
Configuring Cisco MDS 9000 Series Switches

DURATION: 4 DAYS

COURSE CODE: DCMDS

FORMAT: LIVE/VIRTUAL

COURSE DESCRIPTION

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

This course will help you:

- Learn how to deploy and troubleshoot the Cisco Nexus® 9000 Series Switches to support performance, resiliency, scalability, and enhanced operations for data centers
- Gain knowledge and skills through Cisco's unique combination of lessons and hands-on practice using enterprise-grade Cisco learning technologies, data center equipment, and software
- Succeed in today's demanding data center operations roles

This exam certifies your knowledge of Cisco MDS 9000 Series Switches including deployment, implementation, management and monitoring, and troubleshooting. The exam will be available beginning February 24, 2020.

After you pass 300-625 DCSAN:

- You earn the Cisco Certified Specialist - Data Center SAN Implementation certification.
- You will have satisfied the concentration exam requirement for new CCNP Data Center. To complete your CCNP Data Center certification, pass the Implementing and Operating Cisco Data Center Core Technologies (350-601 DCCOR) exam or its equivalent.

PREREQUISITES

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)
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WHO SHOULD ATTEND

Data center systems engineers

Data center field engineers

Data center architects

Technical decision makers

Network architects

Cisco integrators and partners

LEARNING OBJECTIVES

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 as 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

COURSE OUTLINE

1. Describing Cisco MDS Platform

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

2. 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

3. 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

4. Deploying Cisco MDS Features

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

5. Troubleshooting Common Cisco MDS Issues

- Fibre Channel Domains
- Zones and Zone Merges
- Boot and Upgrade Issues

DISCOVERY LABS

Lab 1: Set Up DCNM

Lab 2: Explore DCNM-SAN Client and DCNM Device Manager

Lab 3: Configure and Use RBAC

Lab 4: Configure and Use RBAC with DCNM-SAN Client and Device Manager

Lab 5: Manage VSANs and Fibre Channel Domain

Lab 6: Configure NPV and N-Port Identification Virtualization (NPIV)

Lab 7: Configure Interfaces

Lab 8: Configure Device Aliases and Zoning

Lab 9: Explore and Automate with NX-API

Lab 10: Perform Slow Drain Analysis with Cisco DCNM

Lab 11: Configure SAN Analysis and SAN Telemetry Streaming

Lab 12: Configure FCIP Tunnels and FCIP High Availability (HA)

Lab 13: Configure IVR for SAN Extension

Lab 14: Troubleshoot Zoning and Zone Merges