

## VMware vSphere: Advanced Administration Workshop

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### COURSE DETAILS

Course Code:	VM-VSAAW
Delivery Type:	Instructor-Led
Duration:	5 days

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### PREREQUISITES

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
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### COURSE CONTENT

This five-day course provides hands-on training to equip students with a range of skills: from performing routine VMware vSphere® 7 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.

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### COURSE OBJECTIVES

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
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### 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
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- 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
- Use host profiles appropriately

### 3 Creating and Configuring Production 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
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## WHO SHOULD ATTEND

- System administrators
- System engineer