

## VMware® vSphere: Optimize and Scale v6.0

### Prehľad

In this course, students will configure and optimize the vSphere features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect.

### Vzdelávacie ciele

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

- Configure and manage ESXi networking and storage for a large and sophisticated enterprise
- Manage changes to the vSphere environment
- Optimize the performance of all vSphere components
- Harden the vSphere environment against security threats
- Troubleshoot operational faults and identify their root causes
- Use VMware vSphere® ESXi™ Shell and VMware vSphere® Management Assistant to manage vSphere
- Use VMware vSphere® Auto Deploy™ to provision ESXi hosts

### Course Introduction

Introductions and course logistics  
Course objectives  
Additional resources

### VMware Management Resources

Understand the purpose of VMware vSphere® Command-Line Interface commands  
Discuss options for running vSphere CLI commands  
Deploy and configure vSphere Management Assistant  
Use vmware-cmd for virtual machine operations

### vSphere Security

Describe the features and benefits of the Platform Services Controller  
Configure ESXi host access and authorization  
Secure ESXi, vCenter Server, and virtual machines

### Performance in a Virtualized Environment

Review the vSphere performance troubleshooting methodology  
Explain software and hardware virtualization techniques and their effects on performance  
Use vSphere performance monitoring tools

### Network Scalability

Create, configure, and manage vSphere distributed switches  
Migrate virtual machines from standard switches to distributed switches  
Explain distributed switch features such as port mirroring, LACP, QoS tagging, and NetFlow

[Online registrácia](#)

### Termíny

Trvanie kurzu (v dňoch): 5 Days

G2R = "Garantovaný termín" | OLL = "Online LIVE"  
ILT = "Kurz vedený inštruktorom"

*Pre tento kurz aktuálne nemáme plánované žiadne verejné termíny. Prosím, použite naše kontaktné informácie a vyžiadajte si od nás ďalšie termíny školení pre verejné triedy, alebo nám zašlite vašu žiadosť o školenie v privátnej triede.*

## Network Performance Troubleshooting

Explain the performance features of network adaptors  
Explain the performance features of vSphere networking  
Monitor key network performance metrics  
Use vSphere Management Assistant to manage virtual network configurations  
Troubleshoot common network performance problems

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## Storage Scalability

Explain vSphere storage APIs for array integration and storage awareness  
Configure and assign virtual machine storage policies  
Configure VMware vSphere® Storage DRS™ and VMware vSphere® Storage I/O Control  
Create and use virtual volumes in vSphere

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## Storage Optimization

Diagnose storage access problems  
Configure VMware vSphere® Flash Read Cache™  
Monitor key storage performance metrics  
Troubleshoot common storage performance problems

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## CPU Performance

Explain the CPU scheduler operation, NUMA support, and other features that affect CPU performance  
Monitor key CPU performance metrics  
Troubleshoot common CPU performance problems

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## Memory Performance

Explain ballooning, memory compression, and host swapping techniques for memory reclamation when memory is overcommitted  
Monitor key memory performance metrics  
Troubleshoot common memory performance problems

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## Virtual Machine and Cluster Optimization

Describe guidelines for optimizing virtual machine configuration  
Discuss how vGPU usage affects virtual machine performance  
Discuss guidelines for using resource allocation settings  
Discuss guidelines for using resource pools  
Discuss guidelines for using vSphere DRS clusters  
Troubleshoot common vSphere cluster problems

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## Host and Management Scalability

Describe and use host profiles  
Define and use content libraries  
Upgrade ESXi and vCenter Server Instances  
Use VMware vSphere® PowerCLI™  
Use Virtual Machine Converter  
Use VMware vSphere® ESXi™ Image Builder CLI and vSphere Auto Deploy

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