VMware vCloud Director: Install, Configure, Manage 10.3

About this Course:

In this five-day course, you focus on installing, configuring, and managing VMware vCloud Director® for Service Providers 10.3x. You learn about self-service provisioning, the creation of organizations, virtual data centers (VDCs), catalog services that include predefined virtual machines, and on-demand VMware NSX® networks.

This course covers interfacing VMware vCloud Director® with other systems using various APIs and the integration and use of VMware vCloud® Availability for vCloud Director®. You will understand how to manage multisite, cross-VDC networking for vCloud Director. You will also understand how to configure Central Point of Management (CPOM) to define a Software-defined Datacenter (SDDC) for tenant and provider users of vCloud Director. This course also discusses how to monitor various vCloud Director objects using VMware vRealize® Operations™, Tenant vApp, and VMware vRealize® Log Insight™

Course Objectives:

- Deploy vCloud Director
- Manage vCloud Director to satisfy service provider needs
- Create and manage vCloud Director organizations and vApps to satisfy business needs
- Create and manage vCloud Director catalogs
- Transfer virtual machine workloads from VMware vSphere® into and out of vCloud Director
- Configure networking for organizations and vApps with the help of NSX
- Use NSX to create hybrid cloud connectivity between public clouds and private clouds
- Discuss various customer onboarding scenarios involving vCloud Director
- Configure the integration with VMware vCloud® Availability for vCloud Director®
- Use VMware vCloud® Availability for hybrid cloud setup and onboarding

Audience:

- Customers, cloud architects, systems engineers, data center administrators, and cloud administrators with experience in managed services or managing a service provider environment

Prerequisites:

Completion of the following course is required:

- VMware vSphere: Install, Configure, Manage 7.0 or equivalent knowledge

Course Outline:

1 Course Introduction
• Introductions and course logistics
• Course objectives

2 vCloud Director Deployment and Configuration
• Define Software Defined Datacenter
• Discuss VMware offerings for Cloud-Based Services
• Understand the prerequisite to install vCloud Director
• Discuss the deployment options for vCloud Director
• Differentiate different deployment options, benefits, and disadvantages
• Discuss VMware Validated Design

3 vCloud Director Provider and Organization
• Configure and manage provider VDCs
• Identify storage, compute, and network resources for vCloud Director
• Create and manage organizations, including vCloud Director organization VDCs
• Discuss vCloud Director HTML5 UI
• Discuss HTML5-based Provider Portal and Tenant Portal

4 vCloud Director Organization VDC
• Organization VDC allocation models
• Recognize resource allocations for an organization
• Describe the network types available in vCloud Director (external, organization, and vApp)
• Discuss the organization and vApp network traffic choices
• Examine the function of network pools
• Discuss Compute Profiles

5 vApps and Catalogs
• Discuss the use of virtual machines
• Create and manage vApps
• Create and manage catalogs
• Manage vApp templates
• Create and manage vApp Networks
• Discuss vApp Network Traffic Choices

6 Users and Role-based Access
• Describe role-based access
• Create custom security roles
• Describe and configure LDAP integration with Active Directory
• Describe single sign-on
• Enable a SAML identity provider
• Describe two-factor authentication
• Discuss User bundle and role-based access control

7 vCloud Director Networking
• Identify key components in the architecture of VMware NSX® Data Center for vSphere®
• Describe how logical switches and distributed logical routers work
• Discuss edge services like NAT, DHCP, load balancer, and firewall

- Discuss the architecture of NSX- TTM Data Center
- Discuss vCloud Director supported features of NSX-T Data Center
- Discuss Multisite
- Configure Cross VDC Networking.

8 Resource Management and Monitoring
- Manage and monitor vSphere resources
- Manage and monitor Cloud resources
- Monitor vCloud Director environment using VMware vRealize® Operations ManagerTM
- Monitor vCloud Director environments with vRealize Operations Manager and vRealize Log Insight
- Manage billing and reports of vCloud Director objects using Tenant vApp

9 vCloud Extensibility
- Discuss Container Service Extension
- Explore vCD, CLI, and Container Service Extension
- Discuss Python SDK for vApp Deployment
- Discuss Terraform and vCloud Director
- Discuss VMware vRealize® OrchestratorTM Plug-in for vCloud Director

10 vCloud Director APIs
- Describe access to vCD objects using REST API calls
- Describe tools to access the API of vCloud Director objects
- Discuss different third-party API client tools
- Describe access to vCloud Director using Postman, Curl
- Describe access to vCloud Director using OpenAPI
- Create and update metadata on objects
- Access different vCloud objects using vCloud API

11 Customer Onboarding and Hybrid Cloud
- Discuss architecture for vCloud Availability for vCloud Director
- Review prerequisites of vCloud Availability for vCloud Director
- Discuss vCloud Availability for vCloud Director portal
- Review fail-over Virtual Machine options
- Discuss Virtual Machine replication to the Cloud
- Discuss On-Prem-to-Cloud migration

12 vCloud Director Troubleshooting
- Identify log locations for vCloud Director
- List the key services in vCloud Director
- Navigate through vCloud Director logs
- Capture vCloud Director log bundles
- Describe the troubleshooting approach for common vCloud Director issues