Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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VMware vSphere: Fast Track [V6.7]

CODE:	LENGTH:	PRICE:
VM-VS-FT-V6.7	40 Hours (5 days)	$6,475.00

Description

This five-day, intensive course takes you from introductory to advanced VMware vSphere® management skills. Building on the installation and configuration content from our best-selling course, you will also develop advanced skills needed to manage and maintain a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you will install, configure and manage vSphere 6.7. You will explore the features that build a foundation for a truly scalable infrastructure, and discuss when and where these features have the greatest effect. This course prepares you to administer a vSphere infrastructure for an organization of any size using vSphere 6.7, which includes VMware ESXi™ 6.7 and VMware vCenter Server® 6.7.
  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:
• Install and configure ESXi hosts
• Deploy and configure VMware vCenter® Server Appliance™
• Use VMware Host Client™, VMware vSphere® Web Client, and VMware vSphere® Client™ to manage the vCenter Server inventory and the vCenter Server configuration
• Create virtual networks with vSphere standard switches
• Describe the storage technologies supported by vSphere
• Configure virtual storage using iSCSI and NFS storage
• Create and manage VMware vSphere® VMFS datastores
• Use vSphere Client to create virtual machines, templates, clones, and snapshots
• Create a content library for deploying virtual machines
• Manage virtual machine resource usage and manage resource pools
• Migrate virtual machines with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
• Describe the methods for protecting and recovering virtual machine data
• Create and manage a vSphere cluster that is enabled with VMware vSphere® High Availability and VMware vSphere® Distributed Resource Scheduler™
• Create virtual networks with VMware vSphere® Distributed Switch™ and enable distributed switch features
• Use VMware vSphere® Update Manager™ to apply patches and perform upgrades to ESXi hosts and virtual machines
• Use host profiles to manage ESXi configuration compliance
• Describe how vSphere storage APIs help storage systems integrate with vSphere
• Configure and use virtual machine storage policies
• Configure VMware vSphere® Storage I/O Control and VMware vSphere® Storage DRS™
• Encrypt virtual machines for additional security

Audience

• System administrators
• System engineers

Prerequisites

This course has the following prerequisites:
• System administration experience on Microsoft Windows or Linux operating systems

Programme

1 Course Introduction
• Introductions and course logistics
• Course objectives
• Describe the content of this course
• Gain a complete picture of the VMware certification system
• Familiarize yourself with the benefits of the VMware Education Learning Zone
• Identify additional resources

2 Introduction to vSphere and the Software-Defined Data Center
• Describe how vSphere fits into the software-defined data center and the cloud infrastructure
• Explain how vSphere interacts with CPUs, memory, networks, and storage
• Use vSphere Client to access and manage your vCenter Server system and ESXi host
• Compare virtual machine hardware version 14 to other versions
• Identify the virtual network adapters, and describe the enhanced VMXNET3
• Compare the types of virtual disk provisioning
• Install and configure ESXi host settings
• Identify the advantages of ESXi Quick Boot

4 vCenter Server
• Describe the vCenter Server architecture
• Discuss how ESXi hosts communicate with vCenter Server
• Access and configure vCenter Server Appliance
• Use vSphere Client to manage the vCenter Server inventory
• Add data center, organizational objects, and hosts to vCenter Server
• Create custom inventory tags
• Describe the rules for applying permissions
• Create a custom role in vCenter Server
• Create a vCenter Server Appliance backup schedule
• Restore vCenter Server Appliance from a backup
• Monitor vCenter Server Appliance

3 Creating Virtual Machines
• Create, provision, and remove a virtual machine
• Explain the importance of VMware Tools™
• Describe how to import a virtual appliance OVF template

5 Configuring and Managing Virtual Networks
• Describe, create, and manage standard switches
• Configure virtual switch security, traffic-shaping and load-balancing policies
• Compare vSphere distributed switches and standard switches
• Describe the virtual switch connection types
• Describe the new TCP/IP stack architecture
• Use VLANs with standard switches

6 Configuring and Managing Virtual Storage
• Identify storage protocols and storage device types
• Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage
• Create and manage VMware vSphere® VMFS and NFS datastores
• Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage
• Identify the advantages of VMware vSAN™

7 Virtual Machine Management
• Use templates and cloning to deploy new virtual machines
• Modify and manage virtual machines
• Create an instant clone of a virtual machine
• Identify the types of content libraries and how to deploy and use them
• Add a hot-pluggable device
• Dynamically increase the size of a virtual disk
• Use customization specification files to customize a new virtual machine
• Perform vSphere vMotion and vSphere Storage vMotion migrations
• Create and manage virtual machine snapshots

8 Resource Management and Monitoring
• Discuss CPU and memory concepts in a virtualized environment
• Describe what overcommitment of a resource means
• Identify additional technologies that improve memory usage
• Configure and manage resource pools
• Describe methods for optimizing CPU and memory usage
• Use various tools to monitor resource usage
• Create and use alarms to report certain conditions or events

9 vSphere HA, vSphere Fault Tolerance, and Protecting Data
• Explain the vSphere HA architecture
• Configure and manage a vSphere HA cluster
• Use vSphere HA advanced parameters
• Enforce infrastructural or intra-app dependencies during failover
• Describe vSphere HA heartbeat networks and datastore heartbeats
• Examine the features and functions of vSphere Fault Tolerance
• Enable vSphere Fault Tolerance on virtual machines
• Support vSphere Fault Tolerance interoperability with vSAN
• Examine enhanced consolidation of vSphere Fault Tolerance virtual machines
• Examine the features and functions of vSphere Replication
10 vSphere DRS
• Describe the functions of a vSphere DRS cluster
• Create a vSphere DRS cluster
• View information about a vSphere DRS cluster
• Configure virtual machine affinity, DRS groups, and VM-host affinity rules
• Remove a host from a vSphere DRS cluster
11 Network Scalability
• Configure and manage vSphere distributed switches
• Explain distributed features such as port mirroring, LACP, QoS tagging, and NetFlow
• Configuring port mirroring on a distributed switch
12 vSphere Update Manager and Host Maintenance
• Describe the architecture, components, and capabilities of vSphere Update Manager
• Use vSphere Update Manager to manage the patching of ESXi, virtual machines, and vApps
• Examine the features and functions of vSphere Update Manager EAM integration
• Integrate vSphere Update Manager with vSphere DRS
• Describe and use host profiles
13 Storage Scalability
• Explain VMware vSphere® Storage APIs - Array Integration, VMware vSphere® API for Storage Awareness™, and vSphere APIs for I/O Filtering
• Configure and assign virtual machine storage policies
• Configure vSphere Storage DRS and Storage I/O Control
14 Securing Virtual Machines
• Set up encryption in your vSphere environment
• Encrypt virtual machines
• Encrypt core dumps
• Enable encrypted vSphere vMotion
• Describe support for virtual machine security features, such as UEFI secure boot, vTPM, and virtualization- based security

Session Dates

On request. Please Contact Us

Additional Information

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