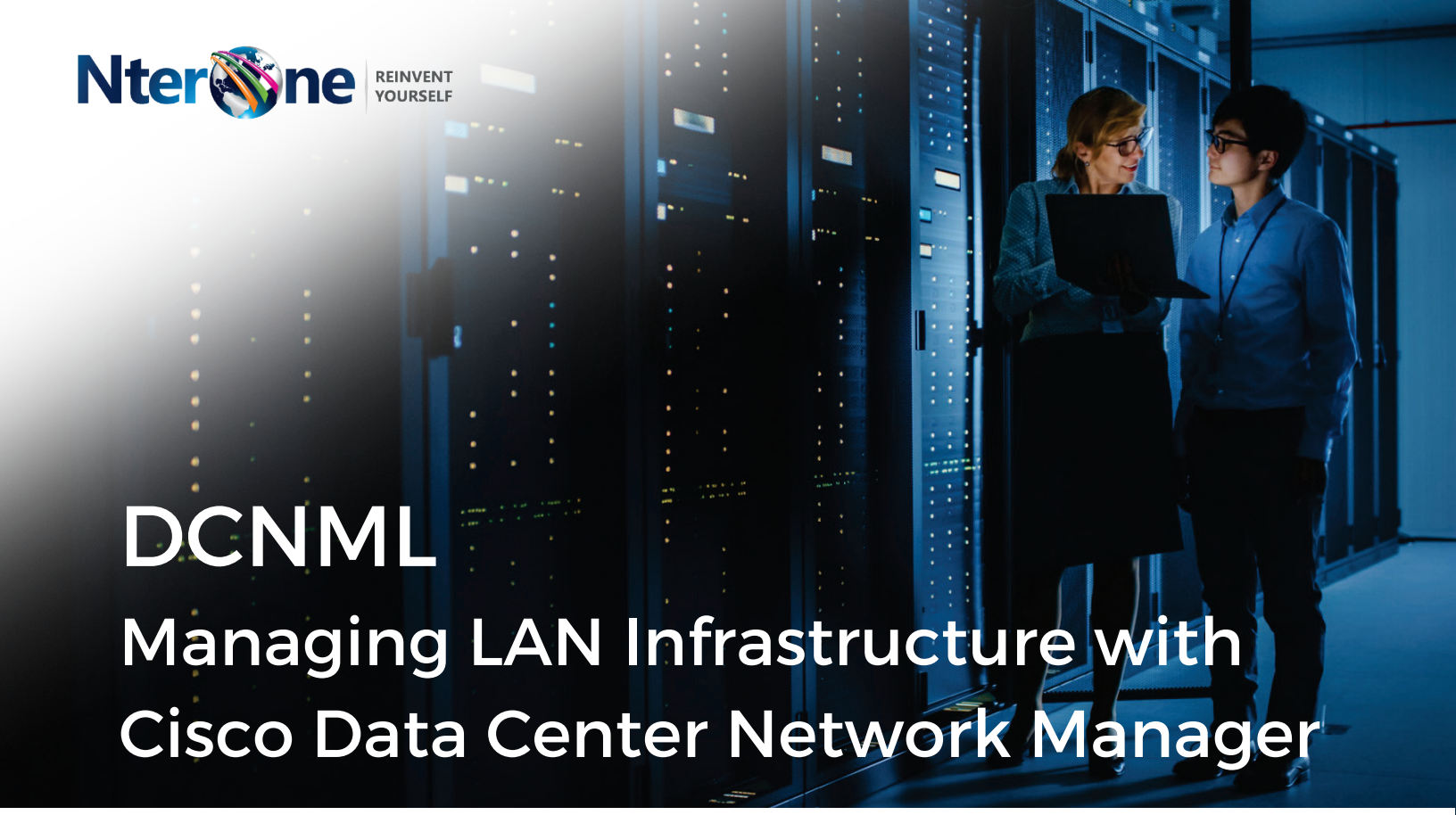

DCNML

Managing LAN Infrastructure with Cisco Data Center Network Manager

Duration: 3 Days

Course Overview:

This 3-day course, Managing LAN Infrastructure with Cisco Data Center Network Manager (DCNML), 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.

Prerequisites:

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

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

Who Should Attend:

The primary audience for this course is as follows:

- Data Network Engineers and Administrators
- Data Center Technical Managers

Course Objectives:

Upon completing this course, the learner will be able to meet these overall objectives:

- 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.

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.

Course Outline:

Section 1: Introducing Cisco DCNM LAN

- Cisco DCNM Introduction
- Cisco DCNM LAN Solution Overview

Section 2: Deploying VXLAN EVPN with Cisco DCNM LAN

- VXLAN Overlays and Underlays
- Easy Fabric VXLAN EVPN Underlay Model

Section 3: Deploying Cisco DCNM

- Cisco DCNM High Availability
- Cisco DCNM Installation Requirements

Section 4: Discovering Existing Network Devices with Cisco DCNM

- Configure Switches for Discovery

Section 5: Exploring the Data Center with Cisco DCNM Topology

- Access Topology View in the GUI
- Navigate the Map Views and Layouts

Section 6: Managing and Monitoring the Data Center with Cisco DCNM LAN

- Manage the Configuration Archive
- Deploy Changes to the Fabric

Section 7: Automating Cisco DCNM Programmatically

- Explore APIs for the Network
- REST API Tool

Section 8: Troubleshooting and Monitoring Cisco DCNM

- Troubleshoot and Monitor Cisco DCNM

Section 9: Describing Network Insights

- Network Insights Advisor

Lab Outline:

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

- Access the Lab Devices
- Explore and Test DCNM Lab Topology
- Configure Nexis 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