Master Class: VMware vSphere Data Center Virtualization Professional

Category: Infrastructure & IT Operations | **Vendor:** VMware

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format:	Instructor Led - Online
Certification:	VMware Certified Professional

Course Overview

This five-day course provides intensive hands-on training focused on the installation, configuration, and management of VMware vSphere 9.0, which includes VMware ESX™ 9.0 and VMware vCenter® 9.0. It also teaches you advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix of lectures and hands-on exercises, you will configure and optimize the features of VMware vSphere 9.0 that form the basis of a truly scalable infrastructure. You will also discuss when and where these features have the greatest impact. This knowledge is taught with a focus on VMware Certified Professional certification to prepare you for the exam and for working in virtual infrastructures.
This course provides the foundation for most VMware technologies in the software-defined data center.

The course prepares for the exam2 V0-16.25. An exam voucher is included in the course price.

Product focus

- VMware ESX 9.0
- VMware vCenter 9.0

About This Course

Course introduction

- Introductions and course logistics
- Course objectives

Overview of vSphere and Virtualization

- Explain fundamental virtualization concepts
- Describe how vSphere fits into the software-defined data center and cloud infrastructure
- Recognize the user interfaces for accessing vSphere
- Explain how vSphere interacts with CPUs, memory, networks, storage, and GPUs

Installing and configuring ESX

- Install an ESX host
- Identify best practices for ESX user accounts
- Configure ESX host settings using DCUI and VMware Host Client

Deploying and configuring vCenter

- Recognize communication between ESX hosts and vCenter
- Deploy the 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
- Create a vCenter backup plan
- Recognize the importance of vCenter High Availability
- Explain how vCenter High Availability works
- Use the vSphere Client to manage vSphere certificates

Configure vSphere networks

- 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 network policies for standard and distributed switches
- Configure and manage distributed vSphere switches
- Describe how VMware vSphere Network I/O Control improves performance
- Explain the features of distributed switches, such as port mirroring and NetFlow
- Define the vSphere Distributed Services Engine
- Describe the use cases and benefits of the vSphere Distributed Services Engine

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 ESX
- Create and manage VMFS datastores
- Configure and manage NFS datastores
- Discuss vSphere support for NVMe and iSER technologies
- Describe the architecture and requirements of vSAN configuration
- Describe storage policy-based management
- Recognize components in the vSphere Virtual Volumes architecture

Provisioning virtual machines

- Create and deploy 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 review VM settings and options
- Modify VMs by dynamically increasing resources
- Create VM templates and deploy VMs from those templates
- 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
- Recognize the role of a VMware Tools repository
- Configure a VMware Tools repository

Virtual machine management

- Recognize the types of VM migrations you can perform within a vCenter instance and between vCenter instances
- Migrate VMs using vSphere vMotion
- Describe the role of Enhanced vMotion Compatibility in migrations
- Migrate VMs using vSphere Storage vMotion
- Create a snapshot of a VM
- Manage, consolidate, and delete snapshots
- Describe CPU and memory concepts in the context of a virtualized environment
- Describe how VMs compete for resources
- Define CPU and memory shares, reservations, and limits
- Identify the backup and recovery solution for VMs
- Identify the components of the vSphere replication architecture
- Deploy and configure vSphere Replication
- Restore replicated VMs

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 the placement of VMs on hosts in the cluster
- Recognize use cases for vSphere DRS settings
- Monitor a vSphere DRS cluster
- Create and manage resource pools in a cluster
- Describe how scalable shares work
- Describe how vSphere HA responds to different types of failures
- Identify options for configuring network redundancy in a vSphere HA cluster
- Recognize vSphere HA design considerations
- Recognize the use cases for different vSphere HA settings
- Configure a vSphere HA cluster

