Implementing Cisco Nexus 9000 Switches in NX-OS Mode – Advanced (DCNXA) v1.0

Duration: **4 Days**

Prerequisites:

Basic knowledge in the following areas can help you get the most from this course:

- Networking protocols, routing, and switching
- General Cisco data center technologies
- Virtualization fundamentals
- Cisco Nexus platform management

The following course offerings may help you meet these prerequisites:

- Implementing and Administering Cisco Solutions (CCNA®)
- Understanding Cisco Data Center Foundations (DCFNDU)
- Implementing and Operating Cisco Data Center Core Technologies (DCCOR)
- Implementing Cisco Nexus 9000 Switches in NX-OS Mode (DCNX)

Course Description:

The Implementing Cisco Nexus 9000 Switches in NX-OS Mode – Advanced (DCNXA) v1.0 course provides advanced training in applying and managing the Cisco Nexus® 9000 Series Switches in NX-OS mode. The Cisco® NX-OS platform deploys Virtual Extensible LAN (VXLAN) and Ethernet VPN (EVPN) using Cisco Data Center Network Manager (DCNM), implements Multi-Site VXLAN EVPN, and integrates L4-L7 services into the fabric providing external connectivity, utilizing advanced tenant features. You will also learn how to implement Cisco NX-OS Enhanced Policy-Based Redirect (ePBR) and Intelligent Traffic Director (ITD) features.

Course Objectives:

- Configure VXLAN EVPN in a single site using Cisco DCNM
- Configure a Multi-Site VXLAN EVPN
- Configure L4-L7 service redirection
- Configure external connectivity from a VXLAN EVPN
- Configure tenant-level features and Tenant-Routed Multicast (TRM) in VXLAN EVPN
- Configure Cisco NX-OS Enhanced Policy-Based Redirect (ePBR) and Intelligent Traffic Director (ITD)

Intended Audience:

IT professionals interested in understanding the capabilities of Cisco Nexus 9000 Series Switches including:

- Data center engineer
- Field engineer
- Network designer
- Network administrator
- Network engineer
- Systems engineer
- Technical solutions architect

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

Lab outline

- 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