

Learning Services

Configuring the Cisco Nexus 9000 in NX-OS Mode



Configuring the Cisco Nexus[®] 9000 in NX-OS Mode¹ is an instructor-led, lab-based, hands-on course offered by Cisco[®] Learning Services. The course covers the overall architecture and operation of the Cisco Nexus 9000 Series Switches for data centers running in traditional or NX-OS mode.

You learn the hardware and software architecture of the Cisco Nexus 9000 Series data center switches, including the Cisco Nexus 9300 fixed-configuration and Cisco Nexus 9500 modular platforms. Also, you have the opportunity to explore the programmability and automation features built into these devices, including, but not limited to, Python, Power On Auto Provisioning (POAP), shell access, and the NX-API interface. In addition, you will discover how to perform management, maintenance, and monitoring activities on Cisco Nexus 9000 Series switch platforms.

This course combines lecture materials and hands-on labs throughout to make sure you are able to successfully deploy, configure, maintain, and troubleshoot a Cisco Nexus 9000 Series switch infrastructure.

Duration

Instructor-led training (ILT): 3 days

Virtual instructor-led training (VILT): 4 days

¹ Course content is dynamic and subject to change without notice.

Target Audience

This course is designed for traditional network and data center engineers tasked with installing and operating Cisco Nexus 9000 Series Switches in a data center environment who want to upgrade their skills.

Targeted roles include:

- Data center engineers
- Technical support personnel
- Network engineers

Tasks and Features Covered

- Architecture and operation of the Cisco NX-OS operating system
- Port channels
- Virtual port channels
- Open Shortest Path First (OSPF)
- Border Gateway Protocol (BGP)
- Bidirectional Forwarding Detection (BFD)
- Troubleshooting CPU and memory issues in detail
- Broadcom shell
- Quality of service (QoS)
- Network programmability
- License installation and maintenance procedures

Recommended Prerequisites

Cisco recommends that you have the following prerequisite knowledge and skills:

- Complete knowledge of Cisco networking
- Data center and virtualization knowledge

Course Outline

- Module 1: Cisco NX-OS Architecture, Design, and Operation
 - Lesson 1: Cisco NX-OS Software Architecture
 - Lesson 2: Cisco NX-OS Platform-Specific Features
 - Lesson 3: Cisco NX-OS and Cisco IOS[®] Software Comparison
- Module 2: Cisco Nexus 9000 Series Switches for the Data Center
 - Lesson 1: Cisco Nexus 9000 Series Hardware Architecture
 - Lesson 2: Cisco Nexus 9000 Series Packet Forwarding
 - Lesson 3: Troubleshooting Cisco Nexus 9000 Series Switches
 - Lesson 4: Cisco Nexus 9000 Series Deployment Considerations
 - Lesson 5: Cisco Nexus 9000 Series NX-OS Features
 - Lesson 6: Configuring VXLAN/EVPN on the Cisco Nexus 9000 Series Switches

- Module 3: Cisco Nexus 9000 Series Programmability, Automation, and Monitoring
 - Lesson 1: Cisco Nexus Programmability Basics
 - Lesson 2: Cisco Nexus 9000 Series Automation and Orchestration
 - Lesson 3: Cisco Nexus 9000 Series Visibility and Monitoring

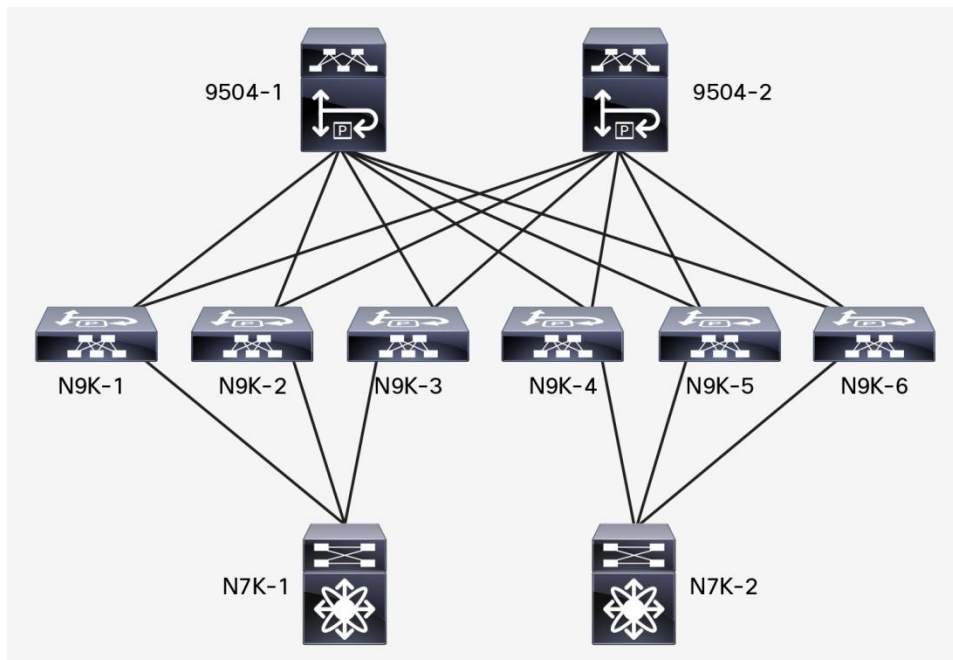
Lab Outline

- Lab 1: Managing Cisco Nexus Hardware and Software
- Lab 2: Configuring Cisco NX-OS Layer 2 Features
- Lab 3: Configuring Cisco NX-OS Layer 3 Features
- Lab 4: Configuring Cisco NX-OS High Availability
- Lab 5: Cisco Nexus 9000 Series Device Management
- Lab 6: Cisco Nexus 9000 Series Troubleshooting
- Lab 7: Configuring VXLAN/EVPN
- Lab 8: Cisco Nexus Programmability
- Lab 9: Discovering Cisco Data Center Network Manager (DCNM)

Lab Topology

The lab topology for all labs in this course is shown in Figure 1.

Figure 1. Lab Topology for All Labs



Registration Email

For more information about schedules and registration for this course, contact aeskt_registration@cisco.com.

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Website Addresses for More Information

For more information, visit the following websites:

- Cisco Learning Services for Cisco products and technologies: <http://www.cisco.com/go/cls>
- Broadband video training for service providers: <http://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/service-provider-video.html>
- Mobile Internet technology training: <http://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/mobile.html>
- Security training: <http://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/security.html>
- Optical network systems training: <http://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/optical.html>
- Cisco Prime[®] network management training: <http://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/prime.html>
- Data center training: <http://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/data-center.html>
- Routing training for service providers: <http://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/metro-ethernet.html>



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