

Cisco Nexus 7000 Switches Training

5-Day Cisco Nexus Training with Hands-On Lab Learning

Configuring Cisco Nexus 7000 Switches (DCNX7K) v3.1 is a 5-day Cisco Nexus training program that will cover the key components and procedures needed to install, configure, manage, and troubleshoot the Cisco Nexus 7000 Switch. Through hands-on labs using NX-OS version 6.2(6b) code, you will gain an understanding of the day-to-day operation of the switches, including key features and functions. This Nexus 7000 training will help you develop the skills you need to work with the Cisco Nexus 7000 Switch, skills that businesses around the world need now.

Additionally, we have enhanced the standard Cisco labs to include more in-depth exploration of sought-after technologies including FabricPath, OTV, LISP, vPC, FCOE QOS, and troubleshooting. All configurations are performed on the Nexus 7000, with the latest version of the NX-OS code, 6.2(6b).

What You'll Learn

- Chassis and components of the Cisco Nexus 7000 Switch
- Management tools available for the Cisco Nexus 7000 Switch
- Nexus switch management tools
- Configure Cisco Nexus 7000 Switch functions and features, including Nexus-oriented features like vPC, FCoE, FabricPath, OTV, LISP, MPLS, and Security
- Configure Cisco Nexus 7000 Switch Security and Quality of Service (QoS) features
- Troubleshoot key features of the Cisco Nexus 7000 Switch

Who Needs to Attend

- Network engineers, designers, administrators, and managers
- System engineers

- Channel partners and resellers
- Anyone who installs and implements the Cisco Nexus 7000 Switch

Prerequisites and Course Objectives

Prerequisites

- CCNA certification or equivalent knowledge

Recommended:

- ROUTE - Implementing Cisco IP Routing v2.0
- SWITCH - Implementing Cisco IP Switched Networks v2.0

Course Objectives

Upon completing this course, the learner will be able to meet these overall objectives:

- Chassis and components of the Cisco Nexus 7000 Switch
- Management tools available for the Cisco Nexus 7000 Switch
- Nexus switch management tools
- Configure Cisco Nexus 7000 Switch functions and features, including Nexus-oriented features like vPC, FCoE, FabricPath, OTV, LISP, MPLS, and security
- Configure Cisco Nexus 7000 Switch security and Quality of Service (QoS) features
- Troubleshoot key features of the Cisco Nexus 7000 Switch

Course Outline

Module 1: Cisco Nexus Product Family Overview

- Cisco Unified Fabric
- Cisco Nexus Product Family
- Data Center Requirements Addressed by the Cisco Nexus 7000 Switch

Module 2: Cisco Nexus 7000 Series Switch

- NXOS Overview
- Deployment Models

- 7000 and 7700 Series Switch Chassis
- Supervisor Modules, I/O Modules, and Fabric Modules
- Switch Forwarding and Packet Flow

Module 3: Cisco Nexus 2000 Series Fabric Extender

- Hardware
- Support on Nexus 7000 Series Switch

Module 4: Cisco Nexus 7000 Series Switch Hardware

- Hardware Installation
- Hardware Installation Verification

Module 5: Cisco NX-OS Architecture, Key Features, and Capabilities

Module 6: Cisco Nexus 7000 Series Switch Management

- Management Interfaces and Setup Utilities
- User Management
- System Management Features

Module 7: Troubleshooting Nexus 7000 Series

- Processes and Tools
- Memory Issues
- Packet Flow Issues
- Series Network Analysis Module

Module 8: Remote Integrated Service Engine

Module 9: Cisco Prime DCNM Overview

Module 10: Cisco Dynamic Fabric Automation Overview

Module 11: Virtual Device Contexts

- Overviews
- Management Settings

Module 12: Layer 2 Switching Features on Cisco Nexus 7000 Series Switches

- Interface Configuration
- Configuration of Cisco Nexus 2000 Series Fabric Extender on Nexus 7000 Series Switch
- VLANs and Advanced VLAN Features Configuration
- STP and STP Extensions Configuration
- Q-in-Q Configuration
- Troubleshooting Layer 2

Module 13: Port Channels and Virtual Port Channels on the Cisco Nexus 7000 Series Switches

- Port Channel Overview
- Virtual Port Channel Overview
- VPC Configuration
- vPC Troubleshooting

Module 14: FabricPath on Cisco Nexus 7000 Series Switches

- Cisco FabricPath Architecture
- Cisco FabricPath Configuration
- Troubleshooting Cisco FabricPath

Module 15: Layer 3 Switching Features on Cisco Nexus 7000 Series Switches

- Cisco NX-OS Forwarding Architecture
- Routing Protocols Configuration
- Route Policy Manager and Policy Based Routing
- Layer 3 Virtualization Configuration
- FHRP Protocols Configuration
- Bidirectional Forwarding Detection
- Multicast Configuration
- Layer 3 Troubleshooting
- BFD Configuration

Module 16: MPLS on Cisco Nexus 7000 Series Switches

- MPLS Overview

- MPLS Configuration on the Cisco Nexus 7000 Switch
- MPLS Layer 3 VPNs Configuration
- MPLS Layer 2 VPNs Configuration
- MPLS TE Configuration

Module 17: OTV on Cisco Nexus 7000 Series Switches

- Cisco OTV Overview
- Basic OTV Configuration

Module 18: LISP on Cisco Nexus 7000 Series Switches

- LISP
- LISP Configuration on Cisco Nexus 7000 Series Switch

Module 19: FCoE on Cisco Nexus 7000 Series Switches

- FCoE Overview
- FCoE Support on Cisco Nexus 7000 Series Switches
- Configuring FCoE on Cisco Nexus 7000 Series Switches

Module 20: Security Features on Cisco Nexus 7000 Series Switches

- Security Features Overview and Configuration
- Cisco TrustSec on Cisco Nexus 7000 Series Switch

Module 21: QOS on Cisco Nexus 7000 Series Switches

- QOS in the Data Centre
- QOS Configuration on the Cisco Nexus 7000 Switch

Module 22: Intelligent Traffic Director Overview on Nexus 7000 Series Switches

- Intelligent Traffic Director Overview
- ITD Configuration

Lab Outline

- Lab 1: Cisco Nexus 7000 Platform Discovery
- Lab 2: Configure User Management

- Lab 3: Configure System Management
- Lab 4: Configure Layer 2 Advanced Switching
- Lab 5: Configure Basic and Advanced vPCs
- Lab 6: Configure Basic and Advanced Cisco Fabric Path
- Lab 7: Configure Layer 3 Switching
- Lab 8: Configure FHRP
- Lab 9: Configure MPLS
- Lab 10: Configure Basic and Advanced OTV
- Lab 11: Configure LISP
- Lab 12: Configure FCoE
- Lab 13: Configure Security Features
- Lab 14: Configure QoS
- Lab 15: Configure Troubleshooting Features
- Lab 16: Troubleshooting

Who Should Attend

The primary audience for this course is as follows:

- Network engineers
- Designers
- Administrators
- Managers
- System engineers
- Channel partners/resellers, customers, employees
- Anyone who installs and implements the Cisco Nexus 7000 Switch