Course : VMware vSphere 7, optimization and advanced features

Practical course - 5d - 35h00 - Ref. PHR
Price : 4120 CHF E.T.

★★★★☆ 4,4 / 5

BEST

This course will enable you to acquire the advanced skills and knowledge needed to configure and maintain a scalable, high-availability virtual infrastructure.

🎯 Teaching objectives

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

- ✓ Understand CPU, memory, network and storage resource allocation in a vSphere environment
- ✓ Identify the main problems with CPU, memory, network and storage performance
- ✓ Implement a virtual storage architecture to adapt to changes in infrastructure
- ✓ Setting up Distributed Switches and using their advanced features
- ✓ Improving deployment and configuration of ESXi servers
- ✓ Secure the vSphere environment with certificates, encryption and access authorization management

Intended audience

Administrators and system architects with experience of the VMware vSphere 7 software suite (ESXi Server 7 and vCenter 7).

Prerequisites

Completion of the course "Installation, configuration and administration of vSphere 7.X" (or earlier) or operational experience with the vSphere 7.X suite (or earlier).

PARTICIPANTS

Administrators and system architects with experience of the VMware vSphere 7 software suite (ESXi Server 7 and vCenter 7).

PREREQUISITES

Completion of the course "Installation, configuration and administration of vSphere 7.X" (or earlier) or operational experience with the vSphere 7.X suite (or earlier).

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.

Practical details

Hands-on work

We provide a platform of ESX servers connected over a gigabit network and linked to Fibre Channel, iSCSI and NFS SAN racks.

Course schedule

1 **Command line overview**

- Overview of VMware command lines.
- esxcli commands.
- Other controls.

2 **Performance in a virtualized environment**

- Performance factors in virtual environments.
- Performance monitoring with vCenter and esxtop.

3 **Securing vSphere**

- Authentication services and Identity Federation.
- VMware Certificate Authority.
- High availability of vCenter via vCenter HA.

4 **Distributed Virtual Switches**

- Create, configure and manage distributed virtual switches (VDS).
- Migration from standard virtual switches to distributed virtual switches.
- Command-line network configuration.
- Understand NetFlow, Port Mirroring and LACP management.
- Private VLANs (PVLANs).
- Network I/O Control.

5 **Network performance**

- Set up a network traffic analyzer.
- Understand the functionalities of network adapters.
- Monitor network performance metrics.
- Troubleshoot classic network performance problems.

6 **Storage scalability**

- Understand and configure storage multipathing.
- Understand VAAI and VASA storage drivers.
- Setting up and using storage profiles for VMs.
- Datastore clusters.
- Set up and configure VMware Storage DRS and Storage IO Control.
- Content Libraries.

7 **Access management and storage performance**

- Storage performance factors (protocols, VMFS, load-balancing).
- Monitor key storage-related metrics.
- Identify and troubleshoot major storage-related performance problems.

(8) Optimized server deployment and management

- ESXi compliance and deployment with VMware Host Profile.
- Use Image Builder to create an ESXi installation image.
- Use vSphere Auto Deploy to deploy ESXi hosts.
- Fault Tolerance Multi-vCPU.

(9) Processor performance

- Understand the features of the CPU Scheduler.
- Monitor CPU resources.
- Troubleshoot common CPU performance problems.

(10) Memory performance

- Understand memory management and allocation techniques on ESXi.
- Monitor memory-related metrics.
- Troubleshoot standard memory performance problems.

Dates and locations

REMOTE CLASS
2026 : 9 Mar., 1 June, 14 Sep., 23 Nov.