CO1 COMPENDIUM CENTRUM EDUKACYJNE

Szkolenie: HPE
VMware vSphere: Fast Track [V8]

Hewlett Packard Enterprise

Cel szkolenia:

This extended 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 develop advanced skills needed to manage and maintain a highly available and scalable virtual infrastructure. Through a mix of lecture and handson 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 8, which includes VMware ESXi™ 8 and VMware vCenter Server® 8.

Course objectives

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

- 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

Audience

- System administrators
- System engineers

Plan szkolenia:

- Course Introduction
    - Introduction and course logistics
    - Course objectives

- 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

- 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

- 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

- 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
- 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
- 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
- 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

- 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

- 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 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

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

- 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

Wymagania:

- System administration experience on Microsoft Windows or Linux operating systems

Poziom trudności

Certyfikaty:

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

Prowadzący:

Authorized VMware Trainer.