implementing QoS

Module 18: Implementing Control Plane Security

Module 19: Implementing Management Plane Security

Module 20: Implementing Data Plane Security

Module 21: Introducing Network Programmability
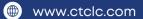
Module 22: Implementing Automation and Assurance

Module 23: Introducing Cisco NSO

Module 24: Implementing Virtualization in Service Provider Environments

Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) V1.1

Lab Outline

- **Lab 1: Deploy Cisco IOS XR and IOS XE Basic Device Configuration**

- **Lab 2: Implement OSPF Routing**

- **Lab 3: Implement Integrated IS-IS Routing**

- **Lab 4: Implement Basic BGP Routing**

- **Lab 5: Filter BGP Prefixes Using RPL**

- **Lab 6: Implement MPLS in the Service Provider Core**

- **Lab 7: Implement Cisco MPLS Traffic Engineering (TE)**

- **Lab 8: Implement Segment Routing**

- **Lab 9: Implement Ethernet over MPLS (EoMPLS)**

- **Lab 10: Implement MPLS L3VPN**

- **Lab 11: Implement BGP Security**

- **Lab 12: Implement Remotely Triggered Black Hole (RTBH) Filtering**

WHERE GREAT TRAINING HAPPENS EVERYDAY!

2024 CURRENT TECHNOLOGIES CLC