Introducing Cisco Unified Computing System (DCIUCS)

Course Content

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 server, 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 and performing backup and restore activities.

This course can be used to prepare for the new CCNP Data Center and CCIE Data Center certifications.

Who should attend

- 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:

- Understanding Cisco Data Center Foundations (DCFNDU)
- Implementing and Operating Cisco Data Center Core Technologies (DCCOR)

Course Objectives

- 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 iSCSI on Cisco UCS
- Describe and implement Cisco UCS firmware updates
- Describe and implement Cisco UCS backups

Outline: Introducing Cisco Unified Computing System (DCIUCS)

Describing Cisco UCS Server Hardware

- Cisco UCS B-Series Blade Servers
- Cisco UCS C-Series Rack Servers
- Cisco UCS S-Series Rack Servers
- Cisco Virtual Interface Cards
- Hyperconvergence Overview
- Cisco HyperFlex HX-Series Servers

Describing Cisco UCS Connectivity

- Cisco UCS Fabric Interconnect
- Cisco UCS B-Series Connectivity
- Cisco UCS C-Series Connectivity
- Cisco UCS S-Series Connectivity
- Cisco HyperFlex Connectivity Architecture
- Cisco HyperFlex Edge Connectivity
- Ethernet End-Host Mode Compared to Switching Mode
- Cisco UCS Fabric Interconnect Uplink Pinning
- Cisco UCS C-Series Integration

Describing the Cisco HyperFlex HX Data Platform

- Cisco HyperFlex HX Data Platform Software
- Writing Data to Cisco HyperFlex HX Data Platform
- Reading Data from Cisco HyperFlex HX Data Platform
- Data Optimization in Cisco HyperFlex HX Data Platform

Configuring Cisco UCS Service Profiles

- Portability Issue with Nonabstracted Identities
- Cisco UCS Service Profile
- Identity Pools
- Server Pools
- IP Pools

Configuring Cisco UCS Service Profile Templates

- Service Profile Templates

Implementing iSCSI on Cisco UCS

- iSCSI Addressing
- Evolution of SCSI from DAS to SAN
- iSCSI Multipathing

Implementing Cisco UCS Firmware Updates

- Update Cisco UCS C-Series Server Firmware
- Download Tasks for the Infrastructure Image
- Download Tasks for Cisco UCS B-Series Firmware Packages
- Best Practices for Updating Firmware in Cisco UCS Manager
- Firmware Upgrades Using Auto Install
- Capability Catalog Updates
- Host Firmware Packages
- Driver Updates for Operating Systems and Hypervisors

Implementing Cisco UCS Backups

- Compare Backup Options in Cisco UCS Manager
- Compare Two Import Types
- 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