VMware vSphere: Advanced Administration [V8]

Course code: VMW_VSAAW

This five-day course provides hands-on training to equip students with a range of skills: from performing routine VMware vSphere® 8 administrative tasks to complex vSphere operations and configurations. Through lab-based activities, students are immersed in real-life situations faced by VMBeans, a fictitious company. These situations expose students to real-life scenarios faced by companies that are building and scaling their virtual infrastructure.This course uses scenario-based lab exercises and does not provide guided step-by-step instructions. To complete the scenario-based lab exercises, you are required to analyze the task, research, and deduce the required solution. References and suggested documentation are provided.Approximately 90% of the class is application-focused and taught through labs. The course aligns fully with the VMware Certified Advanced Professional – Data Center Virtualization Deploy exam objectives.

Who is the course for
- System administrators
- System engineer

What we teach you
By the end of the course, you should be able to meet the following objectives:
- Enable cluster features and configure vSphere storage and networking
- Use host profiles to automate host configurations
- Use Cluster Quickstart to create a VMware vSAN™ enabled cluster
- Configure the VMware vCenter Server® identity provider
- Troubleshoot host connectivity and storage connectivity
- Perform lifecycle operations on vSphere components
- Implement security hardening guidelines to vSphere and virtual machines

Required skills
This course requires the following prerequisites:
- Completion of VMware vSphere: Optimize and Scale [V7] course
- VMware Certified Professional – Data Center Virtualization (VCP-DCV) certification
- System administration experience on Microsoft Windows or Linux operating systems

Course outline
1 Course Introduction

• Introductions and course logistics

• Course objectives

• Introduction to fictitious company: VMBeans

2 Creating and Configuring Management Clusters

• Enable cluster features that help to improve resource allocation and availability of virtual machines

• Use standard virtual switches to create networking in a cluster

• Recognize when to use VMware vSphere® vMotion®

• Recognize requirements for using iSCSI

• Identify the purpose of iSCSI multipathing

• Select the appropriate vSphere storage types to meet requirements

• Recognize when to configure ESXi NTP support

• Recognize ESXi user account best practices

• Configure ESXi host settings

GOPAS®

- Use host profiles appropriately

3 Creating and Configuring Productions Clusters

- Use Cluster Quickstart to create a vSAN enabled cluster

- Configure advanced vSphere HA settings

- Recognize the benefits of Active Directory Federation Services (ADFS)

- Configure the vCenter Server identity provider

- Assign specific permissions and roles to ADFS users

- Recognize how Enhanced vMotion Compatibility benefits VM mobility

- Perform a Cross vCenter Server Migration

- Use content libraries to share virtual machine templates between sites

4 Troubleshooting vSphere and Backing Up Configurations

- Troubleshoot ESXi connectivity issues

- Troubleshoot iSCSI storage issues

- Troubleshoot vSphere cluster resources

- Troubleshoot VMware PowerCLI™ issues

- Back up vCenter Server

5 Lifecycle Management

- Troubleshoot upgrade-blocking issues

- Increase logging levels on vCenter Server

- Configure a VMware Tools™ shared repository

- Upgrade vCenter Server

- Upgrade ESXi

- Upgrade VMware Tools

- Upgrade Virtual Machine Compatibility

- Work with VM placement rules

6 vSphere Security

- Manage advanced virtual machine configurations

- Configure a key management server

- Encrypt virtual machines using vSphere VM encryption

- Secure VMs in transit with encrypted vSphere vMotion

- Identify and implement different ESXi CPU scheduler options

- Apply security hardening guidelines to ESXi hosts

- Replace vCenter Server certificates with trusted CA-signed certificates

- Deploy a new vCenter Server instance

- Reconfigure the primary network identifier for vCenter Server