Course Content

Course Description:

Designing the Cisco Cloud (CLDDES) is a new 5-day ILT course designed to help students prepare for the CCNP Cloud certification, a professional level certification specializing in Cloud technologies. This course is designed to provide students with the necessary knowledge and hands-on skills to design cloud deployments using the Cisco Cloud portfolio.

At Course Completion:

Upon course completion, you will be able to:
- Translate the business requirements into Cisco Cloud automation designs
- Define the appropriate Cisco Cloud solution, based on a broad range of products and technologies
- Design for the self-service user portal
- Design for the Application and Platform as a service
- Design for a Private Cloud infrastructure, automation, and security
- Design for a Hybrid Cloud infrastructure, automation, and security
- Design for Virtual Network Services for Private and Hybrid Clouds
- Describe the VM Lifecycle management

Prerequisites:

- Understanding Cisco Cloud Fundamentals (CLDFND)
- Introducing Cisco Cloud Administration (CLDADM)

Target Student:

This course is intended for:
- Cloud Architects
- Infrastructure Engineers
- Technical Administrators

Deliver Method:

This course is delivered through a mix of instructor-led training (ILT) and hands-on labs.

Topics:

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