

# 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

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- 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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