Tytuł szkolenia: VMware vSphere: Fast Track [V7] (EDU-VSFT7)

Kod szkolenia: VT-SP-FT6

Wprowadzenie

This five-day, intensive course takes you from introductory to advanced VMware vSphere® 7 management skills. Building on the installation and configuration content from our best-selling course, you will also develop advanced skills needed to manage and maintain a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you will install, configure and manage vSphere 7. You will 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 7, which includes VMware ESXi™ 7 and VMware vCenter Server® 7.

Adresaci szkolenia

System administrators
System engineers

Cel szkolenia

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

Describe the software-defined data center (SDDC)
Explain the vSphere components and their function in the infrastructure
Describe the benefits and capabilities of VMware Skyline
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 and manage resource pools
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™
Create virtual networks with VMware vSphere® Distributed Switch™ and enable distributed switch features
Discuss solutions for managing the vSphere life cycle
Use VMware vSphere® Lifecycle Manager™ to 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

Czas i forma szkolenia

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

Plan szkolenia

1. Course Introduction

Introductions and course logistics
Course objectives

2. Introduction to vSphere and the Software-Defined Data Center

Explain basic virtualization concepts
Describe how vSphere fits into the software-defined data center and the cloud infrastructure
Explain how vSphere interacts with CPUs, memory, networks, and storage
Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts
Describe the ESXi host architecture
Navigate the Direct Console User Interface (DCUI) to configure an ESXi host
Recognize ESXi host user account best practices
Install an ESXi host
Use VMware Host Client™ to configure ESXi host settings
Describe how to proactively manage your vSphere environment using VMware Skyline

3. Virtual Machines

Create and provision a virtual machine
Explain the importance of VMware Tools™
Install VMware Tools
Identify the files that make up a VM
Recognize the components of a VM
Recognize virtual devices supported by a VM
Describe the benefits and use cases for containers
Identify the parts of a container system

4. vCenter Server

Describe the vCenter Server architecture
Discuss how ESXi hosts communicate with vCenter Server
Deploy and configure vCenter Server Appliance
Use the vSphere Client to manage the vCenter Server inventory
Add data center, organizational objects, and hosts to vCenter Server
Use roles and permissions to enable users to access objects in the vCenter Server inventory
Back up vCenter Server Appliance
Monitor vCenter Server tasks, events, and appliance health
Use vCenter Server High Availability to protect a vCenter Server Appliance

5. Configuring and Managing Virtual Networks

Create and manage standard switches
Describe the virtual switch connection types
Configure virtual switch security, traffic-shaping and load-balancing policies
Compare vSphere distributed switches and standard switches

6. 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 VMFS and NFS datastores
Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage
Recognize the components of a VMware vSAN™ configuration

7. Virtual Machine Management

Use templates and cloning to deploy new virtual machines
Modify and manage virtual machines
Create a content library and deploy virtual machines from templates in the library
Use customization specification files to customize a new virtual machine
Perform vSphere vMotion and vSphere Storage vMotion migrations
Describe Enhanced vMotion Compatibility
Create and manage virtual machine snapshots
Examine the features and functions of VMware vSphere® Replication™
Describe the benefits of vSphere Storage APIs – Data Protection

8. Resource Management and Monitoring

Discuss CPU and memory concepts in a virtualized environment
Describe what overcommitment of a resource means
Describe methods for optimizing CPU and memory usage
Use various tools to monitor resource use
Create and use alarms to report certain conditions or events

9. vSphere Clusters

Describe the functions of a vSphere DRS cluster
Create a vSphere DRS cluster
Monitor a vSphere cluster configuration
Describe options for making a vSphere environment highly available
Explain the vSphere HA architecture
Configure and manage a vSphere HA cluster
Examine the features and functions of VMware vSphere® Fault Tolerance
Describe the function of the vSphere® Cluster Service

10. Network Scalability

Configure and manage vSphere distributed switches
Describe how VMware vSphere® Network I/O Control enhances performance
Explain distributed switch features such as port mirroring and NetFlow

11. vSphere Lifecycle Management

Recognize the importance of vCenter Server Update Planner
Describe how VMware vSphere® Lifecycle Manager™ works
Describe how to update ESXi hosts using baselines
Validate ESXi host compliance using a cluster image
Describe how to upgrade VMware Tools and VM hardware
Describe VMware vSphere® Lifecycle Manager™ and VMware vSAN™ integration

12. Host and Management Scalability

Use host profiles to manage ESXi configuration compliance
Create and manage resource pools in a cluster
Describe how scalable shares work

13. Storage Scalability

Explain why VMware vSphere® VMFS is a high-performance, scalable file system
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
Create VMware vSAN™ storage policies
Recognize components of the vSphere Virtual Volumes architecture
Configure VMware vSphere® Storage DRS™ and VMware vSphere® Storage I/O Control