

DCINX9K - Introducing Cisco Nexus 9000 Switches in NX-OS Mode v1.0

Course Overview

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This is a 2-day class

This course focuses on deployment & operations of the Cisco Nexus 9000 Series switches. Participants will learn how to configure and manage Cisco Nexus 9000 Series switches using the NX-OS CLI, Python scripts, bash shell, and NX-API.

Who Should Attend

The primary audience for this course is as follows: Data center engineers, Data center administrators, & System engineers. The secondary audience for this course is as follows: Data center managers, Network engineers, & Consulting system engineers

Course Objectives

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

- Describe Cisco products that address market trends in the data center
- Describe Cisco Nexus 9000 Series switch hardware components
- Describe the hardware architecture of modular chassis, modular chassis line cards, and fixed configuration in the Cisco Nexus 9000 Series switches
- Describe features offered in NX-OS available on the Cisco Nexus 9000 Series switches
- Configure VXLAN features on Cisco Nexus 9000 Series Switches
- Describe the programmability, automation, and management features available on Cisco Nexus 9000 Series Switches
- Describe common topology options for configuring Cisco Nexus 9000 Series Switches
- Describe the benefits of adopting Cisco ACI fabric mode on Cisco Nexus 9000 Series Switches

Course Outline

1 DESCRIBING THE CISCO NEXUS 9000 SERIES NX-OS MODE SOLUTION

- Describe trends in data center network programmability, software defined networking and virtualization
- Describe the individual components of the Nexus 9000 solution
- Describe the benefits of NXOS enhancements

2 DESCRIBING CISCO NEXUS 9000 SERIES HARDWARE

- Describe the Cisco Nexus 9500 chassis
- Describe the Cisco Nexus 9500 supervisor modules
- Describe the Cisco Nexus 9500 system controllers
- Describe the Cisco Nexus 9500 fans and power supplies
- Describe the Cisco Nexus 9500 fabric modules
- Describe the Cisco Nexus 9500 line card modules
- Describe the Cisco Nexus 9300 switches
- Describe the Cisco Nexus 9000 FEX support
- Describe 40GE and 100GE Networking in the Data Center
- List the optics supported by the Cisco Nexus 9000 family

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3 DESCRIBING CISCO NEXUS 9000 SERIES HARDWARE ARCHITECTURE

Describe the Architecture of the Cisco Nexus 9500 Modular Switches
Describe the Architecture of the Cisco Nexus 9500 Line Card Modules
Describe Packet Forwarding in the Cisco Nexus 9000 Series Switches
Describe the Architecture of the Cisco Nexus 9300 Switches

4 DESCRIBING CISCO NEXUS OPERATING SYSTEM

Describe the Components of NX-OS
Describe the High-Availability Features of Cisco Nexus 9000 Series Switches
Describe the management features of the Cisco Nexus 9000 switch family

5 CONFIGURING VXLAN ON CISCO NEXUS 9000 SERIES SWITCHES

Describe the use of Network Overlays in Data Center Design
Describe VXLAN
Describe VXLAN Control-Plane Operation
Describe VXLAN Data-Plane Operation
Configure VXLAN on the Cisco Nexus 9500 Series Switches

6 DESCRIBING NETWORK PROGRAMMABILITY AND AUTOMATION

Describe programming features on Nexus 9000 Series Switches
Describe automation features on the Cisco Nexus 9000 Series Switches
Describe monitoring features on the Cisco Nexus 9000 Series Switches

7 DESCRIBING TOPOLOGY OPTIONS FOR CISCO NEXUS 9000 SERIES SWITCHES

Describe Traditional Data Center Topologies on the Cisco Nexus 9000 Series Switches
Describe Spine and Leaf Topologies on the Cisco Nexus 9000 Series Switches
Describe Overlay Topologies on the Cisco Nexus 9000 Series Switches

8 DESCRIBING THE CISCO ACI FABRIC

Describe the key Concepts of the Cisco ACI Fabric
Describe the Components of Cisco ACI Fabric
Describe the Benefits of Using the Cisco ACI Fabric
Describe Advanced Services of Cisco ACI Fabric