DCNX

Implementing Cisco NX-OS Switches and Fabrics in the Data Center

40 horas | Data Center & Cloud | Cisco

Cisco Continuing Education Credits

40 CE Credits

INTRODUÇÃO

The Implementing Cisco NX-OS Switches and Fabrics in the Data Center (DCNX) course gives you a detailed understanding of the Cisco® Nexus switch platform and teaches you how to install, configure, and manage Cisco Nexus® switch platforms in a scalable, highly available environment. Through a combination of lectures and hands-on labs, you will learn how to describe various aspects of the Cisco Nexus product families and platforms, including implementation, management, security, programmability and storage. Additionally, you will learn how to configure device aliases and zoning, Fibre Channel over Ethernet (FCoE), and N-Port Identifier Virtualization (NPIV), and N-Port Virtualization (NPV) modes.

This training is worth 40 Continuing Education (CE) Credits towards recertification

OBJETIVO DO CURSO

After completing this course you should be able to:

- Describe the platforms that make the Cisco Nexus 9000, 7000, 3000, and 2000 product families
- Describe Cisco Nexus platform implementations
- Explain Cisco Nexus platform management
- Describe Port Channels and Virtual Port Channels
- Configure First Hop Redundancy protocols
- Configure security features of Cisco Nexus devices
- Describe the Cisco Nexus devices routing and forwarding
- Describe Virtual Extensible LAN (VXLAN)
- Describe Quality of Service (QoS) on Cisco Nexus Devices
- Explain system management and monitoring processes
- Describe Cisco NX-OS programmability
- Describe Cisco Nexus storage services
- Configure device aliases and zoning
- Configure FCoE
- Configure NPIV and NPV modes

PÚBLICO-ALVO

Professionals interested in implementing, configuring, operating and management Cisco Data Center Nexus solutions.

PRÉ-REQUISITOS

Attendees should meet the following prerequisites:

• Be familiar with Cisco data center technologies

• Understand networking protocols, routing, and switching

Recommended prerequisites:

• CCNA - Implementing and Administering Cisco Solutions

• DCFNDU - Understanding Cisco Data Center Foundations

CONTEÚDO PROGRAMÁTICO

Cisco Nexus Series Switches

Describe Cisco Nexus 9000 Series Switches

Describe Cisco Nexus 7000 Series Switches

Describe Cisco Nexus 3000 Series Switches

Describe Cisco Nexus 2000 Series Fabric Extenders

Cisco Nexus Platforms Implementation

Describe Cisco Nexus in the Data Center Architecture

Describe Cisco NX-OS Software

Describe the Licensing Model

Cisco Nexus Platforms Management

Describe Cisco Nexus CLI and GUI Management Interfaces

Describe Cisco NX-OS Setup Utility

Describe Virtual Device Context on Cisco Nexus 7000 Series

Describe PowerOn Auto Provisioning

Describe Cisco NX-OS User Management

Describe Cisco NX-OS AAA Services

Port Channels and Virtual Port Channels

Describe Port Channel Operation

Describe vPC Concepts and Benefits

Describe vPC Architecture

Describe vPC Control and Data Plane

First Hop Redundancy Protocols

Describe HSRP

Describe VRRP

Cisco Nexus Security Features

Configure Access Control Lists

Configure Port Security

Configure DHCP Snooping

Configure Dynamic ARP Inspection

Configure IP Source Guard

Configure Unicast RPF

Configure Keychain Management

Configure Control Plane Policing

Configure MACsec

Cisco NX-OS Routing and Forwarding

Describe Routing in Cisco NX-OS

Describe Multicast Routing in Cisco NX-OS

Describe Unicast and Multicast RIB and FIB in NX-OS

Describe Layer 3 Best Practices for vPC

Virtual Extensible LAN

Describe VXLAN Benefits over VLAN

Describe VXLAN Overlay

Describe VXLAN MP-BGP EVPN Control Plane

Describe VXLAN Data Plane

QoS on Cisco Nexus Devices

Describe QoS on Cisco Nexus Devices

Configure QoS on Cisco Nexus Devices

Describe Monitoring of QoS Statistics

System Management and Monitoring

Configure System Management

Configure System Monitoring and Troubleshooting Tools

Cisco NX-OS Programmability

Describe On-Box Programmability on Cisco NX-OS

Describe Ansible for Cisco NX-OS

Cisco Nexus Storage Services

Describe IP Storage on Cisco Nexus Switches

Describe Fibre Channel

Describe Fibre Channel Flow Control

Describe Fibre Channel Domain Initialization

Describe Fibre Channel Addressing

Fibre Channel Over Ethernet

Describe Fibre Channel over Ethernet

Describe FCoE Requirements

Describe Data Center Bridging

Describe FCoE Addressing Scheme

Describe FCoE Initialization Protocol

Describe FCoE Port Types

Device Aliases and Zoning

Describe Distributed Device Alias Services

Describe Zoning

Describe Zone Merging

Describe Recovering from Zone Merge Failures

Describe Enhanced Zoning

NPIV and NPV Modes

Describe N-Port ID Virtualization

Describe Fibre Channel NPV Mode

Describe FCoE NPV Mode

Labs

Discovery Lab 1: Test Cisco Nexus Platforms

Discovery Lab 2: Configure User Management

Discovery Lab 3: Configure vPC

Discovery Lab 4: Configure First Hop Redundancy Protocol (FHRP) Protocols

Discovery Lab 5: Configure Cisco Nexus Security Features

Discovery Lab 6: Configure Open Shortest Path First (OSPF)

Discovery Lab 7: Configure VXLAN

Discovery Lab 8: Configure QoS

Discovery Lab 9: Configure System Management

Discovery Lab 10: Configure Cisco NX-OS On-Box Programmability

Discovery Lab 11: Configure Containers on Cisco NX-OS

Discovery Lab 12: Configure Cisco NX-OS Using Ansible

Discovery Lab 13: Configure Basic Fibre Channel Features

Discovery Lab 14: Configure FCoE

Discovery Lab 15: Configure Fiber Channel Device Aliases and Zoning

Discovery Lab 16: Configure NPV