vmware® LEARNING

VMware Cloud Director: Install, Configure, Manage

Course Overview

In this five-day course, you focus on installing, configuring, and managing VMware Cloud Director™ 10.x. You learn about workload provisioning, the creation of organizations, virtual data centers (VDCs), catalog services that include predefined virtual machines, and on-demand VMware NSX® networks.

This course also covers interfacing VMware Cloud Director with other systems and the integration and use of VMware Cloud Director Availability™. You also learn how to manage multisite, cross-VDC networking, and configuring Central Point of Management (CPOM) to define a Software-defined Data Center (SDDC) for a tenant and provider users of VMware Cloud Director. This course also discusses how to monitor various VMware Cloud Director objects using VMware vRealize® Operations™ and discusses administering tenant facing applications using vRealize® Operations Tenant App™.

Course Objectives

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

- Deploy VMware Cloud Director
- Manage VMware Cloud Director to meet the service provider needs
- Create and manage VMware Cloud Director organizations and vApps to fulfill business needs
- Create and manage VMware Cloud Director catalogs
- Transfer virtual machine workloads from VMware vSphere® into and out of VMware Cloud Director
- Configure networking for organizations and vApps with the help of VMware NSX-T™ Data Center and VMware NSX® Data Center for vSphere™
- Discuss customer onboarding scenario using VMware Cloud Availability for on premises-to-cloud workload migration
- Enable a layer 2 stretched network that spans across multiple VMware Cloud Director sites and organization VDCs within the same site
- Manage resources from the VMWare Cloud Director console and use VMware vRealize® Operations Manager™
- Manage a dedicated VMware vCenter Server® and publish proxies to the tenant
- Onboard developer applications to the tenant using VMware Cloud Director® App Launchpad™
- Enable VM and Named Disk Encryption
- Create VM sizing and placement policies

Target Audience

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

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Prerequisites

Completion of the following course is required:

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

Substantial knowledge of TCP/IP networking is helpful.

Course Delivery Options

- Classroom
- Live Online
- Onsite

Product Alignment

- VMware vSphere 6.7 U3
- VMware vRealize Orchestrator 7.6
- VMware NSX Data Center for vSphere 6.4.6
- VMware NSX-T Data Center 2.5.1
- VMware vRealize® Operations Manager™ 8.1
- VMware vRealize Operations Manager Tenant App 2.4
- VMware vCloud® Availability 4.0

Course Modules

1 Course Introduction
- Introductions and course logistics
- Course objectives

2 Software-Defined Data Center and VMware Validated Design
- Define Software-Defined Data Center
- Discuss VMware offerings for Cloud-Based Services
- Understand the main components of the Software-Defined Data Center
- Discuss the deployment options for vCloud Director
- Discuss VMware Validated Design™
- Recognize the design considerations when creating a cloud environment on the SDDC

3 Deploying and Configuring VMware Cloud Director
- Discuss the deployment options for VMware Cloud Director
- Explain different deployment options of VMware Cloud Director.
- Define automatic failover, switchover, and fencing in the VMware Cloud Director appliance
- Describe the API-only supported features of the VMware Cloud Director appliance
- Familiarize with the multiple API endpoints of the VMware Cloud Director appliance

4 VMware Cloud Director Provider and Tenant
- 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 Datacenters (VDCs)
- Discuss the use of External Networks
- Describe VMware Cloud Director organizations
- Describe the purpose of VMware Cloud Director organizations
- Configure organizations
- Enumerate organization policies
- Allocate resources to an organization
- Discuss Cloud Director organizations
- Create Cloud Director organizations
- Understand organization policies
- How to access an organization using various portals
- Understand organization VDC
- Discuss what is linked clone and fast provisioning
- Explore cross datastore provisioning

5 User Access Control
- User bundle and role-based access control
- 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

6 Working with Virtual Machines
- Discuss the use of virtual machines
- Create a standalone VM
- Perform VM operations
- Manage VM properties
- Discuss the use of App Launchpad
- Onboard applications using App Launchpad

7 Working with vApps
- Create and manage vApps
- Deploy a vApp using various methods
- Build a vApp using best practices
- Discuss the vApp lease policies
- Discuss the implications of deleting a VM that has a named disk attached to it
- Describe VM encryption
- Discuss how VMware Cloud Director VMs and disks are encrypted
- Demonstrate how to use VM sizing and placement policies

8 Managing Catalogs and Templates
- Explain the purpose of catalogs and how to create a catalog organization.
- Manage catalogs
- Share catalogs

- Discuss vApp templates
- Describe the purpose and usage of Open Virtualization Format (OVF) and Custom vApp or VM Properties
- Define Catalog management and sharing catalogs inside and between organizations

9   **VMware Cloud Director Networking**
- Discuss Container Service Extension
- Discuss organization VDC networks
- List the types of organization VDC networks
- Describe the edge gateway services
- Explain NSX Datacenter for vSphere architecture
- Discuss NSX-T Datacenter architecture
- List the enhanced VMware NSX-T Data Center supported features of VMware Cloud Director
- Explore the services offered by the edge services gateway
- Recognize the sub-allocation IP pool and its use cases
- Discuss DHCP, NAT, and high availability services on the edge services gateway
- Recognize SNAT and DNAT use cases
- Explain load balancing, routing, and distributed firewall services
- Create and manage vApp networks
- List the various types of vApp networks
- Discuss vApp fencing
- Discuss routed, isolated, and direct vApp networks

10   **Advanced Networking**
- Describe the multisite feature in Cloud Director
- Associate Cloud Director sites
- Associate organizations
- Access multiple sites from a single user interface
- Configure cross-VDC networking and L2 stretched networks
- Configure data center groups
- Explain the main usage and purpose of the NSX Migration of Cloud Director tool
- Explain the environmental prerequisites and how to prepare the edge cluster for bridging

11   **Additional Features**
- Discuss multisite deployments
- Configure cross VDC networking
- Define SDDC
- Familiarize with SDDC and SDDC proxy
- Discuss enhanced CPOM through the tenant portal
- Discuss architecture for vCloud Availability for vCloud Director
- Discuss vCloud Availability for vCloud Director portal
- Review fail-over Virtual Machine options
- Discuss on premises-to-cloud migration
- Discuss enhanced CPOM through the tenant portal
- Integrate vRealize Orchestrator with Cloud Director.
- Execute Cloud Director workflows using vRealize Orchestrator.
- Integrate vCloud Availability with Cloud Director
- Understand Container Service Extension

12   **Resource Monitoring and Feature Preview**
- Identify log locations for vCloud Director
- Manage vSphere resources from vCloud Director
- Manage cloud resources from vCloud Director
- Understand monitoring of objects from VMware Cloud Director HTML5 Portal
- Briefly introduce vRealize Operations Manager
- Integrate VMware Cloud Director with vRealize Operations Manager
- Configure Cloud Director Management Pack
- Understand dashboard, metrics, alerts, alert definition, and reports
- Introduce VMware vRealize Operations Tenant App
- Integrate VMware Cloud Director with Tenant App
- Configure Tenant App with VMware Cloud Director
- Monitoring and billing objects with Tenant App
- List the upcoming features

Contact

If you have questions or need help registering for this course, click here.