

VMware Cloud Foundation: Management and Operations

Course Overview

This three-day course includes instruction on the capabilities, including customization and management, and explains the architecture of VMware Cloud Foundation™. This course explains license management, certificate management, maintenance, and lifecycle management. The course covers workload domains, workload migration, availability, and troubleshooting and provides an overview of VMware vSAN™ and VMware NSX® implementation in VMware Cloud Foundation.

This course provides live labs for hands-on experience of key course objectives and explains how to use and configure VMware Cloud Foundation 3.9.

Course Objectives

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

- Describe VMware Cloud Foundation architecture
- Use SDDC Manager to perform operational tasks
- Describe user roles in VMware Cloud Foundation and VMware vSphere®
- Manage users and passwords using VMware Cloud Foundation
- Describe workload domains
- Manage workload domains in VMware Cloud Foundation
- Manage vSAN storage in a workload domain
- Implement NSX networking for the management domain and VI workload domains
- Describe the importance of business continuity measures in VMware Cloud Foundation
- Plan appropriate backup-and-restore workflows for VMware Cloud Foundation components
- Implement stretched clusters in VMware Cloud Foundation workload domains
- Manage certificate rotation for VMware Cloud Foundation components
- Plan workload migration from a legacy datacenter to your VMware Cloud Foundation instance
- Describe VMware Cloud Foundation lifecycle management
- Troubleshoot VMware Cloud Foundation with appropriate tools

Target Audience

Experienced system administrators, system integrators, and consultants responsible for implementing and managing VMware Cloud Foundation

Prerequisites

This class requires system administration experience with VMware vSphere® deployments or completion of one of the following courses:

- [VMware vSphere: Install, Configure, Manage](#)
- [VMware vSphere: Optimize and Scale](#)

Experience with VMware NSX® Data Center for vSphere® or VMware NSX-T™ Data Center is highly recommended.

Course Delivery Options

- Classroom
- Live Online
- [Onsite](#)

Product Alignment

- VMware Cloud Foundation 3.9.x
- VMware vSphere 6.7 U3
- VMware NSX Data Center for vSphere 6.4.6
- VMware NSX-T Data Center 2.5

Course Modules

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
- Define VMware Cloud Foundation terminology

3 Post-deployment Operations

- Integrate VMware Cloud Foundation with VMware vCenter® Single Sign-On
- Manage user roles in VMware Cloud Foundation
- Manage passwords in VMware Cloud Foundation

4 License Management

- Use SDDC Manager to license managed components
- Add, upgrade, and replace licenses in VMware Cloud Foundation
- Use SoS commands to add licenses

5 Managing Workload Domains

- Define workload domains
- Create, scale, and delete workload domains
- Describe use cases for multiple clusters in a workload domain
- Manage storage options for workload domains
- Plan and implement network pools for consumption by workload domains

6 vSAN Management

- Identify vSAN architecture and components
- Describe vSAN requirements for the management domain and VI workload domains
- Discuss how to scale vSAN clusters in VMware Cloud Foundation
- Explain deduplication and compression in a vSAN cluster
- Describe vSAN data-at-rest encryption

- Discuss the importance of driver/firmware compatibility
- Use vSAN Health to monitor vSAN clusters

7 VMware Cloud Foundation Networking with NSX

- Describe network virtualization with NSX
- Describe NSX Data Center for vSphere logical switching and routing
- Examine NSX Data Center for vSphere configuration in the management domain
- Define Application Virtual Networks (AVNs)
- Describe NSX-T Data Center deployment in VMware Cloud Foundation workload domains
- Describe data-plane preparation for NSX-T Data Center edge nodes for workload domains
- Recognize Tier-0 and Tier-1 gateway topologies

8 Availability and Business Continuity

- Configure availability options for management domains
- Backup and restore VMware Cloud Foundation components
- Use vSAN storage policies to increase availability
- Describe backup and restore for networking, VMware vCenter®, and NSX components.
- Define prerequisites for stretched clusters in VCF environments
- Configure stretched clusters using SOS commands
- Troubleshoot stretched cluster workflows
- Describe cross-site VMware vSphere® vMotion® and cross-site NSX
- Describe how to use VMware Site Recovery Manager™ to protect critical management components across regions

9 Certificate Management

- Discuss general certificate concepts
- Describe the initial deployment state of certificates
- Manage SDDC certificate rotation
- Describe certificate creation options
- Describe certificate rotation using Active Directory
- Use SDDC Manager to create CSRs



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10 Workload Migration

- Explain workload migration use cases
- Describe workload migration methods
- Describe VLAN bridging using NSX
- Use VMware vSphere® Replication™ for workload migration
- Discuss VMware HCX® for workload migration from legacy datacenters and between public and private clouds

11 Life Cycle Management

- Describe the role of SDDC Manager in lifecycle management
- Define upgrade bundle types
- Discuss bundle download options
- Describe the upgrade automation process and components
- Outline the upgrade workflow
- Describe the role of VMware vRealize® Suite Lifecycle Manager™
- Manage offline local depots

12 Troubleshooting

- Use SOS commands to perform health checks and log bundle operations.
- Create service requests using best practices
- Troubleshoot failed workflows
- Restart services using the correct procedures
- Use VMware vRealize® Log Insight™ capabilities

Contact

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



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