Introducing Cisco MDS 9000 Series Switches (DCIMDS) v1.1

What you'll learn in this course

The **Introducing Cisco MDS 9000 Series Switches** (DCIMDS) v1.1 course gives you an overview of Cisco® MDS 9000 Series Multilayer Switches, including platform architecture, software, and management capabilities. You will learn the key features that contribute to high performance and availability, flexibility, and operational simplicity and investment protection. During hands-on lab time, you'll configure: a Multilayer Director Switch (MDS) SAN fabric using Cisco Data Center Network Manager (DCNM) and Command Line Interface (CLI) commands; SAN analytics and SAN telemetry streaming; device aliases and zoning; and more. You'll gain a technical understanding of how to build highly available, scalable storage networks using the robust, flexible hardware architecture with network and storage management intelligence.

Course duration

- Instructor-led training: 2 days in the classroom with hands-on lab practice
- Virtual instructor-led training: 2 days of web-based classes with hands-on lab practice
- E-learning: Equivalent of 2 days of instruction with hands-on lab practice, videos, and challenges

How you'll benefit

This course will help you:

- Gain a technical understanding of the Cisco MDS 9000 Series Switches capabilities through Cisco's unique combination of lessons and hands-on practice
- Be the technical consultant on deployment options
- Prepare to give technical demonstrations on the MDS 9000 Series

Who should enroll

Technical decision makers and professionals who architect, implement, or manage data center SAN environments, including:

- Solutions architects
- Data center architects
- Network architects
- Systems engineers
- Data center engineers
- Network engineers
- Technical decision makers
- Cisco integrators and partners

How to enroll

- For instructor-led training, visit the Cisco Learning Locator.
- For private group training, visit Cisco Private Group Training.
- For digital library access, visit Cisco Platinum Learning Library.
- For individual e-learning, visit the Cisco Learning Network Store.
- For e-learning volume discounts, contact ask_cpll@cisco.com.

Technology areas

- Data Center

Course details

Objectives

After taking this course, you should be able to:

- Describe Cisco MDS SAN features and advantages
- Describe fixed and modular platforms
- Describe Cisco MDS architecture and high-availability mechanisms
- Describe technologies used in modern SANs
- Describe SAN management with Cisco DCNM
- Initialize a Cisco MDS switch and add it to DCNM
- Describe key value-add features that distinguish Cisco MDS switches
- Configure basic Cisco MDS features and interfaces using DCNM

Prerequisites

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

- Experience managing data center deployments
- Knowledge of the fundamentals of SAN technologies
- Understanding of business and application requirements

Outline

- Describing Cisco MDS Platform
  - Introduction and Advantages of Cisco MDS
  - Fixed Platforms
  - Modular Platforms
- Describing Cisco MDS Architecture
  - Store-and-Forward Architecture
  - High Availability
  - Redundancy

- Describing Storage Technologies
  - Fibre Channel
  - Non-Volatile Memory express (NVMe) Over Fibre Channel
  - Fibre Channel Over IP
  - Fibre Channel Over Ethernet
- Managing Cisco MDS Switches
  - Cisco Data Center Network Manager
  - Cisco NX-OS CLI
  - Cisco NX-API
- Describing and Using Cisco MDS Key Features
  - Virtual Storage Area Networks (VSANs)
  - Inter-VSAN Routing
  - Port Channels
  - Slow-Drain Device and Path Analysis Using Congestion Control Mechanisms
  - N Port Virtualization (NPV) and N-Port Identifier Virtualization (NPIV)
  - Zoning
  - Smart Zoning
  - SAN Analytics and Telemetry Streaming
  - Diagnostics Toolbox
  - SAN Extension
  - Other Differentiator Features

Lab outline

- Perform Initial MDS Configuration
- Set Up DCNM
- Configure VSANs and Interfaces in Cisco DCNM
- Configure Port Channels in Cisco DCNM
- Configure Device Aliases and Zoning
- Configure SAN Analytics and SAN Telemetry Streaming
- Use CLI for Basic Monitoring

Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.