Advanced Implementing and Troubleshooting MPLS VPN Networks

Duration: 5 Days   Course Code: AMPLS

Overview:

This five-day course teaches delegates how to implement, deploy and troubleshoot MPLS VPNs in a variety of large scale network scenarios. To ensure attendees maximize their learning, students learn to build the MPLS VPN network using a building block approach. Attendees begin by building and scaling Intranet and Extranet MPLS VPN networks. Once complete, students add Internet access to the VPNs using several commonly encountered methods. These complex networks are then migrated into multiple Autonomous Systems (AS) where Inter-AS VPNs and Carrier Supporting Carrier VPNs are implemented. As each technology scenario is introduced and implemented, a heavy focus is placed on troubleshooting and correcting "real world" problems. Finally, attendees troubleshoot connectivity and transport problems that are inserted into the network by the instructor.

Target Audience:

This course is intended for the following audiences:Individuals who deploy MPLS VPN networks. Individuals who design Service Provider or large Enterprise networks that include MPLS VPN services.

Objectives:

- Identify methods of deploying MPLS VPNs in a variety of network scenarios.Select the best MPLS VPN method to implement for a given network scenario.

- Implement the chosen MPLS VPN solution and verify that it is functioning as intendedIdentify and troubleshoot frequently encountered MPLS VPN problems in each implemented scenario.

Prerequisites:

Delegates are required to meet the following prerequisites:

- Valid CCNA
- Attended BSCI
- Configure and troubleshoot basic MPLS functionality

Content:

Implement ; Troubleshoot MPLS

- Basics of MPLS
- MPLS Technologies
- Deploying MPLS
- Troubleshooting MPLS

Implement Intranet ; Extranet MPLS VPNs

- Fundamentals of MPLS VPNs
- Configuring and MPLS VPN
- Verifying MPLS VPN Functionality
- Configuring ; Verufying Extranet VPNs

Scale MPLS VPN Networks

- MPLS VPN Scalability Network
- Improving MPLS VPN Convergence
- Improving BGP Performance
- Sizing Provider Edge Routers

Implementing Inter-AS MPLS VPNs

- Why do we need Inter-AS MPLS VPNs
- Inter-AS MPLS VPN Building Blocks
- Inter-AS Deployment Options
- Scaling Inter-AS MPLS VPNs
- Route Filtering Techniques
- Configuring Inter-As MPLS VPNs

Troubleshoot MPLS Virtual Private Networks (VPN)

- Preliminary checks before Troubleshooting
- Troubleshooting the MPLS VPN Control Plane
- Troubleshooting the MPLS VPN Forwarding Plane

Implement Inter-AS Carrier Supporting Carrier

- World with and Without CsC
- Enabling CsC
- CsC Toplogies
- Security In CsC
- IOS Commands and Configurations

Internet Access in MPLS-VPN Network

- VPN Internet Access
- Internet Access Options

MPLS VPN support for EIGRP between PE and CE

- Monitoring ; Maintaining MPLS VPN support for EIGRP between Provider Edge and Customer Edge

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Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278

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