

VMware vCloud Director: Install, Configure, Manage [V9.x]

Duration 5 Days

COURSE DESCRIPTION

In this five-day course, you will focus on installing, configuring, and managing VMware vCloud Director® 9.x for service providers. You will learn about self-service provisioning, the creation of organizations, virtual data centers (VDCs), and catalog services that include predefined virtual machines, and on-demand VMware NSX® networks, as well as the integrated use of VMware vSAN™. This course also covers interfacing vCloud Director with other systems through the use of various APIs and the integration and use of VMware vCloud® Availability for vCloud Director® and VMware vCloud® Director Extender™.

Product Alignment

- vCloud Director 9.x
- vCloud Availability for vCloud Director 2.0
- vCloud Director Extender 1.0
- vSphere 6.x and later
- NSX 6.x and later

COURSE 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 vCloud Availability for vCloud Director
- Use vCloud Director Extender for hybrid cloud setup and onboarding

COURSE OUTLINE

Course Introduction

- Introductions and course logistics
- Course objectives

Software-Defined Data Center

- Describe the evolution of the software-defined data center
- Cloud computing overview
- Characteristics of cloud services
- Categories of cloud computing
- Describe the VMware product stack for the software-defined data center

vCloud Director Concepts

- Explain vCloud Director concepts
- Configure and manage provider VDCs
- Identify storage, compute, and network resources for vCloud Director
- Create and manage organizations
- vCloud Director organization VDCs

Organization VDCs

- 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

Virtual Machines and vApps

- Discuss the use of virtual machines
- Design and manage vApps

Catalogs

- Create and manage catalogs
- Manage vApp templates

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

Advanced 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 gateways in combination with vCloud Director
- Firewall management in vCloud Director with edge services gateways and the distributed firewall

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 VMware vRealize® Operations Manager™ and VMware vRealize® Log Insight™
- Use VMware vRealize® Business™ for cost management

Customer Onboarding and Hybrid Cloud

- Tenant layer 2 VPN access
- Tenant SSL VPN access
- Review options for external connectivity with VPN
- Import existing infrastructure managed by vCenter Server into vCloud Director
- Use vCloud Director Extender for hybrid cloud setup and onboarding

vCloud Availability for vCloud Director

- Architecture for vCloud Availability for vCloud Director
- Prerequisites of vCloud Availability for vCloud Director
- Implementation of vCloud Availability for vCloud Director

vCloud Director Installation

- vCloud Director network, hardware, and software requirements
- vCloud Director setup overview
- vCloud Director cell design
- Install and configure the vCloud Director database (Microsoft SQL Server, Oracle database, or PostgreSQL)
- Create SSL certificates
- Configure VMware NSX® Manager™ for a new vCloud Director installation
- Install and configure an AMQP broker
- Download and install the VMware public key
- Use and set up vCloud Director federation

Cloud Director API and Metadata

- Describe tools to access the API of vCloud Director API
- Use of REST API in VMware vRealize® Orchestrator™
- Describe access to vCloud Director using VMware PowerCLI™
- Create and update metadata on objects

PREREQUISITES

This course requires completion of the following course:

- VMware vSphere: Install, Configure, Manage [V6.x] or equivalent knowledge

This course recommends completion of the following e-learning courses:

- VMware vCloud Director: Fundamentals [V8.x]
- VMware Virtual SAN: Fundamentals [V6.x]
- VMware Network Virtualization Fundamentals

Substantial knowledge of TCP/IP networking is helpful.

WHO SHOULD ATTEND

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