Objetivos

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

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Pre-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

These are the recommended Cisco courses that may help you meet these prerequisites:

- Introducing Cisco Data Center Networking (DCICN)
- Introducing Cisco Data Center Technologies (DCICT)

Contenido

- 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 Merges
  - Boot and Upgrade Issues

Laboratorio

- 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 (HA)
- Configure IVR for SAN Extension
- Troubleshoot Zoning and Zone Merges
