



Implementing Cisco HyperFlex (DCIHX)

What you'll learn in 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 duration

- Instructor-led training: 4 days in the classroom with hands-on lab practice
- Virtual instructor-led training: 4 days of web-based classes with hands-on lab practice
- E-learning: Equivalent of 4 days of instruction with videos, practice, and challenges

How you'll benefit

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

Who should enroll

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

Technology areas

- Data Center

Course details

Objectives:

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

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

Recommended knowledge and training

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 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

Outline

- Introduction to Segment Routing
 - Introduction
 - Examining Unified Fabric Routing
 - Exploring Segment Routing Concepts
 - Examining Segment Types
 - Examining the Segment Routing Global Block (SRGB)
- IGP Segment Routing Implementation and Verification
 - Introduction
 - Examining the IGP Control Plane
 - Examining SRGB and IGP Interactions
 - Examining Prefix and Adjacency SIDs
 - Intermediate System to Intermediate System (IS-IS) Multilevel and Open Shortest Path First (OSPF) Multi-Area
 - Configuring and Verifying IS-IS SR Operation
 - Configuring and Verifying OSPF SR Operation
- Segment Routing and LDP Interworking
 - Introduction
 - SR and LDP Interworking Data Plane
 - Mapping Server Function and Configuration
 - Interworking Deployment Models
- Topology Independent – Loop Free Alternate
 - Introduction
 - Examining Classic LFA
 - Examining TI-LFA Fundamentals
 - Implementing and Verifying TI-LFA for SR Traffic
 - Implementing and Verifying SR TI-LFA for LDP Traffic
 - TI-LFA and SR LDP Interworking
- Segment Routing Policies – Traffic Engineering (SR-TE)
 - Introduction
 - Exploring SR Policies
 - Anycast and Binding SIDs
 - Enabling and Verifying SR-TE
 - Explicit path SR-TE policies
 - Constrained dynamic path SR-TE policies
 - Instantiating SR Policies
 - Instantiating SR Policies using BGP Dynamic
- Multidomain SR Policies
 - Introduction
 - Configuring and Verifying a Path Computation Element (PCE)
 - Configuring and Verifying BGP Link-State (LS)
 - Configuring Multidomain SR Policies with a PCE
 - Configuring Multidomain SR Policies with On Demand Next-Hop (ODN)
- BGP Prefix Segment and Egress Peer Engineering
 - Introduction
 - Examining the BGP-based data center
 - Examining the BGP Prefix-SID Operation
 - Configuring and Verifying the BGP Prefix SID
 - Examining Egress Peer Engineering
 - Examining BGP peering segments
 - Configuring and verifying egress peer engineering

How to enroll

To enroll in the SEGRTE201 course or explore our larger catalog of courses on Cisco Digital Learning, contact us at <LP email/URL>

Lab outline

- Configuring and Verifying IGP Segment Routing
- Migrating from LDP to Segment Routing
- Configuring and Verifying TI-LFA Fast Reroute
- Configuring and Verifying SR Policies
- Configuring and Verifying Multidomain SR-TE
- Configuring and Verifying BGP Segment Routing

