

# Implementing and Operating Cisco Service Provider Network Core Technologies



## Przeznaczenie szkolenia

- Network administrators
- Network engineers
- Network managers
- System engineers
- Project managers
- Network designers



## Korzyści wynikające z ukończenia szkolenia

This course 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)** exam



## Oczekiwane przygotowanie słuchaczy

- 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 TCP/IP networking

- Intermediate knowledge of IP routing protocols
- Understanding of MPLS technologies
- Familiarity with VPN technologies



### Język szkolenia

- Szkolenie: polski
- Materiały: angielski



### Szkolenie obejmuje

5 days in the classroom with hands-on lab practice, plus the equivalent of 3 days of self-study material



### Czas trwania

5 dni / 35 godzin

## Agenda szkolenia

### Outline

- 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 outline

- 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