INTUCSX - Administering Cisco UCS X-Series Solutions with Intersight

Duration: *5 Day(s)*

Course Overview

This deep-dive training covers Cisco UCS X-Series server family and how Intersight can be the enablement platform for all UCS servers.

We will cover Intersight features such as IWOM, IST, ICO, and programmability either On-Prem or in the Cloud. Attendees will learn the breadth of the physical X-Series (pools, policies, firmware, so much more) platform as well as maintaining existing infrastructure with Intersight Infrastructures Services. Also covered is how to manage physical, virtual, cloud platforms and deploy to any or all.

Review this course online at https://www.alta3.com/courses/INTUCSX

Objectives

- Understand and configure Cisco Intersight and its advanced features.
- Manage Cisco UCS X-Series deployment and configurations.
- Implement Intersight for monitoring and optimizing IT infrastructure.
- Design LAN and SAN connectivity solutions for CISCO UCS platforms.

Who Should Attend

- Server Administrators
- Systems Engineers
- Storage Administrators
- Technical Solutions Architects
- Integrators and Partners
- Consulting Systems Engineers
- Network Administrators
- Network Engineers
- Network Managers
- Architects

Prerequisites

Course Outline

Module 1: Intersight Foundations

1. Lesson 1: Intersight Architecture
2. Lesson 2: Flexible Deployment Models
3. Lesson 3: Infrastructure Services Licensing

4. Lesson 4: Intersight Dashboards

Module 2: Monitoring and Maintaining UCS Infrastructure with Intersight

5. Lesson 1: Device Health and Monitoring
6. Lesson 2: Standalone Management for UCS C-Series Servers
7. Lesson 3: Server Compatibility (HCL), Advisories (CVEs), and Contract Status
8. Lesson 4: Firmware Upgrades

Module 3: Operationalizing Cisco Compute Hyperconverged Solutions with Nutanix

9. Lesson 1: Implementing Nutanix Solutions in Cisco UCS Environments
10. Lesson 2: Managing Cisco Nutanix Solutions in vSphere Environment
11. Lesson 3: Migration from HX
12. Lesson 4: Use Cases and Workloads

Module 4: Cisco UCS X Series Overview and Configuration

13. Lesson 1: Cisco UCS X-Series 5th Generation
    - Architecture
    - X-Series Fabric Interconnects (Gen 5, Gen 4)
    - Compute X-Series (x210c M6,7, x410c M7)
    - X-Series Direct
14. Lesson 2: Power/Cooling Efficiency
    - Cooling Capacity, Airflow, Thermal Policies, Future-Proof Cooling, Power Policies
15. Lesson 3: Advanced Processor Technologies in UCS Platforms
    - Intel 4th Gen Intel® Xeon® SP Sapphire Rapids, AMD EPYC Processors
16. Lesson 4: UCS Compute Series
    - Architecture, GPU Offerings for X-Series
    - 7th Generation C245 M8 Servers
    - Adapters and GPU offerings for M8
    - Rack Servers M6, M7 Models GPUs
    - Management Options for Rack Servers

Module 5: Designing Cisco UCS LAN and SAN Connectivity

17. Lesson 1: LAN Connectivity Overview Gen 4/5
    - End Host Mode, VLAN Configuration in UCS Manager
18. Lesson 2: Configuring Compute Node SAN Connectivity
19. Lesson 3: Fibre Channel Switching
    - Fibre Channel Operating Modes, EHM and N-Port Virtualization
20. Lesson 4: Configuring VSANs in Cisco UCS Manager

Module 6: Configuring Cisco UCS-X in IMM Mode

21. Lesson 1: IMM and Domain Profiles
22. Lesson 2: Domain Policy Concepts and Usage
23. Lesson 3: Cisco Intersight Server Profiles
24. Lesson 4: Cisco IMM Transition Tool
25. Lesson 5: Thermal and Power Policies in IMM Mode

Module 7: Implementing Cisco UCS-X Firmware Updates

26. Lesson 1: Intersight Platform Firmware Operations Overview
27. Lesson 2: Intersight Firmware Bundles
28. Lesson 3: Cisco Stand-Alone Firmware Management

Module 8: Intersight Workload Optimizer (IWO)

29. Lesson 1: Intersight Workload Optimizer Overview
30. Lesson 2: IWO Delivery and Tiers
31. Lesson 3: IWO Value Proposition and Market

Module 9: AI-Powered Forecasting; Workload and Systems Optimization with IMM and Intersight

32. Lesson 1: Introduction to AI in Cisco Intersight
33. Lesson 2: Predictive Analytics and Forecasting
34. Lesson 3: Cisco Nvidia Partnership for AI

Module 10: Intersight Cloud Orchestrator (ICO) with Automation Tools

35. Lesson 1: Workflow Designer
36. Lesson 2: Validate and Execute Workflows
37. Lesson 3: ICO Overview
38. Lesson 4: Validate workflow with ICO
39. Lesson 5: Advanced Scripting for ICO with Powershell, Python, Terraform and Ansible

Module 11: Intersight API and Advanced Automation Techniques

40. Lesson 1: Intersight API Integration with Automation Tools
41. Lesson 2: Developing Custom Automation Solutions with Intersight SDKs
42. Lesson 3: Use Case Demonstrations