

Introducing Cisco Data Center Technologies

Learn via: **Classroom/AFA**

Duration: **5 Day**

Overview

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.

Certifications:

This course is part of the following Certifications:

- Cisco Certified Network Associate Data Center (CCNA DATA CENTER)

Prerequisites

The learner is expected to have the following skills and knowledge before attending this course:

- Good understanding of networking protocols
- Good understanding of the VMware environment
- Cisco learning offerings that contribute to recommended skills and knowledge: Introducing Cisco Data Center Networking (CDCICN)

Who Should Attend

- Data Center Engineer
- Network Administrator
- Network Engineer
- System Administrator
- Systems Engineer
- Network Designer

What You Will Learn

The goal of the course is to provide learners with broad exposure to Cisco data center technologies and to provide entry-level data center personnel with the skills they require to succeed in their job role. Upon completing this course, the learner will be able to meet these overall 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 AC

Outline

Module 1: Cisco Data Center Network Virtualization

- Lesson 1: Describing Functional Planes of Cisco Nexus Switches
- Lesson 2: Describing Cisco Nexus Operating System VRF Contexts
- Lesson 3: Describing Virtual Device Contexts
- Lesson 4: Describing the Function of Overlays
- Lesson 5: Describing Virtualization
- Lesson 6: Describing Virtual Switches

Module 2: Cisco Data Center Network Technologies Configuration

- Lesson 1: Describing Cisco Fabric Extender Connectivity
- Lesson 2: Describing Port Channels and Virtual Port Channels
- Lesson 3: Describing Cisco FabricPath
- Lesson 4: Describing Unified Port Feature of Cisco Nexus Switches
- Lesson 5: Describing Cisco Unified Fabric

Module 3: Cisco Unified Computing System

- Lesson 1: Describing Data Center Server Connectivity
- Lesson 2: Describing Cisco IMC Supervisor
- Lesson 3: Describing Cisco UCS Manager Operations
- Lesson 4: Describing Role-Based Access Control
- Lesson 5: Describing Hardware Abstraction in Cisco UCS

Module 4: Data Center Automation and Orchestration

- Lesson 1: Exploring the Utility of Application Programming Interfaces
- Lesson 2: Introducing Cloud Computing Basic Concepts
- Lesson 3: Describing Cloud Attributes and Service Models
- Lesson 4: Describing Cisco UCS Director
- Lesson 5: Describing VDCs, Tenants, and Policies
- Lesson 6: Describing Orchestration
- Lesson 7: Managing Catalogs and Templates
- Lesson 8: Reporting in Cisco UCS Director (CloudSense)

Module 5: Cisco Application-Centric Infrastructure

- Lesson 1: Describing Cisco ACI
- Lesson 2: Describing Cisco ACI Fabric
- Lesson 3: Programming and Orchestrating Cisco ACI