

Implementing Cisco Service Provider Next Generation Core Network Services v1.0

SPCORE



Delivery Type: Classroom

Duration: 5 days

Overview

This 5-day course is focused on the concepts and capabilities of Multiprotocol Label Switching (MPLS) and on the best practices for implementing QoS in a new or existing Service Provider environment. MPLS Traffic Engineering (MPLS TE) services are also explored in more detail.

Hands-on labs provide the practice delegates need to ensure a thorough understanding of MPLS and MPLSTE in a Service Provider environment as well as exposure to IOS/IOS XE and IOS XR deployments.

Target Audience

This course is intended primarily for network administrators, network engineers, network managers, and systems engineers who would like to implement MPLS and MPLS TE in the core portion of service provider environments, and ensure QoS in the service provider backbone.

Certification

Recommended preparation for exam(s):

- ✓ 642-887 SPCORE - Implementing Cisco Service Provider Next Generation Core Network Services
- ✓ This is one of four exams required for the Cisco Certified Network Professional for Service Providers Certification.

Pre-Requisites

Attendees should meet the following prerequisites:

- ✓ Intermediate to advanced knowledge of Cisco IOS, IOS XE, and Cisco IOS XR Software configuration. SPROUTE and ADVSPROUTE recommended.

Objectives

After completing this program, you will be able to:

- ✓ Describe the features of MPLS, and how MPLS labels are assigned and distributed

- ✓ Discuss the requirement for traffic engineering in modern networks that must attain optimal resource utilization
- ✓ Introduce the concept of QoS and explain the need to implement QoS
- ✓ Classify and mark network traffic to implement an administrative policy requiring QoS
- ✓ Introduce different Cisco QoS queuing mechanisms used to manage network congestion
- ✓ Introduce the concept of traffic policing and shaping, including token bucket, dual token bucket, and dual-rate policing

Follow on Courses

The following courses are recommended for further study :

- ✓ SPEDGE - Implementing Cisco Service Provider Next Generation Edge Network Services