COURSE OVERVIEW – VMWARE VSPHERE: FAST TRACK 6.7

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.

COURSE 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

TARGET AUDIENCE

- System administrators
- System engineers

PREREQUISITES

- System administration experience on Microsoft Windows or Linux operating systems

CERTIFICATIONS

This course prepares you for the VCP-DCV 2020 certification:

- VMware Certification Questions?

COURSE DELIVERY OPTIONS

- Classroom
- Live Online
- Onsite

PRODUCT ALIGNMENT

- ESXi 6.7
- vCenter Server 6.7

Course Modules

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

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

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

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

Contact If you have questions or need help registering for this course, click here