



## Cisco Training - HD Telepresence

### DCUCI: Data Center Unified Computing Implementation 5.0

Implementing Cisco Data Center Unified Computing (DCUCI) is designed to serve the needs of engineers and technicians who implement Cisco Unified Computing System (UCS) B-Series Blade Servers and Cisco UCS C-Series Rack-Mount Servers.

\$4,395.00

- 5 Days
- Promotional and package discounts may apply

### Upcoming Dates

### Course Description

DCUCI v5.0 guides learners through rack installation and provisioning of server hardware, operating systems, hypervisors, and applications. Much of the content is devoted to management and maintenance. DCUCI v5.0 covers the implementation and operation of Cisco UCS in the data center.

### Course Outline

#### Module 1: Implement Cisco UCS C-Series Rack Servers

- Lesson 1: Implementing Cisco R-Series Rack Enclosures
- Lesson 2: Installing Cisco UCS C-Series Server Hardware
- Lesson 3: Installing Cisco UCS C-Series Servers in a Cisco R-Series Rack Enclosure
- Lesson 4: Updating Cisco UCS C-Series Firmware with the Host Upgrade Utility
- Lesson 5: Provisioning Monitoring and Logging on the Cisco UCS C-Series Server
- Lesson 6: Provisioning LAN and SAN Connectivity in the Cisco Integrated Management Controller
- Lesson 7: Provisioning RAID on the Cisco UCS C-Series Server
- Lesson 8: Installing VMware ESXi on the Cisco UCS C-Series Server Local RAID Array

#### Module 2: Manage the Cisco UCS B-Series

- Lesson 1: Implementing RBAC
- Lesson 2: Managing and Upgrading Cisco UCS B-Series Firmware
- Lesson 3: Implementing Backup, Import, and Restore of the Cisco UCS Manager Database
- Lesson 4: Implementing Logging and Monitoring
- Lesson 5: Implementing High Availability

#### Module 3: Implement Cisco UCS B-Series Connectivity

- Lesson 1: Implementing Cisco UCS B-Series Physical Connectivity
- Lesson 2: Installing Cisco UCS B-Series Hardware
- Lesson 3: Implementing Cisco UCS B-Series LAN Connectivity
- Lesson 4: Implementing Cisco UCS B-Series SAN Connectivity

## **Module 4: Provision Cisco UCS Compute Resources**

- Lesson 1: Provisioning the Cisco UCS Cluster
- Lesson 2: Provisioning LAN Networking
- Lesson 3: Provisioning SAN Networking
- Lesson 4: Provisioning Resource Pools in Cisco UCS Manager
- Lesson 5: Provisioning Server Policies in Cisco UCS Manager
- Lesson 6: Provisioning Service Profiles from Templates in Cisco UCS Manager
- Lesson 7: Provisioning Cisco UCS C-Series Server Integration in Cisco UCS Manager

## **Module 5: Implement Cisco UCS Server Virtualization Features**

- Lesson 1: Provisioning
- Lesson 2: Provisioning Cisco VM-FEX
- Lesson 3: Provisioning Cisco VM-FEX Universal Pass-Through

## **Lab Outline**

- Lab 1-1: Perform Initial C-Series Implementation
- Lab 1-2: Update Cisco UCS C-Series Firmware from the Cisco UCS Host Upgrade Utility
- Lab 1-3: Implement LAN and SAN Connectivity
- Lab 1-4: Install VMware ESXi on the Local RAID and Verify SAN Connectivity
- Lab 2-1: Provision Cisco UCS Ethernet Connectivity and Management IP Pools
- Lab 2-2: Configure RBAC
- Lab 2-3: Back Up and Restore Cisco UCS Manager Database Objects
- Lab 2-4: Configure Logging in Cisco UCS
- Lab 4-1: Provision Identity and Resource Pools
- Lab 4-2: Provision Mobile Service Profiles from Updating Templates
- Lab 4-3: Test High Availability
- Lab 5-1: Provision VMware Integration
- Lab 5-2: Provision M81-KR Cisco VM-FEX
- Lab 5-3: Provision M81-KR Cisco VM-FEX Universal Pass-Through

## **Audience**

Primary Audience:

- Cisco Integrators and Partners, Consulting Systems Engineer, Network Designer, Network Engineer, Server Administrator, Systems Engineer, Technical Solutions Architect

Secondary Audience:

- Network Administrator, Network Manager, Storage Administrator, Program Manager, Project Manager

## **Prerequisites**

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

- CCNA and DCUFI knowledge and experience until cutover to CCNA DC
- CCNA DC equivalent knowledge and experience
- Server operating systems, hypervisor and virtualization familiarity
- Implementing Cisco Storage Networking Solutions (ICSNS)
- Attendance of the following Cisco learning offerings is recommended to fully benefit from this course:
- Implementing Cisco Data Center Unified Fabric (DCUFI)
- Implementing Cisco Storage Networking Solutions (ICSNS)

## What You Will Learn

After completing this course, you will be able to:

- Implement Cisco UCS C-Series rack servers in standalone mode. Boot from the local hard drive and mount the Fibre Channel SAN LUN for shared storage
- Install Cisco R-Series rack enclosures in the data center
- Install components in the Cisco UCS C-Series rack server prior to rack mounting
- Install Cisco UCS C-Series rack servers in a Cisco R-Series rack
- Use the Cisco UCS Host Upgrade Utility to upgrade or downgrade C-Series firmware to the correct version
- Provision SNMP and syslog, and use C-Series monitoring tools
- Use the Cisco Integrated Management Controller to provision LAN and SAN connectivity for the C-Series server
- Use the LSI MegaRAID web user interface to provision local hard drives into a RAID 5 array
- Install VMware ESXi in the C-Series server local hard drives
- Implement system management, maintenance, and high-availability services for Cisco UCS B-Series
- Implement local and remote authentication services to restrict privileges and delegate management authority in Cisco UCS Manager
- List the processes for managing the firmware repository and upgrade or downgrade Cisco UCS firmware components using Cisco UCS Manager
- Implement backup and restore capabilities in Cisco UCS Manager
- Implement syslog, Smart Call Home, and SPAN
- Maintain Cisco UCS in a high-availability configuration
- Implement generation 1 and generation 2 connectivity
- Differentiate between physical connections on the IOM and the redundant connections for management and data plane over the I/O MUX and midplane
- Install and power up Cisco UCS B-Series hardware
- Implement LAN connectivity for Cisco UCS B-Series hardware
- Implement SAN connectivity for Cisco UCS B-Series hardware
- Provision servers by leveraging reusable pools, policies, and templates that allow for rapid provisioning and consistency of policy
- Perform initial Cisco UCS cluster setup and provide management IP addresses for blade servers
- Provision VLANs and fabric interconnect uplinks for server connectivity to the Layer 3 data center cloud
- Provision VSANs and fabric interconnect Fibre Channel uplinks for server connectivity to the data center storage cloud
- Provision resource pools for servers, UUIDs, MAC addresses, WWNN, WWPN, and iSCSI
- Configure reusable server policies in Cisco UCS Manager
- Provision service profiles with initial and updating templates
- Implement virtualization features unique to Cisco UCS that improve performance and manageability
- Describe Cisco VM-FEX and Cisco VM-FEX universal passthrough technologies
- Provision Cisco VM-FEX in Cisco UCS Manager and the VMware vCenter Server
- Provision Cisco VM-FEX universal passthrough in Cisco UCS Manager and the VMware vCenter Server