

INTRODUCING CISCO DATA CENTER NETWORKING (DCICN v6.1)

Temario

Introducing Cisco Data Center Networking (DCICN) v6. course is designed to help students prepare for the Cisco CCNA Data Center certification and for associate-level data center roles. The course covers foundational knowledge, skills, and technologies including network protocols and host-to-host communication, data center networking concepts and technologies, data center storage networking, and Cisco UCS architecture.

Pre-requisitos

- Good understanding of networking protocols
- Good understanding of the VMware environment
- Basic computer literacy
- Basic knowledge of Microsoft Windows operating systems
- Basic Internet usage skills

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- Network Designer
- Network Administrator
- Network Engineer
- Systems Engineer
- Consulting Systems Engineer
- Technical Solutions Architect
- Cisco Integrators/Partners

Objetivos del curso

After you complete this course you will be able to:

- Describe and identify data center network protocols and host-to-host communication
- Describe basic data center networking concepts and use the Cisco NX-OS command line interface and implement VLANs, trunks, and port channels
- Describe advanced data center networking concepts, implement multilayer switching, and perform basic configuration: protocols (OSPF, EIGRP, HSRP); AAA on Cisco NX-OS devices and secure remote administration; and access control lists
- Describe and compare basic data center storage connectivity options and configure VSANs
- Describe advanced data center storage and configure zoning, NPV mode, and NPIV on Cisco Nexus and Cisco MDS Switches
- Identify the components of Cisco UCS architecture and use the Cisco UCS Manager GUI

Contenido del curso

1. **Network Protocols and Host-to-Host Communication**
 1. Describing Ethernet Functions and Standards
 2. Describing Ethernet Hardware and Switching
 3. Describing OSI and TCP/IP Models
 4. Describing IPv4 and IPv6 Network Layer Addressing
 5. Guided Lab 1: Use the DCICN Lab System
 6. Describing Packet Delivery on a Hierarchical Network
 7. Lab 2: Explore LAN Communication
 8. Describing the TCP/IP Transport Layer
 9. Lab 3: Explore Protocol Analysis
 10. Lab 4: Explore TCP and UDP Communication

2. **Basic Data Center Networking Concepts**
 1. Describing Data Center Network Architectures
 2. Describing the Cisco Nexus Family and NX-OS
 3. Lab 5: Explore the Cisco NX-OS Command Line Interface
 4. Lab 6: Explore Topology Discovery and Documentation
 5. Implementing VLANs and Trunks
 6. Lab 7: Implement VLANs and Trunks
 7. Describing Redundant Switched Topologies
 8. Lab 8: Map a Spanning Tree and Configure Port Channels

3. **Advanced Data Center Networking Concepts**
 1. Describing the Routing Process on Nexus Switches
 2. Lab 9: Implement Multilayer Switching
 3. Describing Routing Protocols on Nexus Switches
 4. Lab 10: Configure OSPF
 5. Lab 11: Configure EIGRP
 6. Describing Layer 3 First Hop Redundancy
 7. Lab 12: Configure HSRP
 8. Describing AAA on Nexus Switches
 9. Lab 13: Configure AAA and Secure Remote Administration
 10. Describing ACLs on Nexus Switches
 11. Lab 14: Configure ACLs

4. **Basic Data Center Storage**
 1. Describing Storage Connectivity Options in the Data Center
 2. Describing Fibre Channel Storage Networking
 3. Describing VSANs
 4. Lab 15: Configure VSANs

5. **Advanced Data Center Storage**

1. Describing Communication Between Initiator and Target
2. Lab 16: Validate FLOGI and FCNS
3. Describing Fibre Channel Zone Types and Their Uses
4. Lab 17: Configure Zoning
5. Describing Cisco NPV Mode and NPIV
6. Describing Data Center Ethernet Enhancements
7. Describing Fibre Channel over Ethernet

6. **Cisco UCS Architecture**

1. Describing Cisco UCS Server Hardware Components
2. Lab 18: Explore the Cisco UCS Manager GUI
3. Cisco UCS Physical Connectivity for a Fabric Interconnect Cluster
4. Describing the Cisco UCS Manager Interfaces
5. Lab 19: Calculate Decimal, Binary, and Subnet (Optional)

This training prepares students for the following exam(s):

200-150 : Introducing Cisco Data Center Networking v6.0 - DCICN