DCMDS - Configuring Cisco MDS 9000 Series Switches (DCMDS)

Overview

Course Code	DCMDS	**Duration**	4.0 days

The Configuring Cisco MDS 9000 Series Switches (DCMDS) v3.1 course shows you how to implement, manage, and troubleshoot Cisco® MDS 9000 Series Switches, to build highly available, scalable storage networks. Through expert instruction 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 learn how to configure and implement platform features and learn troubleshooting techniques pertaining to Fibre Channel (FC) domains, firmware upgrades, zones, and zone mergers.

This course helps you prepare to take the exam, Implementing Cisco Storage Area Networking (300-625 DCSAN), which leads to CCNP Data Center and the Certified Specialist - Data Center SAN Implementation certifications.

Audience

Who should enroll

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

Pre-Requisites

To fully benefit from this course, you should have the following knowledge and skills:

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

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)

Key Topics

After taking this course, you should be able to:

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

Objectives

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Details

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
  - Analytics and SAN 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