Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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VMware vSphere: What's New [V5.5 to V6.7]

CODE:	LENGTH:	PRICE:
VM-VS-WN-V5.5-V6.7	24 Hours (3 days)	$2,550.00

Description

In this three-day, hands-on training course, you explore the new features and enhancements in VMware vCenter Server® 6.7 and VMware ESXi™ 6.7. 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® 6.7. This course is recommended for customers who want to deploy vSphere 6.7 into their existing vSphere environment.
This course is also available in an On Demand format. For more information, select this link: VMware vSphere: What's New [V5.5 to V6.7] - On Demand.
Product Alignment
- ESXi 6.7
- vCenter Server 6.7

Objectives

By the end of the course, you should be able to meet the following objectives:
- List and describe the importance of key features and enhancements in vSphere 6.0, 6.5, and 6.7
- Use VMware vSphere® Client™, VMware Host Client™, and the VMware vCenter® Server Appliance™ shell to view and configure the vSphere environment
- Migrate a vCenter Server system for Windows to vCenter Server Appliance 6.7
- Determine the proper upgrade path for a vCenter Server instance and upgrade vCenter Server to version 6.7
- Use the appropriate method to upgrade an ESXi host
- Create a multisite content library for synchronizing virtual machine templates, vApps, ISO images, and scripts across vCenter Server instances
- Deploy virtual machines from a content library
- Increase ESXi security by enabling lockdown mode on an ESXi host
- Upgrade virtual machines to the latest virtual hardware and VMware Tools™ version
- Configure NFS- and iSCSI-backed virtual volumes to provide a common storage platform, independent of the underlying storage hardware
- Create storage policies and use them with virtual machines and virtual volume datastores
- Register a key management server with vCenter Server and create an encrypted virtual machine
- Create a distributed switch and use VMware vSphere® Network I/O Control to allocate bandwidth for a virtual machine
- Activate VMware vCenter Server® High Availability

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 VMware ESX®/ESXi and vCenter Server:
- VMware vSphere: Install, Configure, Manage
- VMware vSphere: Fast Track
- VMware vSphere: What's New
- VMware vSphere: Troubleshooting

Experience with working at the command line is helpful.

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

- Install and configure ESX or 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 ESX/ESXi host to NAS, iSCSI, or Fibre Channel storage
- Create a VMware vSphere® VMFS datastore
- Enable VMware vSphere® vMotion® on an ESX/ESXi host
- Use a wizard or a template to create a virtual machine
- Modify a virtual machine's hardware
- Migrate a virtual machine with vSphere vMotion
- Migrate a virtual machine with VMware vSphere® Storage vMotion®
- Configure and manage a VMware vSphere® Distributed Resource Scheduler™ cluster with resource pools
- Configure and manage a VMware vSphere® High Availability cluster

If you cannot complete these tasks, VMware recommends that you instead take the VMware vSphere: Install, Configure, Manage [V6.7] course.

Programme

1 Course Introduction
- Introductions and course logistics
- Course objectives

2 Management Enhancements
- Differentiate the vSphere clients
- Use vSphere Client to view the vSphere environment
- Use VMware Host Client to view the vSphere environment
- Describe the vSphere 6.0, 6.5, and 6.7 enhancements to vCenter Server Appliance
- Describe the new features of vSphere 6.7
- Discuss methods for vCenter Server Appliance Backup and Restore
- Manage a vCenter Server Appliance by using the command-line shell interface
- Describe how vCenter Server High Availability works
- Describe how VMware Platform Services Controller™ high availability works
- Configure and test vCenter Server High Availability
- Summarize the purpose of content libraries in a vSphere environment
- Create a local content library
- Subscribe to a published content library
- Deploy virtual machines from a content library

3 vCenter Server Upgrade and Migration
- Determine the appropriate upgrade path for a vCenter Server deployment
- Upgrade a vCenter Server Appliance instance to vCenter Server Appliance 6.7
- Upgrade a vCenter Server instance to vCenter Server 6.7
- Determine the appropriate migration path for a vCenter Server deployment
- Describe the new migration features of vCenter Server 6.7
- Migrate a vCenter Server instance for Windows to vCenter Server Appliance 6.7
- Describe Platform Services Controller High Availability deployment options
- Describe Enhanced Linked Mode with embedded Platform Services Controllers
- Use Embedded Linked Mode to link multiple vCenter Server systems
- Use Cross SSO Domain repointing to move and consolidate vCenter Server systems from different domains into one domain

