



Introducing Cisco Data Center Technologies

DURATION: 5 DAYS

COURSE CODE: DCICT

FORMAT: LECTURE/LAB

COURSE DESCRIPTION

Introducing Cisco Data Center Technologies (DCICT) v6.2 prepares students for the Cisco CCNA Data Center certification and for associate-level data center roles.

The course covers foundational knowledge, skills, and technologies, including networking technologies, data center network virtualization, unified computing, data center automation and orchestration, and Cisco Application Centric Infrastructure (ACI).

The training provided in this course is focused on data center basic operations covering the topics needed for today's demanding associate-level positions. The hands-on lab exercises focus on configuring features in Cisco NX-OS Software, Cisco Unified Computing System (UCS), and Cisco UCS Director.

PREREQUISITES

It is recommended, but not required, to have the following skills and knowledge before attending this course:

- Understanding of networking protocols
- Understanding of the VMware environment
- Recommended Cisco learning offerings that may help students meet these prerequisites:
- Introducing Cisco Data Center Networking (DCICN)

LEARNING OBJECTIVES

Describe switch and machine virtualization Describe network virtualization, including overlays, virtual switches, and the Cisco Nexus 1000V solution.

Describe Cisco FabricPath and Cisco Fabric Extender (FEX) connectivity

Describe Ethernet port channels and virtual port channels (vPC) and Cisco Unified Fabric

Identify Cisco UCS components

Describe Cisco UCS organizational hierarchy and role-based access control (RBAC)

Describe how to deploy servers in Cisco UCS

Describe the purpose and advantages of application programming interfaces (API)

Describe cloud computing basic concepts

Describe Cisco UCS Director, its functional blocks and deployment models

Describe Cisco UCS Director Orchestration features; policies, virtual data centers, workflows, and catalogs.

Describe Cisco ACI, traffic forwarding through the Cisco ACI fabric, as well as programming and orchestration capabilities

Explain traffic forwarding mechanisms in Cisco ACI

Describe programmability and orchestration capabilities of Cisco ACI

COURSE OUTLINE

1. Cisco Data Center Network Virtualization

- Describing Switch Virtualization
- Describing Machine Virtualization
- Describing Network Virtualization

2. Cisco Data Center Network Technologies Configuration

- Describing Cisco FabricPath
- Describing Cisco Fabric Extender
- Describing Port Channels and Virtual Port Channels
- Describing Cisco Unified Fabric

3. Cisco Unified Computing System

- Describing Cisco UCS Components
- Cisco UCS RBAC
- Deploying Servers in Cisco UCS

4. Data Center Automation and Orchestration

- Using Application Programming Interfaces
- Cloud Computing
- Describing Cisco UCS Director
- Using Cisco UCS Director for Orchestration

5. Cisco Application-Centric Infrastructure

- Describing Cisco ACI
- Describing Cisco ACI Traffic Forwarding
- Programming and Orchestrating Cisco ACI

DISCOVERY LABS

- 1: Configure Virtual Routing and Forwarding by Using SSH
- 2: Explore the Elements of Virtual Device Contexts
- 3: Install VMware ESXi and vCenter
- 4: Configure Cisco FabricPath
- 5: Configure the Cisco Nexus 2000 Fabric Extender
- 6: Configure Virtual Port Channels
- 7: Configure Virtual Port Channels with FEX
- 8: Configure Unified Ports on Cisco Nexus Switch and Implement FCoE
- 9: Explore Cisco UCS Server Environment
- 10: Configure Local RBAC
- 11: Configure Cisco UCS to Boot Servers from SAN
- 12: Configure Cisco NX-OS with APIs
- 13: Explore the Management Information Tree of the Cisco UCS Manager XML API
- 14: Configure User Accounts in Cisco UCS Director
- 15: Add Virtual and Physical Accounts to Cisco UCS Director
- 16: Customize Cisco UCS Director
- 17: Explore Cisco UCS Director Monitoring Capabilities
- 18: Use Cisco UCS Director Orchestration Features