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**Learning Style: Virtual Classroom**

**Technology: Cisco**

**Difficulty: Advanced**

**Course Duration: 5 Days**

# Implementing Cisco Nexus 9000 Switches in NX-OS Mode Advanced (DCNXA)

## About this course:

The Cisco NX-OS for IOS Administrators (DCNXA) v2.0 is a five-day instructor-led course designed for network administrators who are migrating from a traditional Cisco IOS environment to routing and switching platforms that use the Nexus Operating System (NX-OS). This course covers the key components and procedures you need to know to install and manage Cisco Nexus 9000, 7000,

5000, 2000 and 1000v series switches. This course will also cover important troubleshooting procedures for these platforms as well.

## Course Objective:

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

- Describe the differences between the Cisco IOS and NX-OS operating systems.
- Describe the features and functionality of the Cisco NX-OS.
- Describe how the Cisco NX-OS is used for functionality specific to different Cisco Nexus switching platforms, such as the 9000, 7000-series, 5000-series, 2000 series and 1000-series switches.
- Understand basic and advanced configurations of the Cisco Nexus 9000, 7000-series, 5000-series, 2000 series and 1000-series switches using the NX-OS.
- Understand troubleshooting techniques using the NX-OS.

## Audience:

The primary audience for this course is as follows:

- Network, systems, and consulting systems engineers
- Network designers, administrators, and managers
- Data Center administrators, designers and system engineers

## Prerequisite:

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

- CCNA Switching and Routing knowledge level. CCNP level preferred.

## Course Outline:

Describing VXLAN EVPN in Single Site

- Describe VXLAN EVPN Control Plane
- Describe VXLAN EVPN Data Plane

Describing Multi-Site VXLAN EVPN

- Describe VXLAN EVPN Multi-Site Features
- Describe Supported Multi-Site Topologies

Describing Layer 4-Layer 7 Service Redirection

- Describe Layer 4-Layer 7 Service Integration Options

- Describe Integration of Active/Standby and Active/Active Service Devices

Describing External Connectivity from VXLAN EVPN

- Describe External VRF-Lite Connectivity

Describing VXLAN EVPN Functionality Enhancements

- Describe Fabric Management Options
- Describe Tenant-Level Dynamic Host Configuration Protocol (DHCP) Relay

Describing Cisco NX-OS Enhanced Policy-Based Redirect and Intelligent Traffic Director

- Describe Enhanced Policy-Based Redirect
- Describe Tenant-Level DHCP Relay

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**Lab Outline:**

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

- Import an Existing VXLAN Border Gateway Protocol (BGP) EVPN Fabric into Cisco DCNM
- Configure vPC and Layer 3 Connectivity
- Configure Multi-Site VXLAN EVPN
- Configure Routed Firewall Integration into VXLAN EVPN Using PBR
- Configure External VRF Lite Connectivity and Endpoint Locator
- Configure Tenant DHCP Relay
- Configure Tenant-Routed Multicast
- Configure Enhanced Policy-Based Redirect
- Configure Traffic Load-Balancing Using the ITD

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