



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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CODE:	LENGTH:	PRICE:
VM-VS-FT-V7.0	40 Hours (5 days)	\$6,475.00

Description

This five-day, intensive course takes you from introductory to advanced VMware vSphere® 7 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 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 7, which includes VMware ESXi™ 7 and VMware vCenter Server® 7.

Product Alignment

- ESXi 7
- vCenter Server 7

Objectives

By the end of the course, you should be able to meet the following objectives:

- Describe the software-defined data center (SDDC)
- Explain the vSphere components and their function in the infrastructure
- Install and configure VMware ESXi™ hosts
- Deploy and configure VMware vCenter® Server Appliance™
- Use VMware vSphere® Client™ to manage the vCenter Server inventory and the vCenter Server configuration
- Manage, monitor, back up, and protect vCenter Server Appliance
- 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 the vSphere Client to create virtual machines, templates, clones, and snapshots
- Create a content library and deploy virtual machines from templates in the library
- Manage virtual machine resource use and manage resource pools
- Migrate virtual machines with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
- 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
- Discuss solutions for managing the vSphere life cycle
- Use VMware vSphere® Lifecycle Manager™ to 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

Certifications

Attendance of this course meets the training requirement to achieve the following certification:

- VMware Certified Professional – Data Center Virtualization (VCP-DCV)

Audience

- System administrators
- System engineers

Prerequisites

This course has the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems

Programme

- 2 Introduction to vSphere and the Software-Defined Data Center
 - Explain basic virtualization concepts
 - Describe how vSphere fits into the software-defined data center and the cloud infrastructure
 - Explain how vSphere interacts with CPUs, memory, networks, and storage
 - Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts
 - Describe the ESXi host architecture
 - Navigate the Direct Console User Interface (DCUI) to configure an ESXi host
 - Recognize ESXi host user account best practices
- 1 Course Introduction
 - Introductions and course logistics
 - Course objectives
 - Install an ESXi host
 - Use VMware Host Client™ to configure ESXi host settings
- 3 Virtual Machines
 - Create and provision a virtual machine
 - Explain the importance of VMware Tools™
 - Install VMware Tools
 - Identify the files that make up a VM
 - Recognize the components of a VM
 - Recognize virtual devices supported by a VM
 - Describe the benefits and use cases for containers
 - Identify the parts of a container system
- 4 vCenter Server
 - Describe the vCenter Server architecture
 - Discuss how ESXi hosts communicate with vCenter Server
 - Deploy and configure vCenter Server Appliance
 - Use the vSphere Client to manage the vCenter Server inventory
 - Add data center, organizational objects, and hosts to vCenter Server
 - Use roles and permissions to enable users to access objects in the vCenter Server inventory
 - Back up vCenter Server Appliance
 - Monitor vCenter Server tasks, events, and appliance health
 - Use vCenter Server High Availability to protect a vCenter Server Appliance
- 5 Configuring and Managing Virtual Networks
 - Create and manage standard switches
 - Describe the virtual switch connection types
 - Configure virtual switch security, traffic-shaping and load-balancing policies
 - Compare vSphere distributed switches and 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 VMFS and NFS datastores
 - Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage
 - Recognize the components of a VMware vSAN™ configuration
- 7 Virtual Machine Management
 - Use templates and cloning to deploy new virtual machines
 - Modify and manage virtual machines
 - Create a content library and deploy virtual machines from templates in the library
 - Use customization specification files to customize a new virtual machine
 - Perform vSphere vMotion and vSphere Storage vMotion migrations
 - Describe Enhanced vMotion Compatibility
 - Create and manage virtual machine snapshots
 - Examine the features and functions of VMware vSphere® Replication™
 - Describe the benefits of vSphere Storage APIs – Data Protection
- 8 Resource Management and Monitoring
 - Discuss CPU and memory concepts in a virtualized environment
 - Describe what overcommitment of a resource means
 - Describe methods for optimizing CPU and memory usage
 - Use various tools to monitor resource use
 - Create and use alarms to report certain conditions or events
- 9 vSphere Clusters
 - Describe the functions of a vSphere DRS cluster
 - Create a vSphere DRS cluster
 - Monitor a vSphere cluster configuration
 - Describe options for making a vSphere environment highly available
 - Explain the vSphere HA architecture
 - Configure and manage a vSphere HA cluster
 - Examine the features and functions of VMware vSphere® Fault Tolerance

10 Network Scalability

- Configure and manage vSphere distributed switches
- Describe how VMware vSphere® Network I/O Control enhances performance
- Explain distributed switch features such as port mirroring and NetFlow

11 vSphere Lifecycle Management

- Recognize the importance of vCenter Server Update Planner
 - Describe how VMware vSphere® Lifecycle Manager™ works
 - Describe how to update ESXi hosts using baselines
 - Validate ESXi host compliance using a cluster image
 - Describe how to upgrade VMware Tools and VM hardware
- #### 12 Host and Management Scalability
- Use host profiles to manage ESXi configuration compliance
 - Create and manage resource pools in a cluster
 - Describe how scalable shares work

13 Storage Scalability

- Explain why VMware vSphere® VMFS is a high-performance, scalable file system
- 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
- Create VMware vSAN™ storage policies
- Recognize components of the vSphere Virtual Volumes architecture
- Configure VMware vSphere® Storage DRS™ and VMware vSphere® Storage I/O Control

Session Dates

On request. Please [Contact Us](#)

Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)