

# VMware Cloud Foundation: Deploy, Configure, Manage V5.x



## VMware Cloud Foundation: Deploy, Configure, Manage V5.x

Dieser Kurs vermittelt die Funktionen von VMware Cloud Foundation™ und zeigt, wie hybride und Cloud-Infrastrukturen erfolgreich geplant, bereitgestellt, verwaltet und betrieben werden können, einschließlich individueller Anpassungen. Das Training erläutert die Architektur von VMware Cloud Foundation und erklärt Lizenzierung, Zertifikate sowie Speicher- und Netzwerkmanagement. Der Kurs behandelt auch Workload-Domänen, Verfügbarkeit, Life Cycle Management und Fehlerbehebung.

### Kursinhalt

- Course Introduction
- VMware Cloud Foundation Overview
- VMware Cloud Foundation+ and VMware Cloud Connectivity
- Day Zero Tasks
- Post-Deployment Operations
- VMware Cloud Foundation Networking with NSX
- Managing Workload Domains
- vSphere with Tanzu in VMware Cloud Foundation
- VMware Cloud Foundation Storage Management
- Availability and Business Continuity
- VMware Cloud Foundation Certificate Management
- VMware Cloud Foundation Lifecycle Management
- VMware Cloud Foundation Troubleshooting

**E-Book** Sie erhalten englischsprachige Unterlagen von VMware als E-Book.

### Zielgruppe

System Architects und System Administrators

### Voraussetzungen

Vor dem Besuch dieses Kurses sollten die Teilnehmer die folgenden Kurse belegen oder über gleichwertige Kenntnisse und Erfahrungen verfügen:

- VMware vSphere: Install, Configure, Manage
- VMware NSX: Install, Configure, Manage
- VMware vSAN: Install, Configure, Manage

### Dieser Kurs im Web



Alle tagesaktuellen Informationen und Möglichkeiten zur Bestellung finden Sie unter dem folgenden Link: [www.experteach.ch/go/VCFD](http://www.experteach.ch/go/VCFD)

### Vormerkung

Sie können auf unserer Website einen Platz kostenlos und unverbindlich für 7 Tage reservieren. Dies geht auch telefonisch unter 06074 4868-0.

### Garantierte Kurstermine

Für Ihre Planungssicherheit bieten wir stets eine große Auswahl garantierter Kurstermine an.

### Ihr Kurs maßgeschneidert

Diesen Kurs können wir für Ihr Projekt exakt an Ihre Anforderungen anpassen.

Training		Preise zzgl. MwSt.	
<b>Termine in Deutschland</b>	<b>5 Tage</b>	<b>CHF 3.785,-</b>	
<b>Online Training</b>	<b>5 Tage</b>	<b>CHF 3.785,-</b>	
<b>Termin/Kursort</b>	Kurssprache Deutsch		
17.06.-21.06.24	Hamburg	16.09.-20.09.24	Online
17.06.-21.06.24	Online	02.12.-06.12.24	Hamburg
16.09.-20.09.24	Frankfurt	02.12.-06.12.24	Online

Stand 26.04.2024



# Inhaltsverzeichnis

## VMware Cloud Foundation: Deploy, Configure, Manage V5.x

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 2 VMware Cloud Foundation Overview

- Describe the VMware Cloud Foundation solution
- Describe VMware Cloud Foundation architecture
- Identify VMware Cloud Foundation components
- Describe VMware Cloud Foundation topology

### 3 VMware Cloud Foundation+ and VMware Cloud Connectivity

- Describe the VMware Cloud Foundation+™ architecture
- Identify the pre-requisites for VCF+
- Describe the VCF+ value added features
- Describe subscription-based licensing parameters
- Describe the subscription process
- Describe the VMware Cloud Gateway™ functionality
- Identify the VMware Cloud Gateway components
- Describe the VMware Cloud Gateway architecture
- Describe VMware Cloud Gateway connectivity to VMware Cloud
- Describe the VMware Cloud platform
- Describe the vSphere+ services used in VCF+
- Demonstrate the capabilities of the cloud UI for VCF+

### 4 Day Zero Tasks

- Identify the requirements for deploying VMware Cloud Foundation
- Describe the VMware Cloud Foundation bring-up process
- Identify the information required for the Planning and Preparation Workbook
- Complete the Deployment Parameter Workbook
- Describe how VMware Cloud Builder™ automates the deployment process
- Identify the configuration validation process performed by VMware Cloud Builder
- Describe the deployment of the management domain

