

VMS-ICM v5.5 - VMware vSphere: Install, Configure, Manage Training Program



Course Outline

1. Virtualized Data Center

- Introduce components of the virtualized data center
- Describe where vSphere fits into the cloud architecture
- Introduce VMware vCenter Single Sign-on
- Install and use vSphere Web Client

2. Creating Virtual Machines

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

3. 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

4. Configuring and Managing Virtual Networks

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

5. 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 Virtual SAN

6. Virtual Machine Management

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

7. 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

8. 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

9. High Availability and Fault Tolerance

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

10. Scalability

- Configure and manage a VMware vSphere Distributed Resource Scheduler (DRS) cluster
- Configure Enhanced vMotion Compatibility
- Use vSphere HA and DRS together

11. Patch Management

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

12. 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)

Lab Outline

Lab 1: Configuring VMware vCenter Server Appliance

- Lab 2: Using the VMware vSphere Web Client
- Lab 3: Configuring VMware ESXi
- Lab 4: Working with Virtual Machines
- Lab 5: Configuring VMware vCenter Single Sign-On
- Lab 6: Creating Folders in VMware vCenter Server
- Lab 7: Standard Switches
- Lab 8: Accessing iSCSI Storage
- Lab 9: Accessing NFS Storage
- Lab 10: Managing VMware vSphere VMFS
- Lab 11: Using Templates and Clones
- Lab 12: Modifying a Virtual Machine
- Lab 13: Migrating Virtual Machines
- Lab 14: Managing Virtual Machines
- Lab 15: Managing VMware vSphere vApps
- Lab 16: User Permissions
- Lab 17: Resource Pools
- Lab 18: Monitoring Virtual Machine Performance
- Lab 19: Using Alarms
- Lab 20: Using VMware vSphere High Availability
- Lab 21: Configuring VMware vSphere Fault Tolerance
- Lab 22: VMware vSphere Distributed Resource Scheduler
- Lab 23: VMware vSphere Update Manager