VMware Cloud Director: Deploy, Configure, Manage [V10.6]

Course Number: EDU-VCDDCM106

Duration: 5 days

Course Description

In this five-day course, you focus on installing, configuring, and managing on-premises VMware Cloud Director 10.6. You will learn how to set up and manage VMware Cloud Director, including the provisioning of workloads, creating organizations and Virtual Data Centers (VDCs), and use catalog services that include predefined virtual machines. You will learn about different networks that a system administrator and an organization administrator can configure and use with virtual machines and vApps.

Skills Gained

By the end of the course, you should be able to meet the following objectives:

- Describe the architecture and main components of VMware Cloud Director
- Explain the features and benefits of VMware Cloud Director
- Deploy high availability VMware Cloud Director cluster
- Create VMware Cloud Director provider virtual data centers and organizations
- Configure and create vApps and VMs
- Create users and role-based access control
- Create and manage VMware Cloud Director catalogs
- Create and manage VMware Cloud Director networks
- Create VM sizing and placement policies
- Discuss additional features of VMware Cloud Director

Who Can Benefit

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

Prerequisites

This course requires completion of the following course and equivalent knowledge:

- VMware vSphere: Install, Configure, Manage [V8]
- VMware NSX: Install, Configure, Manage [V4.0]

Course Details

Course Modules

Course Introduction

- Introductions and course logistics
- Course objectives

VMware Cloud Director Deployment and Configuration

- Describe VMware Cloud Director features and functions
- Describe the VMware Cloud Director architecture
- List the prerequisites for deploying VMware Cloud Director
- Recognize the design considerations when creating a cloud environment
- Describe various VMware Cloud Director deployment methods and options
- Explain the two-stage deployment of VMware Cloud Director cells
- Back up and restore a VMware Cloud Director appliance
- Describe the appliance failover methods
- Describe failover, switchover, and promote in the VMware Cloud Director appliance
- Monitor the VMware Cloud Director appliance services and cluster status

VMware Cloud Director Provider Configuration

- Describe the provider portal
- Define a provider VDC, an organization, and organization VDCs
- Configure VMware Cloud Director objects from the VMware Cloud Director provider portal as a system administrator
- Describe provider VDCs and their role in resource allocation
- Explain the configuration of resource pools and storage containers in a provider VDC

- Configure organizations and access the tenant portal
- Identify allocation models for organization VDCs
- Recognize the advantages and disadvantages of allocation models
- Describe how organization VDCs work

VMware Cloud Director User, Roles, and Quota Management

- Configure LDAP integration with Active Directory
- Enable a SAML and an OIDC identity provider
- Identify the various types of users in VMware Cloud Director
- Create and import users from the provider portal and the tenant portal
- Describe the options for managing users and groups
- Describe how role-based access control works in VMware Cloud Director
- Explain provider roles
- Recognize the function of the rights bundles
- Explain global roles and their usage in VMware Cloud Director
- Create custom tenant roles
- Explain Quota Management and its use cases
- Configure VMware Cloud Director as an OpenID Provider Proxy Server

VMware Cloud Director Virtual Machines and vApps

- Explain standalone VMs and VMs in a vApp
- Describe VM actions
- List the properties of a VM
- Create and manage VMs
- Explain vApp deployment methods
- Explain vApp actions and functions
- Describe VM encryption and how VMs and disks are encrypted
- Describe named disks and shared named disks
- Create multiple snapshots for vApps and VMs
- Describe Auto Scale Groups and their advantages
- Explain VM placement, VM sizing, and vGPU policies
- Describe NVIDIA vGPU and NVIDIA AI Enterprise
- Explain the NVIDIA GRID vGPU requirements
- Implement vGPU in VMware Cloud Director

Managing Catalogs and Templates

- Describe Content Hubb and their advantages
- Create and manage VMware Marketplace Resource
- Create and manage External Helm Chart Repository Resource
- Explain the purpose and use of catalogs
- Create and manage catalogs
- Describe, how catalogs are shared between and within organizations
- Describe vApp templates and their advantages
- Create and manage the vApp template
- Create and manage the organization VDC template

VMware Cloud Director Networking

- Discuss the integration of VMware Cloud Director with VMware NSX
- Describe VMware Cloud Director networks
- Perform provider networking tasks
- Discuss organization VDC networks
- List the types of organization VDC networks
- Discuss vApp networks
- List the various types of vApp networks
- Describe the segment profile template
- Configure edge gateway services

Sub-Provider in VMware Cloud Director

- Explain the concept of Sub-Providers
- Explain the configuration of resources to a SubProvider
- Manage a Sub-Provider organization
- Use the Sub-Provider organization to configure identity provider and manage users
- Configure quotas and policies to a Sub-Provider
- Perform common catalog tasks in the Sub-Provider organization
- Perform common networking tasks in the SubProvider organization

VMware Avi Load Balancer

- Discuss VMware Cloud Director integration with VMware NSX Advanced Load Balancer

- Describe NSX Advanced Load Balancer components
- Configure NSX Advanced Load Balancer in the provider portal
- Configure NSX Advanced Load Balancer in the tenant portal

Edge Data Center Group Networking

- Describe Data Center Group network
- Create Data Center Group
- Add a NSX Edge gateway to a Data Center Group
- Activate Distributed Firewall for a Data Center Group
- Configure Data Center Groups using NSX Federation

Additional Features of VMware Cloud Director

- Explain the purpose and features of advisories.
- Describe the Guided Tour feature and its use cases
- Configure VMware Cloud Director branding
- Explain the Solution Add-Ons feature in Vmware Cloud Director
- Briefly discuss VMware Cloud Director integration with the following solutions:
- VMware Cloud Director Availability
- VMware Cloud Director App Launchpad
- VMware Cloud Director Container Service Extension
- VMware Cloud Director Object Storage Extension
- VMware vCloud Usage Meter
- VMware Aria Operations for Logs
- VMware Aria Operations
- VMware Chargeback
- VMware Aria Automation
- VMware Cloud Director Extension for Data Solutions
- VMware Cloud Provider Lifecycle Manager
- VMware Workspace ONE