



VMware vSphere: Fast Track

Duration: 5 Days **Course Code: VSFT** **Version: 6.7** **Delivery Method: Virtual Learning**

Overview:

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.

This course aligns with the following products:ESXi 6.7, vCenter Server 6.7.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

System engineers and administrators who need to be able to install, configure, manage and maintain a VMware vSphere environment

Objectives:

After completing this course you should be able to:

- 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

Prerequisites:

Attendees should meet the following prerequisites:

Testing and Certification

Recommended as preparation for the following exams:

Follow-on-Courses:

The following courses are recommended for further study:

- **VMDMC** - VMware Cloud: Deploy and Manage a vSphere Cloud
 - **VMVATSW** - VMware vSphere: Advanced Troubleshooting Workshop
 - **VST** - VMware vSphere: Troubleshooting Workshop
 - **VMRIDM** - VMware vRealize Log Insight: Deploy and Manage
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Content:

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

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 provisionin
- Install and configure ESXi host settings
- Identify the advantages of ESXi Quick Boot

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

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

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

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™

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

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

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

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

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

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

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

standard switches

- Describe the virtual switch connection types
- Describe the new TCP/IP stack architecture
- Use VLANs with standard switches

interoperability with vSAN

- Examine enhanced consolidation of vSphere Fault Tolerance virtual machines
- Examine the features and functions of vSphere Replication

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

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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