

VMware Cloud Director: Install, Configure, Manage

Duration 5 Days

COURSE DESCRIPTION

This five-day course provides comprehensive training to install, configure, and manage an on-premises VMware Cloud Director environment. This course covers key features and functionality offered in the VMware Cloud Director 10.4.0 and VMware Cloud Director 10.4.1. You will learn about workload provisioning, the creation of organizations, virtual data centers (VDCs), and 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.

COURSE OBJECTIVES

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
- Understand the features and benefits of VMware Cloud Director
- Deploy the 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

COURSE OUTLINE

Course Introduction

- Introductions and course logistics
- Course objectives

Software-Defined Data Center and VMware Validated Solution

- Discuss VMware Validated Solution
- Define software-defined data center (SDDC)
- Discuss multitenancy with VMware Cloud Director
- Recognize the design considerations when creating a cloud environment on the SDDC using VMware Cloud Foundation™

VMware Cloud Director Deployment and Configuration

- Describe the VMware Cloud Director cell and server group
- Explain the two-stage deployment of VMware Cloud Director cells
- Demonstrate backing up and restoring a VMware Cloud Director appliance
- Discuss VMware Cloud Director Appliance Clustering
- Discuss failover mechanisms (automatic and manual) with VMware Cloud Director cells
- Define the switchover, and promote options of the VMware Cloud Director appliance

VMware Cloud Director Provider Configuration

- Showcase VMware Cloud Director integration with VMware vCenter Server® and VMware NSX
- Describe how the compute resources are provided to VMware Cloud Director
- Describe how storage is provided to VMware Cloud Director
- Configure and manage storage for Virtual Data Centers (VDCs)
- Discuss network pools, external networks, and provider gateways
- Describe VMware Cloud Director organizations
- Understand organization policies
- Explain how to access an organization using various portals
- Understand the use cases of Allocation Models
- Understand organization VDC
- Discuss Linked Clone and Fast Provisioning

VMware Cloud Director User, Roles, and Quota Management

- Discuss rights bundle
- Describe role-based access
- Explain custom roles and rights
- Describe and configure LDAP integration with Active Directory
- Discuss OIDC integration with VMware Cloud Director
- Discuss configuring the SAML identity provider in VMware Cloud Director
- Discuss API Access Token and Service Accounts
- Explain Quota Management and its use cases

VMware Cloud Director Virtual Machines and vApps

- Understand standalone VMs
- Discuss deployment methods of virtual machines
- Explain VM properties
- Discuss deployment methods of vApps
- Discuss the vApp lease policies
- Understand the vApps and VM actions
- Explain vApp and VM badges
- Demonstrate auto scaling groups

VMware Cloud Director Content Libraries

- Explain the purpose of catalogs and how to create a catalog
- Discuss catalog management and sharing catalogs
- Understand media files in VMware Cloud Director and their usage
- Discuss vApp templates
- Understand vApp template operations
- Discuss organization VDC templates
- Discuss Fast Cross vCenter Server vApp Instantiation Utilizing Shared Storage

VMware Cloud Director Networking

- Discuss provider gateway, external networks
- Describe edge gateway
- Discuss organization VDC networks
- List the types of organization VDC networks
- Discuss vApp networks
- List the various types of vApp networks

Edge Gateway Services and Additional Networking Features

List the edge gateway services

Discuss DHCP, NAT, and firewall services on the edge gateway

Discuss SNAT, DNAT, NO SNAT, and NO DNAT use cases

Explain routing and distributed firewall services

Understand IP space and its types

Showcase VMware Cloud Director integration with VMware NSX Advanced Load Balancer

Describe the segment profile template

VMware Cloud Director Storage and Compute

- Describe named disks and shared named disks
- Demonstrate how to attach and detach a named disk and a shared named disk
- Discuss how VMware Cloud Director VMs and disks are encrypted
- Discuss vCenter Server and VMware Cloud Director IOPS storage policies usage
- Discuss how to enable and use the storage IOPS limitation in VMware Cloud Director
- Demonstrate VM sizing and placement in VMware Cloud Director
- Discuss vGPU implementation in VMware Cloud Director

Additional Features of VMware Cloud Director

- Describe the usage and functionality of advisories
- Demonstrate quick search
- Discuss guided tours and use cases
- Discuss Transfer Server Storage Monitoring
- Demonstrate the VMware Cloud Director branding themes
- Explain the Solution Add-Ons feature in VMware Cloud Director

VMware Cloud Director Integrated Solutions

- 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
 - Terraform
 - VMware Workspace ONE

WHO SHOULD ATTEND

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] or equivalent knowledge

The following experience is helpful:

- Working at the Linux command line
- Substantial knowledge of general networking concepts