



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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CODE:	LENGTH:	PRICE:
VM-VCD-ICM-V9.7	40 Hours (5 days)	\$4,250.00

## Description

In this five-day course, you focus on installing, configuring, and managing VMware vCloud Director® for Service Providers 9.x. 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 also 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 also understand how to manage multisite, cross-VDC networking for vCloud Director and configuring 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™.

Product Alignment

- vCloud Director 9.x
- vCloud Availability for vCloud Director 3.0
- vSphere 6.x and later
- NSX 6.x and later

## Objectives

By the end of the course, you should be able to meet the following 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 [V6.x] or equivalent knowledge

Completion of the following eLearning courses is recommended:

- VMware vCloud Director: Fundamentals [V8.x]
- VMware vSAN and HCI Fundamentals
- VMware Network Virtualization Fundamentals

Substantial knowledge of TCP/IP networking is helpful.

## Programme

- 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
- 1 Course Introduction
  - Introductions and course logistics
  - Course objectives
- 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
  - Design 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
  - Describe the use and placement of NSX edge services gateways in relation to vCloud Director
  - Review routing with the distributed logical router and edge services gateway in combination with vCloud Director
  - Discuss edge services like NAT, DHCP, load balancer, and firewall
  - Discuss the architecture of VMware NSX-T™
  - Discuss vCloud Director supported features of NSX-T
  - Discuss Multisite
  - Configure Cross VDC Networking.
- 8 Resource Management and Monitoring
  - Manage provider and organization VDCs
  - Manage VMware vCenter Server® instances and VMware ESXi™ hosts
  - Manage vSphere datastores
  - Configure and manage resource pools at the vSphere level
  - Monitor usage information at provider and organization VDCs
  - Analyze vCloud Director logs
  - Monitor vCloud Director environments with vRealize Operations Manager and vRealize Log Insight
  - Managing billing and reports of vCloud Director objects using Tenant vApp
- 9 vCloud Extensibility
  - Discuss Container Service Extension
  - Explore vCD CLI
  - Discuss Python SDK for vApp Deployment
  - Discuss Terraform vCloud Director capabilities
  - Discuss VMware vRealize® Orchestrator™ 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 implementation 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
  - Navigate through vCloud Director logs
  - Capture vCloud Director log bundles

## Session Dates

On request. Please [Contact Us](#)

## Additional Information

This training is also available as onsite training. Please [contact us](#) to find out more.