



MFE-IT

Reference: YAS/EN/CDV

VMware vSphere and vSAN Training Course

High-Availability Data Centre Virtualisation and Software-Defined Storage

Duration: 5 Days | Hours: 35 h

Remote · Sessions guaranteed from 1 registrant · 60% hands-on practice

DESCRIPTION

In the context of IT modernisation, resource virtualisation remains a strategic lever — even after Broadcom's acquisition of VMware reshaped the licensing landscape. vSphere remains the dominant on-premises virtualisation platform, and vSAN provides software-defined storage tightly integrated into the same hypervisor stack.

This training course will enable you to master VMware vSphere for managing virtual machines in a data centre environment, while integrating vSAN for high-performance, redundant hyperconverged storage administered from the vCenter console. You will learn how to create clusters, ensure high availability, optimise performance and secure the entire environment.

LEARNING OBJECTIVES

By the end of this training course, participants will be able to:

- Understand vSphere, ESXi, vCenter and vSAN architecture
- Deploy a complete VMware environment (compute and storage)
- Create, configure and manage virtual machines
- Implement a vSAN cluster for reliable distributed storage
- Ensure high availability (HA), DRS and fault tolerance
- Monitor, diagnose and optimise performance

PREREQUISITES

- Good knowledge of server operating systems (Linux or Windows)
- Basic knowledge of networking, storage (SAN/NAS), security and IP management
- Previous experience in virtualisation is a plus

Because each participant is unique, a personalised interview is systematically organised in advance with our expert to design a training programme perfectly aligned with their objectives, level and professional challenges.

TARGET AUDIENCE

System administrators, virtualisation engineers and IT architects working on enterprise data centre infrastructures.

DETAILED PROGRAMME

The training alternates between theoretical input and hands-on practice (approximately 60% of the time). Modules are built around practical exercises based on real-world business use cases.

Module 1 – Introduction to vSphere and Data Centre Architecture

- ESXi components and vCenter Server
- VMFS, NFS and storage in virtualised architectures
- Compute and storage roles in modern data centres

Module 2 – vSphere Deployment and Configuration

- ESXi installation and host onboarding
- Adding hosts to vCenter and creating datastores
- Network integration: vSwitches, vDS and VLANs

Module 3 – Virtual Machine Management

- VM creation, snapshots and templates
- vMotion live migration and Storage vMotion
- Automated VM deployment and OVF/OVA

Module 4 – Clustering, HA and Fault Tolerance

- HA and DRS cluster configuration
- Resource management and admission control
- Fault Tolerance (FT) and proactive HA

Module 5 – vSAN: Hyperconverged Storage

- vSAN principles and storage policies
- Redundancy, resilience and stretched clusters
- Implementing and operating a vSAN cluster

Module 6 – Supervision, Security and Optimisation

- Monitoring with vCenter and alarm configuration
- Host hardening and security baselines
- CPU, memory and disk performance optimisation

TEACHING METHODS

Format and Delivery

The training is delivered remotely via an interactive virtual classroom. It can also be delivered on-site, with content customised to match the needs of your professional project. The theory/practice split is approximately 40%/60%.

MFE-IT Ultra-Personalised Format

Each session accommodates between 1 and 3 participants, ensuring highly individualised support. A preliminary interview allows us to tailor the content to each participant's profile. Inter-company sessions are guaranteed from just 1 registrant (except in cases of force majeure).

Skills Assessment

Throughout the training, the trainer assesses participant progress through multiple-choice questions, role-playing exercises and hands-on work. At the end, a certificate of achievement is issued to each participant.

Post-Training Support

For one month following the training, each participant can contact MFE-IT trainers with questions about implementing acquired knowledge. A response is provided by email or telephone within 48 working hours.

Accessibility

MFE-IT is committed to welcoming people with disabilities. Contact: contact@mfe-it.com.

PRACTICAL INFORMATION

Trainer Resources

- Structured demonstrations aligned with the detailed programme
- Exercise briefs and solutions throughout the training
- A ready-to-use technical environment for practical workshops
- Trainer validation of acquired knowledge at the end of each workshop
- Digital reference documents

Certification and Validation

At the end of the training, a certificate is sent by email specifying the objectives, nature, duration and assessment results. A completion certificate can also be provided on request.

Benefits for Participants

- Train from your workplace or home, with no travel required
- Benefit from an expert trainer-consultant on the subject
- Enjoy an ultra-personalised format (1 to 3 participants)
- Continue training even in the event of unforeseen circumstances

Benefits for the Organisation

- Optimise the training budget by reducing travel and accommodation costs
- Offer quality training to all employees, regardless of location
- Reduce absence time linked to travel
- Support team upskilling in all contexts