



## VMware vSphere: Operate, Scale and Secure [v8.0]

### Specs

- 5 Days
- Lecture and Hands-on Labs

### Course Overview

This five-day course teaches you advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you configure and optimize the VMware vSphere 8 features that build a foundation for a truly scalable infrastructure. You also discuss when and where these features have the greatest effect. Attend this course to deepen your understanding of vSphere and learn how its advanced features and controls can benefit your organization.

Review this course online at <https://www.alta3.com/courses/vsoss80>

### Who Should Attend

#### Audience

- Experienced system administrators
- System engineers
- System integrators

### What You'll Learn

#### Objectives

- Configure and manage a VMware Tools Repository
- Manage VM resource usage with resource pools
- Secure vCenter, ESXi, and VMs in your vSphere environment
- Use Identity Federation to configure vCenter with external identity sources

### Outline

#### Module 1: Course Introduction

1. Introductions and course logistics
2. Course objectives ##### Module 2: Virtual Machine Operations
3. Recognize the role of a VMware Tools Repository
4. Configure a VMware Tools Repository
5. Recognize the backup and restore solution for VMs
6. Identify the components in the vSphere Replication architecture
7. Deploy and configure vSphere Replication
8. Recover replicated VMs ##### Module 3: vSphere Cluster Operations
9. Create and manage resource pools in a cluster
10. Describe how scalable shares work

11. Describe the function of the vCLS
12. Recognize operations that might disrupt the healthy functioning of vCLS VMs ##### Module 4: Network Operations
13. Configure and manage vSphere distributed switches
14. Describe how VMware vSphere Network I/O Control enhances performance
15. Explain distributed switch features such as port mirroring and NetFlow
16. Define vSphere Distributed Services Engine
17. Describe the use cases and benefits of vSphere Distributed Services Engine ##### Module 5: Storage Operations
18. Discuss vSphere support for NVMe and iSER technologies
19. Describe the architecture and requirements of vSAN configuration
20. Describe storage policy-based management
21. Recognize components in the vSphere Virtual Volumes architecture
22. Configure Storage I/O Control ##### Module 6: vCenter and ESXi Operations
23. Create a vCenter backup schedule
24. Recognize the importance of vCenter High Availability
25. Explain how vCenter High Availability works
26. Use host profiles to manage ESXi configuration compliance
27. Use the vSphere client to manage vSphere certificates ##### Module 7: vSphere Monitoring
28. Monitor the key factors that can affect a virtual machine's performance
29. Describe the factors that influence vCenter performance
30. Use vCenter tools to monitor resource use
31. Create custom alarms in vCenter
32. Describe the benefits and capabilities of VMware Skyline
33. Recognize uses for Skyline Advisor Pro ##### Module 8: vSphere Security and Access Control
34. Recognize strategies for securing vSphere components, such as vCenter, ESXi hosts, and virtual machines
35. Describe vSphere support for security standards and protocols
36. Describe identity federation and recognize its use cases
37. Configure identity federation to allow vCenter to use an external identity provider ##### Module 9: vSphere Trusted Environments and VM Encryption
38. Configure ESXi Host Access and Authentication
39. Describe virtual machine security features
40. Describe the components of a VM encryption architecture
41. Create, manage, and migrate encrypted VMs
42. List VM encryption events and alarms
43. Describe the benefits and use cases of vSphere Trust Authority
44. Configure vSphere Trust Authority

## Prerequisites

### Prereq

- Attend VMware vSphere: Install, Configure, Manage [V8]
- Equivalent knowledge and administration experience with ESXi and vCenter
- Experience with working at the command line is highly recommended.