### 5 Post-Deployment Operations

- Complete the onboarding wizard
- Understand VMware Cloud Foundation integration with VMware Single Sign-On
- Configure user access to VMware Cloud Foundation
- Describe the importance of user roles in vSphere
- Configure identity sources for VMware Cloud Foundation
- Perform the SDDC Manager backup and restore process
- Identify steps in the NSX backup and restore process
- Manage passwords in VMware Cloud Foundation
- Explain the importance of using VMware Cloud Foundation to manage passwords for vSphere components
- Manage and secure a primary password list
- Describe the process for rotating passwords not managed by VMware Cloud Foundation

### 6 VMware Cloud Foundation Networking with NSX

- Describe network virtualization with NSX
- Recognize NSX operational planes
- Identify NSX components

- Describe logical switching
- Describe NSX Data Center deployment in VMware Cloud Foundation
- Explain how logical routing works in NSX
- Identify VMware NSX® Edge™ functions
- Describe data plane preparation for NSX Edge nodes in a workload domain
- Recognize tier-0 and tier-1 gateway topologies
- Define application virtual networks
- Describe management domain rack options
- List NSX Edge cluster requirements for vSphere with Tanzu
- Discuss NSX Edge cluster placement considerations

### 7 Managing Workload Domains

- Define workload domains
- List the types of workload domains
- State scale limits for workload domains
- Identify use cases for multiple clusters in a workload domain
- Define network pools
- Size network pools
- Create network pools
- Commission hosts
- Identify workload domain prerequisites
- Create a workload domain
- Scale a workload domain
- Delete a workload domain
- Decommission hosts
- Describe distinctive design decisions for VMware Cloud Foundation components

### 8 vSphere with Tanzu in VMware Cloud Foundation

- Explain vSphere with Tanzu
- Define the role of Spherelet
- Describe the supervisor cluster control plane
- Define vSphere with Tanzu namespaces
- Describe the role of NSX networking components
- Discuss vSphere with Tanzu networking topology
- Describe control plane VM management networking requirements
- Plan appropriate IP address CIDR ranges for pod, ingress, and egress networking
- Describe prerequisites for vSphere with Tanzu cluster compatibility
- Deploy VMware vSphere® Add-on for Kubernetes
- Create a vSphere namespace
- Configure limits and permissions for a vSphere namespace

### 9 VMware Cloud Foundation Storage Management

- Identify storage use cases in VMware Cloud Foundation
- Determine the most appropriate storage option for a workload domain
- Describe different vSphere-native storage design options
- Identify VMware vSAN architecture and components
- Describe vSAN requirements for the management and workload domains
- Define deduplication and compression
- Discuss how to scale vSAN clusters in VMware Cloud Foundation

- Explain how storage policies work with VMware Cloud Foundation vSAN clusters
- Configure storage policies for vSAN
- Explain storage policy failure tolerance rules
- Identify a virtual machine storage policy compliance status

### 10 Availability and Business Continuity

- Recognize the importance of external service availability
- Describe native vSphere availability options
- Identify stretched cluster use cases
- Identify stretched cluster components
- Recognize stretched cluster requirements in VMware Cloud Foundation
- Prepare and deploy a vSAN stretched cluster using APIs

### 11 VMware Cloud Foundation Certificate Management

- Learn basics of public key infrastructure (PKI)
- Describe the purpose of certificate signing requests (CSRs)
- Describe the use of subject alternative names (SAN)
- Describe available options in SDDC Manager for certificate authorities
- View certificates
- Generate a CSR
- Replace and install certificates for VMware Cloud Foundation components
- Know the available CA options in SDDC Manager
- Configure the Microsoft CA server
- Add OpenSSL CA in SDDC Manager
- Install certificates issued by Microsoft, OpenSSL, and third-party certificate authorities

### 12 VMware Cloud Foundation Lifecycle Management

- Describe VMware Cloud Foundation Life Cycle Management
- List the products you can upgrade using VMware Cloud Foundation Lifecycle management
- Use online and offline bundle downloads using VMware Cloud Foundation Lifecycle management
- Understand the role of vSphere Lifecycle Management in VMware Cloud Foundation
- Understand vSphere Lifecycle Manager baseline-based and image-based clusters
- Understand how and when to use cluster images
- Describe the importance of Hardware Support Managers
- Describe the upgrade prerequisites
- Outline the upgrade precheck process
- Describe the order of upgrade for VMware Cloud Foundation components
- Upgrade VMware Cloud Foundation software and components

### 13 VMware Cloud Foundation Troubleshooting

- Use the SoS command-line tool to create log bundles, perform health checks, and check password validity
- List VMware Cloud Foundation services
- Identify VMware Cloud Foundation log files
- Use token IDs to troubleshoot failed workflows

