

# Designing Cisco Data Center Unified Computing (DCUCD)

Duration 4 Days

This course enables engineers to choose and design scalable, reliable, and intelligent data center unified computing and virtualization solutions based on the Cisco Unified Computing System (UCS) product portfolio as a centerpiece integrated with contemporary virtualization solutions (for example, VMware vSphere, VMware View, Microsoft Hyper-V, Citrix XenServer, Citrix XenDesktop, Red hat Kernel-based Virtual Machine [KVM], and so on), operating systems (for example, Microsoft Windows and Linux), and applications (database, collaboration, and so on).

The course describes the data center unified computing and virtualization solutions based on Cisco data center unified computing product portfolio, explains how to evaluate existing data center computing solution and determine the requirements, and design Cisco data center unified computing solution.

## COURSE OBJECTIVES

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

- Evaluate the data center solution design and design process in regards to the contemporary data center challenges, data center solution architecture, and components
- Assess the requirements and performance characteristics of the data center computing solutions
- Employ design steps to size the Cisco UCS solution for a given data center requirements
- Evaluate and design Cisco UCS solution LAN, SAN, and virtual access layer connectivity
- Recognize and design Cisco UCS solution server deployment
- Identify Cisco UCS solution for Unified Communications and Hadoop distributed computing application with their specifics and Cisco UCS options that fit the application needs

## COURSE CONTENT

The primary audience for this course is as follows:

- Data center designers, data center administrators, and system engineers

The secondary audience for this course is as follows:

- Data center engineers and managers

## PREREQUISITES

The knowledge and skills that a learner must have before attending this course are as follows:

- Cisco Certified Network Associate Data Center (CCNA Data Center) certification
- Knowledge that is covered in the Cisco Nexus product family courses
- Knowledge that is covered in the Designing Cisco Data Center Unified Fabric (DCUFD) course
- Knowledge that is covered in the Cisco MDS product family courses
- Knowledge of server and desktop virtualization (for example, VMware vSphere, Microsoft Hyper-V, VMware View, Citrix XenDesktop, and so on)
- Operating system administration familiarity (for example, Linux and Windows)

## COURSE OUTLINE

### Cisco Data Center Solution Architecture and Components

- Identifying Data Center Solution
- Identifying Data Center Applications
- Identifying Cloud Computing
- Identifying Cisco Data Center Architecture and Components

### Assess Data Center Computing Requirements

- Defining a Cisco Unified Computing System Solution Design
- Analyzing Computing Solutions Characteristics
- Employing Data Center Analysis Tools

### Size Cisco Unified Computing Solutions

- Sizing Cisco UCS C-Series Server Solution
- Sizing Cisco UCS B-Series Server Solution
- Planning Unified Computing Deployment

### Design Cisco Unified Computing Solutions

- Designing Unified Computing Network
- Recognize SAN operational modes of Cisco UCS 6200 Series Fabric Interconnects
- Designing Virtual Access Layer

### Design Cisco Unified Computing Solutions Server Deployment

- Designing Cisco UCS Server Deployment
- Designing Unified Computing Management

### Cisco Unified Computing Solution Applications

- Unified Communications on Cisco UCS
- Distributed Computing on Cisco UCS

### Appendixes: creating cisco ucs solution bom

- Creating Cisco UCS Solution BOM

### Course labs

- Lab 2-1: Analyze the Existing Computing Solution
- Lab 3-1: Design Cisco UCS C-series Solution
- Lab 3-2: Design Cisco UCS B-series Solution
- Lab 3-3: Plan the Physical Deployment
- Lab 4-1: Design Microsoft Hyper-V Deployment on Cisco UCS
- Lab 4-2: Design VMware vSphere Deployment and Integration with Cisco UCS
- Lab 5-1: Design VMware vSphere Deployment on Cisco UCS and Cisco Nexus 1000V