Designing the Cisco Cloud - On Demand (CLDDES 1.1)

Modality: On Demand

Duration: 40 Hours

CLC: 15 Units

The courses of e-learning target around a range of Cisco innovations to set you up for Cisco certification tests, and to pick up Cisco product information. The e-learning contributions are made to be engaging and interactive for students who like self-study.

Some Self-paced courses of Cisco give access to hands-on virtual lab works out, allowing you the chance to practice troubleshooting and configuration on real Cisco platforms.

Course Outline:

Module 1: Translate Requirements into Automation Designs

- Cloud overview
    - Computing
    - Characteristics
    - Models
    - Deployment models
    - Benefits
    - Adoption
- Key business requirements for cloud
- Automation
    - Cloud APIs
    - IaaS
    - PaaS
    - SaaS
    - Design
- Cisco cloud portfolios overview
    - ONE Enterprise cloud suite
    - PSC
    - UCS director
    - Virtual application cloud segmentation (VACS)
    - Intercloud fabric
    - PNSC
- Automation tasks
- PSC stack designer with PaaS

Module 2: Design a Private Cloud Infrastructure

- Pod designs
    - vBlock
    - FlexPod
    - VSPEX
    - Scalability
    - UCS director
- Cloud design storage considerations
- Storage connectivity types
- Thin vs. thick provisioning
- Storage provisioning methods
- Cloud network service automation tools
    - APIC (ACI)
    - Nexus data broker
    - Metapod

Module 3: Design a Hybrid Cloud Infrastructure

- Public cloud architectures
    - Amazon Web Services
    - Microsoft Azure
    - IBM SoftLayer
    - Cisco Intercloud Ecosystem
- Cisco Intercloud Fabric director
- Cisco Prime Service catalog
- Site-to-site and remote access VPN
- MPLS technology

Module 4: Secure the Cloud Infrastructure

- Administrative access
- RBAC
- Centralized authentication
- Secure multitenant capabilities
- Infrastructure security components

Module 5: Virtualization and Virtual Network Services for Private and Hybrid Clouds

- Hypervisor ecosystem
    - VM-mobility
    - Disaster recovery
    - High availability vs. fault tolerance
    - Memory ballooning
- Workload dependencies
- VM migration
- VM format conversion
- VM lifecycle management

Labs:

- Creating a UCS Director Workflow for Baremetal Provisioning
- Design and Create Cisco UCS Director Catalog Entries for Discovered VM Templates
- Design Prime Service Catalog Storefront for UCS Director
- Creating an Application Template in the Cisco Stack Designer
- Provision VACS Container
- Choosing a Hybrid Cloud Solution
- RBAC and LDAP Integration in Cisco UCS Director
- Plan for ICF Cloud Requirements and Deployment
- Design Hybrid Cloud Connectivity and Security
- Design for VM Lifecycle and Cisco ICFD Integration in the Hybrid Cloud