Cisco Intersight Essentials

Duration: 180 Days **Course Code: DCEIS** **Version: 1.0** **Delivery Method: Elearning (Self-paced)**

Overview:

The**Cisco Intersight Essentials**training teaches you various aspects of Cisco Unified Computing System (UCS), including hardware, connectivity, and management. You will learn Cisco Intersight characteristics, licensing, and features, along with insights into server profile deployment and prerequisites for installing operating systems from Cisco Intersight.
This training prepares you for configuring, managing, and monitoring your network, computing, and storage assets. You will gain experience using features, such as Cisco Intersight Workload Optimizer (IWO), Cisco Intersight Cloud Orchestrator (ICO), and Cisco Intersight Virtualization Services (IVS). Also, you will become familiar with the Cisco Intersight Application Programming Interface (API) by using HashiCorp Terraform to automate Cisco Intersight configuration.
Assessments are used throughout this course.

This course is worth 11 Continuing Education (CE) credits toward recertification.

Target Audience:

Anyone utilizing Cisco Intersight to configure, manage and monitor their network, computing and storage assets.

Objectives:

- **After completing this course you should be able to:**
- Describe Cisco UCS hardware, connectivity, and management
- Describe Cisco Intersight characteristics
- Describe Cisco Intersight licensing and its features
- Describe Cisco Intersight server profile deployment
- Describe prerequisites and various options for installing an operating system from Cisco Intersight
- Describe Cisco Intersight Virtual Appliance and how to deploy and configure different deployment modes
- Describe the Cisco UCS X-Series Platform
- Describe Cisco UCS M6 portfolio of products
- Describe firmware management in Intersight for Cisco UCS infrastructure devices
- Describe Cisco UCS Converged Infrastructure
- Describe Cisco Intersight account creation and the most important settings
- Describe Cisco Intersight Managed Mode (IMM)
- Describe Cisco HyperFlex Deployment with Cisco Intersight
- Describe Cisco Intersight IVS features and functionality and describe additional ecosystem services that support virtualization service
- Describe Cisco Intersight IWO, model your environment as a market with buyers and sellers, and discover IWO's monitoring targets, policies, and planning scenarios to set up a configuration plan
- Describe how to use Intersight ICO and Workflow Automation to manage and automate IT operations, create and manage tasks, and design custom workflows using a drag-and-drop interface, resulting in greater efficiency and reduced costs
- Provide a brief description of HashiCorp Terraform
- Describe Cisco Intersight API
- Describe the process of using Cisco Intersight to install vMedia-based operating systems on managed servers in your data center, unattended installations on Cisco UCS C-Series standalone servers, and Cisco Intersight Managed Mode servers
- Describe the usage of the IMM Transition Tool

Prerequisites:

Attendees should meet the following prerequisites:

Testing and Certification

Recommended as preparation for the following exam:

- General knowledge of Cisco UCS servers
- Server virtualization knowledge
- DCFNDU - Understanding Cisco Data Center Foundations

- There is no exam currently aligned to this course

Content:

Cisco Unified Computing System Fundamentals

- Cisco UCS Server Hardware
- Cisco UCS Connectivity
- Cisco UCS Manager
- Cisco Intersight
- Cisco UCS Service and Server Profiles

Cisco Intersight Characteristics

- Cisco Intersight Architecture
- Flexible Deployment Models
- Cisco Intersight Authentication Options
- Setup Cisco Intersight SaaS Account
- Cisco Intersight Role-Based Access Control
- Connected Cisco Technical Assistance Center
- Cisco Intersight Tagging
- Cisco Intersight Dashboard,Inventory and Faults
- Firmware Management
- Hardware Compatability List (HCL) Feature
- Best Practices for Updating Firmware using Cisco Intersight
- Cisco Intersight Managed Operating System Installation

Cisco Intersight Licensing Options

- Cisco Intersight Licensing
- Cisco Licensed Features

Cisco Intersight Server Profile Deployment

- Cisco Unified Computing System Server Profile Overview
- Cisco UCS Pools and Server Policies
- Configuring Compute Policy
- Cisco UCS Server Profile Templates
- Deploying a Cisco UCS Server Profile
- Configuring and Applying Service Profile
- Importing a Cisco UCS Server Profile
- Cloning Cisco UCS Server Profiles
- Unassigning a Cisco UCS Server Profile
- Assign Server Profile to a Server

Cisco Intersight Server Operating System Installation

- Cisco Intersight Operating System Installation
- Cisco Intersight Operating System Installation Requirements
- Adding an Operating System Image
- Adding an SCU
- Operating System Installation Using Cisco Source
- Operating System Installation Using Custom Source
- Operating System Installation Using Embedded Source
- Understanding Placeholder Variables

Cisco Unified Computing System B- and C-Series Servers

- Intel Innovations
- Cisco UCS C220 M6
- Cisco UCS C220 M7
- Cisco UCS C240 M6
- Cisco UCS C240 M7
- AMD Innovations
- Cisco UCS C225 M6 Rack Server
- Cisco UCS C245 M6
- The Power of Cisco Intersight
- Cisco Network Adapters and GPUs for Rack Servers
- Management Options for Cisco UCS Rack Servers
- Cisco UCS B200 M6
- Cisco UCS B200 M5 to Cisco UCS B200 M6 Comparison