- Recognize when vSphere Fault Tolerance should be used
- Describe the function of vCLS

vSphere Lifecycle Management

- Enable vSphere Lifecycle Manager in a vSphere cluster
- Describe the features of vCenter Update Planner
- Perform vCenter upgrade pre-checks and interoperability reports
- Recognize the features of VMware vSphere® Lifecycle Manager™
- Distinguish between managing hosts using baselines and managing hosts using images
- Describe how to upgrade hosts using baselines
- Describe ESX images
- Verify ESX host compliance with a cluster image and upgrade ESX hosts
- Update ESX hosts with vSphere Lifecycle Manager
- Describe the automatic recommendations of vSphere Lifecycle Manager
- Use vSphere Lifecycle Manager to upgrade VMware Tools and VM hardware
- Use configuration profiles to manage ESX configuration compliance

vSphere Monitoring

- Monitor the key factors that can affect the performance of a virtual machine
- Describe the factors that affect vCenter performance
- Use vCenter tools to monitor resource usage
- Create custom alerts in vCenter
- Describe the benefits and features of VMware Skyline
- Recognize the use cases for VCF Operations

vSphere Security and Access Control

- Recognize strategies for securing vSphere components such as vCenter, ESX hosts, and virtual machines
- Describe vSphere support for security standards and protocols
- Describe identity federation and recognize its use cases
- Configure identity federation so that vCenter can use an external identity provider

vSphere Trusted Environments and VM Encryption

- Configure ESX host access and authentication
- Describe virtual machine security features
- Describe the components of a VM encryption architecture
- Create, manage, and migrate encrypted VMs
- List VM encryption events and alerts
- Describe the benefits and use cases of vSphere Trust Authority

Who Should Attend

System administrators, system engineers, and system integrators

Prerequisites & Entry Requirements

General Prerequisites:

The following prerequisites are required for this course:

- Experience in system administration of Microsoft Windows or Linux operating systems
- Basic knowledge and administrative experience with ESX and vCenter

Learning Outcomes

Upon successful completion of this course, participants will be able to:

By the end of the course, you should be able to achieve the following objectives:

- Install and configure ESX hosts
- Deploy and configure vCenter
- Configure vCenter High Availability
- Use the vSphere Client to create the vCenter inventory and assign roles to vCenter users
- Create virtual networks with vSphere standard switches and distributed switches
- Configure and manage vSphere networks and storage for a large and demanding enterprise
- Create and configure data stores using storage technologies supported by vSphere
- Use the vSphere® Client™ to create virtual machines, templates, clones, and snapshots
- Configure vSphere Replication and restore replicated VMs
- Create content libraries for managing templates and deploying virtual machines
- Manage resource allocation for virtual machines using resource pools
- Use the vSphere Client to manage certificates
- Monitor the performance of vCenter, ESX, and VMs in the vSphere Client
- Migrate virtual machines with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
- Create and configure a vSphere cluster enabled with VMware vSphere® High Availability and VMware vSphere® Distributed Resource Scheduler™
- Configure and manage a VMware Tools repository
- Use configuration profiles to manage ESX host compliance
- Manage the vSphere lifecycle to keep vCenter, ESX hosts, and virtual machines up to date
- Use Identity Federation to configure vCenter to use external identity sources
- Describe the role of the vSphere Supervisor in the use of Kubernetes clusters.

Skills You Will Learn:

By the end of the course, you should be able to achieve the following objectives:

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- Configure vCenter High Availability
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Frequently Asked Questions

Q: What delivery options are available for Master Class: VMware vSphere Data Center Virtualization Professional?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: What certification does this course prepare me for?

The Master Class: VMware vSphere Data Center Virtualization Professional course helps prepare you for the VMware Certified Professional certification path.

Q: How many CPD hours does this course provide?

The 5-day Master Class: VMware vSphere Data Center Virtualization Professional course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Master Class: VMware vSphere Data Center Virtualization Professional training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Master Class: VMware vSphere Data Center Virtualization Professional?

Yes, we provide corporate training, dedicated training, and closed classes for Master Class: VMware vSphere Data Center Virtualization Professional. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Master Class: VMware vSphere Data Center Virtualization Professional, VMware vSphere, VSDCVP

Q: Why choose Nexus Human for Master Class: VMware vSphere Data Center Virtualization Professional?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Master Class: VMware vSphere Data Center Virtualization Professional training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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