

VMware Telco Cloud Infrastructure: Install, Configure, Manage

Course Overview

This five-day, hands-on training course provides you with the advanced knowledge, skills, and tools to achieve competency in operating and troubleshooting the VMware Telco Cloud Infrastructure environment. In this course, you are introduced to VMware Cloud Director™ as a virtualized infrastructure manager. You will examine ETSI NFV requirements, deployment options, and procedures. You will also deploy virtualized network functions and understand their detailed configuration settings. You will learn how to support organizations as well as set up networking and security using hands-on lab exercises.

In addition, you are presented with various types of technical problems in VMware Cloud Director, which you will identify, analyze, and solve through a systematic troubleshooting process.

Course Objectives

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

- Describe the VMware Telco Cloud Infrastructure™ architecture
- Describe the VMware Cloud Director architecture
- List the infrastructure requirements of ETSI NFV
- Describe the VMware Cloud Director architecture as Virtualized Infrastructure Manager (VIM)
- Describe the options associated with VMware cloud providers
- Explain how organizations are supported in VMware Cloud Director
- Describe the security model in VMware Cloud Director
- Configure key networking elements of VMware Cloud Director
- Manage and monitor resources in VMware Cloud Director
- Enumerate troubleshooting concepts and Day 2 operations using VMware Cloud Director

Target Audience

- Telco cloud system administrators and telco network operations engineers
- Professionals who work with telco or enterprise and data center networks
- Designers and operations engineers who manage telco workloads

Prerequisites

- Before taking this course, you should have completed the [Telco Cloud Automation Fundamentals](#) and [Telco Cloud Platform Fundamentals](#) courses.

You should also have the following understanding or knowledge:

- Good understanding of VMware products like VMware vSphere®, VMware NSX®, VMware vSAN™, and VMware Cloud Director
- Knowledge and working experience of network functions virtualization, including:
 - ETSI NFV framework, virtualized network functions, and related Interfaces
 - VMs and virtual data centers

Course Delivery Options

- Classroom
- Live Online
- [Private Training](#)
- [On Demand](#)

Product Alignment

- VMware Telco Cloud Infrastructure (VMware Cloud Director option) [2.0]

Course Modules

1 Course Introduction

- Introductions and course logistics
- Course objectives

2 Day 0 Operations: VMware Telco Cloud Infrastructure Installation

- Describe the challenges of the telco cloud
- Describe the key functions of the telco cloud
- List the benefits of the VMware Cloud Director based VMware Telco Cloud Infrastructure
- Describe the VMware Telco Cloud Infrastructure architecture
- Describe the role of VMware Cloud Director in the VMware Telco Cloud Infrastructure architecture
- List the VMware Telco Cloud Infrastructure deployment options
- Describe the VMware Cloud Director architecture
- List the key VMware components that are part of VMware Cloud Director
- Describe the key use cases for the VMware Cloud Director based VMware Telco Cloud Infrastructure

3 Day 0 Operations: ETSI NFV Requirements for Cloud Platforms

- Compare physical and virtual infrastructures
- List the benefits and challenges of physical infrastructure
- Describe the types of virtual infrastructure
- Describe the advantages and components of the NFV infrastructure (NFVI)
- Explain the role of network virtualization in the NFVI
- List the requirements of NFVI for VMware Cloud Director
- Describe the networking options of VMware Cloud Director
- Describe the key networking use cases
- Describe requirements of VMware Telco Cloud Automation™ for networking
- Describe the storage options of VMware Cloud Director
- Describe the key storage use cases

4 Day 1 Operations: Virtualized Infrastructure Manager (VIM) Configuration

- Explain basic concepts related to VMware Cloud Director
- Describe the components of the VMware Cloud Director architecture
- Describe the basic configuration of the VMware Cloud Director architecture
- Describe virtual data centers or VDCs
- Explain the role of organization VDCs
- Describe the relationship between provider VDCs and organization VDCs
- Describe resources in VMware Cloud Director
- List the key resource organization
- Create resource pools
- Describe how vSAN integrates with VMware Cloud Director

