
Implementing & Configuring Cisco Nexus 5000 & 7000

Duration: 3 Days **Course Code: ICNX7**

Overview:

In this 3-day course, you will learn how to implement an enterprise Data Center routing and switching infrastructure with the next-generation Cisco Nexus 7000 platform. This course provides a technical overview of the Nexus platform architecture, deployment, and operations, including Virtual Device Contexts, Layer 2 and Layer 3 features, QoS, and security. The features of NX-OS and the Nexus platform are explored using hands-on labs which incorporate actual Nexus 7000 Switches as opposed to using NX-OS simulators.

This course is delivered as part of the Global Knowledge and Firefly strategic alliance, providing delegates with the latest in Data Center technology.

Target Audience:

This course is designed for experienced Network Field Engineers who are already capable of implementing Layer 2 and Layer 3 services using Cisco IOS and the Cisco Catalyst switching platform.

Objectives:

- **After you complete this course, you will be able to:**
 - Describe the features of the Nexus 7010 chassis, Supervisor Engine, and line cards
 - Describe the architecture of NX-OS
 - Describe the Connectivity Management Processor
 - Configure switch management features like Call Home, logging, AAA, and RBAC
 - Use configuration checkpoints and rollbacks
 - Configure Virtual Device Contexts
 - Configure Layer 2 and Layer 3 services
 - Configure NX-OS Process Recovery
 - Configure NX-OS Supervisor Redundancy
 - Configure Quality of Service
 - Configure traffic integrity features and Control Plane Protection
 - Configure access and admission control
 - Configure LinkSec encryption
 - Use SPAN and Ethalyzer to monitor traffic
-

Prerequisites:

Delegates should meet the following prerequisites:

- Familiarity with TCP/IP protocol suite
- Knowledge of Layer 2 switching
- Knowledge of Layer 3 routing protocols
- Understanding of Cisco Data Center architecture

Testing and Certification

Recommended preparation for exam(s):

None applicable

Follow-on-Courses:

The following courses are recommended for further study:

None recommended

Content:

Overview of the Nexus 7000

- Cisco Nexus 7000 Series Chassis Overview
- Introducing Supervisor Engine and Line Cards
- Introducing Power Supplies and Cooling
- Connectivity Management Processor
- Introducing NX-OS
- Introducing NX-OS Supervisor Redundancy

Introduction to Virtual Device Contexts

- Introducing Virtualization
- VDC Configuration
- High Availability

Managing the Nexus 7000

- SNMP and XML
- Generic OnLine Diagnosis
- Embedded Event Manager
- SMART Call Home
- Data Center Network Manager
- System Message Logging
- AAA
- Role-Based Access Control
- Configuration Rollback

Layer 2 Protocols and Features

- Nexus 7000/NX-OS Layer 2 Overview
- VLANs and PVLANS
- Spanning-Tree Protocols
- EtherChannels
- IGMP Snooping
- Uni-Directional Link Detection

Layer 3 Protocols and Features

- Layer 3 Unicast Routing Overview
- Virtualizing Routing
- First-Hop Routing Protocols
- Routing Protocols
- Policy Routing
- Equal Cost Multipathing
- Tunnels
- Layer 3 Multicast

Nexus 7000 Fabric Switching

- Introduction to the Nexus 7000 Fabric Modules
- Virtual Output Queuing Overview
- VOQ Operation

Quality of Service

- Nexus 7000 Series QoS Overview
- Port QoS
- Forwarding Engine QoS
- Modular QoS CLI Overview
- Class Map
- Policy Map
- Service Policy

Security

- Introduction to Nexus/NX-OS Security
- Traffic Integrity
- Control Plane Protection
- Access Control
- Admission Control
- Data Confidentiality

Troubleshooting

- Ethalyzer (WireShark in NX-OS)
- SPAN and RSPAN

Course Labs:

- Lab 1: Using the Cisco Power Calculator
- Lab 2: Managing System Configuration
- Lab 3: Layer 2 Switching
- Lab 4: First Hop Redundancy Protocols
- Lab 5: Configuring Routing Protocols
- Lab 6: VDC and VRF Implementation
- Lab 7: QoS on the Nexus 7000
- Lab 8: Security
- Lab 9: Troubleshooting the Nexus Control Plane

Additional Information:

The Nexus 5000 is covered in the course **Implementing and Configuring the Cisco Nexus 5000**

Further Information:

For More information, or to book your course, please call us on 353-1-814 8200

info@globalknowledge.ie

www.globalknowledge.ie

Global Knowledge, 3rd Floor Jervis House, Millennium Walkway, Dublin 1