

SZKOLENIE ŚREDNIO ZAAWANSOWANE

VMware vSphere - Fast Track (V7)

HQ6R1S

Czas trwania: 5 dni (40h)

This intensive 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 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 install, configure and manage vSphere 7. You 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.

Cele szkolenia

- 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™
- Use host profiles to manage ESXi configuration compliance
- Describe how vSphere storage APIs help storage systems integrate with vSphere
- Create virtual networks with VMware vSphere Distributed Switch™ and enable distributed switch features
- Configure and use virtual machine storage policies
- Discuss solutions for managing the vSphere life cycle
- Discuss the purpose and capabilities of VMware vSphere with Kubernetes and how it fits into the VMware Tanzu™ portfolio
- Use VMware vSphere Lifecycle Manager™ to apply patches and perform upgrades to ESXi hosts and virtual machines

Zalety

- Comprehensive worldwide HPE technical, IT industry and personal development training
- Training and certification preparation for ITIL®, Security, VMware®, Linux, Microsoft and more
- Innovative training options that match individual learning styles
- Anytime, anywhere remote learning via HPE Digital Learner subscriptions
- Verifiable digital badges for proof of training, skill recognition and career development
- Simplified purchase options with HPE Training Credits

Dla kogo?



- System administrators
- System engineers

Wymagania

- System administration experience on Microsoft Windows or Linux operating systems

Program

1. Course Introduction
 - a. Introductions and course logistics
 - b. Course objectives
2. Introduction to vSphere and the Software-Defined Data Center
 - a. Explain basic virtualization concepts
 - b. Explain how vSphere interacts with CPUs, memory, networks, and storage
 - c. Describe how vSphere fits into the software-defined data center and the cloud infrastructure
 - d. Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts
 - e. Use VMware Host Client™ to access and manage ESXi host
3. Virtual Machines
 - a. Create and remove a virtual machine
 - b. Identify the files that make up a virtual machine
 - c. Provision a virtual machine with virtual devices
 - d. Explain the importance of VMware Tools™
4. vCenter Server
 - a. Describe the vCenter Server architecture
 - b. Use roles and permissions to enable users to access objects in the vCenter Server inventory
 - c. Discuss how ESXi hosts communicate with vCenter Server
 - d. Back up vCenter Server Appliance
 - e. Deploy and configure vCenter Server Appliance
 - f. Monitor vCenter Server tasks, events, and appliance health
 - g. Use the vSphere Client to manage the vCenter Server inventory
 - h. Use vCenter Server High Availability to protect a vCenter Server Appliance
 - i. Add data center, organizational objects, and hosts to vCenter Server
5. Configuring and Managing Virtual Networks
 - a. Create and manage standard switches
 - b. Describe the virtual switch connection types
 - c. Configure virtual switch security, traffic-shaping and load-balancing policies
 - d. Compare vSphere distributed switches and standard switches
6. Configuring and Managing Virtual Storage
 - a. Identify storage protocols and storage device types
 - b. Explain how multipathing works with iSCSI, NFS, and fibre channel storage
 - c. Discuss ESXi hosts using iSCSI, NFS, and fibre channel storage
 - d. Deploy virtual machines on a VMware vSAN™ datastore
 - e. Create and manage VMFS and NFS datastores
7. Virtual Machine Management
 - a. Use templates and cloning to deploy new virtual machines
 - b. Use customization specification files to customize a new virtual machine
 - c. Modify and manage virtual machines• Perform vSphere vMotion and vSphere Storage vMotion migrations
 - d. Create a content library and deploy virtual machines from templates in the library
 - e. Create and manage virtual machine snapshots
 - f. Dynamically increase the size of a virtual disk
 - g. Examine the features and functions of VMware vSphere Replication™
8. Resource Management and Monitoring
 - a. Discuss CPU and memory concepts in a virtualized environment
 - b. Use various tools to monitor resource use
 - c. Describe what overcommitment of a resource means



- d. Describe methods for optimizing CPU and memory usage
- e. Create and use alarms to report certain conditions or events
- 9. vSphere Clusters
 - a. Describe options for making a vSphere environment highly available
 - b. Explain the vSphere HA architecture
 - c. Configure and manage a vSphere HA cluster
 - d. Configure a vSphere cluster using ESXi Cluster Quickstart
 - e. Describe the functions of a vSphere DRS cluster
 - f. Create a vSphere DRS cluster
 - g. Examine the features and functions of VMware vSphere Fault Tolerance
- 10. Network Scalability
 - a. Configure and manage vSphere distributed switches
 - b. Describe how VMware vSphere Network I/O Control enhances performance
 - c. Explain distributed switch features such as port mirroring and NetFlow
- 11. vSphere Lifecycle Management
 - a. Describe how VMware vSphere Lifecycle Manager™ works
 - b. Use vSphere Lifecycle Manager to update ESXi hosts in a cluster
- 12. Host and Management Scalability
 - a. Use host profiles to manage ESXi configuration compliance
 - b. Create and manage resource pools in a cluster
- 13. Storage Scalability
 - a. Explain why VMware vSphere VMFS is a high-performance, scalable file system
 - b. Explain VMware vSphere Storage APIs—Array Integration, VMware vSphere API for Storage Awareness™, and vSphere APIs for I/O Filtering
 - c. Configure and assign virtual machine storage policies
 - d. Create VMware vSAN™ storage policies
 - e. Configure VMware vSphere Storage DRS™ and VMware vSphere Storage I/O Control
 - f. Discuss vSphere support for NVMe and iSER
- 14. Introduction to vSphere with Kubernetes
 - a. Differentiate between containers and virtual machines
 - b. Describe the purpose of vSphere with Kubernetes and how it fits into the VMware Tanzu portfolio
 - c. Identify the parts of a container system
 - d. Explain the vSphere with Kubernetes supervisor cluster
 - e. Recognize the basic architecture of Kubernetes
 - f. Describe the Tanzu Kubernetes Grid service
 - g. Describe a basic Kubernetes workflow

