

VMware vSphere: What's New

COURSE DETAILS

Course Code:	VM-VSWN
Delivery Type:	Instructor-Led
Duration:	3 days

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.

COURSE CONTENT

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.

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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 enhancements available with VM compatibility version 18
 - Recognize the importance of containers and Kubernetes in a modern data center
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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™ 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
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- 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
 - 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™ 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
 - 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

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- Describe the Tanzu Kubernetes Grid Service
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WHO SHOULD ATTEND

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