

# VMWARE VSPHERE: INSTALL, CONFIGURE, MANAGE [V7]

Course Code: 100764

Learn installing, configuring, and managing VMware vSphere 7.

This five-day course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere 7, which includes VMware ESXi 7 and VMware vCenter Server 7. This course prepares you to administer a vSphere infrastructure for an organization of any size.

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

## What You'll Learn

- Describe the software-defined data center (SDDC)
- Explain the vSphere components and their function in the infrastructure
- Install and configure VMware ESXi hosts
- Deploy and configure VMware vCenter Server Appliance
- Use VMware vSphere Client to manage the vCenter Server inventory and the vCenter Server configuration
- Manage, monitor, back up, and protect vCenter Server Appliance
- Create virtual networks with vSphere standard switches
- Describe the storage technologies supported by vSphere
- Configure virtual storage using iSCSI and NFS storage
- Create and manage VMware vSphere VMFS datastores
- Use the vSphere Client to create virtual machines, templates, clones, and snapshots
- Create a content library and deploy virtual machines from templates in the library
- Manage virtual machine resource use
- Migrate virtual machines with VMware vSphere vMotion and VMware vSphere Storage vMotion
- Create and manage a vSphere cluster that is enabled with VMware vSphere High Availability and
- VMware vSphere Distributed Resource Scheduler

- Discuss solutions for managing the vSphere life cycle
- Use VMware vSphere Update Manager to apply patches and perform upgrades to ESXi hosts and virtual machines

### Who Needs to Attend

System administrators, systems engineers, technicians who are responsible for server virtualization will benefit from this course.

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CLASSROOM LIVE

\$5,525 CAD

5 Day

## Classroom Live Outline

### Course Introduction

- Introductions and course logistics
- Course objectives

### Introduction to vSphere and the Software-Defined Data Center

- Explain basic virtualization concepts
- Describe how vSphere fits into the software-defined data center and the cloud infrastructure
- Explain how vSphere interacts with CPUs, memory, networks, and storage
- Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts
- Use VMware Host Client to access and manage ESXi host

### Virtual Machines

- Create and remove a virtual machine
- Provision a virtual machine with virtual devices
- Identify the files that make up a virtual machine
- Explain the importance of VMware Tools

### vCenter Server

- Describe the vCenter Server architecture
- Discuss how ESXi hosts communicate with vCenter Server
- Deploy and configure vCenter Server Appliance
- Use the vSphere Client to manage the vCenter Server inventory
- Add data center, organizational objects, and hosts to vCenter Server
- Use roles and permissions to enable users to access objects in the vCenter Server inventory
- Back up vCenter Server Appliance

- Monitor vCenter Server tasks, events, and appliance health
- Use vCenter Server High Availability to protect a vCenter Server Appliance

### **Configuring and Managing Virtual Networks**

- Create and manage standard switches
- Describe the virtual switch connection types
- Configure virtual switch security, traffic-shaping and load-balancing policies
- Compare vSphere distributed switches and standard switches

### **Configuring and Managing Virtual Storage**

- Identify storage protocols and storage device types
- Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage
- Create and manage VMFS and NFS datastores
- Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage
- Deploy virtual machines on a VMware vSAN datastore

### **Virtual Machine Management**

- Use templates and cloning to deploy new virtual machines
- Modify and manage virtual machines
- Create a content library and deploy virtual machines from templates in the library
- Dynamically increase the size of a virtual disk
- Use customization specification files to customize a new virtual machine
- Perform vSphere vMotion and vSphere Storage vMotion migrations
- Create and manage virtual machine snapshots
- Examine the features and functions of VMware vSphere Replication

### **Resource Management and Monitoring**

- Discuss CPU and memory concepts in a virtualized environment
- Describe what overcommitment of a resource means
- Describe methods for optimizing CPU and memory usage
- Use various tools to monitor resource use
- Create and use alarms to report certain conditions or events

### **vSphere Cluster**

- Describe options for making a vSphere environment highly available
- Explain the vSphere HA architecture
- Configure and manage a vSphere HA cluster
- Examine the features and functions of VMware vSphere Fault Tolerance
- Configure a vSphere cluster using ESXi Cluster Quickstart
- Describe the functions of a vSphere DRS cluster
- Create a vSphere DRS cluster

### **vSphere Lifecycle**

- Describe how VMware vSphere Lifecycle Manager works
- Use vSphere Lifecycle Manager to update ESXi hosts in a cluster

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VIRTUAL CLASSROOM LIVE

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## Virtual Classroom Live Outline

### Course Introduction

- Introductions and course logistics
- Course objectives

### Introduction to vSphere and the Software-Defined Data Center

- Explain basic virtualization concepts
- Describe how vSphere fits into the software-defined data center and the cloud infrastructure
- Explain how vSphere interacts with CPUs, memory, networks, and storage
- Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts
- Use VMware Host Client to access and manage ESXi host

### Virtual Machines

- Create and remove a virtual machine
- Provision a virtual machine with virtual devices
- Identify the files that make up a virtual machine
- Explain the importance of VMware Tools

### vCenter Server

- Describe the vCenter Server architecture
- Discuss how ESXi hosts communicate with vCenter Server
- Deploy and configure vCenter Server Appliance
- Use the vSphere Client to manage the vCenter Server inventory
- Add data center, organizational objects, and hosts to vCenter Server
- Use roles and permissions to enable users to access objects in the vCenter Server inventory
- Back up vCenter Server Appliance

- Monitor vCenter Server tasks, events, and appliance health
- Use vCenter Server High Availability to protect a vCenter Server Appliance

### **Configuring and Managing Virtual Networks**

- Create and manage standard switches
- Describe the virtual switch connection types
- Configure virtual switch security, traffic-shaping and load-balancing policies
- Compare vSphere distributed switches and standard switches

### **Configuring and Managing Virtual Storage**

- Identify storage protocols and storage device types
- Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage
- Create and manage VMFS and NFS datastores
- Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage
- Deploy virtual machines on a VMware vSAN datastore

### **Virtual Machine Management**

- Use templates and cloning to deploy new virtual machines
- Modify and manage virtual machines
- Create a content library and deploy virtual machines from templates in the library
- Dynamically increase the size of a virtual disk
- Use customization specification files to customize a new virtual machine
- Perform vSphere vMotion and vSphere Storage vMotion migrations
- Create and manage virtual machine snapshots
- Examine the features and functions of VMware vSphere Replication

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Aug 4 - 8, 2025 | 10:00 AM - 6:00 PM EST

Sep 8 - 12, 2025 | 10:00 AM - 6:00 PM EST

Oct 20 - 24, 2025 | 10:00 AM - 6:00 PM EST

Nov 3 - 7, 2025 | 10:00 AM - 6:00 PM EST

Dec 1 - 5, 2025 | 10:00 AM - 6:00 PM EST



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PRIVATE GROUP TRAINING

5 Day





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