

Cisco® Introducing Cisco Data Center Networking DCICN v6.2

Course Overview

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This is a 5-day class

Introducing Cisco Data Center Networking (DCICN) v6.1 is a five-day instructor-led course 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.

Who Should Attend

The primary audience for this course is as follows:

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

The secondary audience for this course is as follows:

- Server Administrator
- Network Manager

The tertiary audience for this course is as follows:

- Storage Administrator
- Program Manager
- Project Manager

Course Objectives

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

- 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

Course Outline

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1 Network Protocols and Host-to-Host Communication

Lesson 1-1: Describing Ethernet Functions and Standards

Lesson 1-2: Describing Ethernet Hardware and Switching

Lesson 1-3: Describing OSI and TCP/IP Models

Lesson 1-4: Describing IPv4 and IPv6 Network Layer Addressing

Lesson 1-5: Describing Packet Delivery on a Hierarchical Network

Lesson 1-6: Describing the TCP/IP Transport Layer

2 Basic Data Center Networking Concepts

Lesson 2-1: Describing Data Center Network Architectures

Lesson 2-2: Describing the Cisco Nexus Family and NX-OS

Lesson 2-3: Implementing VLANs and Trunks

Lesson 2-4: Describing Redundant Switched Topologies

3 Advanced Data Center Networking Concepts

Lesson 3-1: Describing the Routing Process on Nexus Switches

Lesson 3-2: Describing Routing Protocols on Nexus Switches

Lesson 3-3: Describing Layer 3 First Hop Redundancy

Lesson 3-4: Describing AAA on Nexus Switches

Lesson 3-5: Describing ACLs on Nexus Switches

4 Basic Data Center Storage

Lesson 4-1: Describing Storage Connectivity Options in the Data Center

Lesson 4-2: Describing Fibre Channel Storage Networking

Lesson 4-3: Describing VSANs

5 Advanced Data Center Storage

Lesson 5-1: Describing Communication Between Initiator and Target

Lesson 5-2: Describing Fibre Channel Zone Types and Their Uses

Lesson 5-3: Describing Cisco NPV Mode and NPIV

Lesson 5-4: Describing Data Center Ethernet Enhancements

Lesson 5-5: Describing Fibre Channel over Ethernet

6 Cisco UCS Architecture

Lesson 6-1: Describing Cisco UCS Server Hardware Components

Lesson 6-2: Cisco UCS Physical Connectivity for a Fabric Interconnect Cluster

Lesson 6-3: Describing the Cisco UCS Manager Interfaces