IT-SPVI - Implementing Cisco Service Provider VPN Services

Cisco - CCNP Service Provider - Networking

Durata:	Lingue:	Certificazione:
5 Giorni	**Italiano**	**Cisco Certified Network Professional Service Provider**

Descrizione del corso

The Implementing Cisco Service Provider VPN Services (SPVI) v1.0 course prepares you to manage end-customer Virtual Private Network (VPN) environments built over a common service provider Multiprotocol Label Switching (MPLS) backbone. You will complete hands-on labs to reinforce MPLS VPN fundamental concepts, benefits, and classification, MPLS components, MPLS control plane and data plane operations, MPLS VPN routing using Virtual Routing and Forwarding (VRF), Layer 2 and Layer 3 MPLS VPNs, IPv6 MPLS VPN implementations, IP Multicast VPNs, and shared services VPNs. The course also covers solutions for deploying MPLS VPN crossing multiple Service Provider domains that improve the use of network bandwidth. This course helps you prepare to take the 300-515 SPVI exam, one of the four concentration exams that you can choose after 350-501 SPCOR exam to achieve the CCNP Service Provider certification. The 300-515 SPRI exam will be available on February 24, 2020.

Programma

Introducing VPN Services
- VPN Fundamentals
- MPLS VPN Control Plane Operation

Troubleshooting MPLS VPN Underlay
- Troubleshoot Core Interior Gateway Protocol (IGP)
- Troubleshoot Border Gateway Protocol (BGP)

Implementing Layer 3 MPLS VPNs
- Multiprotocol BGP (MP-BGP) Routing Requirements in MPLS VPNs

• Provider Edge to Customer Edge (PE-to-CE) Routing Requirements in Layer 3 MPLS VPNs

Implementing Layer 3 Interdomain MPLS VPNs

• Inter-Autonomous System (AS) for Layer 3 MPLS VPNs

• Content Security and Control (CSC) for Layer 3 MPLS VPNs

Implementing Layer 3 Multicast MPLS VPNs

• Multicast VPN (MVPN) Fundamentals

• Implement Intranet MVPN

Troubleshooting Intra-AS Layer 3 VPNs

• Troubleshoot PE-CE Connectivity

• Troubleshoot PE-to-Route Reflector

Implementing Layer 2 VPNs

• Layer 2 Service Architecture and Carrier Ethernet Services

• Refresh on Traditional Ethernet LAN (E-LAN), E-Line, and E-Tree Solutions

Troubleshooting Layer 2 VPNs

• Troubleshoot Common Issues for Traditional E-Line, E-LAN, and E-Tree Ethernet Solutions

• Troubleshoot Common Issues for Ethernet VPN (EVPN) Native, EVPN Virtual Private Wire Service (VPWS), and EVPN Integrated Routing and Bridging (IRB) Solutions

Implementing Layer 3 IPv6 MPLS VPNs

• Classical Solutions for Deploying IPv6 over IPv4 Environments

• Using 6VPE to Deploy IPv6 Connectivity over MPLS Environment

Troubleshooting Layer 3 IPv6 MPLS VPNs

• Troubleshooting PE-to-PE Connectivity

Lab outline

• Verify the Service Provider Backbone Operation for MPLS VPN

• Work with VRF Instances

• Troubleshoot the MPLS VPN Backbone

• Configure MP-BGP as the PE-CE Routing Protocol

• Configure and Verify PE-to-CE Routing Requirements

• Enable Shared Services VPN

• Deploy Internet Access as a VPN Service

• Troubleshoot Layer 3 MPLS VPN End-Customer Connectivity

• Implement Different EVPN Solutions

• Troubleshoot EVPN VPWS

• Implement IPv6 VPN Provider Edge Router (6VPE)