

Szkozenie: HPE  
VMware vSphere: Fast Track



## Cel szkolenia:

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
- 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

## Audience

- System administrators
- System engineers

## Plan szkolenia:

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

## Wymagania:

This course requires completion of one of the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems

## Poziom trudności



## Certyfikaty:

After completing the course, participants receive a certificate of completion of course.

## Prowadzący:

Authorized VMware Trainer.