

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

CODE STAGE : AS743D

OBJECTIFS

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

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

DURÉE

5 jours

PUBLIC

System administrators

System engineers

PRÉ-REQUIS

This course has the following prerequisites:

System administration experience on Microsoft Windows or Linux operating systems

PROGRAMME

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 Software-Defined 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 load-balancing 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 overcommitment 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

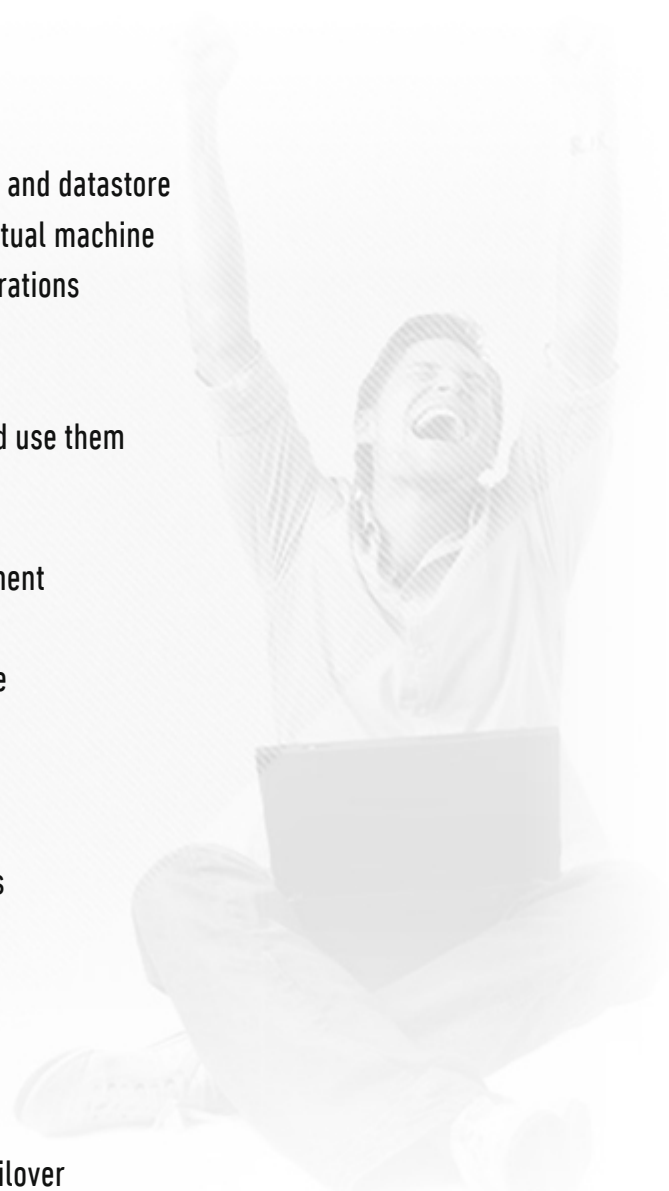
9 vSphere HA, vSphere Fault Tolerance, and Protecting Data

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

