VMware vSphere: Install, Configure, Manage

Course Description

This five-day course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere 8, which includes VMware ESXi 8 and VMware vCenter 8. This course prepares you to administer a vSphere infrastructure for an organization of any size.

This course is the foundation for most VMware technologies in the software-defined data center.

Course Duration:

5 days

Prerequisites:

This course has the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems

Objectives:

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

- Install and configure ESXi hosts
- Deploy and configure vCenter
- Use the vSphere Client to create the vCenter inventory and assign roles to vCenter users
- Create virtual networks using vSphere standard switches and distributed switches
- Create and configure datastores using storage technologies supported by vSphere
- Use the vSphere® ClientTM to create virtual machines, templates, clones, and snapshots
- Create content libraries for managing templates and deploying virtual machines
- Manage virtual machine resource allocation
- Migrate virtual machines with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
- Create and configure a vSphere cluster that is enabled with VMware vSphere® High Availability and VMware vSphere® Distributed Resource SchedulerTM
- Manage the life cycle of vSphere to keep vCenter, ESXi hosts, and virtual machines up to date

Course Outline:

1. Course Introduction
   - Introductions and course logistics
   - Course objectives
2. vSphere and Virtualization Overview
   - Explain basic virtualization concepts
   - Describe how vSphere fits in the software-defined data center and the cloud infrastructure
   - Recognize the user interfaces for accessing vSphere
   - Explain how vSphere interacts with CPUs, memory, networks, storage, and GPUs
3. Installing and Configuring ESXi
   - Install an ESXi host
   - Recognize ESXi user account best practices
   - Configure the ESXi host settings using the DCUI and VMware Host Client

4. Deploying and Configuring vCenter
   - Recognize ESXi hosts communication with vCenter
   - Deploy vCenter Server Appliance
   - Configure vCenter settings
   - Use the vSphere Client to add and manage license keys
   - Create and organize vCenter inventory objects
   - Recognize the rules for applying vCenter permissions
   - View vCenter logs and events
5. Configuring vSphere Networking
   - Configure and view standard switch configurations
   - Configure and view distributed switch configurations
   - Recognize the difference between standard switches and distributed switches
   - Explain how to set networking policies on standard and distributed switches
6. Configuring vSphere Storage
   - Recognize vSphere storage technologies
   - Identify types of vSphere datastores
   - Describe Fibre Channel components and addressing
   - Describe iSCSI components and addressing
   - Configure iSCSI storage on ESXi
   - Create and manage VMFS datastores
   - Configure and manage NFS datastores
7. Deploying Virtual Machines
   - Create and provision VMs
   - Explain the importance of VMware Tools
   - Identify the files that make up a VM
   - Recognize the components of a VM
   - Navigate the vSphere Client and examine VM settings and options
   - Modify VMs by dynamically increasing resources
   - Create VM templates and deploy VMs from them
   - Clone VMs
   - Create customization specifications for guest operating systems
   - Create local, published, and subscribed content libraries
   - Deploy VMs from content libraries
   - Manage multiple versions of VM templates in content libraries
8. Managing Virtual Machines
   - Recognize the types of VM migrations that you can perform within a vCenter instance and across vCenter instances
   - Migrate VMs using vSphere vMotion
   - Describe the role of Enhanced vMotion Compatibility in migrations
   - Migrate VMs using vSphere Storage vMotion
   - Take a snapshot of a VM
   - Manage, consolidate, and delete snapshots

Who Should Attend

- System administrators
- System engineers