Learning Services

Configuring the Cisco Nexus Data Center Virtual Machines (CCNDC-V) v2.0

Overview
Configuring the Cisco Nexus Data Center Virtual Machines (CCNDC-V) Version 2.0 is a Cisco® Training on Demand course. It is an educational session that includes lectures by a subject matter expert and hands-on practice exercises that focus on designing and configuring a data center network to support a Virtual Computing Environment (VCE). Using the Cisco Nexus® and Multilayer Director Switch (MDS) families of products, you learn how to connect VMware vSphere ESX-based virtual machines to a highly available data center infrastructure that can be used to provide virtualized cloud-based services.

Topics covered include the configuration of a data center unified fabric using both Fibre Channel and Fibre Channel over Ethernet (FCoE), as well as the configuration of the VMware vSphere virtual switch for a Cisco Nexus based data center network. In addition, the lectures and labs describe how to configure both VMware VMotion and storage VMotion in the data center environment.

Duration
The CCNDC-V Training on Demand course consists of 5 modules totaling more than 4 hours of video instruction along with 4 hands-on lab exercises.

Target audience
The primary audience for this course is network or data center professionals who are involved in the design, implementation, or support of virtualized and/or cloud computing data centers.
Objectives

After completing this course, you should be able to:

- Describe current data center strategies such as cloud computing, virtualization, and unified fabric
- Configure a Cisco Nexus unified fabric data center network using Ethernet and FCoE
- Configure a Cisco MDS-based Fibre Channel data center storage area network
- Connect VMware vSphere ESX-based virtual machines using redundant connections to a Cisco Nexus based unified data center fabric
- Configure a data center network to enable virtual machine migration using VMware, VMotion, and storage VMotion technologies

Course prerequisites

The knowledge and skills recommended before attending this course are:

- Cisco CCNA® level networking knowledge and experience configuring Cisco network routers and switches
- Introductory-level understanding of data center architectures and virtualization concepts

Course outline

- Module 1: Determining the Elements of Proper Data Center Design
- Module 2: Connecting Virtualized Machines to the Network
- Module 3: Enabling the Storage Infrastructure
- Module 4: Verifying the End-to-End Virtual Computing Environment
- Module 5: Configuring the Cisco Nexus 1000V Switch

Lab Outline

This course contains 4 hands-on lab exercises.

Representative topology for all labs in the course:
The labs included in this course are:

- Lab 1: Connecting Virtual Machines to the Network
- Lab 2: Enabling the Storage Infrastructure
- Lab 3: Verifying the End-to-End Virtual Computing Environment
- Lab 4: Installing and Configuring the Nexus 1000V Switch

Instructor Bio

Joe Rinehart is currently based in the Seattle area. He has been involved with Cisco networking technologies and teaching for nearly twenty years. He holds a Cisco CCIE® certification and has a deep passion for providing engaging learning experiences to students worldwide.

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