



Configuring Cisco MDS 9000 Series Switches (DCMDS) v3.5

Duration 4 Days

COURSE DESCRIPTION

The Configuring Cisco MDS 9000 Series Switches (DCMDS) v3.5 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, 300-625 Implementing Cisco Storage Area Networking (DCSAN), which leads to CCNP Data Center and the Certified Specialist - Data Center SAN Implementation certifications. This course also earns you 40 Continuing Education (CE) credits towards recertification.

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
- Earn 40 CE credits toward recertification

COURSE OBJECTIVES

After taking this course, you should be able to:

- Discover and describe the Cisco Multilayer Director Switch (MDS) platform of multilayer switches and directors.
- Provisioning Cisco MDS Switches
- Describe key product features of the MDS platform
- Describe and implement automation on Cisco MDS Switches
- Configure and implement the Cisco MDS switches and platform features
- Resolve issues and troubleshoot FC domains, zones and zone merges, and switch boot and firmware upgrades

**COURSE OUTLINE****Module 1: Describing Cisco MDS Platform**

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

Module 2: Provisioning Cisco MDS Switches

- Power-On Auto-Provisioning
- Cisco DCNM
- Using Cisco DCNM 11.x
- RBAC and Authentication, Authorization, and Accounting (AAA)

Module 3: Building the Fibre Channel Fabric with Cisco MDS Switches

- Virtual SANs
- Port Channels and VSAN Trunking
- Zoning and Smart Zoning
- Device Aliases
- Inter-VSAN Routing
- Fibre Channel Fabric Security
- Building SAN Extensions
- Inter-VSAN Routing
- Slow Drain Analysis
- SAN Analytics and Telemetry Streaming
- Cisco Secure Boot
- NPV and NPIV

Module 4: Automating Cisco MDS Fabric

- Cisco MDS NX_APIPython API
- Ansible

Module 5: Monitoring and Reporting Cisco MDS Features

- Cisco DCNM SAN Reports and Alarms
- SAN Analytics and SAN Telemetry Streaming

Module 6: Troubleshooting Common Cisco MDS Issues

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

Lab outline

- Set Up DCNM
- Explore DCNM-SAN Client and DCNM Device Manager
- Configure and Use RBAC
- Configure and Use RBAC with DCNM-SAN Client and Device Manager
- Manage VSANs and Fibre Channel Domain
- Configure NPV and N-Port Identification Virtualization (NPIV)
- Configure Interfaces
- Configure Device Aliases and Zoning
- Explore and Automate with NX-API
- Perform Slow Drain Analysis with Cisco DCNM
- Configure SAN Analysis and SAN Telemetry Streaming
- Configure FCIP Tunnels and FCIP High Availability
- Configure IVR for SAN Extension
- Troubleshoot Zoning and Zone Merges

PREREQUISITES

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:

- Implementing and Administering Cisco Solutions (CCNA)
- Understanding Cisco Data Center Foundations (DCFNDU)

WHO SHOULD ATTEND

- Technical decision makers
- Network architects
- Data center

WHAT TO EXPECT IN THE EXAM

This exam certifies your knowledge of Cisco MDS 9000 Series Switches including deployment, implementation, management and monitoring, and troubleshooting.

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.