Cisco Intersight Platform Firmware Operation

- Cisco Intersight Platform Firmware Operations Review
- Cisco Intersight Firmware Bundles
- Cisco Intersight Standalone Servers Firmware Management
- Cisco Intersight HyperFlex Firmware Management
- Cisco UCS Managed Server Firmware Management
- Cisco Intersight Managed Mode Firmware Management
- Cisco Intersight Hardware Compatability Lists

Cisco Unified Computing System Converged Infrastructure

- Cisco UCS Converged Infrastructure Overview
- Cisco Validated Designs
- Cisco Intersight Integration
- Cisco Intersight Orchestration
- Cisco UCS X-Series with FlexPod
- Cisco UCS X-Series with FlashStack

Accessing Cisco Intersight

- Cisco Intersight Login
- Cisco Intersight Licensing
- Cisco Intersight Single Sign-On
- Cisco Intersight Organizations
- Intersight Dashboard Management
- Cisco Intersight Inventory Views

Cisco Intersight Managed Mode

- Cisco Intersight Managed Mode Overview
- Cisco IMM Benefits

Cisco HyperFlex Deployment with Cisco Intersight

Cisco Intersight Workload Optimizer

- IWO Introduction and Overview
- Getting Started with Cisco IWO
- GUI and Dashboards
- Settings and User Access
- Targets and Cisco Integrations
- Configuring Targets and Licensing IWO
- Adding Cloud Targets in IWO
- Day-to-Day Optimization
- Policies and Automation
- Configuring Device Groups in Cisco IWO
- Setting Up Schedules and Automation Actions
- Configuring Optimization Policies in IWO
- IWO Planning
- Adding Workload Plan in IWO
- Planning Hardware Replacement in IWO
- Planning Migrations to Public Cloud in IWO
- Optimizing Cloud Plan in IWO

Cisco Intersight Cloud Orchestration

- Introducing Cisco ICO
- Cisco ICO Tasks
- Cisco ICO Task Designer
- Cisco ICO Workflows
- Cisco ICO Workflow Designer
- Cisco ICO Task Response Parser
- Cisco ICO Workflow Versioning
- Task Ouputs as Inputs for Other Tasks
- Cisco ICO Rollback Tasks
- Cisco ICO Conditional Tasks
- Cisco ICO Transformations

Terraform Provider Registry

- Getting started with Terraform
- Installing Hashicorp Terraform
- Terraform Commands
- Terraform Components
- Terraform with Cisco Intersight

Cisco Intersight API

- Cisco Intersight API Overview
- Cisco Intersight REST API with Postman
- Cisco Intersight Integration with ServiceNow
- Ansible Integration with Cisco Intersight

Cisco IMM Transition Tool

- IMM Transition Tool Overview
- IMM Transition Tool Features
- IMM Transition Tool Installation
- IMM Transition Tool Readiness Report

Labs:

- Discovery Lab 1: Navigate the Cisco Intersight User Interface

- Password Encryption in Operating System Install
- Operating System Installation Using a CSV File

Cisco Intersight Virtual Appliance

- Cisco Intersight Virtual Appliance Overview
- Cisco Intersight Virtual Appliance System Requirements
- Cisco Intersight Virtual Appliance Licensing
- Cisco Intersight Virtual Appliance Setup
- Cisco Intersight Virtual Appliance Initial Setup Wizard
- Cisco Intersight Connected Virtual Appliance
- Cisco Intersight Private Virtual Appliance
- Claiming Targets in Cisco Intersight Virtual Appliance
- Cisco Intersight Virtual Appliance Backup and Restore
- Cisco Intersight Virtual Appliance Feature Matrix
- Installation of Cisco Intersight Virtual Appliance Licensing

Cisco Unified Computing System X-Series

- Data Center Trends
- Cisco UCS X-Series Architecture
- Cisco UXS X-Series Hardware
- Cisco UCS X-Series Deployment
- Cisco Intersight Deployment Models
- Cisco Intersight Managed Mode Overview
- Device Console
- Organizations with RABAC
- Cisco Intersight Alarms and Faults
- Cisco Intersight Custom Dashboards
- Cisco Intersight Syslog Policies
- SNMP Support
- Ciso UCS X-Series Fabric Review
- Cisco UCS Fabric Interconnect Port Configuration
- Ethernet Switching Modes
- Fibre Channel Switching Modes
- Storage Connectivity

- Cisco HyperFlex Installation Using Cisco Intersight
- Installing, Configuring and Deploying HyperFlex with Cisco Intersight
- Cisco HyperFlex Edge ESXi Installation through Cisco Intersight Differences
- Cisco HyperFlex Initial Functionality Validation
- Cisco HyperFlex Full Stack Upgrade
- Cisco HyperFlex Upgrade Enhancements
- Additional Cisco Intersight HX Cluster Features and Configurations

Cisco Intersight Virtual Services

- Cisco Intersight Platform Firmware Operations Overview
- Cisco IVS for On-Premises Workloads
- Cisco IVS for Public Clouds
- Cisco Intersight VMware Features
- IVS Targets Device Claiming
- Cisco IVS Use Cases

- Discovery Lab 2: Configure Organizations and Roles
- Discovery Lab 3: Configure Server Features
- Discovery Lab 4: Create Pools and Policies
- Discovery Lab 5: Create Server Profile
- Discovery Lab 6: Create Server Profiles from Server Profile Template
- Discovery Lab 7: Configure Cisco ICO
- Discovery Lab 8: Configure Terraform Provider Registry
- Discovery Lab 9: Configure Cisco Intersight API with Python
- Discovery Lab 10: Configure Cisco Intersight API with Ansible

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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