Tytuł szkolenia: VMware vSphere: Install Configure Manage [V7]

Kod szkolenia: EDU-VSICM7

Wprowadzenie

This five-day course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere® 7, which includes VMware ESXi™ 7 and VMware vCenter Server® 7. This course prepares you to administer a vSphere infrastructure for an organization of any size.

This course is the foundation for most of the other VMware technologies in the software-defined data center.

Prerequisites:
This course has the following prerequisites:
System administration experience on Microsoft Windows or Linux operating systems

Product Alignment:

- ESXi 7
- vCenter Server 7

Adresaci szkolenia

System administrators
System engineers

Cel 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
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™
Discuss solutions for managing the vSphere life cycle
Use VMware vSphere® Update Manager™ to apply patches and perform upgrades to ESXi hosts and virtual machines

Czas i forma szkolenia

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

Plan szkolenia

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. Describe how vSphere fits into the software-defined data center and the cloud infrastructure

c. Explain how vSphere interacts with CPUs, memory, networks, and storage

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. Provision a virtual machine with virtual devices

c. Identify the files that make up a virtual machine

d. Explain the importance of VMware Tools™

4. vCenter Server

a. Describe the vCenter Server architecture

b. Discuss how ESXi hosts communicate with vCenter Server

c. Deploy and configure vCenter Server Appliance

d. Use the vSphere Client to manage the vCenter Server inventory

e. Add data center, organizational objects, and hosts to vCenter Server

f. Use roles and permissions to enable users to access objects in the vCenter   Server inventory

g. Back up vCenter Server Appliance

h. Monitor vCenter Server tasks, events, and appliance health

i. Use vCenter Server High Availability to protect a vCenter Server Appliance

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. Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage

c. Create and manage VMFS and NFS datastores

d. Explain how multipathing works with iSCSI, NFS, and Fibre Channel   storag

e. Deploy virtual machines on a VMware vSAN™ datastore

7. Virtual Machine Management

a. Use templates and cloning to deploy new virtual machines

b. Modify and manage virtual machines

c. Create a content library and deploy virtual machines from templates in the   library

d. Dynamically increase the size of a virtual disk

e. Use customization specification files to customize a new virtual machine

f. Perform vSphere vMotion and vSphere Storage vMotion migrations

g. Create and manage virtual machine snapshots

h. Examine the features and functions of VMware vSphere® Replication™

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8. Resource Management and Monitoring

a. Discuss CPU and memory concepts in a virtualized environment

b. Describe what overcommitment of a resource means

c. Describe methods for optimizing CPU and memory usage

d. Use various tools to monitor resource use

e. Create and use alarms to report certain conditions or events

9. vSphere Cluster

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. Examine the features and functions of VMware vSphere® Fault Tolerance

e. Configure a vSphere cluster using ESXi Cluster Quickstart

f. Describe the functions of a vSphere DRS cluster

g. Create a vSphere DRS cluster

10. vSphere Lifecycle

a. Describe how VMware vSphere® Lifecycle Manager™ works

b. Use vSphere Lifecycle Manager to update ESXi hosts in a cluster

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