

# MSPVM (MAINTAINING CISCO SERVICE PROVIDER VPNS AND MPLS NETWORKS) 1.0

## Objetivo

The Maintaining Service Provider VPNs and MPLS Networks (MSPVM) course is a five-day instructor-led training (ILT) course designed to provide learners with the knowledge needed to provide support in a service-provider environment using Multi-Protocol Label Switching (MPLS). It provides learners with understanding of MPLS and the associated technologies used in SP environments and it provides them with the guidelines on how to monitor and troubleshoot these technologies. The course is also intended to help prepare students for the CCNP SP Operations certification exam. Upon completing this course, the learner will be able to meet these overall objectives: Identify the typical MPLS and MPLS VPN requirements in service provider networks and list the solutions and describe the change, performance and fault management procedures for MPLS and MPLS VPNs. Perform changes in the routing configuration based on designs and implementation templates as well as ITIL-based change management processes and procedures. Gather and interpret performance statistics for MPLS and MPLS VPNs using various tools such as show commands and SNMP-based monitoring tools. Perform fault management for MPLS and MPLS VPNs using various tools such as show commands and SNMP-based monitoring tools.

## Público Alvo

Customer Employee Channel Partner / Reseller

## Pré-Requisitos

The knowledge and skills that a learner must have before attending this course are as follows: IP Networking skills and experience using Cisco IOS software command line interface (CLI) Operations process knowledge and ability to use NMS tools to monitor networks and network devices Ability to implement Service Provider change management procedures and configuration management procedures Understanding of and ability to identify the critical factors for availability, scalability and manageability of OSPF, IS-IS and BGP Protocols Ability to execute IOS and IOS XR configuration and monitoring commands Unix and / or Linux operating system experience as applied to IP network environments

## Carga Horária

40 horas (5 dias).

## Conteúdo Programático

Module 1: Service Provider VPN Operation Processes  
Lesson 1: Service Provider MPLS and MPLS VPN Overview  
Lesson 2: Service Provider Routing Operation Processes based on ITIL

Module 2: Change Management for MPLS and MPLS VPNs  
Lesson 1: MPLS, MPLS VPN and MPLS Traffic Engineering Requirements  
Lesson 2: Adding MPLS-Enabled Routers to SP Network  
Lesson 3: Analyze Lab Scenario  
Lesson 4: Adding Layer 3 MPLS VPN Customers  
Lesson 5: Analyze Lab Scenario  
Lesson 6: Adding Layer 2 MPLS VPN Customers  
Lesson 7: Analyze Lab Scenario Module  
Module 3: Performance Management for MPLS and MPLS VPNs  
Lesson 1: Audit MPLS-Related Control Protocols  
Lesson 2: Monitor MPLS Performance  
Lesson 3: Analyze Lab Scenario  
Lesson 4: Improve Availability and Resource Utilization using MPLS Traffic Engineering Tunnels  
Lesson 5: Analyze Lab Scenario  
Module 4: Fault Management for MPLS and MPLS VPNs  
Lesson 1: Troubleshoot Core MPLS Issues  
Lesson 2: Analyze Lab Scenario  
Lesson 3: Troubleshoot Layer 3 MPLS VPN Customer Connectivity Issues  
Lesson 4: Analyze Lab Scenario  
Lesson 5: Analyze Lab Scenario