Configuring Cisco MDS 9000 Series Switches (DCMDS)

Cisco

- **Nível:** Avançado
- **Duração:** 28h

Sobre o curso

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

After taking this course, you should be able to:

- 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 has 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

Destinatários

Engineers involved in the implementation of a storage-networking solution incorporating the Cisco MDS 9000 Series Switch platform.

Pré-requisitos

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

Metodologia

Instructor-led training: 4 days in the classroom with hands-on lab practice

Programa

- Describing Cisco MDS Platform
- Describing Key Product Features
- Describing New Product Features
- Deploying Cisco MDS Features
- Troubleshooting Common Cisco MDS Issues

Describing Cisco MDS Platform

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

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

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

Deploying Cisco MDS Features

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

Troubleshooting Common Cisco MDS Issues

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

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 FCIP Tunnels and FCIP High Availability (HA)
- Lab 12: Configure IVR for SAN Extension
- Lab 13: Troubleshoot Zoning and Zone Merges