

# Course : VMware vSphere 8, clustering and high availability

*Practical course - 3d - 21h00 - Ref. V8C*

*Price : 2630 CHF E.T.*

NEW

Cette formation vous apprendra à implémenter une infrastructure VMware vSphere 8 hautement disponible. Il vous montrera comment mettre en place des clusters de VM (machines virtuelles) sous VMware et assurer une disponibilité complète des VM avec VMware Fault Tolerance Multiprocesseur.

## Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Implement a highly available VMware vSphere 8 infrastructure
- ✓ Ensure complete availability of virtual machines with VMware Fault Tolerance
- ✓ Automatically distribute virtual machine files and avoid disk contention
- ✓ Set up and configure an advanced VMware DRS cluster
- ✓ Reduce VMware infrastructure power consumption with VMware Distributed Power Management
- ✓ Deploy ESXi servers in PXE with VMware Auto Deploy

## Intended audience

Administrators and system architects with experience of the VMware vSphere software suite who want to acquire advanced knowledge.

## Prerequisites

Good knowledge of VMware vSphere administration.

## Course schedule

### 1 Service continuity

- Network and storage redundancy.
- High availability: maintenance of ESXi and storage, virtual machines and vCenter.
- Disaster Recovery Plan.

### PARTICIPANTS

Administrators and system architects with experience of the VMware vSphere software suite who want to acquire advanced knowledge.

### PREREQUISITES

Good knowledge of VMware vSphere administration.

### TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

### ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more. Participants also complete a placement test before and after the course to measure the skills they've developed.

## 2 Setting up clusters

- Supported VM cluster architectures.
- VMware cluster configuration.

### Hands-on work

VM cluster configuration.

## 3 VMware High Availability clusters

- Architecture and operation of vSphere HA.
- VMware HA cluster: configuration, monitoring.
- Slot size management and calculation.
- Manage admission rules.

### Hands-on work

Using HA in a VM cluster. Configuring VMware HA Admission Control Policies. Monitoring VMware HA.

## 4 VMware Fault Tolerance

- Overview, implementation and configuration.
- Best practices.

### Hands-on work

Implementation of Fault Tolerance technology for VM protection.

## 5 Storage resource management

- How the different virtual hard disk formats work.
- Dynamic management of VMFS volumes.
- vStorage API for Array Integration primitives.
- Setting up storage profiles for VMs.
- Presentation and creation of Datastore clusters.
- Set up and configure VMware Storage DRS.

### Hands-on work

VMware Storage DRS implementation.

## 6 VMware DRS clusters

- Detailed description of VMware DRS.
- Set up and configure a DRS cluster.
- Configure VM affinity rules, DRS and DPM groups.

### Hands-on work

Optimization of load and energy consumption via vSphere DRS.

## 7 VMware Enhanced VMotion

- VMotion between vCenter servers.
- VMotion between virtual switches.
- VMotion long distance.

### Hands-on work

Using Enhanced VMotion.

## TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

## TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

## ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

## 8 Deploying ESXi servers

- VMware Host Profile: maintaining ESXi compliance.
- Creating customized ESXi installation packages with Image Builder.
- VMware Auto Deploy: automated ESXi deployment.

### Hands-on work

Deploy ESX/ESXi servers with Host profiles and Auto Deploy.