

## VMware vSphere : Install, Configure, Manage V8

### vSphere 8 : Install Configure & Manage

This hands-on training course explores installation, configuration, and management of VMware vSphere®, which consists of VMware ESXi™ and VMware vCenter™ Server.

The course is based on ESXi 8.0 and vCenter Server 8.0

Completion of this course satisfies the prerequisite for taking the VMware® Certified Professional 6 exam. Students who complete this course may enroll in any of several more advanced vSphere courses.

For advanced course options, see [www.vmware.com/education](http://www.vmware.com/education)

#### Détails

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|--|---|--|
| • <b>Code</b> : vSphereICM             | <b>Public</b>                                       | <b>Pré-requis</b>  |
| • <b>Durée</b> : 5 jours ( 35 heures ) | • Operators responsible for ESXi and vCenter Server | • System administration experience on Microsoft Windows or Linux operating systems |
|  | • System administrators                             |  |
|  | • Systems engineers                                 |  |

#### Objectifs

- Install and configure ESXi; vCenter Server components
- Configure and manage ESXi networking and storage using vCenter Server
- Deploy, manage, and migrate virtual machines
- Manage user access to the VMware infrastructure
- Use vCenter Server to monitor resource usage

#### Programme

##### 1 Course Introduction

- Introductions and course logistics
- Course objectives

##### 2 Introduction to VMware Virtualization

- Introduce virtualization, virtual machines, and vSphere components
- Explain the concepts of server, network, and storage virtualization
- Describe where vSphere fits into the cloud architecture
- Install and use vSphere user interfaces

##### 3 Create Virtual Machines

- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Deploy a single virtual machine

##### 4 VMware vCenter Server

- Introduce vCenter Server architecture
- Introduce vCenter Server appliance
- Configure and manage vCenter Server appliance
- Manage vCenter Server inventory objects and licenses

##### 5 Configure and Manage Virtual Networks

- Describe, create, and manage a standard virtual switch
- Describe and modify standard virtual switch properties
- Configure virtual switch load-balancing algorithms

##### 6 Configure and Manage Virtual Storage

- Introduce storage protocols and device names
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage vSphere datastores
- Deploy and manage the VMware vSphere® Storage Appliance

##### 7 Virtual Machine Management

- Deploy virtual machines using templates and cloning
- Modify and manage virtual machines
- Create and manage virtual machine snapshots
- Perform VMware vSphere® vMotion® and Storage vMotion migrations
- Create a vSphere vApp

##### 8 Data Protection

- Discuss a strategy for backing up ESXi hosts and vCenter Server
- Introduce the VMware Data Recovery appliance
- Discuss solutions for backing up virtual machines efficiently

##### 9 Access and Authentication Control

- Control user access through roles and permissions
- Configure and manage the ESXi firewall
- Configure ESXi lockdown mode
- Integrate ESXi with Active Directory
- Introduce VMware vShield Zones

## 10 Resource Management and Monitoring

- Introduce virtual CPU and memory concepts
- Describe methods for optimizing CPU and memory usage
- Configure and manage resource pools
- Monitor resource usage using vCenter Server performance graphs and alarms

## 11 High Availability and Fault Tolerance

- Introduce new vSphere High Availability (HA) architecture
- Configure and manage a vSphere High Availability cluster
- Introduce VMware Fault Tolerance

## 12 Scalability

- Configure and manage a VMware Distributed Resource Scheduler (DRS) cluster

- Configure Enhanced vMotion Compatibility
- Use vSphere HA and DRS together

## 13 Patch Management

- Manage ESXi patching using vCenter Update Manager
- Install Update Manager and Update Manager plug-in
- Create patch baselines
- Scan and remediate hosts

## 14 Installing VMware Components

- Introduce ESXi installation
- Describe boot from SAN requirements
- Introduce vCenter Server deployment options
- Describe vCenter Server hardware, software, and database requirements
- Install vCenter Server (Windows based)

## Modalités

- **Type d'action** :Acquisition des connaissances
- **Moyens de la formation** :Formation présentielle – 1 poste par stagiaire – 1 vidéo projecteur – Support de cours fourni à chaque stagiaire
- **Modalités pédagogiques** :Exposés – Cas pratiques – Synthèse
- **Validation** :Exercices de validation – Attestation de stages