

# Configuring Cisco MDS 9000 Series Switches

Course code: DCMDS

The DCMDS v2.0 course is a five-day training course that is designed as a comprehensive hands-on experience to familiarize data center systems engineers, field engineers, architects and Cisco partners who implement storage-networking solutions with the Cisco MDS 9000 Series switch platform.

## What we teach you

- Describe the MDS 9000 Series switch platform, Cisco NX-OS, and the features of Cisco Prime DCNM
- Explain the techniques and information that will enable you to perform the initial software configuration of a Cisco MDS 9000 Series switch, upgrade the system software, and enable licensing
- Explain the configurations involved in building a Cisco Fibre Channel SAN fabric including interfaces, VSANs, domains, port channels, device aliases, NPV, NPIV, and zones
- Describe and configure intelligent SAN fabric services on specific Cisco MDS 9000 Series switches and the software resources that are provided
- Describe the FCoE protocol and the use of FCoE modules on the Cisco MDS 9500 Series Multilayer Director and Cisco MDS 9700 Series Multilayer Director as a Fibre Channel forwarder in a single-hop and multihop design
- Describe the process of configuring security features on Cisco MDS 9000 Series switches to prevent unauthorized access, intrusion, and data theft, and to preserve data integrity in an enterprise SAN environment
- Describe the steps for basic FCIP configuration, high availability implementation, and achieving a fault tolerant SAN extension using the IVR feature

## Required skills

Basic understanding of data storage hardware components and protocols, including Small Computer Systems Interface (SCSI) and Fiber Channel Basic understanding of network protocols, including Ethernet and IP The knowledge that is covered in the Cisco CCNA or CCNA Data Center certification courses

## Course outline

### Cisco MDS 9000 Series Switch Platform

- Introducing Cisco MDS 9000 Series Switches
- Implementing Integrated Management

### System Installation and Initial Configuration

- Performing the Initial Switch Configuration
- Installing and Licensing Cisco NX-OS Software

### Building a SAN Fabric

- Using FLOGI and FCNS Databases
- Configuring Interfaces
- Configuring Port Channels
- Configuring Cisco NPV and NPIV
- Configuring VSANs
- Managing Domains
- Configuring Distributed Device Aliases
- Implementing Zoning

### Intelligent SAN Fabric Services

- Implementing Cisco MDS Data Mobility Manager
- Monitoring Traffic Flow

### FCoE Implementation

- Describing FCoE
- Configuring FCoE on Cisco MDS 9500 and 9700 Series Multilayer Directors

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## Security Implementation

- Improving Management Security
- Configuring AAA Services
- Implementing Port Security and Fabric Binding
- Configuring FC-SP
- Implementing Link Encryption

## FCIP Implementation

- Creating an FCIP Tunnel
- Configuring FCIP High Availability
- Implementing IVR for SAN Extension
- Tuning FCIP Performance

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