

VMware vSphere: Install, Configure, Manage

Duration: 5 Days **Course Code: VSICM** **Version: 8.0** **Delivery Method: Class Connect**

Overview:

This five-day VMware 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.

Product Alignment:

VMware ESXi 8.0
VMware vCenter 8.0

Class-Connect[™] HD

This is live hands-on interactive learning where you can attend a course from different training centres. This premium experience uses HD quality audio and video that connects the classrooms over a high capacity managed network to ensure a 'real time' experience. The instructor will be presenting from one location and students attending from other centres are able to interact with the instructor and other delegates using video and voice conferencing.

Target Audience:

Individuals involved in the implementation, maintenance and administration of a vSphere environment

Objectives:

- **After completing this course you should 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 vSphere vMotion and vSphere Storage vMotion
 - Create and configure a vSphere cluster that is enabled with vSphere High Availability (HA) and vSphere Distributed Resource Scheduler
 - Manage the life cycle of vSphere to keep vCenter, ESXi hosts, and virtual machines up to date

Prerequisites:

Attendees should meet the following pre-requisites

- System administration experience on Microsoft Windows or Linux operating systems

Testing and Certification

Recommended as preparation for the following exams:

- VMware Certified Professional - Data Center Virtualization 2023

Follow-on-Courses:

- VSD - VMware vSphere: Design
 - VSOS - VMware vSphere: Optimize and Scale
 - VST - VMware vSphere: Troubleshooting
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Content:

Course Introduction

- Introductions and course logistics
- Course objectives

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
- 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

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,

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 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

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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