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## VMware vSphere: Fast Track

**Duration: 5 Days**    **Course Code: VSFT**    **Version: 7**

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### Overview:

This five-day, intensive VMware Fast track 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

This course is a combination of the main modules of the courses: **VMware vSphere: Install, Configure, Manage(VSICM)** + **VMware vSphere: Optimize and Scale(VSOS)**.

**Remark:** This training is also advised for students who want to be trained for vSphere v6.5 or v6.7. This training can also be used as preparation for a VMware VCP-Data Center Virtualization 2020 certification (VCP-DCV 2020).

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### Target Audience:

System administrators System engineers

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### 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 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

- Discuss the purpose and capabilities of VMware vSphere® with Kubernetes and how it fits into the VMware Tanzu™ portfolio
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### Prerequisites:

This course has the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems
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### Follow-on-Courses:

- VSD - VMware vSphere: Design
  - VST - VMware vSphere: Troubleshooting
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## Content:

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 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
- Use VMware Host Client™ to access and manage ESXi host

### 3 Virtual Machines

- Create and remove a virtual machine
- Provision a virtual machine with virtual devices
- Identify the files that make up a virtual machine
- Explain the importance of VMware Tools™

### 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
- Deploy virtual machines on a VMware vSAN™ datastore

### 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
- 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
- Examine the features and functions of VMware vSphere® Replication

### 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 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
- Configure a vSphere cluster using ESXi Cluster Quickstart
- Describe the functions of a vSphere DRS cluster
- Create a vSphere DRS cluster

### 10 Network Scalability

- Configure and manage vSphere distributed switches
- Describe how VMware vSphere®

### 11 vSphere Lifecycle Management

- Describe how VMware vSphere® Lifecycle Manager™ works
- Use vSphere Lifecycle Manager to update ESXi hosts in a cluster

### 12 Host and Management Scalability

- Use host profiles to manage ESXi configuration compliance
- Create and manage resource pools in a cluster

### 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
- Configure VMware vSphere® Storage DRS™ and VMware vSphere® Storage I/O Control
- Discuss vSphere support for NVMe and iSER

Network I/O Control enhances performance

- Explain distributed switch features such as port mirroring and NetFlow

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### Further Information:

For More information, or to book your course, please call us on 0800/84.009

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