VMware vSphere: What's New [V8] Training

Duration: 2 Days

Course Content:

In this two-day course, you explore the new features and enhancements following VMware vCenter Server 8.0 and VMware ESXi 8.0. Real-world use-case scenarios, hands-on lab exercises, and lectures teach you the skills that you need to effectively implement and configure VMware vSphere 8.0.

Prerequisites for this training

This course requires completion of one of the following courses, or equivalent knowledge, plus administration experience with 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

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.

What you will learn

- Recognize the importance of key features and enhancements in vSphere 8.0
- Describe vCenter Server, VMware ESXi, storage, virtual machine, and security enhancements in vSphere 8.0
- Describe the purpose of vSphere Distributed Services Engine
- Update an ESXi host equipped with a Data Processing Unit (DPU) using vSphere Lifecycle Manager
- Identify devices supported for system storage on ESXi 8.0
- Recognize enhancements to VM hardware compatibility settings
- VMware vSphere Memory Monitoring and Remediation and the improvements to vSphere DRS

- Recognize the new Virtual Non-Uniform Memory Access (vNUMA) topology settings of a VM in vSphere Client
- Use vSphere Lifecycle Manager and Auto Deploy to manage the configuration specifications for the hosts in a cluster
- Recognize the vSphere Lifecycle Manager and Auto Deploy enhancements in vSphere 8.0
- Recognize the cloud benefits that VMware vSphere+ brings to on-premises workloads
- Recognize technology that is discontinued or deprecated in vSphere 8.0

Curriculum

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
- Describe how device virtualization extensions support AI and ML in vSphere 8

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 vSphere Client
- Add an ESXi host equipped with a DPU to a cluster
- Update an ESXi host equipped with a DPU using vSphere Lifecycle Manager
- 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

- Review the improvements to the communication between vCenter and ESXi hosts
- Review the enhancements to the vCenter recovery process

Module 5: ESXi Enhancements

- Describe the function of the central configuration store in ESXi
- Explain how ConfigStore affects your 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

Module 6: vSphere Storage

- Describe the 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

Module 7: Guest OS and Workloads

- Review the enhancements of the latest virtual hardware versions
- Describe the features introduced with virtual hardware version 20
- Create a snapshot of a VM with an NVDIMM device

Module 8: Resource Management

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

Module 9: Security and Compliance

- Describe how to handle vTPM secrets when cloning a VM
- Manage OVF templates for VMs that are configured with vTPM
- Deploy an OVF template with vTPM
- Describe the enhancements to trusted binary enforcement in ESXi
- Describe ESXi 8 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 with vSphere Lifecycle Manager
- 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 prior to remediation

Module 11: Auto Deploy

- Manage custom host certificates using Auto Deploy

Module 12: vSphere with Tanzu

- Describe the features of the Tanzu Kubernetes Grid 2.0 offering

Module 13: Announcing vSphere+

- Describe the functionality and benefits of vSphere+