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Module Title   :   Course DCUCD : Data Center Unified Computing Design
Duration   :   5 days

Course Description

The DCUCD v4.0 course is an update of the Data Center Unified Computing Design (DCUCD) v3.0 and describes the data center unified computing and virtualization solutions that are based on the Cisco data center product portfolio. The course explains how to evaluate existing data center computing solution, determine the requirements and design Cisco data center unified computing and virtualization solutions.

Who should attend

This course is intended for:

- Data Center Designers
- Data Center Administrators
- Systems Engineers
- Data Center Engineers
- Managers
- Program Managers
- Project Managers

Prerequisites

The knowledge and skills that you must have before attending this course are:

- Cisco CCDA® certification: Designing for Cisco Internetwork Solutions (DESGN) course
- Cisco Data Center Networking Infrastructure Design Specialist certification: Data Center Network Infrastructure Design (DCNID) course
- Cisco Data Center Storage Networking Design Specialist certification: Designing Cisco Storage Networking Solutions (DCSNS) course
- Linux or Windows system administration familiarity
- Introduction to Virtualization (Virt101EL) pre-course online training

Course Objectives

Upon completing this course, you will be able to:

- Evaluate the Cisco Unified Computing System solution design process in regards to the contemporary data center challenges, the Cisco Data Center Business Advantage architectural framework, and components
- Use the reconnaissance and analysis tools to assess computing solution performance characteristics and requirements
- Describe the hardware components of the Cisco Unified Computing System and select proper hardware for a given set of requirements
- Describe the basic server deployment model of the Cisco Unified Computing System
- Propose a Cisco Unified Computing System solution management design for a given environment
- Describe the advanced Cisco UCS server deployment model
- Calculate the ROI and TCO for the solution by using the Cisco UCS ROI tool
- Design a migration plan for an existing implementation to a Cisco Unified Computing System solution

Course Content

Now with UCS Manager Code Version 2.0

The Cisco Data Center Unified Computing Design (DCUCD) v4.0 course enables you to choose and design scalable, reliable, and intelligent data center unified computing and virtualization solutions. These solutions are based on the Cisco data center product portfolio with a Cisco Unified Computing System (UCS) as a centerpiece integrated with contemporary server virtualization solutions (such as VMware vSphere, Microsoft Hyper-V R2, and Citrix for Cisco Virtualization Experience Infrastructure [VXI]) and operating systems (such as Microsoft Windows and Linux).

Course Outline

Now Featuring UCS Manager Code v2.0!

Module 1: Cisco Unified Computing System Solution

Evaluate the Cisco Unified Computing System solution design process in regards to the contemporary data center challenges, the Cisco Data Center Business Advantage architectural framework, and components.

- Lesson 1: Analyzing Data Center Computing Solutions
- Lesson 2: Identifying a Cisco Unified Computing System Solution
- Describe the
- Lesson 3: Evaluating Server Deployment Options
- Lesson 4: Defining a Cisco Unified Computing System Solution Design

Module 2: Assess Computing Solution Requirements

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Course Outline :: DCUCD ::

Use the reconnaissance and analysis tools to assess the performance characteristics and requirements of the computing solutions.

- Lesson 1: Analyzing Performance Characteristics
- Lesson 2: Employing Data Center Reconnaissance and Analysis Tools

Module 3: Design Cisco Unified Computing System Solution

Understand the Cisco UCS hardware components and select the proper hardware for a given set of requirements.

- Lesson 1: Evaluating Cisco UCS C-Series Architecture
- Lesson 2: Sizing the Cisco UCS C-Series Solution
- Lesson 3: Evaluating Cisco UCS B-Series Architecture
- Lesson 4: Sizing the Cisco UCS B-Series Solution
- Lesson 5: Planning Physical Deployment
- Lesson 6: Examining the Cisco UCS Network and Storage
- Lesson 7: Designing the Cisco UCS Network and Storage

Module 4: Design Server Deployment

Propose a basic server deployment plan for Cisco UCS.

- Lesson 1: Designing Cisco UCS Server Deployment Model

Module 5: Design Cisco UCS Solution Management

Propose a Cisco Unified Computing System solution management design for a given environment.

- Lesson 1: Examining Cisco UCS Solution Management
- Lesson 2: Designing Cisco UCS Solution Management

Module 6: Design Advanced Server Deployment

Describe the advanced Cisco UCS server deployment model.

- Lesson 1: Evaluating Cisco UCS Deployment with Microsoft Hyper-V
- Lesson 2: Evaluating Cisco UCS Integration with VMware vSphere
- Lesson 3: Evaluating Cisco UCS and Cisco Nexus 1000V Integration with VMware vSphere

Module 7: Evaluate Cisco Unified Computing System Solutions

Evaluate the return on investment (ROI) and total cost of ownership (TCO) by using the Cisco UCS ROI tool.

- Lesson 1: Evaluating Solution Design
- Lesson 2: Determining Solution ROI and TCO

Module 8: Plan Migration to Cisco Unified Computing System Solution

Evaluate a migration plan for an existing implementation to a Cisco Unified Computing System solution.

- Lesson 1: Designing a Migration Plan

Lab Exercises:

- Lab 2-1: Analyze the Existing Computing Solution
- Lab 3-1: Size the Small Cisco UCS Solution
- Lab 3-2: Size the Large Cisco UCS Solution
- Lab 3-3: Plan the Physical Deployment
- Lab 5-1: Design the Cisco Unified Computing System Solution Management
- Lab 6-1: Design the Server Deployment for Microsoft Hyper-V
- Lab 6-2: Design the Server Deployment for VMware vSphere
- Lab 6-3: Design the Server Deployment for VMware vSphere with Cisco Nexus 1000V

Appendixes

- Appendix A: Determining a Solution for ROI and TCO Using VMware Chargeback
- This appendix defines how to evaluate a design and solution for the ROI and TCO using VMware Chargeback
- Evaluate the VMware Chargeback tool