

Cisco Intersight with UCS-X Series

Why OneCloud?

OneCloud Consulting is dedicated to providing exceptional technical education and professional services. Our team of experts combine skill, knowledge, and experience in providing quality education on Cloud Transformation, Infrastructure Automation, and Software Development. Our specializations include Cloud Services, Network and Services Automation, Data Center Solution Design and Deployment Services, and Technical Strategy.

Course Description

Join this course and gain hands-on real-world experience with the administration and troubleshooting of Cisco Unified Computing System (UCS) X-Series, next-gen UCS servers including using Cisco Intersight SaaS for UCS management. This course will provide the context for the Cisco Intersight evolution, advanced features and its business benefits

Learning Objectives

- After this course you should be able to understand
- + Intersight Solution Architecture
 - + Describe Cisco UCS Fundamentals
 - + Explain Cisco Intersight Domain Profile deployment
 - + Describe chassis profile deployment
 - + Describe Cisco Intersight Server Profile Deployment
 - + Understand Cisco Intersight Server OS Installation
 - + Describe the Cisco Intersight Virtual Appliance
 - + Explain Cisco UCS X-Series
 - + Describe Fabric Interconnect
 - + Understand Cisco UCS C Series M6/M7 Servers
 - + Describe Cisco Intersight Platform Firmware Operation
 - + Explain Cisco UCS Converged Infrastructure
 - + Describe IWO - Cisco Intersight Workload Optimizer and Orchestration
 - + Understand the Terraform Provider Registry
 - + Describe the Cisco Intersight API
 - + Explain IMM Transition Tool

Prerequisites

- + Data Center experience
- + Operating systems and virtualization experience
- + Understanding of server system design and architecture
- + Basic knowledge of servers and storage
- + Familiarity with Cisco UCS and Hyperflex
- + Familiarity with Cisco Unified Computing System (Cisco UCS®), networking and storage concepts

Who Should Attend

- + Data Center Architects
- + Cloud Infrastructure Architects
- + Network Engineers
- + System Administrators
- + Storage Administrators

Course Type:
Instructor Led Training, with Hands on Lab

Course ID:
DCSIO

Duration:
2 Day

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Course Content

Module 1: Describe Cisco UCS Fundamentals

- + Describe Cisco UCS Server Hardware
- + Describe Cisco UCS Connectivity
- + Describe Cisco Intersight
- + Configure Cisco UCS Domain and Server Profiles

Module 2: Describe Cisco

Intersight Characteristics

- + Describe Cisco Intersight Architecture
- + Describe Flexible Deployment Modes
- + Describe Cisco Intersight Licensing
- + Describe Licensed Features
- + Describe Cisco Intersight Security
- + Describe Cisco Intersight Authentication Options
- + Describe Cisco Intersight RBAC organizations / resource groups
- + Describe Connected TAC
- + Describe advisories
- + Describe Tagging
- + Describe Dashboard, Inventory & Faults
- + Describe Cisco Intersight Custom Dashboards
- + Describe Firmware Management
- + Describe Intersight-Managed OS Installation
- + Describe Cisco Intersight Managed Mode (IMM)
- + Describe Context Launch and KVM, tunneled KVM
- + Describe SNMP Support
- + Describe Intersight Syslog Policies

Module 3: Describe Cisco Intersight Domain Profile Deployment

- + Describe Cisco UCS FI Port Policy Configuration
- + Describe Domain policies
- + Describe VLAN and VSAN policies
- + Describe disjoint L2 configuration
- + Describe Ethernet Switching Modes
- + Describe Fibre Channel Switching Modes
- + Describe clone domain profiles

Module 4: Describe Chassis Profile Deployment

- + Describe chassis power policy
- + Describe access policy
- + Describe SNMP policy
- + Describe thermal policy

Module 5: Describe Cisco Intersight Server Profile Deployment

- + Describe Server Profiles
- + Describe Cisco UCS Pools and Policies
- + Describe Cisco UCS Server Profile Templates
- + Describe Importation of Cisco UCS Server Profile
- + Describe Cloning Cisco UCS Server Profiles
- + Describe Unassign Cisco UCS Server Profile
- + Describe status server profile

Module 6: Describe Cisco Intersight Server OS Installation

- + Describe Cisco Intersight OS Installation
- + Describe Cisco Intersight Initiated Operating System Installation
- + Describe OS Install Requirements
- + Describe adding an Operating System Image
- + Adding a Server Configuration Utility
- + Install Using Cisco Source
- + Perform a Custom Installation
- + Perform an embedded Installation
- + Describe Advanced Topics
- + Describe Additional Cisco Intersight OS Installation Options
- + Describe Password Encryption

Module 7: Describe Cisco Intersight Virtual Appliance

- + Describe the Cisco Intersight Virtual Appliance Concept
- + Describe System Requirements
- + Describe Cisco Intersight Appliance Licensing

