

# Managing LAN Infrastructure with Cisco Data Center Network Manager (DCNML) v1.0

## What you'll learn in this course

The course, **Managing LAN Infrastructure with Cisco Data Center Network Manager (DCNML) v1.0** enhances your knowledge of managing LAN Infrastructure with Cisco Data Center Network Manager (DCNM) implementing a spine-and-leaf network fabric using DCNM with Virtual Extensible LAN (VXLAN), Ethernet VPN (EVPN), and Border Gateway Protocol (BGP). You will learn how the integration of spine-and-leaf network fabric with Cisco Data Center Network Manager increases overall data center infrastructure uptime and reliability, thereby improving business continuity. It provides a robust framework and comprehensive feature set that meets the routing, switching, and storage administration needs of data centers. Cisco DCNM streamlines the provisioning for the unified fabric and monitors the SAN (Storage area network) and LAN (Local area network) components.

## Course duration

- Instructor-led training: 3 days in the classroom with hands-on lab practice
- Virtual instructor-led training: 3 days of web-based classes with hands-on lab practice

## How you'll benefit

This course will help you:

- Acquire the advanced skills and techniques to use spine-leaf topologies to provide better scalability and more seamless capacity and support for devices and lines.
- Gain the necessary skills to maximize the benefits of DCNM by integrating automation, and greater visibility into network infrastructure and elimination of configuration errors with templated deployment models.

## Who should enroll

This course is ideal for the following professionals:

- Data Network Engineers and Administrators
- Data Center Technical Managers

## How to enroll

### Instructor-led training

- Find a class at the [Cisco Learning Locator](#).
- Arrange training at your location through [Cisco Private Group Training](#).

## Technology areas

- Data Center

## Course details

### Objectives

After completing the course, you should be able to:

- Describe the components and functionality of DCNM.
- Describe the software define network protocols of VXLAN, eVPN and BGP.
- Deploy a DCNM environment in high-availability environment.
- Operate the DCNM discovery process to acquire management of all devices.
- List high lever navigation features of DCNM and utilize the DCNM GUI (Graphical User Interface) to optimize data center topologies.
- Manage and monitor data center LAN fabric from DCNM.
- Program RESTful APIs native to DCNM to perform any network management task.
- Troubleshoot and monitor the network using DCNM troubleshooting tools.
- Describe the benefits of DCNM Network Insights.

### Prerequisites

Before enrolling in this course, you should have knowledge in the following areas:

- Understanding of Cisco routing and switching in a data center.
- CCNA certification recommended.
- Fundamentals of network management.

The following course may help you meet these prerequisites:

- CCNA

### Outline

- Introducing Cisco DCNM LAN
  - Cisco DCNM Introduction
  - Cisco DCNM LAN Solution Overview
- Deploying VXLAN EVPN with Cisco DCNM LAN
  - VXLAN Overlays and Underlays
  - Easy Fabric VXLAN EVPN Underlay Model
- Deploying Cisco DCNM
  - Cisco DCNM High Availability
  - Cisco DCNM Installation Requirements
- Discovering Existing Network Devices with Cisco DCNM
  - Configure Switches for Discovery
- Exploring the Data Center with Cisco DCNM Topology
  - Access Topology View in the GUI
  - Navigate the Map Views and Layouts
- Managing and Monitoring the Data Center with Cisco DCNM LAN
  - Manage the Configuration Archive
  - Deploy Changes to the Fabric

- Automating Cisco DCNM Programmatically
  - Explore APIs for the Network
  - REST API Tool
- Troubleshooting and Monitoring Cisco DCNM
  - Troubleshoot and Monitor Cisco DCNM
- Describing Network Insights
  - Network Insights Advisor

### Lab outline

- Access the Lab Devices
- Explore and Test DCNM Lab Topology
- Configure Nexus Series Operating System (NX-OS) VXLAN with BGP Control Plane Using CLI
- Configure and Execute DCNM POAP
- Managing the Network Using DCNM
- Managing the Data Center Using DCNM Templates
- Troubleshooting VXLAN with DCNM



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C22-743997-00 07/20