



CISCO TRAINING

Implementing Cisco Nexus 9000 Switches in NX-OS Mode - Advanced

Master advanced implementation and management of Cisco Nexus 9000 switches in NX-OS mode for cutting-edge data center deployments.

DURATION

2 hours

LEVEL

Advanced

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

This advanced 2-hour masterclass, "Implementing Cisco Nexus 9000 Switches in NX-OS Mode - Advanced," is meticulously designed for seasoned network professionals seeking to deepen their expertise in operating Cisco Nexus 9000 Series Switches within an NX-OS environment. Participants will delve into the intricacies of advanced configuration, optimization, and troubleshooting techniques essential for building resilient, scalable, and high-performance data center networks. The course goes beyond basic setup, focusing on critical topics such as sophisticated routing protocols, high availability features, and foundational elements of modern data center fabrics.

The curriculum is structured to equip you with practical skills in leveraging the full potential of Cisco Nexus 9000 switches. You will explore advanced VXLAN EVPN concepts, learn to implement complex routing policies using OSPF and BGP, and master techniques for ensuring network stability and security. This includes a deep dive into virtual Port-Channel (vPC) best practices, advanced security features, and performance tuning strategies that are crucial for mission-critical data center operations. The core technologies covered will empower you to tackle complex network challenges and design robust solutions.

Upon completion, you will possess the advanced knowledge required to confidently deploy, manage, and optimize Cisco Nexus 9000-based data center infrastructures. This specialized training enhances your capability to contribute to the design and implementation of next-generation data centers, ensuring operational efficiency and business continuity. It's an invaluable stepping stone for those aiming to solidify their position as a leading expert in data center networking.

Duration	2 hours
Level	Advanced
Vendor	Cisco

COURSE CURRICULUM

01 Module 1: Advanced NX-OS High Availability and Resiliency

- Deep Dive into vPC Best Practices and Troubleshooting
- NX-OS Graceful Restart and Non-Stop Forwarding (NSF)
- First Hop Redundancy Protocols (FHRP) Optimization on Nexus
- Control Plane Policing (CoPP) and Security Hardening

02 Module 2: Advanced Routing Protocols for Data Centers

- OSPFv3 Design and Implementation in NX-OS
- Advanced BGP Concepts: Route Reflectors, Confederations, and Attributes
- Policy-Based Routing (PBR) and Route-Maps for Traffic Engineering
- Troubleshooting Complex Routing Issues in Nexus Environments

03 Module 3: Introduction to VXLAN EVPN Fabric Concepts

- Understanding VXLAN Data Plane and EVPN Control Plane Basics
- Underlay and Overlay Network Design Considerations
- Integrated Routing and Bridging (IRB) for Inter-VLAN Routing
- Initial Configuration Steps for a Basic VXLAN EVPN Fabric

04 Module 4: Security and Monitoring Advanced Features

- MACsec and IPsec Implementation for Data Center Security

- Advanced Access Control Lists (ACLs) and Port Security
- NetFlow and ERSPAN for Traffic Monitoring and Analysis
- SNMPv3 and Syslog Integration for Centralized Management

05 Module 5: Basic Automation and Programmability with NX-OS

- Introduction to NX-API and RESTful API on Nexus 9000
- Fundamentals of Python Scripting for NX-OS Devices
- Configuration Management with Basic Scripting Examples
- Monitoring and Reporting with Programmable Interfaces

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Senior Data Center Network Engineer**
- > **Network Solutions Architect (Data Center Focus)**
- > **Cloud Infrastructure Engineer (Private/Hybrid Cloud with Cisco DC)**
- > **Network Automation Specialist**

FREQUENTLY ASKED QUESTIONS

Q: What are the recommended prerequisites for taking this 'Implementing Cisco Nexus 9000 Switches in NX-OS Mode - Advanced' course?

This is an advanced course, so participants should have a solid foundational understanding of data center networking concepts, including experience with basic Cisco Nexus NX-OS configuration, VLANs, EtherChannels, and routing protocols like OSPF and BGP. Prior exposure to virtual Port-Channels (vPC) and a general understanding of VXLAN concepts is highly beneficial to maximize learning from this deep-dive.

Q: How will this course specifically enhance my ability to design and implement robust VXLAN EVPN fabrics on Cisco Nexus 9000 platforms?

While this 2-hour course provides an introduction to VXLAN EVPN fabric concepts and initial configuration, it focuses on building a foundational understanding of its components and basic setup. It will equip you with the essential knowledge of VXLAN data plane and EVPN control plane fundamentals, underlay/overlay considerations, and basic IRB. For comprehensive design and advanced implementation of complex, multi-site VXLAN EVPN fabrics, further dedicated training beyond this introductory module would be recommended.

Q: Will this course cover any aspects of integrating Cisco Nexus 9000 switches with orchestration tools or cloud environments?

This course includes an introductory module on Basic Automation and Programmability with NX-OS, covering fundamentals like NX-API, RESTful APIs, and basic Python scripting. While it lays the groundwork for understanding how Nexus 9000 can be automated and managed programmatically, it does not extensively cover specific integrations with third-party orchestration tools (e.g., Ansible, Puppet) or public cloud environments. The focus is on the foundational programmatic capabilities of the NX-OS itself.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

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READY TO ENROL?

Take the next step in your technology career.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke