

VMware vSphere: Install, Configure, Manage V 5.1

1 -Course Introduction

- ☐ Introductions and course logistics
- ☐ Course objectives

2-Introduction to VMware Virtualization

- ☐ Introduce virtualization, virtual machines, and vSphere components
- ☐ Explain the concepts of server, network, and storage virtualization
- ☐ Describe where vSphere fits into the cloud architecture
- ☐ Install and use vSphere user interfaces

3-Creating Virtual Machines

- ☐ Introduce virtual machines, virtual machine hardware, and virtual machine files
- ☐ Deploy a single virtual machine

4 -VMware vCenter Server

- ☐ Introduce the vCenter Server architecture
- ☐ Introduce VMware® vCenter™ Server Appliance™
- ☐ Configure and manage vCenter Server Appliance
- ☐ Manage vCenter Server inventory objects and licenses

5 -Configuring and Manage Virtual Networks

- ☐ Describe, create, and manage a standard virtual switch
- ☐ Describe and modify standard virtual switch properties
- ☐ Configure virtual switch load-balancing algorithms

6- Configuring and Managing Virtual Storage

- ☐ Introduce storage protocols and device names
- ☐ Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- ☐ Create and manage vSphere datastores
- ☐ Deploy and manage VMware vSphere® Storage Appliance

7 -Virtual Machine Management

- ☐ Use templates and cloning to deploy virtual machines
- ☐ Modify and manage virtual machines
- ☐ Create and manage virtual machine snapshots
- ☐ Perform VMware vSphere® vMotion® and VMware vSphere® Storage vMotion® migrations
- ☐ Create a VMware vSphere® vApp

8 - Data Protection

- ☒ Discuss a strategy for backing up ESXi hosts and vCenter Server
- ☒ Discuss solutions for backing up virtual machines efficiently

9- Access and Authentication Control

- ☒ Control user access through roles and permissions
- ☒ Configure and manage the ESXi firewall
- ☒ Configure ESXi lockdown mode
- ☒ Integrate ESXi with Active Directory
- ☒ Explain VMware® vShield Endpoint™ integration in vSphere

10- Resource Management and Monitoring

- ☒ Introduce virtual CPU and memory concepts
- ☒ Describe methods for optimizing CPU and memory usage
- ☒ Configure and manage resource pools
- ☒ Monitor resource usage using vCenter Server performance graphs and alarms

11- High Availability and Fault Tolerance

- ☒ Introduce the new VMware vSphere® High Availability architecture
- ☒ Configure and manage a vSphere HA cluster
- ☒ Introduce VMware vSphere® Fault Tolerance
- ☒ Describe VMware vSphere® Replication

12-Scalability

- ☒ Configure and manage a VMware vSphere® Distributed Resource Scheduler™ (DRS) cluster
- ☒ Configuring Enhanced vMotion Compatibility
- ☒ Using VMware HA and DRS together

13- Patch Management

- ☒ Use Update Manager to manage ESXi patching
- ☒ Install Update Manager and the Update Manager plug-in
- ☒ Create patch baselines
- ☒ Scan and remediate hosts™

14- Installing VMware Components

- ☒ Introduce ESXi installation
- ☒ Describe boot-from-SAN requirements
- ☒ Introduce vCenter Server deployment options
- ☒ Describe vCenter Server hardware, software, and database requirements
- ☒ Install vCenter Server (Windows-based)