



VMware vSphere: Optimize & Scale [v6.7] (e-Learning)

Com certificação

- **Nível:** Avançado
 - **Duração:** e-Learning / h
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Sobre o curso

This five-day course teaches you advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you configure and optimize the VMware vSphere® 6.7 features that build a foundation for a truly scalable infrastructure, and you discuss when and where these features have the greatest effect. This course deepens your understanding of vSphere and how its advanced features and controls can benefit your organization.

Este curso e-learning inclui

- Conteúdos disponíveis 24/7
- 30 dias de duração com assessments e labs
- Exame, válido durante 1 ano, a partir da data em que foi emitido
- Por forma a alcançar melhores resultados na aprendizagem, o formando irá contar com sessões de apoio GALILEU em formato síncrono (online em tempo real)
 - 1 sessão de Kick Off de 1h para apresentação da plataforma de e-learning em que decorre o curso e esclarecimento de dúvidas sobre a mesma
 - 1 sessão de Preparação para Exame de 3h que ocorre 7 dias antes do término do curso

This course is also available in an Instructor-Led Training (ILT) format. For more information, select this link: [VMware vSphere Optimize & Scale \[V7\]](#).

Objetivos:

- Configure and manage vSphere networking and storage for a large and sophisticated enterprise
- Use VMware vSphere® Client™, VMware vSphere® Web Client, and VMware vSphere® ESXi™ Shell to manage vSphere
- Create a content library for deploying virtual machines
- Use VMware vSphere® Auto Deploy™ and host profiles to provision VMware ESXi™ hosts and

manage

ESXi host compliance

- Monitor and analyze key performance indicators for compute, storage, and networking resources for ESXi hosts
 - Optimize the performance of ESXi and VMware vCenter Server®
 - Harden the vSphere environment against security threats
 - Encrypt virtual machines for additional security
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Destinatários

Experienced system administrators, system engineers, and system integrators

Pré-requisitos

You must complete one of the following prerequisites:

- Understanding of concepts presented in the [VMware vSphere: Install, Configure, Manage](#) course
- Equivalent knowledge and administration experience with ESXi and vCenter Server

Experience with working at the command line is highly recommended.

Metodologia

- e-Learning
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Programa

- Course Introduction
- Network Scalability
- Storage Scalability
- Host and Management Scalability
- CPU Optimization
- Memory Optimization
- Storage Optimization
- Network Optimization
- vCenter Server Performance Optimization

- vSphere Security

Course Introduction

- Introductions and course logistics
- Course objectives
- Identify additional resources for after this course
- Identify other VMware Education offerings

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, LACP, QoS tagging, and NetFlow

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 vSAN storage policies
- Configure VMware vSphere® Storage DRS™ and VMware vSphere® Storage I/O Control

Host and Management Scalability

- Define and use content libraries
- Describe and use host profiles
- Describe and use VMware vSphere® ESXi™ Image Builder CLI and vSphere Auto Deploy

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

Storage Optimization

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

Network Optimization

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