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

### Overview

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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.

### Prerequisite Comments

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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

### Target Audience

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Technical decision makers

Network architects

### Course Objectives

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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 mergers, and switch boot and firmware upgrades

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## Course Outline

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### 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

### 2 - Provisioning Cisco MDS Switches

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

### 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

### 4 - Automating Cisco MDS Fabric

Cisco MDS NX\_API/Python API  
Ansible

### 5 - Monitoring and Reporting Cisco MDS Features

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

### 6 - Troubleshooting Common Cisco MDS Issues

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