VMware vSphere: Fast Track [V8.0]

Specs

- 5 Days
- Lecture and Hands-on Labs

Course Overview

This five-day, extended hour course takes you from introductory to advanced VMware vSphere® 8 management skills. Building on the installation and configuration content from our best-selling course, you will also develop advanced skills needed to manage and maintain a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you will install, configure, and manage vSphere 8. You will explore the features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect. This course prepares you to administer a vSphere infrastructure for an organization of any size using vSphere 8, which includes VMware ESXi™ 8 and VMware vCenter Server® 8.

Review this course online at https://www.alta3.com/courses/vsft8

Who Should Attend

Audience

- System administrators
- System engineers

What You'll Learn

Objectives

- Install and configure ESXi hosts and vCenter Server Appliance
- Create and manage vSphere networks and storage solutions
- Implement and manage advanced resource management features like vMotion and vSphere Distributed Resource Scheduler
- Monitor and maintain vSphere environments for optimal performance

Outline

Module 1: Course Introduction

1. Introductions and course logistics
2. Course objectives #### Module 2: vSphere and Virtualization Overview
3. Explain basic virtualization concepts
4. Describe how vSphere fits in the software-defined data center and the cloud infrastructure
5. Recognize the user interfaces for accessing vSphere
6. Explain how vSphere interacts with CPUs, memory, networks, storage, and GPUs
7. Install an ESXi host #### Module 3: vCenter Management

8. Recognize ESXi hosts communication with vCenter
9. Deploy vCenter Server Appliance
10. Configure vCenter settings
11. Use the vSphere Client to add and manage license keys
12. Create and organize vCenter inventory objects
13. Recognize the rules for applying vCenter permissions
14. View vSphere tasks and events
15. Create a vCenter backup schedule
16. Recognize the importance of vCenter High Availability
17. Explain how vCenter High Availability works #### Module 4: Deploying Virtual Machines
18. Create and provision VMs
19. Explain the importance of VMware Tools
20. Identify the files that make up a VM
21. Recognize the components of a VM
22. Navigate the vSphere Client and examine VM settings and options
23. Modify VMs by dynamically increasing resources
24. Create VM templates and deploy VMs from them
25. Clone VMs
26. Create customization specifications for guest operating systems
27. Create local, published, and subscribed content libraries
28. Deploy VMs from content libraries
29. Manage multiple versions of VM templates in content libraries #### Module 5: Configure and Manage vSphere Networking
30. Configure and view standard switch configurations
31. Configure and view distributed switch configurations
32. Recognize the difference between standard switches and distributed switches
33. Explain how to set networking policies on standard and distributed switches #### Module 6: Configure and Manage vSphere Storage
34. Recognize vSphere storage technologies
35. Identify types of vSphere datastores
36. Describe Fibre Channel components and addressing
37. Describe iSCSI components and addressing
38. Configure iSCSI storage on ESXi
39. Create and manage VMFS datastores
40. Configure and manage NFS datastores
41. Discuss vSphere support for NVMe and iSER technologies #### Module 7: Managing Virtual Machines
42. Recognize the types of VM migrations that you can perform within a vCenter instance and across vCenter instances
43. Migrate VMs using vSphere vMotion
44. Describe the role of Enhanced vMotion Compatibility in migrations
45. Migrate VMs using vSphere Storage vMotion
46. Take a snapshot of a VM
47. Manage, consolidate, and delete snapshots
48. Describe CPU and memory concepts in relation to a virtualized environment
49. Describe how VMs compete for resources
50. Define CPU and memory shares, reservations, and limits
51. Recognize the role of a VMware Tools Repository
52. Configure a VMware Tools Repository
53. Recognize the backup and restore solution for VMs #### Module 8: vSphere Monitoring
54. Monitor the key factors that can affect a virtual machine's performance
55. Describe the factors that influence vCenter performance
56. Use vCenter tools to monitor resource use
57. Create custom alarms in vCenter
58. Describe the benefits and capabilities of VMware Skyline

59. Recognize uses for Skyline Advisor Pro #### Module 9: Deploying and Configuring vSphere Cluster
60. Use Cluster Quickstart to enable vSphere cluster services and configure the cluster
61. View information about a vSphere cluster
62. Explain how vSphere DRS determines VM placement on hosts in the cluster
63. Recognize use cases for vSphere DRS settings
64. Monitor a vSphere DRS cluster
65. Describe how vSphere HA responds to different types of failures
66. Identify options for configuring network redundancy in a vSphere HA cluster
67. Recognize the use cases for various vSphere HA settings
68. Configure a cluster enabled for vSphere DRS and vSphere HA
69. Recognize when to use vSphere Fault Tolerance
70. Describe the function of the vCLS
71. Recognize operations that might disrupt the healthy functioning of vCLS VMs #### Module 10: ESXi Operations
72. Use host profiles to manage ESXi configuration compliance
73. Recognize the benefits of using configuration profiles #### Module 11: Managing the vSphere Lifecycle
74. Generate vCenter interoperability reports
75. Recognize features of vSphere Lifecycle Manager
76. Describe ESXi images and image depots
77. Enable vSphere Lifecycle Manager in a vSphere cluster
78. Validate ESXi host compliance against a cluster image and remediate ESXi hosts using vSphere Lifecycle Manager
79. Describe vSphere Lifecycle Manager automatic recommendations
80. Use vSphere Lifecycle Manager to upgrade VMware Tools and VM hardware #### Module 12: Network Operations
81. Configure and manage vSphere distributed switches
82. Describe how VMware vSphere Network I/O Control enhances performance
83. Define vSphere Distributed Services Engine
84. Describe the use cases and benefits of vSphere Distributed Services Engine #### Module 13: Storage Operations
85. Describe the architecture and requirements of vSAN configuration
86. Describe storage policy-based management
87. Recognize components in the vSphere Virtual Volumes architecture
88. Configure Storage I/O Control

Prerequisites

Prereq

- System administration experience on Microsoft Windows or Linux operating systems