

VMware vSphere: What's New [V8]

Duration 2 Days

COURSE DESCRIPTION

In this 2-day course, you will explore the new features and enhancements in VMware vCenter® 8.0, VMware ESXi™ 8.0, and VMware vSphere® 8.0. Through use-case scenarios, demonstrations, labs, and simulations, you develop skills to implement and configure vSphere 8.0..

COURSE OBJECTIVES

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

- Recognize the importance of key features and enhancements in vSphere 8.0
- Describe the purpose of VMware vSphere® Distributed Services Engine™
- Use VMware vSphere® Lifecycle Manager™ to update an ESXi host that has a data processing unit (DPU)
- Identify devices supported for system storage on ESXi 8.0
- Recognize enhancements to VM hardware compatibility settings
- Recognize changes related to vSphere Memory Monitoring and Remediation that improve VMware vSphere®
- Distributed Resource Scheduler™
- Describe the new virtual non-uniform memory access (vNUMA) topology settings in the VMware vSphere® Client™
- Use vSphere Lifecycle Manager and VMware vSphere® Auto Deploy™ to manage configuration specifications for hosts in a cluster
- Recognize vSphere Lifecycle Manager and Auto Deploy enhancements in vSphere 8.0
- Describe new cluster management features in Tanzu Kubernetes Grid 2.0
- Recognize the cloud benefits that VMware vSphere+ brings to on-premises workloads
- Identify discontinued or deprecated features and technology in vSphere 8.0

COURSE OUTLINE

Module 1: Course Introduction

- Introductions and course logistics
- Course objectives

Module 2: Artificial Intelligence and Machine Learning

- Describe how device groups support AI and ML in vSphere 8.0
- Describe how device virtualization extensions support AI and ML in vSphere 8.0

Module 3: vSphere Distributed Services Engine

- Describe the benefits of Distributed Services Engine
- Explain how Distributed Services Engine works
- Recognize use cases for Distributed Services Engine
- Install ESXi on a host equipped with a DPU
- View DPU information in the vSphere Client
- Add an ESXi host equipped with a DPU to a cluster
- Use vSphere Lifecycle Manager to update an ESXi host that contains a DPU
- Create a vSphere distributed switch for network offloads

- Add a host with a DPU to the vSphere distributed switch
- Configure a VM to use uniform passthrough mode

Module 4: vSphere and vCenter Management

- Describe improvements to the communication between vCenter and ESXi hosts
- Describe enhancements to the vCenter recovery Process

Module 5: ESXi Enhancements

- Describe the function of the central configuration store in ESXi
- Explain how ConfigStore affects interaction with ESXi configuration files
- Recognize the supported system storage partition configuration on ESXi 8.0
- Identify devices supported for system storage on ESXi 8.0
- Configure an RDMA host local device on ESXi 8.0

Module 6: vSphere Storage

- Describe the VMware vSAN Express Storage Architecture
- Recognize the benefits of using vSAN Express Storage Architecture
- Describe the benefits of using NVMe
- Recognize the support for NVMe devices in vSphere 8.0

Module 7: Guest OS and Workloads

- Review the enhancements of the latest virtual hardware versions
- Describe the features introduced with virtual hardware version 20
- Identify the snapshot modes of NVDIMM devices

Module 8: Resource Management

- View energy and carbon emission metrics in
- VMware vRealize® Operations Manager™
- Describe the vSphere Memory Monitoring and Remediation (vMMR) functionality
- Describe how vMMR enhances the performance of DRS

Module 9: Security and Compliance

- Describe how to manage vTPM secrets when cloning a VM
- Manage OVF templates for VMs configured with vTPM
- Deploy an OVF template with vTPM
- Describe the enhancements to trusted binary enforcement in ESXi
- Describe ESXi 8.0 enhanced security features

Module 10: vSphere Lifecycle Manager

- Describe the enhancements to life cycle management of standalone ESXi hosts
- Manage the configuration profiles of ESXi hosts in a cluster
- Use Auto Deploy to boot a host with the desired image and configuration specifications
- Upgrade multiple ESXi hosts in a cluster in parallel
- Stage an ESXi host image before remediation

WHO SHOULD ATTEND

System architects, system administrators, IT managers, VMware partners, and individuals responsible for implementing and managing vSphere architectures who want to deploy vSphere 8.0 into their existing vSphere environment.

PREREQUISITES

This course requires completion of one the following courses or equivalent knowledge and administration experience with VMware ESX®/ESXi and vCenter Server:

- VMware vSphere: Install, Configure, Manage
- VMware vSphere: Optimize and Scale
- VMware vSphere: Fast Track
- VMware vSphere: Troubleshooting
- Experience with working at the command line is helpful.

The course material presumes that you can perform the following tasks with no assistance or guidance before enrolling in this course:

- Install and configure ESXi
- Install vCenter Server
- Create vCenter Server objects, such as data centers and folders
- Create and manage vCenter Server roles and permissions
- Create and modify a standard switch
- Create and modify a distributed switch
- Connect an ESXi host to NAS, iSCSI, or Fibre Channel storage
- Create a VMware vSphere VMFS datastore
- Use a content library template to create a virtual machine
- Modify a virtual machine's hardware
- Migrate a virtual machine with VMware vSphere vMotion and VMware vSphere Storage vMotion
- Configure and manage a VMware vSphere Distributed Resource Scheduler cluster
- Configure and manage a VMware vSphere High Availability cluster
- Use VMware vSphere Lifecycle Manager to perform upgrades to ESXi hosts and VMs

If you cannot complete these tasks, VMware recommends that you instead take the VMware vSphere: Install, Configure, Manage [V8] course.