

Cel szkolenia:

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

- Describe the software-defined data center
- Explain the vSphere components and their function in the infrastructure
- Add ESXi hosts to a VMware vCenter® Server Appliance™ instance
- Manage vCenter Server Appliance
- Use a local content library as an ISO store, and deploy a virtual machine
- Describe vCenter Server architecture
- Use vCenter Server to manage an ESXi host
- Configure and manage vSphere infrastructure with VMware Host Client™ and VMware vSphere® Client™
- Describe virtual networks with vSphere standard switches
- Configure standard switch policies
- Use vCenter Server to manage various types of host storage: VMware vSphere® VMFS, NFS, iSCSI, and RDM
- Examine the features and functions of Fibre Channel and VMware vSAN™
- Manage virtual machines, templates, clones, and snapshots
- Migrate virtual machines with VMware vSphere® vMotion®
- Migrate virtual machine storage with VMware vSphere® Storage vMotion®
- Monitor resource usage, and manage resource pools
- Discuss the VMware vSphere® High Availability cluster architecture
- Configure vSphere HA
- Manage vSphere HA and VMware vSphere® Fault Tolerance
- Use VMware vSphere® Replication™ and VMware vSphere® Data Protection™ to replicate virtual machines and perform data recovery
- Resource Scheduler™ clusters to improve host scalability
- ™ to apply patches and perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server operations
- Identify troubleshooting methodology to logically diagnose faults and improve troubleshooting efficiency

Audience

- System administrators
- System engineers

Plan szkolenia:

- Course Introduction
 - Introductions and course logistics
 - Course objectives
 - Describe the content of the course
 - Gain a complete picture of the VMware certification system
 - Familiarize yourself with the benefits of the VMware Education Learning Zone
 - Identify additional resources
- 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
 - 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
 - Manage VMware Tools
 - Explain troubleshooting OS installation and VMware Tools
- vCenter Server
 - Describe the vCenter Server architecture
 - Discuss how ESXi hosts communicate with vCenter Server
 - Identify the vCenter Server services, components, and modules
 - Access and configure vCenter Server Appliance
 - Use vSphere Client to manage the vCenter Server inventory
 - Describe the rules for applying permissions
 - Create a custom role in vCenter Server

- Create a backup schedule
- Restore vCenter Server Appliance from backup
- Monitor vCenter Server Appliance
- Configuring and Managing Virtual Networks
 - Describe, create, and manage standard switches
 - Configure virtual switch security 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
 - Describe the new features of VMFS 6.5
 - Identify the advantages of VMware vSAN™
 - Describe guest file encryption
- Virtual Machine Management
 - Use templates and cloning to deploy new virtual machines
 - Modify and manage virtual machines
 - Clone a virtual machine
 - Upgrade virtual machine hardware to version 14
 - Remove virtual machines from the vCenter Server inventory and datastore
 - Use customization specification files to customize a new virtual machine
 - Perform vSphere vMotion and vSphere Storage vMotion migrations
 - Create and manage virtual machine snapshots
 - Create, clone, and export vApps
 - Identify the types of content libraries and how to deploy and use them
- 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

- 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
- vSphere Update Manager
 - Describe the new architecture, components, and capabilities of vSphere Update Manager
 - Use vSphere Update Manager to manage the patching of ESXi, virtual machines, and vApps
 - Install vSphere Update Manager and the vSphere Update Manager plug-in
 - Create patch baselines
 - Use host profiles to manage host configuration compliance
 - Examine the features and functions of vSphere Update Manager EAM integration
 - Integrate vSphere Update Manager with vSphere DRS
 - Scan and remediate hosts
- vSphere Troubleshooting
 - Define the scope of troubleshooting
 - Use a structured approach to solve configuration and operational problems
 - Identify troubleshooting methodology to logically diagnose faults and improve troubleshooting efficiency

Wymagania:

This course has the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems

Poziom trudności



Certyfikaty:

The participants will obtain certificates signed by HPE (course completion).

Prowadzący:

Authorized HPE Trainer.