

Managing LAN Networks with Cisco Nexus Dashboard

Duration: 5 Days **Course Code: N1_MNDFC**

Overview:

This 5-day class on Nexus Dashboard covers data center and campus operations with VXLAN and EVPN, then dives into Nexus Dashboard Fabric Controller (NDFC) to deploy and manage VXLAN and EVPN.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

The primary audience for this course is as follows: Systems Architects Systems Engineers Systems Administrators Technical Decision Makers Channel Partners

Objectives:

- Upon completing this course, the learner will be able to meet these overall objectives:
- Understand, configure and troubleshoot VXLAN with EVPN
- Understand, Articulate, and Operationalize Nexus Dashboard Use Cases and Benefits
- Operate and Configure Nexus Dashboard
- Install and Operate Nexus Dashboard Apps
- Configure Nexus Fabric Controller
- Explore Fabric Telemetry with Nexus Insights
- Explore Nexus Dashboard APIs

Prerequisites:

The knowledge and skills the learner should have before attending this course is as follows:

- Familiarity with Cisco Ethernet switching products
- Understanding of routing protocols
- Understanding of Cisco Data Center architecture

Content:

Module 1: VXLAN EVPN with MP-BGP

- Spine and Leaf Fabric
- VXLAN as an Overlay
- BGP, OSPF and IS-IS
- EVPN MP-BGP
- Multicast Control Plane
- BGP Control Plane
- Distributed IP Anycast-Gateway
- Forwarding with Dual-Homed Endpoint (vPC)
- Inter-Subnet Forwarding (Routing)
- Non-IP Forwarding (Bridging)
- Cisco VXLAN QoS Configuration
- Multitenancy
- External Fabrics
- Troubleshooting Commands

Module 2: Nexus Dashboard Overview

- Introduction to Cisco Nexus Dashboard
- Introduction to Nexus Dashboard Architecture
- Nexus Dashboard Federation/SPOG
- Nexus Dashboard Installation, Configuration, and Deployment
- Cisco Nexus Dashboard Orchestrator

Module 3: Nexus Dashboard Fabric Controller (NDFC)

- Introduction to NDFC
- DCNM Migration to Nexus Dashboard
- Cisco NDFC LAN Solution Overview

Module 4: Discovering Existing Network Devices with Cisco NDFC

- Configure Switches for Discovery

Module 5: Nexus Dashboard for Multi-Site

- NDFC Multi-Site Architecture
- NDFC VRF Management

Module 6: Managing and Monitoring the Data Center with Cisco NDFC

- Access Topology View
- Navigate the Map Views and Layout
- Deploy Changes to the Fabric

Module 7: Nexus Dashboard Fabric Controller Templates

- NDFC Templates
- Configuration Changes with Templates

Module 8: Nexus Dashboard Insights

- Introduction to Nexus Dashboard Insights
- GUI Overview
- Insight Explorer
- Connectivity Analysis Tool for NX-OS Based Fabrics
- Insight Resource Browser/Bug Advisory
- Flow Telemetry
- Delta Analysis
- Firmware Update Analysis
- Licensing

Module 9: Nexus Dashboard Integrations

- Nexus Dashboard API
- Splunk Integration
- AppDynamics (AppD) Integration
- ServiceNow Integration
- NDFC SAN

Module 10: Accessing Nexus Dashboard Programmatically

- RESTful API
- JSON
- REST API Tools
- Python Programming Fundamentals
- Python Programming with RESTful API to Nexus Dashboard

Module 11: Nexus Dashboard Troubleshooting

- NDFC Backup and Restore
- NDFC Alarms
- Fabric Troubleshooting Tools
- NDFC Command Execution

Lab Outline:

Labs are designed to assure learners a whole practical experience, through the following practical activities:

- Discovery Lab 0: Access the NterOne Lab Devices
- Discovery Lab 1: Explore and Test the Nexus and Catalyst Lab Topology
- Discovery Lab 2: Configure NX-OS VXLAN with Multicast Control Plane Using CLI
- Discovery Lab 3: Configure EVPN BGP with Unicast Forwarding
- Discovery Lab 4: Configure EVPN BGP with Multicast Routing
- Discovery Lab 5: Configure EVPN BGP with Route Reflectors
- Discovery Lab 6: Configuring VXLAN Routing
- Discovery Lab 7: Adding an External Router
- Discovery Lab 8: Troubleshoot VXLAN with EVPN and BGP in the CLI
- Discovery Lab 9: Nexus Dashboard Admin Console
- Discovery Lab 10: Introduction to Nexus Dashboard Fabric Controller (NDFC)
- Discovery Lab 11: NDFC Bootstrap New NX-OS Data Center Fabric
- Discovery Lab 12: Nexus Dashboard Fabric Controller Templates
- Discovery Lab 13: Nexus Dashboard External Fabric with IOS XE
- Discovery Lab 14: NDFC Multi-Site Configuration with Multisite Domain (MSD) Template
- Discovery Lab 15: Managing and Monitoring the Network Using NDFC
- Discovery Lab 16: Nexus Dashboard Role-Based Access Control (RBAC)
- Discovery Lab 17: Nexus Dashboard and NDFC RESTful API
- Discovery Lab 18: Python Programming to Nexus Dashboard and NDFC
- Discovery Lab 19: Nexus Dashboard Fabric Controller Challenge Configuration
- Discovery Lab 20: Troubleshooting with VXLAN with EVPN and BGP

Further Information:

For More information, or to book your course, please call us on Head Office Tel.: +974 40316639

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