

# VMware vSphere v7 – Advanced Administration

## Description

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.

## Course Content

### Module 1: Course Introduction

- Introductions and course logistics
- Course objectives
- Introduction to fictitious company: VMBeans

### Module 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
- Use host profiles appropriately

### Module 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

### Module 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

## **Module 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

## **Module 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

## **Lab / Exercises**

- Official VMware Labs and exercises

## **Documentation**

- Digital courseware included

## **Participant profiles**

- System administrators
- System engineer

## **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

## **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

**Niveau**

Intermédiaire

**Classroom Registration Price (CHF)**

5300

**Virtual Classroom Registration Price (CHF)**

5300

**Duration (in Days)**

5

**Reference**

VMW-VSPHAA