VMWARE VSPHERE: INSTALL, CONFIGURE, MANAGE [V6.5]

Course Code: 5673

Learn about installing, configuring, and managing VMware vSphere 6.5, the foundation for VMware technologies in the software-defined data center.

In this course, you will learn how to install, configure, and manage VMware vSphere 6.5, which includes VMware ESXi 6.5 and VMware vCenter Server 6.5. You will learn how to administer a vSphere infrastructure for all sizes of organizations. It is the foundation for most other VMware technologies in the software-defined data center.

- vSphere Foundations Exam Voucher. (a $125 value)
- 30 lab credits for 30 days post-class.
- A practice test from Kaplan IT.
- Exam Objectives PDF.

The VMware VCP6.5-DCV Prep Kit includes:
- Exam Voucher (2VO-622)
- Second Exam Voucher for retakes
- Kaplan IT Practice Test (2VO-622)
- Exam Objectives Guide

A $600 Value For Only $375

What You’ll Learn
- Software-defined data center
- vSphere components and their function in the infrastructure
- Deploy an ESXi host
- Deploy VMware vCenter Server Appliance
- Use a local content library as an ISO store and deploy a virtual machine
- vCenter Server architecture
• Use vCenter Server to manage an ESXi host
• Configure and manage vSphere infrastructure with VMware vSphere Client and VMware vSphere Web Client
• Virtual networks with vSphere standard switches
• Configure standard switch policies
• Use vCenter Server to manage various types of host storage: VMware vSphere VMFS, NFS, virtual SAN, Fibre Channel, and VMware Virtual SAN
• Manage virtual machines, templates, clones, and snapshots
• Create, clone, and export a vApp
• Use the content library
• Migrate virtual machines with VMware vSphere vMotion
• Use VMware vSphere Storage vMotion to migrate virtual machine storage
• Monitor resource usage and manage resource pools
• Use esxtop to identify and solve performance issues
• 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

Who Needs to Attend
• System administrators
• System engineers
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CLASSROOM LIVE $4,250 USD 5 days

Classroom Live Outline

1. Course Introduction
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   • Benefits of the VMware Education Learning Zone
   • Additional resources

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   • Topology of a physical data center
   • vSphere virtual infrastructure
   • Files and components of virtual machines
   • Benefits of using virtual machines
   • Similarities and differences between physical architectures and virtual architectures
   • Purpose of ESXi
   • Purpose of vCenter Server
   • Software-defined data center
   • Private, public, and hybrid clouds

3. Creating Virtual Machines
   • Virtual machines, virtual machine hardware, and virtual machine files
   • Files that make up a virtual machine
   • Latest virtual machine hardware and its features
   • Virtual machine CPU, memory, disk, and network resource usage
   • Importance of VMware Tools™
   • PCI pass-through, Direct I/O, remote direct memory access, and NVMe
   • Deploy and configure virtual machines and templates
• Virtual machine disk format

4. vCenter Server
• vCenter Server architecture
• Deploy and configure vCenter Server Appliance
• Use vSphere Web Client
• Back up and restore vCenter Server
• vCenter Server permissions and roles
• vSphere HA architectures and features
• New vSphere authentication proxy
• Manage vCenter Server inventory objects and licenses
• Access and navigate the new vSphere clients

5. Configuring and Managing Virtual Networks
• Create and manage standard switches
• Configure virtual switch security and load-balancing policies
• Contrast and compare vSphere distributed switches and standard switches
• Virtual switch connection types
• New TCP/IP stack architecture
• Use VLANs with standard switches

6. Configuring and Managing Virtual Storage
• Storage protocols and storage device types
• ESXi hosts using iSCSI, NFS, and Fibre Channel storage
• Create and manage VMFS and NFS datastores
• New features of VMFS 6.5
• vSAN
• 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 12
• Remove virtual machines from the vCenter Server inventory and datastore
• Customize a new virtual machine using customization specification files
• Perform vSphere vMotion and vSphere Storage vMotion migrations
• Create and manage virtual machine snapshots
• Create, clone, and export vApps
• Types of content libraries and how to deploy and use them

8. Resource Management and Monitoring
• Virtual CPU and memory concepts
• Virtual memory reclamation techniques
• Virtual machine over commitment and resource competition
• Configure and manage resource pools
• Methods for optimizing CPU and memory usage
• Use various tools to monitor resource usage
• Create and use alarms to report certain conditions or events
• Deploy resource pools
• Set reservations, limits, and shares
• Expandable reservations
• Schedule changes to resource settings
• Create, clone, and export vApps
• Use vCenter Server performance charts and esxtop to analyze vSphere performance

9. vSphere HA, vSphere Fault Tolerance, and Protecting Data
• vSphere HA architecture
• Configure and manage a vSphere HA cluster
• Use vSphere HA advanced parameters
• Clusterwide restart ordering capabilities
• Enforce infrastructural or intra-app dependencies during failover
• vSphere HA heartbeat networks and datastore heartbeats
• vSphere Fault Tolerance
• Enable vSphere Fault Tolerance on virtual machines
• Support vSphere Fault Tolerance interoperability with vSAN
• Enhanced consolidation of vSphere Fault Tolerance virtual machines
• vSphere Replication
• Use vSphere Data Protection to back up and restore data

10. vSphere DRS
• Functions and benefits of a vSphere DRS cluster
• Configure and manage a vSphere DRS cluster
• Work with affinity and anti-affinity rules
• New capabilities for what-if analysis and proactive vSphere DRS
• Evolution of vSphere DRS using predictive data from VMware vRealize Operations Manager
• Perform preemptive actions to prepare for CPU or memory changes
• vCenter Server embedded vSphere Update Manager, VMware vSphere ESXi Image Builder CLI and VMware vSphere Auto Deploy capabilities
• Use vSphere HA and vSphere DRS together for business continuity

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• New vSphere Update Manager architecture, components, and capabilities
• Use vSphere Update Manager to manage ESXi, virtual machine, and vApp patching
• Install vSphere Update Manager and the vSphere Update Manager plug-in
• Create patch baselines
• Use host profiles to manage host configuration compliance
• Scan and remediate hosts

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VIRTUAL CLASSROOM LIVE  $4,250 USD  5 days

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ON-DEMAND $4,250 USD

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PRIVATE GROUP TRAINING

5 days

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