VMware vSphere®: Install, Configure, Manage v8.0

Duration: 5 Days
Method: Instructor-Led Training (ILT) | Live Online Training

Certification: VMware Certified Professional: Data Center Virtualization 2023 (VCP-DCV 2023) — **Exam:** *VMware vSphere 8.x Professional (2V0-21.23)*

Course Description

This course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere 8, which includes VMware ESXi™ 8 and VMware vCenter Server® 8. This course prepares participants to administer a vSphere infrastructure for an organization of any size. It is also the foundation for most other VMware technologies in the software-defined data centre.

Target Audience

This course is intended for:
- System Administrators
- System Engineers.

Prerequisites

To attend this course, candidates must have:
- System administration experience on Microsoft® Windows® or Linux operating systems.

Course Objectives

Upon successful completion of this course, attendees 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.

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Course Objectives *Continued*

- 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.

Course Topics

Module 1: Course Introduction
- Introductions and Course Logistics
- Course Objectives

Module 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

Module 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™

Module 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

Module 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

Module 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

Module 7: Deploying Virtual Machines (VMs)

- 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

Module 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
- 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

Course Topics *Continued*

Module 9: 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

Module 10: Managing 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

LABS INCLUDED

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