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Learning Style: On Demand

Technology: Cisco

Difficulty: Intermediate

Course Duration: 40 Hours

Configuring Cisco MDS 9000 Series Switches (DCMDS) v3.1 - On Demand

Course Information

About this course:

This course teaches you skills to implement, manage, and troubleshoot Cisco®

MDS 9000 Series Switches, allowing you to build highly available, scalable storage networks.

Through a combination of instructor video, text, and extensive hands-on practice, you will learn how to deploy and use capabilities such as virtual storage area networks (VSANs), role-based access control (RBAC), N-Port Virtualization (NPV) fabric security, zoning, automation with NX-API, Slow Drain Analysis, SAN analytics, Fibre Channel over TCP/IP (FCIP) tunnels, and more. You will also learn how to configure and implement platform features and learn troubleshooting techniques pertaining to Fibre Channel domains, firmware upgrades, zones, and zone merges.

Upon completing this course, you will be fully prepared to take the Implementing Cisco Storage Area Networking (300-625 DCSAN) exam, passing which will lead to CCNP Data Center and the Certified Specialist - Data Center SAN Implementation certifications.

Course Objective:

After taking this course, you should be able to:

- Describe key product features of the MDS platform, including VSANs, RBAC, NPV, port channels, zoning, device aliases, inter-VSAN routing (IVR), and fabric security
- Describe and implement state-of-the-art product features, including NX-API, slow-drain analysis, SAN Analytics and 32-GB Fibre Channel interfaces
- Discover and describe the Cisco Multilayer Director Switch (MDS) platform of multilayer switches and directors. Describe the MDS hardware, Cisco NX-OS operating system, Data Center Network Manager (DCNM) management software, and key architectures of the platform, such as Fibre Channel and Fibre Channel over Ethernet (FCoE)
- Configure FCIP tunnels
- Configure and implement the Cisco MDS switches and platform features, such as initial configuration, building a fabric, building a SAN extension, and configuring inter-VSAN routing for that purpose
- Resolve issues and troubleshoot Fibre Channel domains, zones and zone merges, and switch boot and firmware upgrades

Audience:

- Technical decision makers
- Network architects
- Cisco integrators and partners
- Data center systems engineers
- Data center field engineers
- Data center architects

Prerequisite:

You should have the following knowledge and skills to fully benefit from this course:

- Basic routing and switching knowledge
- Basic understanding of network protocols, including Ethernet and IP
- Basic understanding of data storage hardware components and protocols, including Small Computer System Interface (SCSI) and Fibre Channel

These are the recommended Cisco courses that may help you meet these prerequisites:

- Introducing Cisco Data Center Networking (DCICN)
- Introducing Cisco Data Center Technologies (DCICT)

Course Outline:

Describing Cisco MDS Platform

Cisco MDS 9700/9300/9200/9100 Hardware
Cisco NX-OS
Cisco DCNM
Fibre Channel Architecture
FCoE Architecture

Describing Key Product Features

Cisco DCNM 11.x
RBAC and Authentication, Authorization, and Accounting (AAA)
Virtual SANs
NPV and NPIV
Port Channels and VSAN Trunking
Zoning and Smart Zoning
Device Aliases
Inter-VSAN Routing
Fibre Channel Fabric Security

Describing New Product Features

32-Gb Fibre Channel
Cisco MDS NX-API
Power-On Auto-Provisioning
Slow Drain Analysis
SAN Analytics and Telemetry Streaming
Cisco Secure Boot

Deploying Cisco MDS Features

Installation and Initial Setup
Building a Fabric: FC Domains and FC Services
Building SAN Extensions

Troubleshooting Common Cisco MDS Issues

Fibre Channel Domains
Zones and Zone Merges
Boot and Upgrade Issues