VMware vSphere: Skills for Operators [V6.7]

VMWare

- **Nível:** Avançado
- **Duração:** 16h

Sobre o curso

This two-day training course is for operators and administrators who create and manage virtual machines.

This course provides you with an understanding of VMware virtual machine features in VMware vSphere® 6.7. By combining lecture and hands-on labs, you gain the skills required to work effectively with VMware virtual machines.

This course is based on VMware ESXi™ 6.7 and VMware vCenter Server™ 6.7.

Objectives:

- Describe virtualization, virtual machines, and vSphere components
- Describe the concepts of server, network, storage, and desktop virtualization
- Deploy, configure, clone, and manage virtual machines
- Use VMware vCenter Server® to monitor virtual machine resource usage
- Use VMware vSphere® vMotion® and VMware vSphere® Storage vMotion® to migrate virtual machines
- Use VMware vSphere® Distributed Resource Scheduler™ and VMware vSphere® High Availability to optimize the performance of your vSphere virtual environment

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Destinatários

- Technical professionals with system administration skills and operators responsible for managing virtual machines using ESXi and vCenter Server

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Pré-requisitos

- System administration experience on Microsoft, Linux, Solaris
- Understanding of basic network and storage concepts

Programa

- Course Introduction
- Introduction to vSphere and the Software-Defined Data Center
- Creating Virtual Machines
- vCenter Server
- Configuring and Managing Virtual Networks
- Virtual Storage
- Virtual Machine Management
- Resource Management and Monitoring
- vSphere HA
- vSphere DRS

Course Introduction

- Introductions and course logistics
- Course objectives

Introduction to vSphere and the Software-Defined Data Center

- Describe how vSphere fits into the software-defined data center and the cloud infrastructure
- Explain how vSphere interacts with CPUs, memory, networks, and storage
- Use vSphere Client to access and manage your vCenter Server system and ESXi host
- Compare virtual machine hardware version 14 to other versions
- Identify the virtual network adapters, and describe the enhanced VMXNET3
- Compare the types of virtual disk provisioning

Creating Virtual Machines

- Create, provision, and remove a virtual machine
- Explain the importance of VMware Tools™
- Describe how to import a virtual appliance OVF template

vCenter Server

- Describe the vCenter Server architecture
- Discuss how ESXi hosts communicate with vCenter Server

- Use vSphere Client to manage the vCenter Server inventory
- Add data center and organizational objects to vCenter Server
- Add hosts to vCenter Server
- Discuss how to create custom inventory tags for inventory objects
- Monitor VMware vCenter® Server Appliance™
- Monitor vCenter Server Appliance for service and disk space usage
- Use vSphere alarms for resource exhaustion and service failures

Configuring and Managing Virtual Networks

- Describe the virtual switch connection types
- Configure and view standard switch configurations, such as virtual machine port group, VMkernel port, VLAN, and security features
- List the features comparison of standard and distributed switches

Virtual Storage

- Describe vSphere storage technologies and datastores

Virtual Machine Management

- Use templates and cloning to deploy new virtual machines
- Enable guest operating system customization by vCenter Server
- Upgrade a virtual machine's hardware
- Perform an instant clone of a VM
- Describe virtual machine settings and options
- Add a hot-pluggable device
- Dynamically increase the size of a virtual disk
- Add a raw device mapping (RDM) to a virtual machine
- Perform a vSphere vMotion migration
- Perform a vSphere Storage vMotion migration

Resource Management and Monitoring

- Use the performance-tuning methodology and resource monitoring tools
- Use performance charts to view and improve performance
- Monitor the key factors that can affect the virtual machine's performance: CPU, memory, disk, and network bandwidth use
- Create alarms with condition-based triggers
- Create alarms with event-based triggers
- View and acknowledge triggered alarms

vSphere HA

- Describe the options that you can configure to make your vSphere environment highly available
- Discuss the response of vSphere HA when an ESXi host, a virtual machine, or an application fails

vSphere DRS

- Describe the functions of a vSphere DRS cluster
- Create a vSphere DRS cluster
- View information about a vSphere DRS cluster
- Remove a host from a vSphere DRS cluster