DCUCD

Length:
5 Days

Format:
Lecture/Lab

Course Version:
4.6

Product Version:
2.0(1s)

ATLANTA
LONDON
SINGAPORE

Why Firefly

The primary focus of this course is on the next-generation platform—the Cisco Unified Computing System (UCS). The course includes information on the Nexus 7000 and Catalyst 6500 Series switches, the Nexus 1000v virtual switch, MDS9000 fibre channel switch, and VMware vSphere4: all part of the UCS solution. Deploying Firefly's robust lab configuration, you will explore the UCS hardware, configure and apply service profiles. Firefly has enhanced the Case Study experience with a complex resource pool exercise used with service profiles designed for a VMware implementation.

Course Description

In this course, you will learn how 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 the 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. You'll also learn how to evaluate existing data center computing solutions, determine the requirements, and design Cisco data center unified computing and virtualization solutions. With heavy focus on systems solutions, design, and product placement in this newly updated course, you will walk through Cisco's UCS B-Series and UCS C-Series components, giving special attention to the individual components of a complete solution and how to position a Cisco UCS design in various types of environments. Hands-on configuration labs and scenario-driven case studies reinforce the information you'll cover.

Who Should Attend

This course is intended for data center designers, administrators, engineers, managers, and system engineers.

Prerequisites

You will gain the most from this course if you have completed Designing for Cisco Internetwork Solutions (DESGN), Linux or Windows system administration familiarity, CCDA Boot Camp, Designing Cisco Storage Networking Solutions 4.2, and Cloud Computing and Virtualization Foundations.

Learning Objectives

- Evaluate the Cisco UCS solution design process as it relates to contemporary data centers
- Use the reconnaissance and analysis tools to assess computing solution performance characteristics and requirements
- Describe the hardware components of the Cisco UCS and select proper hardware
- Describe the basic server deployment model
- Propose a solution management design for a given environment
- Discuss the advanced Cisco UCS server deployment model
- Calculate the ROI and TCO for the solution using the Cisco UCS ROI tool
- Design a migration plan for an existing implementation to a Cisco UCS solution

Lesson 1: Cisco Unified Computing System (UCS) Solution
Analyzing Data Center Computing Solutions
Identifying a Cisco UCS Solution
Evaluating Server Deployment Options
Defining a Cisco UCS Solution Design

Lesson 2: Assess Computing Solution Requirements
Analyzing Performance Characteristics
Employing Data Center Reconnaissance and Analysis Tools

Lesson 3: Design Cisco UCS Solution
Evaluating and Sizing Cisco UCS C-Series Architecture
Evaluating and Sizing Cisco UCS B-Series Architecture
Planning Physical Deployment
Examining and Designing the Cisco UCS Network and Storage
Identifying Solution Network and Storage Requirements

Lesson 4: Design Server Deployment
Cisco UCS Server Deployment Model

Lesson 5: Design Cisco UCS Solution Management
Examining Cisco UCS Solution Management

Lesson 6: Design Advanced Server Deployment
Evaluating Cisco UCS Deployment with Microsoft Hyper-V
Evaluating Cisco UCS Integration with VMware vSphere
Evaluating Cisco UCS and Cisco Nexus 1000V Integration with VMware vSphere

Lesson 7: Evaluate Cisco UCS Solutions
Evaluating Solution Design
Determining Solution ROI and TCO

Lesson 8: Plan Migration to Cisco UCS Solution
Designing a Migration Plan

Lab 1: Initial Configuration

Lab 2: Exploring Cisco UCS Hardware

Case Study 1: Sizing the Cisco Unified Computing System

Lab 3: Configuring Resource Pools

Lab 4: Creating Mobile Service Profiles

Case Study 2: Designing Resource Pools and Policies

Lab 5: Configuring Role-Based Access Control

Case Study 3: Design a Service Profile Template for Production ESX Servers

Case Study 4: Designing UCS Storage Area Networks