

## ICNX1V

### Why Firefly



We take great care to provide current and up-to-date courseware. We typically release courseware associated to a technology version very shortly after the product is in general release. We also take the “lessons learned” from our field teams, who are constantly deploying and migrating solutions, directly into our courses.

This version of ICNX1V features the latest version of the Nexus 1000V software in the courseware 4.2.1.SV1.5.2, including the new vPath 2.0 architecture. Additionally the most recent version of Cisco Nexus 1010, 4.2.1.SP1(4a) is covered, along with updates on the Cisco Virtual Security Gateway (VSG), the Cisco 1000V ASA, and the Virtual Wide Area Application Services (vWAAS), which provides integrated WAN optimization services.

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### Course Description

The Cisco Nexus 1000V is a virtual switch that resides within the VMware ESXi Server instance and provides operations and management consistency with existing Cisco Nexus and Catalyst switches. The Nexus 1000V leverages the VMware's vNetwork Distributed Switch (VDS) framework, and integrates with the Cisco Nexus 1010 Virtual Network Appliance and Virtual Services Blades (VSB), to offer tightly integrated network services as part of a comprehensive Data Center server virtualization 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 includes hands-on labs in which you will configure a VMware infrastructure, configure the Nexus 1000V with high availability and demonstrate policy mobility during virtual machine migration.

### Who Should Attend

This course is targeted at Networking and Virtual Server engineers, introducing and teaching the configuration and design aspects of the Cisco Nexus 1000V and associated products in a VMware virtual switching environment.

### Prerequisites

You will gain the most from this seminar if you have at least CCNA-level knowledge of routing and switching together with some knowledge and experience of configuring a VMware virtual switching environment.

### Learning Objectives

- Describe the Cisco Nexus 1000V Series Switch and its role in a virtual server network environment
- Describe the VMware networking environment
- Describe the Cisco Nexus 1000V Series Switch architecture
- Describe Cisco Nexus 1000V design considerations
- Describe the Cisco Nexus 1000V Virtualized Services and their role in VMware deployments
- Describe how to install, upgrade and configure a Cisco Nexus 1000V Series Switch
- Describe how configure Cisco Nexus 1000V networking using port profiles
- Describe the configuration of security on the Cisco Nexus 1000V
- Describe the Cisco Nexus 1000V Series Switch traffic flow configuration
- Describe network monitoring, troubleshooting and management of the Cisco Nexus 1000V

**Length:**  
2 Days

**Format:**  
Lecture/Lab

**Course Version:**  
2.3

**Product Version:**  
4.2.1.SV1.5.2



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## **Module 1: Networks in a Virtual Server Environment**

**Lesson 1:** Introducing the Cisco  
Nexus 1000V

**Lesson 2:** VMware Networking

**Lesson 3:** Cisco Nexus 1000V  
Architecture

**Lesson 4:** Cisco Nexus 1000V Design  
Considerations

**Lesson 5:** The Cisco Nexus  
1010/1100 Virtual Network Appliance  
and Virtualized Services

## **Module 2: Cisco Nexus 1000V Installation and Configuration**

**Lesson 1:** Installing, upgrading and  
Configuring the Cisco Nexus 1000V

**Lesson 2:** Configuring Port Profiles

**Lesson 3:** Managing Security

**Lesson 4:** Traffic Flow

**Lesson 5:** Network Monitoring,  
Troubleshooting and Manageent of the

**Lab 1:** Setting Up the Lab Environment

**Lab 2:** Installing the Cisco Nexus  
1000V VSM

**Lab 3:** Installing the Cisco Nexus  
1000V VEM

**Lab 4:** Upgrading the Cisco Nexus 1000V  
VSM and VEM

**Lab 5:** Optimizing the Cisco Nexus 1000V  
Implementation

**Lab 6:** Configuring SPAN and ERSPAN