VMware vSphere 8 ICM

Target Audience:

- System administrators
- System engineer

Prerequisites: This course has the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems

Product Alignment:

- VMware ESXi 8.0
- VMware vCenter Server 8.0

Module 1: Course introduction

- Course Overview
- Course Objectives
- VMware Vendor Certifications path
- Lab Design and Required Resources for this course.
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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 GPUsESXi Host

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

- 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

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 the 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 VMware vSphere® Lifecycle ManagerTM
- 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 hardwar