



# Startel

*Dé IT-opleider*

## VMware vSphere: Fast Track [V8] (VSFT8)

Deze vijfdaagse, intensieve training neemt je mee van inleidende tot geavanceerde VMware vSphere® 8-beheervaardigheden. In deze training ontwikkel je geavanceerde vaardigheden die nodig zijn voor het beheren en onderhouden van een zeer beschikbare en schaalbare virtuele infrastructuur.

### Algemene omschrijving

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 8. 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.

Product Alignment:

- VMware ESXi 8.0.
- VMware vCenter 8.0.

### Doelgroep

- System administrators.
- System engineers.

### Leerdoelen

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.
- Configure and manage a VMware Tools Repository.
- Create content libraries for managing templates and deploying virtual machines.
- 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.

## Voorkennis

This course has the following prerequisites:

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

## Onderwerpen

- **1 Course Introduction**
  - Introductions and course logistics.
  - Course objectives.
- **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.
- **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.
- **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.
- **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.
- **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.
- **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.
- **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.
- **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.
- **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.
- **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.
- **12 ESXi Operations**
  - Use host profiles to manage ESXi configuration compliance.
  - Recognize the benefits of using configuration profiles.
- **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.