

Module Title : VMware vSphere: What's New [V6.7 to V7]

Duration : 3 days

Introduction

In this three-day, hands-on training course, you explore the new features and enhancements in VMware vCenter Server® 7.0 and VMware ESXi™ 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.

This course is recommended for customers who want to deploy vSphere 7 in their existing vSphere environment.

Course Objectives

By the end of the course, you should be able to meet the following 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™ 7.0
- Upgrade a vCenter Server instance to vSphere 7
- Describe vCenter Server, VMware ESXi™, 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™ to manage certificates
- Use VMware vSphere® Trust Authority™ 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 importance of containers and Kubernetes in a modern data center

Target 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

The course material presumes that you can perform the following tasks with no assistance or guidance before enrolling in this course:

- Install and configure ESXi
- Install vCenter Server
- Create vCenter Server objects, such as data centers and folders
- Create and manage vCenter Server roles and permissions
- Create and modify a standard switch
- Create and modify a distributed switch
- Connect an ESXi host to NAS, iSCSI, or Fibre Channel storage
- Create a VMware vSphere® VMFS datastore
- Use a content library template to create a virtual machine
- Modify a virtual machine's hardware
- Migrate a virtual machine with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
- Configure and manage a VMware vSphere® Distributed Resource Scheduler™ cluster
- Configure and manage a VMware vSphere® High Availability cluster
- Use VMware vSphere® Update Manager™ to apply patches and perform upgrades to ESXi hosts and VMs

If you cannot complete these tasks, VMware recommends that you instead take the VMware vSphere: Install, Configure, Manage [V7] course.

Certifications

Attending this course allows candidates who hold a valid VCP-DCV 2019 to upgrade to VCP-DCV 2020 without taking the certification exam.

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 filebased backup
- Identify enhancements to tools provided by the vSphere Client Developer Center
- Describe prefix-based MAC address allocation
- Identify VMware NSX-T™ logical switches and their properties in the vSphere Client
- 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™

4 ESXi Enhancements

- Recognize the enhancements made to ESXi security
- Identify hardware support updates in ESXi 7.0
- Recognize layout changes in the ESXi 7.0 system storage partitions
- Describe the enhancements made to ESXi timekeeping options 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™ 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® Trust Authority™
- 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™

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
- Define a cluster image and update ESXi hosts using vSphere Lifecycle Manager

10 Introduction to VMware vSphere® with Kubernetes

- 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