W celu przeprowadzenia kalkulacji ceny tego szkolenia prosimy o kontakt z działem handlowym

**Cel szkolenia:**

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

- Configure and manage vSphere networking and storage for a large and sophisticated enterprise
- Manage changes to the vSphere environment
- Optimize the performance of all vSphere components
- Use VMware vSphere® ESXi™ Shell and VMware vSphere® Command-Line Interface to manage vSphere
- Harden the vSphere environment against security threats
- Use VMware vSphere® Client™, the command-line interface, and log files to diagnose and correct problems in vSphere
- Troubleshoot networking, storage, VMware vCenter Server®, VMware ESXi™ host, vSphere cluster, VMware vSphere® vMotion®, and virtual machine problems

**Audience**

- Experienced system administrators
- System engineers
- System integrators

**Plan szkolenia:**

- Course Introduction
  - Introductions and course logistics
  - Course objectives
- Introduction to Troubleshooting
  - Identify the effects of a system problem
  - Define the scope of troubleshooting
  - Use a structured approach
  - Understand the principles of troubleshooting
Follow a logical troubleshooting procedure
Examine examples of troubleshooting

Troubleshooting Tools
- Use command-line tools to identify and troubleshoot problems
- Use vSphere CLI
- Find and interpret important log files
- Use VMware vRealize® Log InsightTM for log aggregation, efficient log search, and problem analysis

Network Optimization
- Explain the performance features of network adapters
- Explain the performance features of vSphere networking
- Use esxtop to monitor key network performance metrics

Networking Troubleshooting
- Identify the symptoms of network-related problems
- Analyze and resolve standard switch and distributed switch problems
- Analyze virtual machine connectivity problems and fix them
- Examine common management network connectivity problems and restore configurations
- Identify and prevent potential problems

Storage Optimization
- Describe storage queue types and other factors that affect storage performance
- Use esxtop to monitor key storage performance metrics

Storage Troubleshooting
- Troubleshoot storage (iSCSI, NFS, VMware vSphere® VMFS, VMware vSAN™, and VMware vSphere® Virtual Volumes™) connectivity problems
- Analyze storage-related logs
- Analyze hardware malfunction and software misconfiguration scenarios
- Identify multipathing-related problems, including permanent device loss (PDL) and all paths down (APD)
- Analyze possible causes, recover from the faulty conditions, and restore storage visibility

CPU Optimization
- Explain the CPU scheduler operation and other features that affect CPU performance
- Explain NUMA and vNUMA support
- Use esxtop to monitor key CPU performance metrics

Memory Optimization
- Explain ballooning, memory compression, and host-swapping techniques for memory reclamation when memory is overcommitted
○ Use esxtop to monitor key memory performance metrics

○ vCenter Server Performance Optimization
  ○ Describe the factors that influence vCenter Server performance
  ○ Use VMware vCenter® Server Appliance™ tools to monitor resource usage

○ vSphere Cluster Troubleshooting
  ○ Identify and recover from problems related to VMware vSphere® High Availability
  ○ Analyze and troubleshoot various types of vSphere vMotion problems related to virtual machine migrations
  ○ Discuss and recover from VMware vSphere® Distributed Resource Scheduler™ problems to achieve proper function and balanced resource use
  ○ Examine vSphere cluster failure scenarios and possible solutions

○ Virtual Machine Troubleshooting
  ○ Analyze and resolve common virtual machine snapshot problems
  ○ Identify possible causes and resolve virtual machine power-on problems
  ○ Troubleshoot virtual machine connection state problems
  ○ Resolve problems seen during VMware Tools™ installations
  ○ Examine failure scenarios and provide solutions

○ vSphere Security
  ○ Configure ESXi host access and authorization
  ○ Secure ESXi, vCenter Server, and virtual machines
  ○ Use VMware Certificate Authority to configure vSphere certificate management
  ○ Configure vSphere to encrypt virtual machines, core dumps and VMware vSphere® vMotion® migrations

○ vCenter Server and ESXi Troubleshooting
  ○ Understand the vCenter Server and VMware Platform Services Controller™ architecture in vSphere 6.x
  ○ Identify and resolve authentication problems
  ○ Troubleshoot VMware Certificate Authority and certificate problems
  ○ Analyze and fix problems with vCenter Server services
  ○ Analyze and fix vCenter Server database problems
  ○ Identify VMware vCenter Server® High Availability problems
  ○ Examine ESXi host and vCenter Server failure scenarios and resolve the problems

Wymagania:

This course requires completion of one of the following prerequisites:

○ Understanding of concepts presented in the VMware vSphere®: Install, Configure, Manage
[V6.7] course

- Equivalent knowledge and administration experience with ESXi and vCenter Server

Poziom trudności

Certyfikaty:

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

Prowadzący:

Authorized VMware Trainer.