Tytuł szkolenia: VMware vSphere: Install, Configure, Manage [V8]

Kod szkolenia: H62D5S

Wprowadzenie

This course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere® 8, which includes VMware ESXi 8 and VMware vCenter 8. This course prepares you to administer a vSphere infrastructure for an organization of any size. This course is the foundation for most VMware technologies in the software-defined data center.

Adresaci szkolenia

• System administrators
• System engineers

Prerequisites:
System administration experience on Microsoft Windows or Linux operating systems is a prerequisite for this course.

Cel szkolenia

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
• Create 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
• Create content libraries for managing templates and deploying virtual machines
• Manage virtual machine resource allocation
• Migrate virtual machines with vSphere vMotion and vSphere Storage vMotion
• Create and configure a vSphere cluster that is enabled with vSphere High Availability (HA) and vSphere Distributed Resource Scheduler
• Manage the life cycle of vSphere to keep vCenter, ESXi hosts and virtual machines up to date

Czas i forma szkolenia

- 35 godzin (5 dni x 7 godzin), w tym wykłady i warsztaty praktyczne.

Plan szkolenia

1. Course Introduction
• Introduction 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

3. Installing and Configuring ESXi

- Install an ESXi host
- Recognize ESXi user account best practices
- Configure the ESXi host settings using the DCUI and VMware Host Client

4. Deploying and Configuring vCenter

- 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 vCenter logs and events

5. Configuring 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

6. Configuring 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

7. 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

8. 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

9. Deploying and Configuring vSphere Clusters

- Create a vSphere cluster enabled for vSphere DRS and vSphere High Availability (HA)

• 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 various types of failures
• Identify options for configuring network redundancy in a vSphere HA cluster • Recognize vSphere HA design considerations
• Recognize the use cases for various vSphere HA settings
• Configure a vSphere HA cluster • Recognize when to use vSphere Fault Tolerance

10. Managing the vSphere Lifecycle

• Enable vSphere Lifecycle Manager in a vSphere cluster
• Describe features of the vCenter Update Planner
• Run vCenter upgrade prechecks and interoperability reports
• Recognize features of vSphere Lifecycle Manager
• Distinguish between managing hosts using baselines and managing hosts using images
• Describe how to update hosts using baselines
• Describe ESXi images
• Validate ESXi host compliance against a cluster image and update ESXi hosts
• Update ESXi hosts using vSphere Lifecycle Manager
• Describe vSphere Lifecycle Manager automatic recommendations
• Use vSphere Lifecycle Manager to upgrade VMware tools and VM hardware