

# **Implementing Cisco HyperFlex v1.3**

**Modality: Virtual Classroom**

**Duration: 4 Days**

**CLC: 24 Units**

## **About This Course:**

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™

## **Course 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
- 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

## **Audience:**

The primary audience for this course is as follows:

- Data center engineers
- Engineers (design, implementation, pre-sales, post-sales)
- Product managers and sales

## **Prerequisites:**

The knowledge and skills that the learner should have before attending this course are as follows:

- Cisco CCNA®—level knowledge about data center architecture and products technologies

(network, compute, storage network)

- Familiarity with VMware vCenter and ESXi
- Familiarity with public cloud offerings, primarily AWS, but also Azure and GCP

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

- Understanding Cisco Data Center Foundations (DCFNDU)
- Implementing and Operating Cisco Data Center Core Technologies (DCCOR)
- Cisco CCNP Data Center specialization modules: DCID, DCIT, DCACI, DCMDS, DCACIA, DCAUI

## 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

### Introducing Cisco Intersight

### Describing Cisco HyperFlex Hardware Components

- Introducing Cisco HyperFlex Servers
- Storage Technologies in Cisco HyperFlex

### 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

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## Lab Outline:

Labs are designed to assure learners a whole practical experience, through the following practical activities:

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