VMware vSphere 8: Install, Configure, Manage

Duration : 5 days

Course Overview

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.

Objectives

Upon successful completion of this course delegates will be able to:

- 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® Client™ 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 Scheduler™
- Manage the life cycle of vSphere to keep vCenter, ESXi hosts, and virtual machines up to date

Course Content

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

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

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

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

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

Deploying Virtual Machines
Create and provision VMs
Explain the importance of VMware Tools
Identify the files that make up a VM
Recognise 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

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
Describe CPU and memory concepts in relation to a virtualized environment
Describe how VMs compete for resources
Define CPU and memory shares, reservations, and limits

Deploying and Configuring vSphere Clusters
Create a vSphere cluster enabled for vSphere DRS and vSphere HA
View information about a vSphere cluster
Explain how vSphere DRS determines VM placement on hosts in the cluster
Recognize use cases for vSphere DRS settings
Monitor a vSphere DRS cluster
Describe how vSphere HA responds to various types of failures
Identify options for configuring network redundancy in a vSphere HA cluster
Recognize vSphere HA design considerations
Recognize the use cases for various vSphere HA settings
Configure a vSphere HA cluster
Recognize when to use vSphere Fault Tolerance

Managing the vSphere Lifecycle
Enable vSphere Lifecycle Manager in a vSphere cluster
Describe features of the vCenter Update Planner
Run vCenter upgrade prechecks and interoperability reports
Recognize features of VMware vSphere® Lifecycle Manager™
Distinguish between managing hosts using baselines and managing hosts using images
Describe how to update hosts using baselines
Describe ESXi images
Validate ESXi host compliance against a cluster image and update ESXi hosts
Update ESXi hosts using vSphere Lifecycle Manager
Describe vSphere Lifecycle Manager automatic recommendations
Use vSphere Lifecycle Manager to upgrade VMware Tools and VM hardware