

Document Generated: 07/27/2024 Learning Style: Virtual Classroom Provider: VMware Difficulty: Intermediate Course Duration: 3 Days

# VMware vSphere: What's New 6.7 to 7.0



# About this Course:

In this three-day, hands-on training course, you explore the new features and enhancements in VMware vCenter Server® 7.0 and VMware ESXi<sup>™</sup> 7.0. Real-world use-case deployment scenarios, hands-on lab exercises, and lectures teach you the skills that you need to effectively implement and configure VMware vSphere® 7.

The average salary of Vmware Administrator is \$79,681 per year.

### **Course Objectives:**

- Recognize the importance of key features and enhancements in vSphere 6.7 update releases and vSphere 7
- Migrate a vCenter Server system for Windows to VMware vCenter® Server Appliance<sup>™</sup> 7.0
  - Upgrade a vCenter Server instance to vSphere 7
- Describe vCenter Server, VMware ESXi<sup>™</sup>, storage, network, virtual machine, and security enhancements in vSphere 7
- Update templates in the content library
- Use Identity Federation to configure vCenter Server to use external identity sources
- Use the VMware vSphere® Client<sup>™</sup> to manage certificates
- Use VMware vSphere® Trust Authority<sup>™</sup> to secure the infrastructure for encrypted VMs
- Use VMware vSphere® Lifecycle Manager™ to manage vSphere deployments and updates
- · Describe the cloning and migration operations on encrypted VMs
- Describe the purpose of scalable shares and the improvements to vSphere DRS
- Describe how to change the IP address or FQDN of vCenter Server
- Identify new hardware device support in ESXi 7.0
- Recognize the enhancements available with VM compatibility version 17
- Recognize the enhancements available with VM compatibility version 18
- Recognize the importance of containers and Kubernetes in a modern data center

#### Audience:

 System architects, system administrators, IT managers, VMware partners, and individuals responsible for implementing and managing vSphere architectures

#### **Prerequisites:**

This course requires completion of one the following courses or equivalent knowledge and administration experience with ESXi and vCenter Server:

• VMware vSphere: Install, Configure, Manage

- VMware vSphere: Optimize and Scale
- VMware vSphere: Fast Track
- VMware vSphere: Troubleshooting

# **Course Outline:**

#### **1** Course Introduction

- · Introductions and course logistics
- Course objectives

#### 2 Installation and Upgrade

- Describe the new vCenter Server Appliance deployment model
- Upgrade a vCenter Server Appliance instance to vCenter Server Appliance 7.0
- Migrate a Windows vCenter Server instance to vCenter Server Appliance 7.0
- · Identify enhancements to vCenter Server Appliance
- Upgrade an ESXi host to version 7.0

#### 3 Management Enhancements

- Recognize how to create and apply vCenter Server profiles
- Identify the scaling and performance improvements for vCenter Server Appliance
- Describe the support provided for dynamic DNS
- Recognize how to change the IP address or FQDN of vCenter Server
- Identify enhancements to the vCenter Server file-based backup
- Identify enhancements to tools provided by the vSphere Client Developer Center
- Describe prefix-based MAC address allocation
- Identify VMware NSX-T<sup>™</sup> logical switches and their properties in the vSphere Client
- Use virtual distributed port groups to connect to NSX-T Data Center logical switches
- Use vSphere Bitfusion to support artificial intelligence and machine learning based workloads
- Describe version control and management of VM templates in Content Library
- Perform a VM template in-place update in Content Library
- Describe identity federation and recognize its use cases
- Configure identity federation
- Manage certificates using the vSphere Client
- Explain the benefits and capabilities of VMware Skyline<sup>™</sup>

#### 4 ESXi Enhancements

- Recognize the enhancements made to ESXi security
- Identify hardware support updates in ESXi 7.0
- Describe the support for AMD SEV-ES in vSphere 7
- Recognize layout changes in the ESXi 7.0 system storage partitions
- Describe the enhancements made to ESXi timekeeping options in vSphere 7
- Describe the enhancement to vSphere vMotion in vSphere 7

#### 5 VM Enhancements

· Identify the characteristics of VM compatibility level for ESXi 7.0

- Describe the support provided for new virtual devices in vSphere 7
- Recognize improvements to guest customization
- Migrate VMs with attached devices

#### 6 Storage Enhancements

- · Describe the enhancements to NVMe support
- Describe the enhancements to VMware Pluggable Storage Architecture
- Describe the purpose of the High-Performance Plug-in
- Describe the support for iSER in vSphere 7
- Describe support for iSER in vSphere 7
- Identify VMware vSAN<sup>™</sup> enhancements for vSphere 7

#### 7 Security Enhancements

- Describe the enhancements to cloning, migration, and encryption operations
- Identify the enhancements to the VM encryption architecture in vSphere 7
- · Recognize new VM encryption events and alarms
- Describe the benefits and use cases of VMware vSphere<sup>®</sup> Trust Authority<sup>™</sup>
- Explain the general architecture of vSphere Trust Authority
- Configure vSphere Trust Authority

#### 8 Cluster Enhancements

Recognize how to configure clusters using the vSphere Cluster Quickstart workflow

- Recognize improvements to vSphere DRS
- Identify improvements to vSphere ESX Agent Manager
- Describe scalable shares
- Configure VMware vSphere® DirectPath I/O<sup>™</sup>

#### 9 vSphere Lifecycle Management

- Describe features of vCenter Server Update Planner
- Run vCenter Server upgrade prechecks and interoperability reports
- Describe vSphere Lifecycle Manager
- Compare vSphere Lifecycle Manager to vSphere Update Manager
- Identify the components of an ESXi image
- Describe vSphere Lifecycle Manager and NSX-T Data Center integration
- Define a cluster image and update ESXi hosts using vSphere Lifecycle Manager

#### 10 Introduction to VMware vSphere® with Tanzu

- Differentiate between containers and virtual machines
- Identify the parts of a container system
- · Recognize the steps in a basic Docker workflow
- Explain the importance of Kubernetes
- Recognize the basic architecture of Kubernetes
- Describe a basic Kubernetes workflow
- Identify the capabilities and benefits of vSphere with Tanzu
- Describe the Tanzu Kubernetes Grid Service

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