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

What you'll learn in this course

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 duration

- Instructor-led training: 4 days in the classroom
- Virtual instructor-led training: 4 days of web-based classes
- E-learning: Equivalent to 4 days of classroom instruction

How you'll benefit

This course will help you:

- Learn how you can integrate Cisco Nexus 9000 Switches in NX-OS mode to manage your enterprise IT environment
- Understand the common platform architecture and key features of the Cisco Nexus 9000 Series in NX-OS mode to provide a consistent set of provisioning, management, and diagnostic capabilities for applications

Technology areas

- Data Center

Who should enroll

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

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How to enroll

E-learning

- To buy a single e-learning license, visit the Cisco Learning Network Store.

- For more than one license, or a learning library subscription, contact us at learning-bdm@cisco.com.

Instructor-led training

- Find a class at the Cisco Learning Locator.

- Arrange training at your location through Cisco Private Group Training.

Course details

Objectives

After taking this course, you should 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)

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)**

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

Labs

- 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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