

# VMware vSphere: What's New

## Course Overview

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 Delivery Options

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

## Product Alignment

- VMware ESXi 7.0
- VMware vCenter Server 7.0

## Course Modules

### 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™ 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™



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## 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

## Contact

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



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