# FIREFLY

# Implementing Cisco Nexus 9000 Switches in NX-OS Mode - Advanced v1.0

DURATION: 4 DAYS          COURSE CODE: DCNXA          FORMAT: LIVE/VIRTUAL

## 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 NXOS Enhanced Policy-Based Redirect (ePBR) and Intelligent Traffic Director (ITD) features.

## LEARNING OBJECTIVES

At the end of this course you will be able to:

- 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)

## WHO SHOULD ATTEND

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

## 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

## RELATED TRAINING

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 OUTLINE

1. Describing VXLAN EVPN in Single Site
2. Describe VXLAN EVPN Control Plane
3. Describe VXLAN EVPN Data Plane
4. Describing Multi-Site VXLAN EVPN
5. Describe VXLAN EVPN Multi-Site Features
6. Describe Supported Multi-Site Topologies
7. Describing Layer 4-Layer 7 Service Redirection
8. Describe Layer 4-Layer 7 Service Integration Options
9. Describe Integration of Active/Standby and Active/Active Service Devices
10. Describing External Connectivity from VXLAN EVPN
11. Describe External VRF-Lite Connectivity
12. Describing VXLAN EVPN Functionality Enhancements
13. Describe Fabric Management Options
14. Describe Tenant-Level Dynamic Host Configuration Protocol (DHCP) Relay
15. Describing Cisco NX-OS Enhanced Policy-Based Redirect and Intelligent Traffic Director
16. Describe Enhanced Policy-Based Redirect
17. Describe Tenant-Level DHCP Relay

## DISCOVERY LABS

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