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Learning Style: Virtual Classroom

Technology: VMware

Difficulty: Intermediate

Course Duration: 3 Days

VMware vSphere: What's New 6.7 to 7.0

About this Course:

In this three-day, hands-on training course, you explore the new features and enhancements in VMware vCenter Server® 7.0 and VMware ESXi™ 7.0. Real-world use-case deployment scenarios, hands-on lab exercises, and lectures teach you the skills that you need to effectively implement and configure VMware vSphere® 7.

The average salary of Vmware Administrator is $**79,681** per year.

Course Objectives:

- Recognize the importance of key features and enhancements in vSphere 6.7 update releases and vSphere 7
- Migrate a vCenter Server system for Windows to VMware vCenter® Server Appliance™ 7.0
  Upgrade a vCenter Server instance to vSphere 7
- Describe vCenter Server, VMware ESXi™, storage, network, virtual machine, and security enhancements in vSphere 7
- Update templates in the content library
- Use Identity Federation to configure vCenter Server to use external identity sources
- Use the VMware vSphere® Client™ to manage certificates
- Use VMware vSphere® Trust Authority™ to secure the infrastructure for encrypted VMs
- Use VMware vSphere® Lifecycle Manager™ to manage vSphere deployments and updates
- Describe the cloning and migration operations on encrypted VMs
- Describe the purpose of scalable shares and the improvements to vSphere DRS
- Describe how to change the IP address or FQDN of vCenter Server
- Identify new hardware device support in ESXi 7.0
- Recognize the enhancements available with VM compatibility version 17
- Recognize the enhancements available with VM compatibility version 18
- Recognize the importance of containers and Kubernetes in a modern data center

Audience:

- System architects, system administrators, IT managers, VMware partners, and individuals responsible for implementing and managing vSphere architectures

Prerequisites:

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

- VMware vSphere: Install, Configure, Manage

- VMware vSphere: Optimize and Scale
- VMware vSphere: Fast Track
- VMware vSphere: Troubleshooting

Course Outline:

1 Course Introduction
- Introductions and course logistics
- Course objectives

2 Installation and Upgrade
- Describe the new vCenter Server Appliance deployment model
- Upgrade a vCenter Server Appliance instance to vCenter Server Appliance 7.0
- Migrate a Windows vCenter Server instance to vCenter Server Appliance 7.0
- Identify enhancements to vCenter Server Appliance
- Upgrade an ESXi host to version 7.0

3 Management Enhancements
- Recognize how to create and apply vCenter Server profiles
- Identify the scaling and performance improvements for vCenter Server Appliance
- Describe the support provided for dynamic DNS
- Recognize how to change the IP address or FQDN of vCenter Server
- Identify enhancements to the vCenter Server file-based backup
- Identify enhancements to tools provided by the vSphere Client Developer Center
- Describe prefix-based MAC address allocation
- Identify VMware NSX-T™ logical switches and their properties in the vSphere Client
- Use virtual distributed port groups to connect to NSX-T Data Center logical switches
- Use vSphere Bitfusion to support artificial intelligence and machine learning based workloads
- Describe version control and management of VM templates in Content Library
- Perform a VM template in-place update in Content Library
- Describe identity federation and recognize its use cases
- Configure identity federation
- Manage certificates using the vSphere Client
- Explain the benefits and capabilities of VMware Skyline™

4 ESXi Enhancements
- Recognize the enhancements made to ESXi security
- Identify hardware support updates in ESXi 7.0
- Describe the support for AMD SEV-ES in vSphere 7
- Recognize layout changes in the ESXi 7.0 system storage partitions
- Describe the enhancements made to ESXi timekeeping options in vSphere 7
- Describe the enhancement to vSphere vMotion in vSphere 7

5 VM Enhancements
- Identify the characteristics of VM compatibility level for ESXi 7.0

- Describe the support provided for new virtual devices in vSphere 7
- Recognize improvements to guest customization
- Migrate VMs with attached devices

6 Storage Enhancements
- Describe the enhancements to NVMe support
- Describe the enhancements to VMware Pluggable Storage Architecture
- Describe the purpose of the High-Performance Plug-in
- Describe the support for iSER in vSphere 7
- Describe support for iSER in vSphere 7
- Identify VMware vSAN™ enhancements for vSphere 7

7 Security Enhancements
- Describe the enhancements to cloning, migration, and encryption operations
- Identify the enhancements to the VM encryption architecture in vSphere 7
- Recognize new VM encryption events and alarms
- Describe the benefits and use cases of VMware vSphere® Trust Authority™
- Explain the general architecture of vSphere Trust Authority
- Configure vSphere Trust Authority

8 Cluster Enhancements
- Recognize how to configure clusters using the vSphere Cluster Quickstart workflow
- Recognize improvements to vSphere DRS
- Identify improvements to vSphere ESX Agent Manager
- Describe scalable shares
- Configure VMware vSphere® DirectPath I/O™

9 vSphere Lifecycle Management
- Describe features of vCenter Server Update Planner
- Run vCenter Server upgrade prechecks and interoperability reports
- Describe vSphere Lifecycle Manager
- Compare vSphere Lifecycle Manager to vSphere Update Manager
- Identify the components of an ESXi image
- Describe vSphere Lifecycle Manager and NSX-T Data Center integration
- Define a cluster image and update ESXi hosts using vSphere Lifecycle Manager

10 Introduction to VMware vSphere® with Tanzu
- Differentiate between containers and virtual machines
- Identify the parts of a container system
- Recognize the steps in a basic Docker workflow
- Explain the importance of Kubernetes
- Recognize the basic architecture of Kubernetes
- Describe a basic Kubernetes workflow
- Identify the capabilities and benefits of vSphere with Tanzu
- Describe the Tanzu Kubernetes Grid Service