Implementing and Configuring a Cisco Nexus Data Centre Network (ICNX1/5/7)

Description

This 5-day hands-on course provides a comprehensive technical overview of the Cisco Nexus platform architecture, including the Nexus 7000, 5000, 4000, 2000, and 1000V platforms. You will learn about design guidelines as well as deployment and operations, including Fibre Channel over Ethernet, the Virtual Access Layer, Virtual Device Contexts, Layer 2 and Layer 3 features, QoS, and security.

You will explore the features of Cisco NXOS and the Cisco Nexus platform by performing hands-on labs using Cisco Nexus 7000, 5000, 2000, and 1000V labs.

Course Objectives

After completing this course, students should be able to:

- Describe the features and components of the Cisco Nexus 7000, 5000, 4000, and 2000 hardware platforms
- Describe the architecture of NX-OS
- Design and configure virtual access layer topologies using the Nexus 5000, 4000, 2000, and 1000V
- Implement high-availability configurations including Virtual Port Channel (vPC) and Multi-Chassis EtherChannel (MCEC) deployments
- Configure Supervisor recovery on the Nexus 7000 core switch
- Configure Virtual Device Contexts
- Configure Layer 2 and Layer 3 services
- Describe and configure Data Center Bridging (DCB) and Fibre Channel over Ethernet (FCoE)
- Configure Quality of Service on all platforms
- Configure traffic integrity and security features on all platforms
- Configure switch management features like Call Home, AAA, and RBAC
- Use configuration checkpoints and rollbacks
- Monitor network traffic using tools such as SPAN and Ethanalyzer
- Configure VMware services to test and verify Nexus 1000V operation

Who Should Attend

This course is designed for experienced Network Field Engineers, VMware Engineers, and Data Center Architects with a strong knowledge of Cisco switching products.

Recommended pre-requisites

Attendees should have strong knowledge of Cisco switching products. It is suggested that attendees should have attended either Cisco BCMSN or SWITCH.

Length of Course

5 Days.

Course Outline

Module 1: Nexus 7000
Lesson 1: Overview of Nexus 7000 Hardware
Lesson 2: Overview of NX-OS
Lesson 3: Virtual Device Contexts
Lesson 4: Managing the Cisco Nexus 7000
Lesson 5: Layer 2 Protocols and Features
Lesson 6: Layer 3 Protocols and Features
Lesson 7: Quality of Service
Lesson 8: Security Features
Lesson 9: Troubleshooting Nexus 7000 Hands-On Labs
Lab 1: Managing System Configuration
Lab 2: First-Hop Redundancy Protocols
Lab 3: Configuring Routing Protocols
Lab 4: QoS on the Cisco Nexus 7000
Lab 5: Security
Lab 6: Troubleshooting the Cisco Nexus Control Plane
Module 2: Nexus 5000 and 2000
Lesson 1: Overview of the Cisco Nexus 5000 and 2000
Lesson 2: Understanding the FCoE Protocol
Lesson 3: Data Center Architecture
Lesson 4: Ethernet Enhancements
Lesson 5: Configuring FCOE Server Connectivity
Lesson 6: Configuring Switch Mode
Lesson 7: Configuring NPV Mode
Lesson 8: Managing Traffic Flow
Lesson 9: Managing the Switch Nexus 5000 Hands-On Labs
Lab 1: Configuring the Switch for Administrative Access
Lab 2: Configuring FCoE Connectivity
Lab 3: Configuring NPV Mode
Lab 4: Traffic Engineering
Lab 5: Configuring the Nexus 2000
Lab 6: Configuring Virtual PortChannels

Module 3: Nexus 1000V
Lesson 1: Introducing Server Virtualization
Lesson 2: The Cisco Nexus 1000V Architecture
Lesson 3: Installing and Configuring the Cisco Nexus 1000V
Lesson 4: Configuring Basic Cisco Nexus 1000V Networking
Nexus 1000V Hands-On Labs
Lab 1: Populating the Virtual Center Database
Lab 2: Installing the Cisco Nexus 1000V
Lab 3: Configuring Port Profiles
Lab 4: Configuring Security
Lab 5: HA and QoS

Maximum Class Size

12 Students

Class Locations

All APAC locations, subject to suitable venue.

Further Information

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