VMWARE VSPHERE: INSTALL, CONFIGURE, MANAGE [V6.7]

Course Code: 9888

Learn how to administer a vSphere infrastructure for an organization of any size.

This five-day course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere® 6.7, which includes VMware ESXi™ 6.7 and VMware vCenter Server® 6.7. This course prepares you to administer a vSphere infrastructure for an organization of any size. It is the foundation for most VMware technologies in the software-defined data center and helps accelerate the transformation to cloud computing.

VMware vSphere: Install, Configure, Manage [V6.7] also fulfills a course requirement for the VMware Certified Professional 6.5 - Data Center Virtualization (VCP6.5-DCV) exam.

What You’ll Learn

• Describe the software-defined data center
• Explain the vSphere components and their function in the infrastructure
• Add ESXi hosts to a VMware vCenter® Server Appliance™ instance
• Manage vCenter Server Appliance
• Use a local content library as an ISO store, and deploy a virtual machine
• Describe vCenter Server architecture
• Use vCenter Server to manage an ESXi host
• Configure and manage vSphere infrastructure with VMware Host Client™ and VMware vSphere® Client™
• Describe virtual networks with vSphere standard switches
• Configure standard switch policies
• Use vCenter Server to manage various types of host storage: VMware vSphere® VMFS, NFS, iSCSI, and RDM
• Examine the features and functions of Fibre Channel and VMware vSAN™
• Manage virtual machines, templates, clones, and snapshots
• Migrate virtual machines with VMware vSphere® vMotion®
• Migrate virtual machine storage with VMware vSphere® Storage vMotion®
• Monitor resource usage, and manage resource pools
• Discuss the VMware vSphere® High Availability cluster architecture
• Configure vSphere HA
• Manage vSphere HA and VMware vSphere® Fault Tolerance
• Use VMware vSphere® Replication™ and VMware vSphere® Data Protection™ to replicate virtual machines and perform data recovery
• Use VMware vSphere® Distributed Resource Scheduler™ clusters to improve host scalability
• Use VMware vSphere® Update Manager™ to apply patches and perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server operations
• Identify troubleshooting methodology to logically diagnose faults and improve troubleshooting efficiency

Who Needs to Attend
• System administrators
• System engineers
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ON-DEMAND $4,350 USD

On-Demand Outline

1. Course Introduction
   • Introductions and course logistics
   • Course objectives
   • Describe the content of the course
   • Gain a complete picture of the VMware certification system
   • Familiarize yourself with the benefits of the VMware Education Learning Zone
   • Identify additional resources

2. Introduction to vSphere and the SoftwareDefined Data Center
   • Describe how vSphere fits into the software-defined data center and the cloud infrastructure
   • Explain how vSphere interacts with CPUs, memory, networks, and storage
   • Use vSphere Client to access and manage your vCenter Server system and ESXi host
   • Compare virtual machine hardware version 14 to other versions
   • Identify the virtual network adapters, and describe the enhanced VMXNET3
   • Compare the types of virtual disk provisioning
   • Identify the advantages of ESXi Quick Boot

3. Creating Virtual Machines
   • Create, provision, and remove a virtual machine
   • Explain the importance of VMware Tools™
   • Describe how to import a virtual appliance OVF template
   • Manage VMware Tools
   • Explain troubleshooting OS installation and VMware Tools
4. vCenter Server
   - Describe the vCenter Server architecture
   - Discuss how ESXi hosts communicate with vCenter Server
   - Identify the vCenter Server services, components, and modules
   - Access and configure vCenter Server Appliance
   - Use vSphere Client to manage the vCenter Server inventory
   - Describe the rules for applying permissions
   - Create a custom role in vCenter Server
   - Create a backup schedule
   - Restore vCenter Server Appliance from backup
   - Monitor vCenter Server Appliance

5. Configuring and Managing Virtual Networks
   - Describe, create, and manage standard switches
   - Configure virtual switch security and loadbalancing policies
   - Compare vSphere distributed switches and standard switches
   - Describe the virtual switch connection types
   - Describe the new TCP/IP stack architecture
   - Use VLANs with standard switches

6. Configuring and Managing Virtual Storage
   - Identify storage protocols and storage device types
   - Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage
   - Create and manage VMware vSphere® VMFS and NFS datastores
   - Describe the new features of VMFS 6.5
   - Identify the advantages of VMware vSAN™
   - Describe guest file encryption

7. Virtual Machine Management
   - Use templates and cloning to deploy new virtual machines
   - Modify and manage virtual machines
   - Clone a virtual machine
   - Upgrade virtual machine hardware to version 14
   - Remove virtual machines from the vCenter Server inventory and datastore
   - Use customization specification files to customize a new virtual machine
   - Perform vSphere vMotion and vSphere Storage vMotion migrations
   - Create and manage virtual machine snapshots
   - Create, clone, and export vApps
   - Identify the types of content libraries and how to deploy and use them
8. Resource Management and Monitoring
   • Discuss CPU and memory concepts in a virtualized environment
   • Describe what over commitment of a resource means
   • Identify additional technologies that improve memory usage
   • Configure and manage resource pools
   • Describe methods for optimizing CPU and memory usage
   • Use various tools to monitor resource usage
   • Create and use alarms to report certain conditions or events

9. vSphere HA, vSphere Fault Tolerance, and Protecting Data
   • Explain the vSphere HA architecture
   • Configure and manage a vSphere HA cluster
   • Use vSphere HA advanced parameters
   • Enforce infrastructural or intra-app dependencies during failover
   • Describe vSphere HA heartbeat networks and datastore heartbeats
   • Examine the features and functions of vSphere Fault Tolerance
   • Enable vSphere Fault Tolerance on virtual machines
   • Support vSphere Fault Tolerance interoperability with vSAN
   • Examine enhanced consolidation of vSphere Fault Tolerance virtual machines
   • Examine the features and functions of vSphere Replication

10. vSphere DRS
    • Describe the functions of a vSphere DRS cluster
    • Create a vSphere DRS cluster
    • View information about a vSphere DRS cluster
    • Configure virtual machine affinity, DRS groups, and VM-host affinity rules
    • Remove a host from a vSphere DRS cluster

11. vSphere Update Manager
    • Describe the new architecture, components, and capabilities of vSphere Update Manager
    • Use vSphere Update Manager to manage the patching of ESXi, virtual machines, and vApps
    • Install vSphere Update Manager and the vSphere Update Manager plug-in
    • Create patch baselines
    • Use host profiles to manage host configuration compliance
    • Examine the features and functions of vSphere Update Manager EAM integration
    • Integrate vSphere Update Manager with vSphere DRS
    • Scan and remediate hosts

12. vSphere Troubleshooting
    • Define the scope of troubleshooting
    • Use a structured approach to solve configuration and operational problems
• Identify troubleshooting methodology to logically diagnose faults and improve troubleshooting efficiency
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PRIVATE GROUP TRAINING 5 days

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Date created: 7/28/2020 5:55:06 PM
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