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- + Describe Cisco Intersight Connected Virtual Appliance (CVA)
- + Describe Cisco Intersight Private Virtual Appliance (PVA)
- + Describe Claim Target – Connected / Private Virtual Appliance
- + Describe Backup/Recover
- + Describe Cisco Intersight Feature Matrix

Module 8: Describe Cisco UCS X-Series

- + Describe Data Center Trends
- + Describe UCS X Series Architecture
- + Describe UCS X-Series Hardware
- + Describe UCS X-Series Deployment
- + Describe UCS X-Series X-fabric
- + Describe UCS X-Series PCIe node and associated options
- + Describe X-Series GPU Options
- + Describe Storage Connectivity

Module 9: Describe Fabric Interconnect

- + Describe 6400 FI
- + Describe 6500 FI
- + Describe supported servers and connectivity with each FI
- + Describe port capabilities for each FI (BW, breakouts, server/uplinks)
- + Describe FI limits
- + Describe device console

Module 10: Describe Cisco UCS C Series M6/M7 Servers

- + Describe Recent Intel Innovations
- + Describe Cisco UCS C220 M6
- + Describe Cisco UCS C240 M6
- + Describe Recent AMD Innovations
- + Describe Cisco UCS C225 M6
- + Describe Cisco UCS C245 M6
- + Describe the Power of Intersight
- + Describe Cisco Network Adapters and GPU's for M6 Rack Servers
- + Describe Intersight Management for M6 Standalone Rack Servers

Module 11: Describe Cisco Intersight Platform Firmware Operation

- + Describe Cisco Intersight Platform Firmware Operations Overview
- + Describe Cisco Intersight Firmware Bundles
- + Describe Cisco Stand-Alone Firmware management
- + UCS Managed Infrastructure Firmware management
- + Describe UCS Intersight Managed Mode Firmware management
- + Describe Hardware compatibility list

Module 12: Describe Cisco UCS Converged Infrastructure

- + Describe Converged Infrastructure
- + Describe Cisco Validated Designs
- + Describe Cisco Intersight Integration [REMOVED IWE]
- + Describe Cisco Intersight Orchestration
- + Describe Cisco UCS X-Series with FlexPod
- + Describe Cisco UCS X-Series with FlashStack

Module 13: Describe Cisco Intersight Virtual Services

- + Describe Cisco Intersight Virtualization Service (IVS)
- + Describe IVS On-Prem Virtual Environment
- + Describe Cisco Intersight Hybrid Cloud VM Workloads
- + Describe IWE using IVS in the Cisco Intersight Ecosystem [REDUCED IWE]
- + Describe VMWare Features
- + Describe AWS features
- + Describe Claiming
- + Describe Uses Cases

Module 14: Describe IWO – Cisco Intersight Workload Optimizer

- + Introduction and Overview
- + Describe Getting Started With IWO
- + Navigate the IWO User Interface
- + Describe Settings and User Access

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- + Describe Targets and Cisco Integrations
- + Describe Day-to-Day Optimization
- + Describe Policies and Automation
- + Describe IWO Plans: Looking into the Future

Module 15: Describe Cisco Intersight Cloud Orchestration

- + Describe Tasks
- + Describe Rollback Tasks
- + Describe Task Designer
- + Describe Data Types
- + Describe Custom Data Types (CDTs)
- + Describe Workflows
- + Describe Workflow Designer
- + Describe Validation and Execution of a Workflow
- + Describe the Use of Task Outputs as Inputs for other Tasks
- + Describe Conditional Tasks
- + Describe Workflow Versions
- + Describe Transformations

Module 16: Describe the Terraform Provider Registry

- + Describe Terraform Basics
- + Describe Providers
- + Describe Terraform Intersight Integration

Module 17: Describe the Cisco Intersight API

- + Describe the Cisco Intersight API
- + Describe the Cisco Intersight REST API with Postman
- + Describe Cisco Intersight Integrations: ServiceNow
- + Describe TerraForm integration with Intersight
- + Describe Ansible integration with Intersight

Module 18: Describe IMM Transition Tool

- + Describe tool capabilities and limitations
- + Describe tool roadmap
- + Describe report creation
- + Describe transition to Intersight from UCS Central

Labs:

Lab 1: Configure Cisco Intersight

Lab 2: Configure the Cisco UCS X-Server in Cisco Intersight Managed Mode

Lab 3: Configure Cisco Intersight Cisco UCS Server Profile Lab 4: Explore a Cisco Intersight-Initiated Server OS Installation

Lab 5: Explore Cisco UCS Firmware Update

Lab 6: IWO Intersight Workload Optimizer

Lab Lab 7: ICO - Cisco Intersight Cloud Orchestration

Lab 8: Configure Terraform Provider Registry

Lab 9: Configure Cisco Intersight with the Cisco Intersight API