5 Day 1 Operations: Configuring VMware Cloud Director Providers

- Describe how compute resources are provided to VMware Cloud Director
- Describe how storage resources are provided to VMware Cloud Director
- Describe provider VDC requirements and best practices
- List the requirements of creating VDCs
- Describe the VNF on-boarding process
- Create provider VDCs

6 Day 1 Operations: Configuring VMware Cloud Director Organizations

- Describe VMware Cloud Director organizations
- Create VMware Cloud Director organizations
- Navigate through the VMware Cloud Director HTML5 provider portal
- Describe the VMware Cloud Director organization VDC
- Navigate through the tenant portal
- List use cases for a VMware Cloud Director organization VDC
- List the organization VDC allocation models



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- Describe the types of resources that can be allocated
- Describe how resources are allocated for an organization
- Examine the function and requirements of network pools
- Describe the network types available in VMware Cloud Director (external, organization, and vApp)
- List the organization network types
- Create and manage organization VDC networks
- Describe catalogs
- Manage an organization's catalog
- Populate, share, and publish catalogs
- Describe vApps
- Manage access to vApps and catalogs
- Modify the configuration of vApps and their virtual machines (VMs)
- Manage organization VDC networking
- Create affinity and anti-affinity rules

7 Day 1 Operations: Configuring VMware Cloud Director Security

- Describe role-based access
- Create custom security roles
- Describe the directory services in VMware Cloud Director
- Describe the role of LDAP, SAML, SSL, Kerberos, and OAuth2 with VMware Cloud Director
- Explain the use of VMware Cloud Director with SSO

8 Day 1 Operations: Configuring VMware Cloud Director Networking

- List networking options in VMware Cloud Director
- Describe key networking use cases in VMware Cloud Director
- Describe the use and placement of VMware NSX[®] Edge[™] services gateways in relation to VMware Cloud Director
- Review routing with the distributed logical router and edge services gateways in combination with VMware Cloud Director
- Describe firewall management in VMware Cloud Director with edge services gateways and the distributed firewall

- Describe an overview of VMware NSX-T[™] Data Center
- Explain the architecture of NSX-T Data Center
- Describe VMware Cloud Director supported features of NSX-T Data Center
- Describe the benefits and challenges of multisite networking
- List the requirements for multisite networking
- Describe the benefits and challenges of networking between VDCs
- List the requirements for networking between VDCs
- Configure cross-VDC networking

9 Day 2 Operations: VMware Cloud Director Resource Management and Monitoring

- Identify the key resources that need to be managed with VMware Cloud Director
- List monitoring options with VMware Cloud Director
- Explain the resource management and monitoring architecture in VMware Cloud Director
- Monitor objects from the VMware Cloud Director portal
- Identify features of VMware vRealize[®] Operations Manager[™]
- Integrate VMware Cloud Director with vRealize Operations Manager
- Configure VMware vRealize[®] Operations Management Pack for VMware Cloud Director[™]
- Outline the monitoring features of vRealize Operations Manager in VMware Cloud Director
- Describe the purpose of the vRealize Operations Tenant App for VMware Cloud Director
- Integrate VMware Cloud Director with the Tenant App
- Configure the Tenant App for VMware Cloud Director
- Monitor objects with the Tenant App
- List the steps to monitor VMware Cloud Director environments with vRealize Operations Manager
- List the steps to monitor VMware Cloud Director environments with VMware vRealize[®] Log Insight[™]



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- List the steps to review historical virtual machine metrics in VMware Cloud Director
- Examine VMware Cloud Director logs

10 Day 2 Operations: VMware Cloud Director

Troubleshooting

- Identify the features of the VMware Telco Cloud Automation dashboards
- List the components of the VMware Telco Cloud Automation dashboards
- Explain the features of fault management in VMware Telco Cloud Director
- Describe the use of fault management in VMware Cloud Director
- Describe the use of performance management in VMware Cloud Director
- Describe the use of logs in VMware Cloud Director
- Troubleshoot using VMware Cloud Director

Contact

If you have questions or need help registering for this course, click [here](#).



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