VMware vSphere: Fast Track [7]

Learn via: **Classroom**

Duration: **5 Day**

https://bilginc.com/en/training/vmware-vsphere-fast-track-7-5472-training/

Overview

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This five-day, intensive course takes you from introductory to advanced VMware vSphere® 7 management skills. Building on the installation and configuration content from our best-selling course, you will also develop advanced skills needed to manage and maintain a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you will install, configure and manage vSphere 7. You will explore the features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect. This course prepares you to administer a vSphere infrastructure for an organization of any size using vSphere 7, which includes VMware ESXi™ 7 and VMware vCenter Server® 7.

Product Alignment

ESXi 7

vCenter Server 7

Intended Audience:

System administrators

System engineers

Prerequisites

In order to facilitate your VMware e-courseware provision QA will share your name and email address (that which we have registered for you on our business systems) with VMware. VMware will then send you directly the details of your e-courseware access no less than 48 hours before your course is due to take place. VMware will not use these details for any other purpose than provisioning you with your e-courseware.

Please note that these details are held by VMware outside of the EU. If you have an existing VMware MyLearn account it is imperative that you notify QA of the email address you have registered to this account. Should you have any questions or concerns about this please contact your QA account manager.

Those delegates who are attending via either virtual or extended classroom will be required to provide either dual monitors or single monitor plus a tablet device.

Technical pre-requisites

- System administration experience on Microsoft Windows or Linux operating systems

Please note: In order to provision you with your courseware and lab access for this course QA must share several items of basic personal information with our partner (usually your full name and email address). For more information on this please visit our **QA Partner data sharing page**. If you have any questions or concerns please contact your QA account manager.

What You Will Learn

By the end of the course, you should be able to meet the following objectives:

- Describe the software-defined data center (SDDC)
- Explain the vSphere components and their function in the infrastructure
- Install and configure VMware ESXi™ hosts
- Deploy and configure VMware vCenter® Server Appliance™
- Use VMware vSphere® Client™ to manage the vCenter Server inventory and the vCenter Server configuration
- Manage, monitor, back up, and protect vCenter Server Appliance
- Create virtual networks with vSphere standard switches
- Describe the storage technologies supported by vSphere

- Configure virtual storage using iSCSI and NFS storage
- Create and manage VMware vSphere® VMFS datastores
- Use the vSphere Client to create virtual machines, templates, clones, and snapshots
- Create a content library and deploy virtual machines from templates in the library
- Manage virtual machine resource use and manage resource pools
- Migrate virtual machines with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
- Create and manage a vSphere cluster that is enabled with VMware vSphere® High Availability and VMware vSphere® Distributed Resource Scheduler™
- Create virtual networks with VMware vSphere® Distributed Switch™ and enable distributed switch features
- Discuss solutions for managing the vSphere life cycle
- Use VMware vSphere® Lifecycle Manager™ to apply patches and perform upgrades to ESXi hosts and virtual machines
- Use host profiles to manage ESXi configuration compliance
- Describe how vSphere storage APIs help storage systems integrate with vSphere
- Configure and use virtual machine storage policies
- Discuss the purpose and capabilities of VMware vSphere® with Kubernetes and how it fits into the VMware Tanzu™ portfolio

Outline

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1 Course Introduction

Introductions and course logistics

Course objectives

2 Introduction to vSphere and the Software-Defined Data Center

Explain basic virtualization concepts

Describe how vSphere fits into the software-defined data center and the cloud infrastructure

Explain how vSphere interacts with CPUs, memory, networks, and storage

Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts

Use VMware Host Client™ to access and manage ESXi host

3 Virtual Machines

Create and remove a virtual machine

Provision a virtual machine with virtual devices

Identify the files that make up a virtual machine

Explain the importance of VMware Tools™

4 vCenter Server

Describe the vCenter Server architecture

Discuss how ESXi hosts communicate with vCenter Server

Deploy and configure vCenter Server Appliance

Use the vSphere Client to manage the vCenter Server inventory

Add data center, organizational objects, and hosts to vCenter Server

Use roles and permissions to enable users to access objects in the vCenter Server inventory

Back up vCenter Server Appliance

Monitor vCenter Server tasks, events, and appliance health

Use vCenter Server High Availability to protect a vCenter Server Appliance

5 Configuring and Managing Virtual Networks

Create and manage standard switches

Describe the virtual switch connection types

Configure virtual switch security, traffic-shaping and load-balancing policies

Compare vSphere distributed switches and 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 VMFS and NFS datastores

Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage

Deploy virtual machines on a VMware vSAN™ datastore

7 Virtual Machine Management

Use templates and cloning to deploy new virtual machines

Modify and manage virtual machines

Create a content library and deploy virtual machines from templates in the library

Dynamically increase the size of a virtual disk

Use customization specification files to customize a new virtual machine

Perform vSphere vMotion and vSphere Storage vMotion migrations

Create and manage virtual machine snapshots

Examine the features and functions of VMware vSphere® Replication™

8 Resource Management and Monitoring

Discuss CPU and memory concepts in a virtualized environment

Describe what overcommitment of a resource means

Describe methods for optimizing CPU and memory usage

Use various tools to monitor resource use

Create and use alarms to report certain conditions or events

9 vSphere Clusters

Describe options for making a vSphere environment highly available

Explain the vSphere HA architecture

Configure and manage a vSphere HA cluster

Examine the features and functions of VMware vSphere® Fault Tolerance

Configure a vSphere cluster using ESXi Cluster Quickstart

Describe the functions of a vSphere DRS cluster

Create a vSphere DRS cluster

10 Network Scalability

Configure and manage vSphere distributed switches

Describe how VMware vSphere® Network I/O Control enhances performance

Explain distributed switch features such as port mirroring and NetFlow

11 vSphere Lifecycle Management

Describe how VMware vSphere® Lifecycle Manager™ works

Use vSphere Lifecycle Manager to update ESXi hosts in a cluster

12 Host and Management Scalability

Use host profiles to manage ESXi configuration compliance

Create and manage resource pools in a cluster

13 Storage Scalability

Explain why VMware vSphere® VMFS is a high-performance, scalable file system

Explain VMware vSphere® Storage APIs - Array Integration, VMware vSphere® API for Storage Awareness™, and vSphere APIs for I/O Filtering

Configure and assign virtual machine storage policies

Create VMware vSAN™ storage policies

Configure VMware vSphere® Storage DRS™ and VMware vSphere® Storage I/O Control

Discuss vSphere support for NVMe and iSER

14 Introduction to vSphere with Kubernetes

Differentiate between containers and virtual machines

Identify the parts of a container system

Recognize the basic architecture of Kubernetes

Describe a basic Kubernetes workflow

Describe the purpose of vSphere with Kubernetes and how it fits into the VMware Tanzu portfolio

Explain the vSphere with Kubernetes supervisor cluster

Describe the Tanzu Kubernetes Grid service