



VMWARE VSPHERE: INSTALL, CONFIGURE, MANAGE

CONTEÚDO PROGRAMÁTICO

Course Introduction

- Introductions and course logistics;
- Course objectives.

Introduction to VMware Virtualization

- Introduce virtualization, virtual machines, and vSphere components;
- Explain the concepts of server, network, and storage virtualization;
- Describe where vSphere fits into the cloud architecture;
- Install and use vSphere user interfaces.

Create Virtual Machines

- Introduce virtual machines, virtual machine hardware, and virtual machine files;
- Deploy a single virtual machine.

VMware vCenter Server

- Introduce vCenter Server architecture;
- Introduce vCenter Server appliance;
- Configure and manage vCenter Server appliance;
- Manage vCenter Server inventory objects and licenses.

Configure and Manage Virtual Networks

- Describe, create, and manage a standard virtual switch;

- Describe and modify standard virtual switch properties;
- Configure virtual switch load-balancing algorithms.

Configure and Manage Virtual Storage

- Introduce storage protocols and device names;
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage;
- Create and manage vSphere datastores;
- Deploy and manage the VMware vSphere Storage Appliance.

Virtual Machine Management

- Deploy virtual machines using templates and cloning;
- Modify and manage virtual machines;
- Create and manage virtual machine snapshots;
- Perform VMware vSphere vMotion and Storage vMotion migrations;
- Create a vSphere vApp.

Data Protection

- Discuss a strategy for backing up ESXi hosts and vCenter server;
- Introduce the VMware Data Recovery appliance;
- Discuss solutions for backing up virtual machines efficiently.

Access and Authentication Control

- Control user access through roles and permissions;
- Configure and manage the ESXi firewall;
- Configure ESXi lockdown mode;
- Integrate ESXi with Active Directory;
- Introduce VMware vShield Zones.

Resource Management and Monitoring

- Introduce virtual CPU and memory concepts;
- Describe methods for optimizing CPU and memory usage;
- Configure and manage resource pools;
- Monitor resource usage using vCenter Server performance;
- graphs and alarms.

High Availability and Fault Tolerance

- Introduce new vSphere High Availability (HA) architecture;

- Configure and manage a vSphere High Availability cluster;
- Introduce VMware Fault Tolerance.

Scalability

- Configure and manage a VMware Distributed Resource Schedule (DRS) cluster;
- Configure Enhanced vMotion Compatibility;
- Use vSphere HA and DRS together.

Patch Management

- Manage ESXi patching using vCenter Update Manager;
- Install Update Manager and Update Manager plug-in;
- Create patch baselines;
- Scan and remediate hosts.

Installing VMware Components

- Introduce ESXi installation;
- Describe boot from SAN requirements;
- Introduce vCenter Server deployment options;
- Describe vCenter Server hardware, software, and database requirements;
- Install vCenter Server (Windows based).