4 ESXi Upgrade and Enhancements
- Determine the appropriate upgrade method for an ESXi host
- Describe the procedure for upgrading an ESXi 5.5, 6.0, or 6.5 host to an ESXi 6.7 host
- Discuss the additional features to support hot-plug and SMART solid-state drives
- Describe the new capabilities of Host Profiles introduced in vSphere 6.5
- Describe the vSphere 6.7 Quick Boot feature
- Describe the VMware vSphere® Update Manager™ EAM integration
- Describe vSphere 6.7 persistent memory feature
- Describe how Per-VM Enhanced vMotion Compatibility (EVC) provides greater VM mobility
- Discuss how virtual machines and applications to leverage high-performance physical GPU hardware
- Discuss how Instant Clone technology enables the rapid deployment of similar virtual machines

5 Virtual Machine Enhancements
- Discuss how virtual hardware 11, 13, and 14 extend virtual machine resource configurations
- Describe how the VMXNET3 adapter optimizes network traffic
- Discuss how hot-add memory is distributed across NUMA nodes in vSphere 6.x
- Describe the benefits of VMware vSphere® Integrated Containers™
- Upgrade Virtual Machines

6 Storage Enhancements
- Describe vSphere 6.x support for NFS
- Describe VMware vSphere® VMFS6 datastore
- Explain the advantages of SEsparse format for environments where many tenants share storage
- Discuss support for 4Kn (4K native) storage devices
- Explain how VMware vSphere® API for Storage Awareness™ can ensure that a VM's storage requirements are met
- Describe the interoperability enhancements to VMware vSphere® Storage DRS™ and VMware vSphere® Storage I/O Control
- Describe how vSphere Storage DRS and Storage I/O Control improves adherence to configured maximums and reservations
- Describe the VMware vSAN enhancements
- Describe how VMDK data operations are offloaded to storage arrays through VMware vSphere® API for Storage Awareness™
- Describe per-virtual machine, policy-based policy management

7 Security Enhancements
- Use encryption in your vSphere environment
- Encrypt virtual machines in your vSphere environment
- Explain how to back up encrypted virtual machines
- Enable encrypted vSphere vMotion migration
- Discuss the improvements to lockdown settings
- Describe the addition of smart-card authentication
- Explain the changes that enhance user accountability
- Describe secure boot support for ESXi hosts
- Describe the security enhancements introduced in vSphere 6.7
- Enable Federal Information Processing Standard (FIPS) 140-2 mode in your vSphere environment
- Enable a virtual TPM device in your vSphere environment
- Discuss support for Virtualization Based Security (VBS) in your vSphere environment
- Deploy enhanced vCenter Server events and alarms and vSphere logging
- Describe the vSphere features for monitoring vCenter Server Appliance
- List the VMware certificate management components
- Describe certificate use changes in vSphere 6.0
- Describe the primary services provided by the VMware Certificate Authority component
- Contrast using VMware certificate authority (CA) with using and external CA

8 Network Enhancements
- Use Network I/O Control
- Upgrade Network I/O Control to version 3
- Enable network resource management on VMware vSphere® Distributed Switch™
- Configure bandwidth allocation for system and virtual machine traffic based on shares and reservation
- Discuss IPv6 support in vSphere 6.x
- Explain how the gateway per vmknic feature works and how it is configured
- Explain the new ERSPAN headers supported in vSphere 6.5 and how they are configured
- Describe the areas where performance improvements were made in vSphere 6.5

9 Availability Enhancements
- Describe the TCP/IP stack for vSphere vMotion that was introduced in vSphere 6.0
- Explain the changes that make vSphere vMotion migrations across high-latency networks possible
- Discuss the requirements for migrating a virtual machine across vCenter Server instances
- Explain how VMware vSphere® Fault Tolerance in vSphere 6.0 supports virtual machines with multiple virtual CPUs
- Describe how vSphere Fault Tolerance maintains the secondary virtual machine in a ready state
- Explain the mechanism by which the primary virtual machine is determined
- Discuss the improvements made in handling all paths down (APD) and permanent device lost (PDL) conditions
- Describe the increased scalability of vSphere HA
- Explain the additional compatibility supported by vSphere HA
- Explain the enhancement of vSphere HA admission control and orchestrated restarts
- Describe advanced vSphere DRS options
- Increase VM and workload uptime with Predictive DRS
- Discuss how Proactive HA helps reduce VM downtime
- Reduce the need for vSphere HA with Proactive HA

Session Dates

On request. Please Contact Us

Additional Information

This training is also available as onsite training. Please contact us to find out more.