

# VMware vSphere 7 : Installation, Configuration et Management

Référence : VMW107

Durée : 5 jours

Certification : VCP-DCV

Code CPF : RS69

## CONNAISSANCES PREALABLES

- System administration experience on Microsoft Windows or Linux operating systems.

## PROFIL DES STAGIAIRES

- System administrators. • System engineers.

## OBJECTIFS

- 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.

## CERTIFICATION PREPAREE

- Cette formation prépare à la certification VCP-DCV (VMware Certified Professional Data Center Virtualisation). Pour en savoir plus sur cette certification [cliquez ici](#) et accédez aux informations complètes fournies par France Compétences

## METHODES PEDAGOGIQUES

- Mise à disposition d'un poste de travail par stagiaire
- Remise d'une documentation pédagogique papier ou numérique pendant le stage
- La formation est constituée d'apports théoriques, d'exercices pratiques, de réflexions et de retours d'expérience
- Le suivi de cette formation donne lieu à la signature d'une feuille d'émargement

## FORMATEUR

Consultant-Formateur expert vSphere

## METHODE D'EVALUATION DES ACQUIS

- Auto-évaluation des acquis par le stagiaire via un questionnaire
- Attestation de fin de stage adressée avec la facture

## CONTENU DU COURS

### Course Introduction

- Introductions and course logistics
- Course objectives

### 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

### 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™

### **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

### **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

### **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

### **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™

### **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

### **vSphere Cluster**

- 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

### **vSphere Lifecycle**

- Describe how VMware vSphere® Lifecycle Manager™ works
- Use vSphere Lifecycle Manager to update ESXi hosts in a cluster