

# VMware Certified Professional - VMware vSphere Foundation Administrator (2V0-16.25)

This VMware vSphere Foundation (VVF) training prepares you for the VCP-VVF Administrator certification with real-world VMware administration skills. If you want to qualify for advanced sysadmin roles, open the door to better opportunities in VMware data centers, or just pass the 2V0-16.25 exam, start here. You'll learn how to deploy, manage, and troubleshoot VMware vSphere Foundation environments, including the core areas every administrator works with every day: compute, storage, networking, lifecycle operations, and workload security. The course also introduces approachable automation concepts. Once you're done, you'll understand how experienced administrators keep vSphere environments running smoothly, and you'll be building toward advanced infrastructure and platform roles.

[CBT Nuggets course material](#) →

 STUDY PLAN

## WEEK 1

### Virtualization Fundamentals

- Virtualization Fundamentals Overview
- Hypervisor Types and ESXi
- VMKernel and VM Isolation
- Virtualization Use Cases and VVF Components
- Value and TCO Considerations
- Validation for Virtualization Fundamentals

### Deploy and Configure an ESXi Host

- Intro to Deploying and Initial Configuration of an ESXi Host
- ESXi Host Deployment Overview
- Installing ESXi
- Post Installation with DCUI
- Host Client and ESXi Mgmt. Plane Networking
- ESXi Lockdown Mode and Basic Host Security
- Validation for Deploying an ESXi Host

### Deploy vCenter Server

- Intro to Deploy vCenter Server
- vCenter Server Deployment Overview
- Prerequisites and Sizing for vCenter Server
- Downloading and Launching the vCSA Installer (Stage 1)
- Stage 2 - Configure the vCSA and SSO Domain
- Logging in to the vCenter VM
- Using AutoStart for the vCenter VM
- Validation of vCSA Deployment

## **Configuring vSphere**

Intro to Initial Configuration of vSphere DCs and Clusters  
Overview of Initial DC and Cluster Configuration in vSphere  
Creating the first Datacenter and Cluster  
Adding Hosts to a Cluster  
Managing Hosts via vCenter  
Testing Networking by Using a Test VM  
Troubleshooting Scenario

## **Host and VM Networking**

Intro to Host and VM Networking  
vSphere Host and VM Networking Overview  
Create a New vSphere Virtual Standard Switch (VSS)  
Create a New vSphere Virtual Distributed Switch (VDS)  
Add Hosts to the Distributed Switch  
Troubleshooting Scenario

## **Using NAS NFS Datastores**

Intro to Using NAS-NFS Datastores  
NAS-NFS Datastore Overview  
Prepare the NAS Server  
Create VDS Port Group for VLAN 10  
Create Dedicated VMkernel Adapters for NFS Datastore Access  
Create the NFS Datastore  
Testing the New NFS Datastore  
Troubleshooting Scenario

## **Using VMFS iSCSI Storage**

Intro to Using iSCSI VMFS Datastores  
iSCSI VMFS Datastores Overview

Preparing the iSCSI Storage Device  
Create a New Port Group  
Create New VMkernel Adapters  
Create a New Software iSCSI adapter  
Create a New Datastore  
Testing the New iSCSI VMFS Datastore  
iSCSI Troubleshooting Scenario

## **vSAN Foundation and Deployment**

Intro to vSAN Foundation and Deployment  
vSAN Overview  
Game Plan for vSAN  
Create a New vDS and Port Group for vSAN  
Create VMKernel Adapters for Use with vSAN  
Mark the Drives as Flash  
Create the vSAN  
Test the vSAN  
Increase the vSAN Size  
Validation Check for vSAN Requirements

## **vMotion, DRS, and HA**

Intro to vMotion, DRS, and HA  
vMotion, DRS, and HA Overview  
Configuring vMotion  
Configuring DRS  
Using Affinity Rules  
VM HA  
Validation section for vMotion, DRS, and HA

## **VVF Digital Certificates**

Intro to VVF Digital Certificates

Digital Certificate Overview

Viewing Certificate Information with VECS-CLI and OpenSSL

Walking the VMCA Chain

Walking the Broadcom and VCFOps Cluster CA Chains

Enterprise CA Integration

Hybrid CA Approach

Validation Video for Certs

## **VMware vSphere Foundation Licensing**

Intro to VVF Licensing

VVF Licensing Overview

Deploy the VCF Operations VM

VCF-Operations Initial Setup

Continue VCF-OPs Setup and Add Licensing Server

Register VCF-Ops and Download Licenses

Integrate vCSA with VCF Operations

Managing VVF Licenses

VVF Licensing Troubleshooting

## **Manage the VVF Lifecycle**

Intro to VVF Lifecycle Management

VVF Lifecycle Management Overview

The vSphere Lifecycle Manager (vLCM) Software Depot

Creating and Managing Images

Assign Image to Cluster and Check Compliance

Updating the Assigned Image on a Cluster

Updating vCenter

Validation Check for vLCM

## **Create and Manage Virtual Machines**

Intro to Create and Manage Virtual Machines

Create and Manage Virtual Machines Overview

Verify the Environment Prior to Deploying New VMs

Creating Virtual Machines

Installing the Guest OS

VMware Tools

Check on Guest OS Installations

Core VM Management Operations

Editing VM Hardware and Removing a VM

Troubleshooting Scenario

## **Cloning, Templates, and Libraries**

Intro to Cloning, Templates, and Content Libraries

Cloning, Templates, and Content Libraries Overview

Cloning Operations

Create VMs from a Template

Using an OVF Template

Using a Content Library

Leveraging the Content Library

Updating Templates

Troubleshooting Scenario

## **VM Security and Encryption**

Intro to VM Security and Encryption

VM Security and Encryption Overview

vCenter Native Key Provider

Using Secure Boot

Adding a vTPM

Using an Encryption Storage Policy

TPM, Secure Boot, and Storage Policy

Troubleshooting Scenario

## **Identity Mgmt, RBAC, and Permissions**

Intro to Identity Mgmt, RBAC, and Permissions

Identity Mgmt, RBAC, and Permissions Overview

vCenter SSO and Identity Sources

Built-In Roles

Custom Roles and Least Privilege

Permissions, Propagation, and Inheritance

Validation for Identity Mgmt, RBAC, and Permissions

## **Using VCF Operations**

Intro to Using VCF Operations

VCF Ops Architecture and Deployment

Inventory, Metrics, and Properties

Dashboards, Views, and Reports

Alerting and Notifications

Policies and Compliance

Capacity and Cost Management

Application Monitoring, Service Discovery, and Integrations

VCF Operations for Logs

Troubleshooting Scenario

## **Supervisor and Operations Orchestration**

Intro to Supervisor and Operations Orchestration

Overview of Supervisor and Operations Orchestration

Supervisor Architecture and Components

Prerequisites For Supervisor Deployment

Confirming and Setting up the Prerequisites

Using the Supervisor Wizard

VCF Operations Orchestrator

Test your Knowledge