

Implementing Cisco HyperFlex

DURATION: 4 DAYS

COURSE CODE: DCIHX

FORMAT: LECTURE/LAB

COURSE DESCRIPTION

The Implementing Cisco HyperFlex (DCIHX) v1.3 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.™

WHO SHOULD ATTEND

- Data center engineers
- Cisco integrators and partners

LEARNING OBJECTIVES

- 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
- Describe Cisco Intersight and introduce functionalities relevant to HyperFlex
- Install standard ESXi-based vSphere Cisco HyperFlex
- Manage your Cisco HyperFlex VMware ESXi-based cluster

PREREQUISITES

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:

Cisco Introducing Cisco Data Center Networking (DCICN) 6.x

Cisco Introducing Cisco Data Center Networking Technologies (DCICT) 6.x

Cisco Implementing Cisco Data Center Unified Computing (DCUCI) 6.x

- 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
- Perform basic troubleshooting tasks and explain Cisco Intersight

COURSE OUTLINE

- **Introducing Hyperconvergence and Cisco HyperFlex**
 - Traditional Data Center Design
 - What Is Hyperconvergence?
- **Describing Cisco UCS: The Foundation of Cisco HyperFlex**
 - Cisco Server Deployment Models: Standalone Versus Managed
 - Cisco UCS Managed Model Benefits
- **Describing Cisco HyperFlex Software Components**
 - Virtual Machine Hypervisor
 - Log-Structured File System
- **Describing Cisco HyperFlex Hardware Components**
 - Introducing Cisco HyperFlex Servers
 - Storage Technologies in Cisco HyperFlex
- **Introducing Cisco Intersight**
- **Installing and Expanding Standard ESXi Cisco HyperFlex**
 - Installation Summary
 - Software Prerequisites
- **Managing Cisco HyperFlex in vSphere Environment**
 - Management Interfaces Overview
 - Cisco HyperFlex Plugin for vCenter
- **Maintaining Cisco HyperFlex**
 - Cisco HyperFlex Upgrade Overview
 - Cisco HyperFlex Online Upgrade
- **Designing Cisco HyperFlex**
 - Cluster Resiliency: VM-Level
 - Cluster Resiliency: HXDP-Level
- **Protecting Your Data**
 - Disaster Recovery Overview
 - Third-Party Data Restore Solutions
- **Introducing Cisco HyperFlex Stretched Deployment**
 - Stretched Cluster Overview
 - Prerequisites
- **Introducing Cisco HyperFlex EDGE**
 - Cisco HyperFlex EDGE Cluster Overview
 - Prerequisites and Recommendations
- **Troubleshooting Cisco HyperFlex**
 - Troubleshooting Guidelines
 - Generating Tech Support Bundles

LABS

- Investigate Software Components of HyperFlex
- Investigate Cisco UCS Part of HyperFlex
- Install Cisco HyperFlex
- Manage Cisco HyperFlex
- Protect Your HyperFlex VMs
- Install and Manage Stretched Cluster
- Investigate Edge Cluster
- Investigate Hyper-V Cluster
- Investigate Cisco Intersight