

VMware Data Center Virtualization: Core Technical Skills

Duration: 3 Days **Course Code: VMDCVCTS** **Delivery Method: Virtual Learning**

Overview:

This four-day, hands-on training course is an introduction to VMware vSphere®. In this course, you acquire the skills needed to perform Day 2 operational tasks that are typically assigned to the roles of operator or junior administrator in a vSphere environment.

Product Alignment VMware ESXi 7.0 VMware vCenter Server 7.0

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

Technical professionals with basic system administration skills and operators responsible for managing virtual machines using VMware ESXi and VMware vCenter Server

Objectives:

- By the end of the course, you should be able to meet the following objectives:
- Describe virtualization and virtual machines
- Describe vSphere components and the software-defined data center (SDDC)
- Explain the concepts of server, network, and storage virtualization
- Monitor network and datastore configurations in VMware vSphere Client
- Deploy, configure, and clone virtual machines
- Migrate, monitor, and manage virtual machines
- Monitor tasks and events in VMware vSphere Client
- Recognize how vSphere DRS and VMware vSphere High Availability improve performance and availability of a vSphere cluster

Prerequisites:

This course has the following prerequisites:

- Working knowledge of operating systems
- Understanding of basic network, storage, and computer hardware concepts

Testing and Certification

Attending this course is recommended to achieve the following certification:

- VMware Certified Technical Associate - Data Center Virtualization (VCTA-DCV)

Content:

1 Course Introduction

- Introductions and course logistics
- Course objectives

2 Virtualization and vSphere Concepts

- Describe how virtual machines (VMs) work
- Recognize the purpose of a hypervisor
- Describe how VMs share resources in a virtualized environment
- Recognize the components of an SDDC
- Describe the relationship between vSphere, the SDDC, and cloud computing
- Recognize the functions of the components in a vSphere environment
- Access and view vSphere graphical user interfaces
- Identify VMware solutions that integrate with vSphere in the SDDC

3 Navigating the vSphere Client

- View and organize the inventory objects managed by vCenter Server
- Add and assign vSphere licenses
- Change the log level of vCenter Server
- Edit the startup policy of ESXi services
- Describe how vCenter Server roles and permissions work
- Add permissions to virtual machines

4 Lifecycle of Virtual Machines

- Add and remove VM virtual hardware components
- Identify the purpose of different VM files
- Configure VM settings
- Create and delete virtual machines
- Recognize the benefits of installing VMware Tools
- Install VMware Tools into a guest operating system
- Upgrade VMware Tools and VM hardware compatibility

5 vSphere Networking

- Describe virtual networking
- Recognize ways that virtual switches connect VMs and ESXi hosts to the network
- View components and properties of a vSphere standard switch configuration
- View a vSphere distributed switch configuration in vSphere Client
- Recognize when and how to use the settings for the security networking policy
- Recognize when and how to use the settings for the traffic shaping networking policy
- Describe how the NIC teaming and failover policy helps maintain network connectivity
- Perform basic checks to diagnose VM connectivity issues

6 vSphere Storage

- Describe the function of a datastore
- Recognize types of vSphere datastores
- View datastore information in vSphere Client
- Monitor datastore usage in vSphere Client

7 Virtual Machine Management

- Recognize the benefits of using VM templates
- Create and update a VM template
- Deploy a VM from an existing template
- Clone a virtual machine
- Recognize how to use guest OS customization specifications
- Deploy VMs from a content library
- Deploy a virtual appliance from an OVF template
- Perform a hot and cold migrations of VMs
- Identify requirements for using VMware vSphere Storage vMotion
- Perform a vSphere Storage vMotion migration
- Identify use cases for VM snapshots
- Create and manage snapshots of a virtual machine

8 Resource Monitoring

- Recognize the purpose of each type of VM resource control
- Configure the resource allocation settings of a VM
- Observe the behavior of virtual machines with different share values
- Manage and acknowledge vSphere alarms
- Use performance charts to monitor VM CPU and memory usage
- Monitor tasks and events in vSphere Client

9 vSphere Clusters

- View information about the services that a vSphere cluster offers
- Recognize how vSphere HA responds to different types of failures
- Monitor vSphere HA during a host failure
- Describe how vSphere DRS works
- Interpret DRS scores given to VMs
- Recognize how to apply the appropriate vSphere DRS automation and migration threshold levels
- Describe how vSphere Fault Tolerance works
- Recognize how Enhanced vMotion Compatibility works

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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