

Implementing and Configuring the Cisco Nexus 1000V (ICNX1V)

Vendor Course Code: ICNX1V

Course Length: 2 days

Overview:

The Cisco Nexus 1000V is a virtual switch that resides within the VMware ESX Server instance and provides operations and management consistency with existing Cisco Nexus and Catalyst switches.

The Nexus 1000V leverages the VN-Link specification, together with VMware's vNetwork Distributed Switch framework, to offer tightly integrated network services as part of a comprehensive Data Centre server virtualisation strategy.

This 2 day course provides you with an in-depth look at the design and configuration process for the Cisco Nexus 1000V.

This course including hands-on labs in which you will configure a VMware infrastructure, configure the Nexus 1000V and demonstrate policy mobility during virtual machine migration.

After you complete this course, you will be able to:

Skills Gained:

- Describe the VMware virtual networking environment
- Describe the Cisco Nexus 1000V switch and its role in a virtual server network environment
- Describe virtual access layer architecture using the Cisco Nexus 1000V
- Perform basic configuration of VMware ESX virtual machines, and import VMs from a SAN
- Install and configure the Cisco Nexus 1000V
- Configure Cisco Nexus 1000V port profiles
- Configure Cisco Nexus 1000V security policies
- Configure QoS on the Cisco Nexus 1000V
- Monitor and troubleshoot Cisco Nexus 1000V environments

Module 1: Networks in a Virtual Server Environment

Lesson 1: Introducing the Cisco Nexus 1000V

- Data Centre Access Layer Networks
- Virtual Environment Overview
- Cisco Virtual Switching Overview
- Feature Overview

Lesson 2: VMware Networking

- The Virtual Access Layer
- vSwitch Configuration
- vSwitch Security
- Distributed Virtual Switch

Lesson 3: Cisco Nexus 1000V Architecture

- Cisco Nexus 1000V Series Switch
- Architectural Overview
- Cisco Nexus 1000V Installation and Operation

Lesson 4: Cisco Nexus 1000V Design Considerations

- Cisco VN-Link
- Access Layer Designs

Key Topics:

Module 2: Cisco Nexus 1000V Installation and Configuration

Lesson 1: Installing and Configuring the Cisco Nexus 1000V

- Configure VSM vSwitch Networks
- VSM Virtual Machine Creation
- Initial VSM Configuration
- Connect the VSM to vCentre
- Cisco Nexus 1000V HA Configuration
- Cisco Nexus 1000V Licensing

Lesson 2: Configuring Port Profiles Port Profiles

- VLAN Configuration
- Creating Uplink Profiles
- Creating VM Data Port Profiles
- Configuring Nexus 1000V PortChannels
- Adding Hosts to the VSM
- Adding VMs to the VSM

Lesson 3: Managing Security Access Control Lists

- Configuring Access Control Lists
- Understanding Private VLANs
- Configuring Private VLANs

Lesson 4: Traffic Flow

- IGMP Snooping
- QoS

Lesson 5: Network Monitoring and Troubleshooting

- NetFlow
- SPAN
- Troubleshooting VSM Connectivity
- Troubleshooting VM Connectivity

Target Audience:

This course provides an introduction to VN-Link and the Cisco Nexus 1000V for network engineers who need to gain experience configuring a VMware virtual networking environment.

Prerequisites:

You will gain the most from this seminar if you have at least CCNA-level knowledge of routing and switching.