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.
- Provisioning Cisco MDS Switches
- Describe key product features of the MDS platform
- Describe and implement automation a Cisco MDS Switches
- Configure and implement the Cisco MDS switches and platform features
- 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:

- **Implementing and Administering Cisco Solutions (CCNA)**
- **Understanding Cisco Data Center Foundations (DCFNDU)**

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Contenido

- Describing Cisco MDS Platform
    - Cisco MDS 9700/9300/9200/9100 Hardware
    - 32-Gb Fibre Channel
    - Cisco NX-OS

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- o Cisco DCNM
- o Fibre Channel Architecture
- o FCoE Architecture
- Provisioning Cisco MDS Switches
  - o Power-On Auto-Provisioning
  - o Cisco DCNM
  - o Using Cisco DCNM 11.x
  - o RBAC and Authentication, Authorization, and Accounting (AAA)
- Building the Fibre Channel Fabric with Cisco MDS Switches
  - o Virtual SANs
  - o Port Channels and VSAN Trunking
  - o Zoning and Smart Zoning
  - o Device Aliases
  - o Inter-VSAN Routing
  - o Fibre Channel Fabric Security
  - o Building SAN Extensions
  - o Inter-VSAN Routing
  - o Slow Drain Analysis
  - o SAN Analytics and Telemetry Streaming
  - o Cisco Secure Boot
  - o NPV and NPIV
- Automating Cisco MDS Fabric
  - o Cisco MDS NX_APIPython API
  - o Ansible
- Monitoring and Reporting Cisco MDS Features
  - o Cisco DCNM SAN Reports and Alarms
  - o SAN Analytics and SAN Telemetry Streaming
- Troubleshooting Common Cisco MDS Issues
  - o Troubleshooting Fibre Channel Domains, Zones and Zone Merges
  - o Boot and Upgrade Issues

Laboratorio

- Set Up DCNM

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- 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

- Configure IVR for SAN Extension

- Troubleshoot Zoning and Zone Merges

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