

# DCICN (INTRODUCING CISCO DATA CENTER NETWORKING)

## Objetivo

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 Unified Computing System (UCS) architecture. Upon completion of 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

## Público Alvo

Professional or career level: Senior Network Engineer, Presales Engineer, Design Engineer, Data Center Administrator, Senior Systems Engineer, Senior Technical Solutions Architect.

## Pré-Requisitos

It is recommended that a learner have the following knowledge and skills before attending this course: 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

## Carga Horária

40 horas (5 dias).

## Conteúdo Programático

Module 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

## Module 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

## Module 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

## Module 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

## Module 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

## Module 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

## Lab Details:

- Guided Lab 1: Use the DCICN Lab System
- Guided Lab 2: Explore LAN Communication
- Guided Lab 3: Explore Protocol Analysis
- Guided Lab 4: Explore TCP and UDP Communication
- Guided Lab 5: Explore the Cisco NX-OS Command Line Interface
- Guided Lab 6: Explore Topology Discovery and Documentation
- Guided Lab 7: Implement VLANs and Trunks
- Guided Lab 8: Map a Spanning Tree and Configure Port Channels
- Guided Lab 9: Implement Multilayer Switching
- Guided Lab 10: Configure OSPF
- Guided Lab 11: Configure EIGRP
- Guided Lab 12: Configure HSRP
- Guided Lab 13: Configure AAA and Secure Remote Administration
- Guided Lab 14: Configure ACLs
- Guided Lab 15: Configure VSANs
- Guided Lab 16: Validate FLOGI and FCNS
- Guided Lab 17: Configure Zoning

