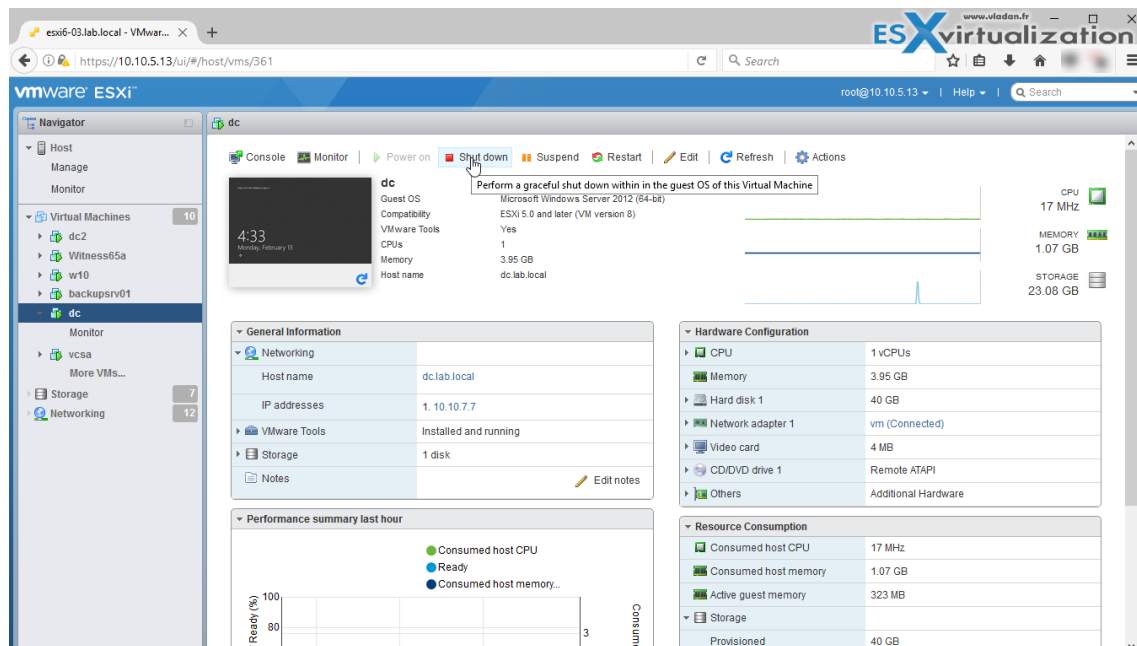




Training | Consulting | Developement | Outsourcing



VMware vSphere

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VMware vSphere: Install, Configure, Manage [V6.7]

Course Overview:

This course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere 6.7, which includes VMware ESX 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 other VMware technologies in the software-defined data centre.

Course Outline:

1. Course Introduction

- Introductions and course logistics
- Course objectives
- Describe the content of this 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 Software-Defined Data Centre

- Describe the topology of a physical data centre
- Explain the vSphere virtual infrastructure
- Define the files and components of virtual machines
- Describe the benefits of using virtual machines
- Explain the similarities and differences between physical architectures and virtual architectures
- Define the purpose of ESXi
- Define the purpose of vCentre Server
- Explain the software-defined data centre
- Describe private, public, and hybrid clouds

3. Creating Virtual Machines

- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Identify the files that make up a virtual machine
- Discuss the latest virtual machine hardware and its features
- Describe virtual machine CPU, memory, disk, and network resource usage
- Explain the importance of VMware Tools™
- Discuss PCI pass-through, Direct I/O, remote direct memory access, and NVMe
- Deploy and configure virtual machines and templates
- Identify the virtual machine disk format

4. vCentre Server

- Introduce the vCentre Server architecture
- Deploy and configure vCentre Server Appliance
- Use vSphere Web Client
- Backup and restore vCentre Server
- Examine vCentre Server permissions and roles
- Explain the vSphere HA architectures and features
- Examine the new vSphere authentication proxy
- Manage vCentre Server inventory objects and licenses
- Access and navigate the new vSphere clients

5. Configuring and Managing Virtual Networks

- Describe, create, and manage standard switches
- Configure virtual switch security and load-balancing policies
- Contrast and 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

- Introduce storage protocols and storage device types
- Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage

- Create and manage VMFS and NFS data stores
- Describe the new features of VMFS 6.5
- Introduce 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 12
- Remove virtual machines from the vCentre 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
- Introduce the types of content libraries and how to deploy and use them

8. Resource Management and Monitoring

- Introduce virtual CPU and memory concepts
- Explain virtual memory reclamation techniques
- Describe virtual machine over commitment and resource competition
- 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
- Describe and deploy resource pools
- Set reservations, limits, and shares
- Describe expandable reservations
- Schedule changes to resource settings
- Create, clone, and export vApps
- Use vCentre Server performance charts and esxtop to analyze vSphere performance

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
- Define clusterwide restart ordering capabilities
- Enforce infrastructural or intra-app dependencies during failover
- Describe vSphere HA heartbeat networks and datastore heartbeats
- Introduce 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
- Introduce vSphere Replication
- Use vSphere Data Protection to back up and restore data

10. vSphere DRS

- Describe the functions and benefits of a vSphere DRS cluster
- Configure and manage a vSphere DRS cluster
- Work with affinity and anti-affinity rules
- Describe the new capabilities for what-if analysis and proactive vSphere DRS
- Highlight the evolution of vSphere DRS using predictive data from VMware vRealize Operations Manager
- Perform preemptive actions to prepare for CPU or memory changes
- Describe the vCentre 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

11. vSphere Update Manager

- Describe the 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

Prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems
- Basic Knowledge on Networking and Storage

Who Should Attend:

- Systems Administrators & System Engineers
- People who are looking forward to move their career in the Data centre Technologies.

Number of Hours: 40hrs

Certification: VCA & VCP 6.7

Key Features:

- One to One Training
- Online Training
- Fastrack & Normal Track
- Resume Modification
- Mock Interviews
- Video Tutorials
- Materials
- Real Time Projects
- Virtual Live Experience
- Preparing for Certification