

# MSPRP (MAINTAINING CISCO SERVICE PROVIDER ROUTING PROTOCOLS) 1.0

## Objetivo

The Maintaining Service Provider Routing Protocols (MSPRP) 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 an Interior Gateway Protocol (IGP) such as Open Shortest Path First (OSPF) or Intermediate System-to-Intermediate System (IS-IS) and Border Gateway Protocol (BGP). It also provides learners with an understanding of advanced routing policies using route maps with Cisco IOS Software and Routing Policy Language (RPL) with Cisco IOS XR Software. The course focuses on monitoring and troubleshooting these technologies in service provider environments. 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 routing requirements in service provider networks, list the routing solutions, and describe the change, performance, and fault management procedures Change the routing configuration based on designs and implementation templates, as well as change management processes and procedures based on Information Technology Infrastructure Library (ITIL®) Gather and interpret performance statistics for routing protocols using various tools such as show commands and monitoring tools based on Simple Network Management Protocol (SNMP) Perform fault management for routing protocols using various tools such as show commands and 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 Routing Operation Processes  
Lesson 1: Understanding Service Provider Routing Protocols

Lesson 2: Using Routing Protocol Tools  
Lesson 3: Using Management and Monitoring Tools  
Lesson 4: Applying Service Provider Routing Operation Processes Based on ITIL  
Module 2: Change Management for Routing Protocols  
Lesson 1: Understanding Routing Protocol Requirements  
Lesson 2: Adding Routers to the Core Network  
Lesson 3: Modifying Core Routing Parameters  
Lesson 4: Connecting Single-Homed Customers to the Network  
Lesson 5: Connecting Multihomed Customers to the Network  
Lesson 6: Modifying Routing Paths  
Module 3: Performance Management for Routing Protocols  
Lesson 1: Auditing Internal Routing  
Lesson 2: Auditing External Routing  
Lesson 3: Testing Internal Routing  
Lesson 4: Improve Testing External Routing  
Module 4: Fault Management for Routing Protocols  
Lesson 1: Troubleshooting Routing Issues in the Network  
Lesson 2: Troubleshooting External Routing Issues