

# Maintaining Cisco Service Provider VPNs and MPLS Networks

**MSPVM**



**Delivery Type:** Classroom

**Duration:** 5 days

## Overview

This is a five-day instructor-led course designed to provide learners with the knowledge that is needed to provide support in a service provider environment for services that are based on MPLS. These services include Cisco MPLS Traffic Engineering (Cisco MPLS TE), Layer 3 and Layer 2 MPLS virtual private networks (VPNs).

This course is part of the new SP Ops professional level career certification and will prepare and validate learner proficiency in monitoring and troubleshooting MPLS and associated technologies on the service provider core next generation networking network.

## Target Audience

**The primary audience for this course is :**

- ✓ Tier II and Tier III Support Personnel.
- ✓ Service provider network operations center (NOC) personnel.
- ✓ Service provider engineers.
- ✓ Service provider partners.

## Certification

**Recommended preparation for exam(s):**

- ✓ 642-780 MSPVM - Maintaining Cisco Service Provider VPNs and MPLS Networks
- ✓ This course is part of the Cisco Certified Network Professional SP Operations Career Certification

## Pre-Requisites

**Attendees should meet the following prerequisites:**

- ✓ IP networking skills and experience using Cisco IOS Software command line interface (CLI). ICND1 required.
- ✓ Operations process knowledge and ability to use NMS tools to monitor networks and network devices. SSPO required.
- ✓ Ability to implement service provider change management procedures and configuration management procedures. OFCN required.
- ✓ Understanding of and ability to identify the critical factors for availability, scalability and manageability of OSPF, IS-IS, and BGP. Self-study training in these areas may be found on the Cisco Learning Network website at

<https://learningnetwork.cisco.com/index.jspa?ciscoHome=true> or alternatively attend a BCN course. Prior attendance of MSPRP is recommended.

- ✓ Ability to implement Cisco IOS Software and Cisco IOS XR Software configuration and monitoring commands. XRFUND and OFCN recommended.
- ✓ UNIX and/or Linux operating system experience as applied to IP network environments.

## Objectives

**After completing this program, you will be able to:**

- ✓ Identify the typical MPLS requirements in service provider networks; list the MPLS-based solutions; and describe the change, performance, and fault management procedures for these solutions
- ✓ Perform changes in the configuration, based on designs and implementation templates as well as Information Technology Infrastructure Library® (ITIL)-based change management processes and procedures
- ✓ Gather and interpret performance statistics for routing protocols using various tools such as show commands and Simple Network Management Protocol (SNMP)-based monitoring tools
- ✓ Perform fault management for MPLS and associated services using various tools such as show commands and monitoring tools

## Follow on Courses

**The following courses are recommended for further study:**

- ✓ MSPQS Maintaining Cisco Service Provider Quality of Service

## Further Information

### Recertification :

- ✓ Cisco professional level certifications (CCNP, CCNP Wireless, CCNP Sp Operations,CCDP, CCSP, CCVP, and CCIP) are valid for three years. To recertify, pass any 642 exam that is part of the professional level curriculum or any CCIE/CCDE written exam before the certification expiration date.
- ✓ Achieving or recertifying any of the certifications above automatically extends your active Associate and Professional level certification(s) up to the point of expiration of the last certification achieved.