

# 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

## 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



VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 [www.vmware.com](http://www.vmware.com)

© 2020 VMware, Inc. All rights reserved. The product or workshop materials is protected by U.S. and international copyright and intellectual property laws. VMware products are covered by one or more patents listed at <http://www.vmware.com/download/patents.html>. VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

VMware warrants that it will perform these workshop services in a reasonable manner using generally accepted industry standards and practices. THE EXPRESS WARRANTY SET FORTH IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE SERVICES AND DELIVERABLES PROVIDED BY VMWARE, OR AS TO THE RESULTS WHICH MAY BE OBTAINED THEREFROM. VMWARE WILL NOT BE LIABLE FOR ANY THIRD-PARTY SERVICES OR PRODUCTS IDENTIFIED OR REFERRED TO CUSTOMER. All materials provided in this workshop are copyrighted by VMware ("Workshop Materials"). VMware grants the customer of this workshop a license to use and make reasonable copies of any Workshop Materials strictly for the purpose of facilitating such company's internal understanding, utilization and operation of its licensed VMware product(s). Except as set forth expressly in the sentence above, there is no transfer of any intellectual property rights or any other license granted under the terms of this workshop. If you are located in the United States, the VMware contracting entity for the service will be VMware, Inc., and if outside of the United States, the VMware contracting entity will be VMware International Limited.

- 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](#).



VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 [www.vmware.com](http://www.vmware.com)

© 2020 VMware, Inc. All rights reserved. The product or workshop materials is protected by U.S. and international copyright and intellectual property laws. VMware products are covered by one or more patents listed at <http://www.vmware.com/download/patents.html>. VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

VMware warrants that it will perform these workshop services in a reasonable manner using generally accepted industry standards and practices. THE EXPRESS WARRANTY SET FORTH IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE SERVICES AND DELIVERABLES PROVIDED BY VMWARE, OR AS TO THE RESULTS WHICH MAY BE OBTAINED THEREFROM. VMWARE WILL NOT BE LIABLE FOR ANY THIRD-PARTY SERVICES OR PRODUCTS IDENTIFIED OR REFERRED TO CUSTOMER. All materials provided in this workshop are copyrighted by VMware ("Workshop Materials"). VMware grants the customer of this workshop a license to use and make reasonable copies of any Workshop Materials strictly for the purpose of facilitating such company's internal understanding, utilization and operation of its licensed VMware product(s). Except as set forth expressly in the sentence above, there is no transfer of any intellectual property rights or any other license granted under the terms of this workshop. If you are located in the United States, the VMware contracting entity for the service will be VMware, Inc., and if outside of the United States, the VMware contracting entity will be VMware International Limited.