

## Introducing Cisco Unified Computing System (DCIUCS)

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### Course Summary

#### Description

The Introducing Cisco Unified Computing System (DCIUCS) v1.0 is an introductory course that shows you how to deploy, secure, operate, and maintain the Cisco Unified Computing system (Cisco UCS®) B-Series blade servers, Cisco UCS C-Series and S-Series rack servers, and Cisco HyperFlex™ product family for use in data centers. You will gain hands-on practice on basic Cisco UCS server configuration, performing backup and restore activities, and more

#### Objectives

By the end of this course, students will be able to:

- Describe Cisco UCS server hardware
- Describe Cisco UCS connectivity
- Describe the Cisco HyperFlex Data Platform, its data writing and reading processes, and data optimization
- Describe and configure Cisco UCS service profiles
- Describe and configure Cisco UCS service profile templates
- Describe and implement Internet Small Computer Systems Interface (iSCSI) on Cisco UCS
- Describe and implement Cisco UCS firmware updates
- Describe and implement Cisco UCS backups

#### Topics

- Describing Cisco UCS Server Hardware
- Describing Cisco UCS Connectivity
- Describing the Cisco HyperFlex HX Data Platform
- Configuring Cisco UCS Service Profiles
- Configuring Cisco UCS Service Profile Templates
- Implementing iSCSI on Cisco UCS
- Implementing Cisco UCS Firmware Updates
- Implementing Cisco UCS Backups

#### Audience

This course is designed for: Server administrators, Network engineers, Systems engineers, Consulting systems engineers, Technical solutions architects, Network administrators, Storage administrators, Network managers, Sales engineers, Cisco integrators and partners.

#### Prerequisites

To fully benefit from this course, you should have the following knowledge and skills:

- General knowledge of servers
- Routing and switching
- Storage area networking
- Server virtualization

These Cisco courses are recommended to help you meet these prerequisites:

- Implementing and Administering Cisco Solutions (CCNA®)
- Understanding Cisco Data Center Foundations (DCFNDU) v1.0
- Implementing and Operating Cisco Data Center Core Technologies (DCCOR)
- Introducing Cisco Data Center Networking (DCICN) v6.2
- Introducing Cisco Data Center Technologies (DCICT) v6.2
- Interconnecting Cisco Networking Devices: Accelerated (CCNAX) or Interconnecting Cisco Networking Devices Part 1 (ICND1) and Interconnecting Cisco Networking Devices Part 2 (ICND2)

#### Duration

Two days

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### Course Outline

- I. Describing Cisco UCS Server Hardware
  - A. Cisco UCS B-Series Blade Servers
  - B. Cisco UCS C-Series Rack Servers
  - C. Cisco UCS S-Series Rack Servers
  - D. Cisco Virtual Interface Cards
  - E. Hyperconvergence Overview
  - F. Cisco HyperFlex HX-Series Servers
- II. Describing Cisco UCS Connectivity
  - A. Cisco UCS Fabric Interconnect
  - B. Cisco UCS B-Series Connectivity
  - C. Cisco UCS C-Series Connectivity
  - D. Cisco UCS S-Series Connectivity
  - E. Cisco HyperFlex Connectivity Architecture
  - F. Cisco HyperFlex Edge Connectivity
  - G. Cisco UCS Fabric Interconnect Ethernet End-
  - H. Host Mode Compared to Switching Mode
  - I. Cisco UCS Fabric Interconnect Uplink Pinning
  - J. Cisco UCS C-Series Integration
- III. Describing the Cisco HyperFlex HX Data Platform
  - A. Cisco HyperFlex HX Data Platform Software
  - B. Writing Data to Cisco HyperFlex HX Data Platform
  - C. Reading Data from Cisco HyperFlex HX Data Platform
  - D. Data Optimization in Cisco HyperFlex HX Data Platform
- IV. Configuring Cisco UCS Service Profiles
  - A. Portability Issue with Nonabstracted Identities
  - B. Cisco UCS Service Profile
  - C. Identity Pools
  - D. Server Pools
  - E. IP Pools
- V. Configuring Cisco UCS Service Profile Templates
  - A. Service Profile Templates
- VI. Implementing iSCSI on Cisco UCS
  - A. iSCSI Addressing
  - B. iSCSI Support in Cisco UCS
- VII. Implementing Cisco UCS Firmware Updates
  - A. Update Cisco UCS C-Series Server Firmware
  - B. Download Tasks for the Infrastructure Image
  - C. Download Tasks for Cisco UCS B-Series Firmware Packages
  - D. Best Practices for Updating Firmware in Cisco UCS Manager
  - E. Firmware Upgrades Using Auto Install
  - F. Capability Catalog Updates
  - G. Host Firmware Packages
  - H. Driver Updates for Operating Systems and Hypervisors
- VIII. Implementing Cisco UCS Backups
  - A. Compare Backup Options in Cisco UCS Manager
  - B. Compare Two Import Types
  - C. Policy Backup

#### Lab Outline

- Explore Cisco UCS Manager GUI
- Configure Server and Uplink Ports
- Configure VLANs
- Configure Basic Identity Pools
- Configure a Cisco UCS Service Profile Using Pools
- Configure a Service Profile Template
- Configure an iSCSI Service Profile on Cisco UCS
- Perform Backup and Restore Activities