training code: DCNXA / e-learning / EN

Active Digital Learning - Implementing Cisco Nexus 9000 Switches in NX-OS Mode – Advanced

Cisco - On Demand E-Learning

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.

Access Duration: 180 days

Continuing Education Credits: 32

Training recipients

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

Benefits

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

Training program

- 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 ePBR and ITD

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

Expected preparation of the participant

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)

Training Includes

- Labs
- Self-Paced Training
- Video Training

Duration

1 days / 1 hours

Language

Language: English
Materials: English