VMware vCloud Director : Install, Configure, Manage

Duration: 5 Days   Course Code: VMCICM   Version: 8.2

Overview:
In this five-day course, you will focus on designing, installing, configuring, and managing VMware vCloud Director® 8.20 for Service Providers. You will learn about self-service provisioning, the creation of organizations, virtual data centers, 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.

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

Objectives:
By the end of the course, you should be able to meet the following objectives:
- Create and manage vCloud Director catalogs
- Transfer virtual machine workloads from vSphere into and out of vCloud Director
- Design a vCloud Director environment
- Configure networking for organizations and vApps with the help of NSX
- Deploy vCloud Director
- Manage vCloud Director to satisfy service provider needs
- Use NSX to create hybrid cloud connectivity between a public cloud and a private cloud
- Configure Virtual SAN and VMware vSphere® storage to enable multiple tiers in provider virtual data centers
- Discuss various customer onboarding scenarios with vCloud Director
- Create and manage vCloud Director organizations and vApps to satisfy business needs
- Manage vCloud Director to satisfy service provider needs

Prerequisites:
This course requires completion of the following course:
- VMware vSphere: Install, Configure, Manage [V6] or equivalent knowledge

This course recommends completion of the following e-learning courses:
- VMware vCloud Director: Fundamentals [V8.10]
- VMware Virtual SAN: Fundamentals [V6.2]
- VMware Network Virtualization Fundamentals

Substantial knowledge of TCP/IP networking is helpful.
Content:

1 Course Introduction
- Introductions and course logistics
- Course objectives

2 Software-Defined Data Center
- Describe the evolution of the software-defined data center
- Describe vSphere
- Describe NSX
- Describe Virtual SAN

3 Cloud Computing and Cloud Director Overview
- Cloud computing overview
- Characteristics of cloud services
- Categories of cloud computing
- VMware offering to enable cloud-based services
- Cloud deployment environments
- VMware vCloud® Air™ network program overview
- Describe vCloud Director in relation to service provider or managed services environments

4 vCloud Director Architecture and Components
- vCloud Director architecture
- Review vCloud Director components and explain their functions
- Examine integration with other VMware products, such as VMware vRealize® Business for Cloud, VMware vRealize® Operations Manager™, NSX, and Virtual SAN
- vCloud Director terms: vApp and catalog
- vCloud Director terms: organization and virtual data center
- Network concepts
- vCloud Director supported storage

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

6 vCloud Providers
- Identify storage resources for vCloud Director
- Configure and manage storage for providers
- Examine provider space allocation to an organization
- Manage storage requirements for linked clones and shadow virtual machines

7 vCloud Director Organizations
- Create and manage organizations
- Organization virtual data center allocation models
- Recognize resource allocations for an organization
- Create and manage catalogs
- Manage vApps and vApp templates

8 vCloud Networking with NSX
- Describe the basic NSX components in relation to vCloud Director
- Describe the network types available in vCloud Director (external, org, vApp)
- Discuss the organization and vApp network traffic choices
- Examine the function of network pools
- Explain how to share content between organizations and vApps
- Describe options to connect a private cloud to a public cloud
- Review options for external connectivity with VPN

9 Access Security
- 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

10 Managing Cloud Resources
- Identify how vSphere fulfills vCloud Director requests
- Manage provider and organization virtual data centers

11 Managing vSphere Resources
- Manage VMware vCenter Server® instances
- Manage VMware ESXi™ hosts
- Manage vSphere datastores
- Manage stranded items
- Configure and manage resource pools at the vSphere level

12 vCloud Availability for vCloud Director
- Architecture for VMware vCloud® Availability for vCloud Director®
- Prerequisites of vCloud Availability for vCloud Director
- Implementation of vCloud Availability for vCloud Director

13 Customer Onboarding
- Tenant layer 2 VPN access
- Tenant SSL VPN access
- Import existing vCenter Server managed infrastructure into vCloud Director

14 Monitoring vCloud Components
- Monitor usage information at provider and organization virtual data centers
- Analyze vCloud Director logs to mirror vCloud Director cells
- Monitor vCloud Director environments with vRealize Operations Manager and VMware vRealize® Log Insight™
- Leverage vRealize Business for cost management

15 vCloud Director Installation
- vCloud Director setup overview
- vCloud Director hardware and software requirements
- vCloud Director supported platforms
- Network configuration prerequisites
- Install and configure the vCloud Director database
- Configure an Oracle database and a Microsoft SQL Server database
- 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
- vRealize Business integration with vCloud Director

16 vCloud Director Upgrade
- vCloud Director upgrade overview
- Upgrade prerequisites
- NSX requirements
- Additional information
- Best practice for upgrades
Describe the use cases for Virtual SAN, VMware vSphere® Virtual Volumes™, and legacy storage

Further Information:
For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931
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