



Information Technology

# The VMware vSphere 8.x Professional (2V0-21.23)

# Course Introduction

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The VMware vSphere 8.x Professional (2V0-21.23) training course is structured to cover the essential aspects of managing and deploying VMware vSphere infrastructure, focusing on both VMware ESXi 8 and VMware vCenter 8. This course provides participants with the skills necessary to administer a vSphere environment and serves as a foundation for advanced VMware technologies in the software-defined data center.

## Target Audience

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System engineers and administrators involved in the administration of VMware vSphere solutions.

This comprehensive course ensures participants are well-equipped to install, configure, and manage VMware vSphere 8 environments effectively, laying a strong foundation for further VMware certifications and advanced system administration skills.

## Learning Objectives

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- **Gain comprehensive knowledge of VMware vSphere 8.0:**
  - Understand the installation, configuration, and management processes for VMware vSphere 8.0.
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- **Install and configure ESXi hosts:**
  - Learn how to install and configure VMware ESXi 8.0 hosts for optimal performance and security.
- **Deploy and configure vCenter Server Appliance:**
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  - Successfully deploy vCenter and configure it to manage ESXi hosts and other vSphere infrastructure components.

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- **Utilize the vSphere Client:**
  - Use the vSphere Client to create vCenter inventory, assign roles, and manage permissions for vCenter users.
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- **Configure virtual networks:**
  - Develop virtual networks using both vSphere standard switches and distributed switches.
- **Create and manage datastores:**
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  - Set up and manage datastores using various storage technologies supported by vSphere, such as VMFS, NFS, and iSCSI.
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- **Create and manage virtual machines (VMs):**
  - Deploy virtual machines, manage VM templates, clones, and snapshots using the vSphere Client.
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- **Create and manage content libraries:**
  - Develop content libraries to streamline the management of VM templates and VM deployments across environments.
- **Manage VM resource allocation:**
  - Allocate CPU, memory, and storage resources effectively for virtual machines.
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- **Migrate VMs using vMotion and Storage vMotion:**
  - Perform live migrations of virtual machines and their storage without downtime using vSphere vMotion and Storage vMotion.
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- **Configure vSphere Clusters:**
  - Create and manage vSphere clusters with High Availability (HA) and Distributed Resource Scheduler (DRS) features enabled.
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- **Manage the vSphere lifecycle:**
  - Ensure the vSphere environment is up to date by managing vCenter, ESXi hosts, and virtual machines using vSphere Lifecycle Manager.

# Course Outline

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## • Day 01

### **vSphere and Virtualization Overview**

- Basic concepts of virtualization
- Role of vSphere in software-defined data centers and cloud infrastructure
- User interfaces for accessing vSphere
- Interaction of vSphere with CPUs, memory, networks, storage, and GPUs

### **Installing and Configuring ESXi**

- Installation of ESXi hosts
- Best practices for ESXi user accounts
- Configuration of ESXi host settings using DCUI and VMware Host Client

## • Day 02

### **Deploying and Configuring vCenter**

- ESXi host communication with vCenter
- Deployment of vCenter Server Appliance
- Configuration of vCenter settings
- License management using vSphere Client
- Organization of vCenter inventory objects
- vCenter permissions application
- Viewing vCenter logs and events

### **Configuring vSphere Networking**

- Configuration of standard and distributed switches
- Networking policies for standard and distributed switches
- Differences between standard and distributed switches

## • Day 03

### **Configuring vSphere Storage**

- Overview of vSphere storage technologies
- Types of vSphere datastores
- Fibre Channel and iSCSI storage configuration
- Creation and management of VMFS and NFS datastores

## **Deploying Virtual Machines**

- Creation and provisioning of virtual machines (VMs)
- Importance and installation of VMware Tools
- VM templates, clones, and content libraries
- Deployment of VMs from templates and libraries
- VM modification, including resource adjustments

### **• Day 04**

## **Managing Virtual Machines**

- VM migration using vSphere vMotion and Storage vMotion
- Enhanced vMotion Compatibility (EVC)
- VM snapshots management
- Resource allocation and competition among VMs

## **Deploying and Configuring vSphere Clusters**

- Creation of vSphere clusters with Distributed Resource Scheduler (DRS) and High Availability (HA)
- Monitoring and configuring vSphere DRS and HA clusters
- Failover management using vSphere HA
- Use cases for Fault Tolerance and network redundancy in HA clusters

### **• Day 05**

## **Managing the vSphere Lifecycle**

- Enabling and configuring vSphere Lifecycle Manager
- vCenter Update Planner and prechecks
- Baseline and image-based management of hosts
- Upgrading ESXi hosts, VMware Tools, and VM hardware using Lifecycle Manager

## **Product Alignment**

- VMware ESXi 8.0
- VMware vCenter 8.0

# Confirmed Sessions

FROM	TO	DURATION	FEE\$	LOCATION
June 16, 2025	June 20, 2025	5 days	4950.00 \$	Azerbaijan - Baku
Sept. 8, 2025	Sept. 12, 2025	5 days	4250.00 \$	UAE - Dubai
Dec. 29, 2025	Jan. 2, 2026	5 days	4250.00 \$	UAE - Abu Dhabi