New

Implementing Cisco HyperFlex (DCIHX)
Live Online oder Präsenz

Dauer : 4 Tage (24 Stunden)

Nr. : 59620

Preis : 3.490,00 € netto
4.153,10 € inkl. 19 % MwSt.

Inhouse-Paket : Auf Anfrage

Objective

This class will help you use Cisco HyperFlex to

- Enable multicloud IT with an adaptive platform that powers any application anywhere with the simplicity of hyperconverged infrastructure
- Gain hands-on experience using Cisco HyperFlex

After taking this course, you should be able to:

- Describe hyperconvergence, Cisco HyperFlex, and the components of Cisco HyperFlex
- Explain the Cisco Unified Computing System™ (Cisco UCS®) and what makes it valuable to business
- Describe how Cisco HyperFlex Data Platform (HXDP) works
- Describe the physical components of Cisco HyperFlex
- Install Regular vSphere Cisco HyperFlex
- Manage your Cisco HyperFlex VMware ESXi-based cluster
- Describe how to maintain Cisco HyperFlex
- Design a Cisco HyperFlex solution
- Protect the data on your Cisco HyperFlex cluster using replication and data at rest encryption
- Describe a stretched cluster and how is it different from a standard cluster
- Describe an Edge cluster and how is it different from a standard cluster
- Describe a HyperV-based cluster and how is it different from an ESXi-based cluster
- Design a multicloud datacenter with Cisco HyperFlex

Summary

The Implementing Cisco HyperFlex (DCIHX) v1.2 course shows you how to deploy and use the Cisco® HyperFlex™ data platform to support multicloud workloads. You will become familiar with HyperFlex components and learn how to install, design, manage, and troubleshoot Cisco HyperFlex to support highly scalable and resilient multicloud implementations. You will also gain hands-on experience focused on installation, management, maintenance, and native replication, and you will explore cluster technologies as well as Cisco Intersight.™

Wer sollte teilnehmen:

Zielgruppe

- Data center engineers
- Cisco integrators and partners

Voraussetzungen

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

- Cisco CCNA®–level knowledge about data center architecture and products technologies (network, compute, storage network)
- Familiarity with VMware vCenter and ESXi
- Familiarity with Microsoft Server 2016 and Hyper-V

Recommended Cisco learning offerings that may help you meet these prerequisites:

- Introducing Cisco Data Center Networking (DCICN)
- Introducing Cisco Data Center Technologies (DCICT)
- Implementing Cisco Data Center Unified Computing (DCUCI)

Trainingsprogramm

Outline

Introducing Hyperconvergence and HyperFlex

- Traditional Data Center Design
- What Is Hyperconvergence?
- What Is HyperFlex?
- HyperFlex Primer
- Evolution of HyperFlex

Describing Cisco UCS: The Foundation of Cisco HyperFlex

- Cisco Server Deployment Models: Standalone Versus Managed
- Cisco UCS Managed Model Benefits
- Cisco UCS M5 Overview
- Cisco UCS M5 Server Types
- Cisco Virtual Interface Cards (VICs) and Their Benefits
- Cisco UCS Fabric Interconnects
- Cisco UCS Manager

Describing Cisco HyperFlex Software Components

- Log-Structured File System
- HyperFlex Snapshots Versus VMware Snapshots
- HyperFlex Versus Regular Virtualized Server
- HyperFlex Replicas
- Writing and Reading Process

- Data Optimization Overview
- HyperFlex vs. Other Hyper-Converged Infrastructure (HCI) Solutions

Describing Cisco HyperFlex Hardware Components

- HX UCS M4 and M5
- Introducing HyperFlex Converged Nodes
- Hybrid Nodes: HX240M5 and HX220M5
- All-Flash Nodes: HX240M5 and HX220M5
- Difference Between Non-Volatile Memory Express (NVMe) and Serial Attached SCSI (SAS) Types of Cache Solid-State Drive (SSD)
- Interconnects with Focus on G3
- Compute-Only Nodes
- CPU Options
- Compatibility: Server Types

Installing Regular ESXi Cisco HyperFlex

- Installation Summary
- Software Prerequisites
- Hardware Prerequisites
- HyperFlex Networking
- Required Deployment Information
- vCenter for HyperFlex
- Installing Physical Components
- Configure Upstream Switches
- Prepare Fabric Interconnects
- Deploy the Installer Virtual Machine (VM)
- HyperFlex Installation
- Post-Installation Tasks
- Add a Converged Node
- Add a Compute-Only Node
- Advanced Installation Option: Nested vCenter

Managing Cisco HyperFlex

- Introduction to Management Options
- vCenter and HyperFlex Plugin
- HyperFlex Connect
- stCLI Command Line Interface
- Representational State Transfer (REST) API
- HyperFlex Clones
- HyperFlex Snapshots

Maintaining Cisco HyperFlex

- Installer Custom Workflow: Use Cases
- HyperFlex Upgrade Considerations
- HyperFlex Online Upgrade
- HyperFlex Offline Upgrade
- ESXi Upgrade
- Moving Storage Cluster to Another vCenter

Designing Cisco HyperFlex

- Cluster Resiliency: VM-Level
- Cluster Resiliency: HXDP-Level
- HyperFlex Cluster Scalability
- Logical Availability Zones
- Cluster Capacity
- Multiple HyperFlex Clusters on One UCS Domain
- Mixing HyperFlex and Non-HyperFlex Servers
- Cisco HyperFlex and External Storages
- Smart Licensing
- Licensing Tiers
- HyperFlex Positioning
- Graphical Processing Units and HyperFlex

Protecting Your Data

- Disaster Recovery (DR)/Replication Overview
- Native Replication: Protect
- Native Replication: Recover
- Data at Rest Encryption

Introducing Stretched Cluster

- Stretched Cluster Overview
- Prerequisites and Recommendations
- Installation Process
- Maintenance and Monitoring

Introducing EDGE Cluster

- EDGE Cluster Overview
- Prerequisites and Recommendations
- Installation Process
- Maintenance and Monitoring

Introducing HyperV-Based Regular Cluster

- HyperV-Based Standard Cluster Overview
- Prerequisites and Recommendations
- Preinstallation Tasks
- Installation Process
- Post-Installation Process
- Maintenance and Monitoring

Designing Multicloud Data Center with HyperFlex

- Cisco UCS Director Overview
- Cisco UCS Director: Example Workflow
- Cisco AppDynamics Introduction
- Cisco CloudCenter™ Introduction
- Cisco Workload Optimization Manager (CWOM) Introduction
- Kubernetes and Cisco Container Platform (CCP): Introduction and Use Cases
- Cisco Intersight Overview

Lab outline

- HyperFlex Installation
- Basic HyperFlex Management
- Explore Native Replication
- Deeper Into Management of HX

Schulungsmethode

presentation, discussion, hands-on exercises, demonstrations on the system.