Introducing Cisco NX-OS Switches and Fabrics in the Data Center (DCINX)

Modality: Virtual Classroom

Duration: 2 Days

CLC: 22 Units

About the course:

This mode provides important augmentations to NX-OS in the section of programmability, comprising:

- A Python scripting, RESTful API, direct ASIC-level access and Linux BASH access for traffic flow checking
- Help for open-frameworks orchestration and automation DevOps platforms, including Chef, Puppet, and onePK of Cisco
- Encourage for emerging overlay network technologies and software-defined networking (SDN), including OpenFlow, VXLAN, and the OpenDaylight Controller

Through hands-on labs and lectures, you'll find out about the equipment design of the Nexus 9000 and the new programmability interfaces and features that have been included in NX-OS. We highly suggest that you have NX-OS prior information and also aware of the platforms of Nexus five, six, and seven thousand.

Salary Estimate:

The normal pay for Cisco Systems IT Engineer is $118,045 annually.

Course Objectives:

In the wake of finishing this course, learners will have the option to:

1. Hardware Architecture of Nexus 9000, including packet forwarding and line card architecture

2. Components of the Nexus 9000 platform
3. Configuration and Operation details of VXLAN
4. How the platform addresses of Nexus 9000 current trends in data server management and architecture
5. Plan conceivable outcomes with the Nexus 9000 Series Switches
6. The new features of NX-OS are accessible on the Switches of Nexus 9000 Series
7. Automation, programmability, and monitoring choices accessible on the Nexus 9000 Series Switches

Targeted Audience:

This course is planned for:

- Network engineers
- System engineers

Architects

The architects of the data center who implement, design, and manage networks of data center utilizing the Cisco Nexus 9000.

Prerequisites:

Understanding the architecture of Cisco Data Center network, Experience with Cisco NX-OS, Knowledge of the platforms of Nexus 5000, 6000, or 7000 is energetically Recommended.

Recommended prerequisites courses:

- Presenting the Cisco Data Center Networking v1.x (DCICN)

- DCUCD - Designing Cisco Data Center Unified Computing v5.x

Course Outline:

Module 1: Cisco Nexus 9000 Solution Overview

- Data Center Trends
- Nexus 9000 Overview
- NX-OS Enhancements

Module 2: Hardware Overview

- Nexus 9500 Chassis
- Line Card Modules
- Supervisors
- Fabric Modules
- Power Supplies
- System Controllers
- Nexus 9300 Switches
- FEX Support
- 40G and 100GE Networking
- Supported Optics

Module 3: Hardware Architecture

- 9500 Architecture
- Line Card Architecture
- 9300 Architecture
- Packet Forwarding

Module 4: Nexus 9000 NX-OS Enhancements

- Nexus 9000 NX-OS Feature Overview
- High Availability
- Management

Module 5: VXLAN

- Overlay Networks
- VXLAN Overview
- VXLAN Control Plane
- VXLAN Forwarding Plane
- Configuring VXLAN

Module 6: Programmability and Automation

- Programming Features
- Automation Features

- Visibility and Monitoring Features

Module 7: Nexus 9000 Topology Designs

- Traditional Data Center
- Topologies Spine and Leaf Topologies
- Overlay Topologies

Lab Outline

- Lab 1: Nexus 9000 Initial Configuration
- Lab 2: Configuring VXLAN
- Lab 3: Using NX-OS API
- Lab 4: Python Scripting
- Lab 5: XMPP Management

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