



VMW-VF8

VMware vSphere: Fast Track [V 8]



Overview.

This five-day, extended hour course takes you from introductory to advanced VMware vSphere® 8 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 8, which includes VMware ESXi™ 8 and VMware vCenter Server® 8.

Objectives.

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

- Install and configure ESXi hosts.
- Deploy and configure vCenter.
- Use the vSphere Client to create the vCenter inventory and assign roles to vCenter users.
- Configure vCenter High Availability.
- Create and configure virtual networks using vSphere standard switches and distributed switches.
- Create and configure datastores using storage technologies supported by vSphere.

- Use the vSphere Client to create virtual machines, templates, clones, and snapshots.
- Create content libraries for managing templates and deploying virtual machines.
- Configure and manage a VMware Tools Repository.
- Manage virtual machine resource use.
- Migrate virtual machines with vSphere vMotion and vSphere Storage vMotion.
- Create and configure a vSphere cluster that is enabled with vSphere High Availability and vSphere Distributed Resource Scheduler.
- Manage the life cycle of vSphere to keep vCenter, ESXi hosts, and virtual machines up to date.
- Configure and manage vSphere networking and storage for a large and sophisticated enterprise.
- Use host profiles to manage VMware ESXi host compliance.
- Monitor the vCenter, ESXi, and VMs performance in the vSphere client.

Target Audience.

- System administrators.
- System engineers.

Prerequisites.

This course has the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems.

Certification.

Attending this course meets the training requirement to achieve the following certification:

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

Course Modules.

Module 1: Course Introduction.

- Introductions and course logistics.
- Course objectives.

Module 2: vSphere and Virtualization Overview.

- Explain basic virtualization concepts.
- Describe how vSphere fits in the software-defined data center and the cloud infrastructure.
- Recognize the user interfaces for accessing vSphere.
- Explain how vSphere interacts with CPUs, memory, networks, storage, and GPUs.
- Install an ESXi host.

Module 3: vCenter Management.

- Recognize ESXi hosts communication with vCenter.
- Deploy vCenter Server Appliance.
- Configure vCenter settings.
- Use the vSphere Client to add and manage license keys.
- Create and organize vCenter inventory objects.
- Recognize the rules for applying vCenter permissions.
- View vSphere tasks and events.
- Create a vCenter backup schedule.
- Recognize the importance of vCenter High Availability.
- Explain how vCenter High Availability works.

Module 4: Configure and Manage vSphere Networking.

- Configure and view standard switch configurations.
- Configure and view distributed switch configurations.

- Recognize the difference between standard switches and distributed switches.
- Explain how to set networking policies on standard and distributed switches.

Module 5: Configure and Manage vSphere Storage.

- Recognize vSphere storage technologies.
- Identify types of vSphere datastores.
- Describe Fibre Channel components and addressing.
- Describe iSCSI components and addressing.
- Configure iSCSI storage on ESXi.
- Create and manage VMFS datastores.
- Configure and manage NFS datastores.
- Discuss vSphere support for NVMe and iSER technologies.

Module 6: Deploying Virtual Machines.

- Create and provision VMs.
- Explain the importance of VMware Tools.
- Identify the files that make up a VM.
- Recognize the components of a VM.
- Navigate the vSphere Client and examine VM settings and options.
- Modify VMs by dynamically increasing resources.
- Create VM templates and deploy VMs from them.
- Clone VMs.
- Create customization specifications for guest operating systems.
- Create local, published, and subscribed content libraries.
- Deploy VMs from content libraries.
- Manage multiple versions of VM templates in content libraries.

Module 7: Managing Virtual Machines.

- Recognize the types of VM migrations that you can perform within a vCenter instance and across vCenter instances.
- Migrate VMs using vSphere vMotion.
- Describe the role of Enhanced vMotion Compatibility in migrations.
- Migrate VMs using vSphere Storage vMotion.
- Take a snapshot of a VM.



- Manage, consolidate, and delete snapshots.
- Describe CPU and memory concepts in relation to a virtualized environment.
- Describe how VMs compete for resources.
- Define CPU and memory shares, reservations, and limits.
- Recognize the role of a VMware Tools Repository.
- Configure a VMware Tools Repository.
- Recognize the backup and restore solution for VMs.

Module 8: vSphere Cluster Management.

- Use Cluster Quickstart to enable vSphere cluster services and configure the cluster.
- View information about a vSphere cluster.
- Explain how vSphere DRS determines VM placement on hosts in the cluster.
- Recognize use cases for vSphere DRS settings.
- Monitor a vSphere DRS cluster.
- Describe how vSphere HA responds to different types of failures.
- Identify options for configuring network redundancy in a vSphere HA cluster.
- Recognize the use cases for various vSphere HA settings.
- Configure a cluster enabled for vSphere DRS and vSphere HA.
- Recognize when to use vSphere Fault Tolerance.
- Describe the function of the vCLS.
- Recognize operations that might disrupt the healthy functioning of vCLS VMs.

Module 9: Managing the vSphere Lifecycle.

- Generate vCenter interoperability reports.
- Recognize features of vSphere Lifecycle Manager.
- Describe ESXi images and image depots.
- Enable vSphere Lifecycle Manager in a vSphere cluster.
- Validate ESXi host compliance against a cluster image and remediate ESXi hosts using vSphere Lifecycle Manager.
- Describe vSphere Lifecycle Manager automatic recommendations.
- Use vSphere Lifecycle Manager to upgrade VMware Tools and VM hardware.

Module 10: Network Operations.

- Configure and manage vSphere distributed switches.
- Describe how VMware vSphere Network I/O Control enhances performance.
- Define vSphere Distributed Services Engine.
- Describe the use cases and benefits of vSphere Distributed Services Engine.

Module 11: Storage Operations.

- Describe the architecture and requirements of vSAN configuration.
- Describe storage policy-based management.
- Recognize components in the vSphere Virtual Volumes architecture.
- Configure Storage I/O Control.

Module 12: ESXi Operations.

- Use host profiles to manage ESXi configuration compliance.
- Recognize the benefits of using configuration profiles.

Module 13: vSphere Monitoring.

- Monitor the key factors that can affect a virtual machine's performance.
- Describe the factors that influence vCenter performance.
- Use vCenter tools to monitor resource use.
- Create custom alarms in vCenter.
- Describe the benefits and capabilities of VMware Skyline.
- Recognize uses for Skyline Advisor Pro.

