

# Course : Proxmox Level 2: Advanced administration

Practical course - 3d - 21h00 - Ref. PXB

Price : 2240 € E.T.



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NEW

This advanced training course is aimed at administrators wishing to deepen their knowledge of Proxmox VE and optimize their virtualization infrastructure. It covers key topics such as cluster management, performance optimization and high availability.

## Teaching objectives

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

- ✓ Setting up a Proxmox cluster for high availability
- ✓ Manage virtual machine (VM) migration between nodes
- ✓ Securing the Proxmox environment (firewall, Access Control List (ACL))
- ✓ Automate administration with scripts and APIs
- ✓ Optimize VM and storage performance
- ✓ Supervision and advanced troubleshooting

## Intended audience

Administrators and system architects wishing to quickly get to grips with the Proxmox software suite.

## Prerequisites

Good knowledge of Proxmox or knowledge equivalent to that acquired with the training course "Proxmox, level 1" (ref. PXA).

## Course schedule

### 1 Cluster operation

- Notions of cluster, master and nodes.
- Add nodes to a cluster.
- Centralized management via web interface.

### Hands-on work

Creation of a Proxmox cluster with two nodes.

## PARTICIPANTS

Administrators and system architects wishing to quickly get to grips with the Proxmox software suite.

## PREREQUISITES

Good knowledge of Proxmox or knowledge equivalent to that acquired with the training course "Proxmox, level 1" (ref. PXA).

## 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 Migration and load balancing

- Manual and automatic migration of VMs between nodes.
- Impact of migration on server load.
- Introduction to high availability (HA).

### Hands-on work

Migration of a VM between two Proxmox nodes.

## 3 Securing the Proxmox environment

- Permission and user management.
- Proxmox firewall configuration.
- Secure access (SSH, web interface, etc.).

### Hands-on work

Set up access restrictions on a VM.

## 4 Optimizing VM and storage performance

- Adjustment of Central Processing Unit (CPU) and Random Access Memory (RAM) resources.
- Disk and cache management (ZFS, Ceph).
- Performance monitoring and troubleshooting.

### Hands-on work

Analyze VM performance and optimize storage.

## 5 Automated administration

- Introduction to Proxmox scripting (bash, REST API).
- Automate VM deployment.
- Automated backups with cron.

### Hands-on work

Script for automatic VM creation and configuration.

## 6 Supervision and advanced troubleshooting

- Analysis of system logs and Proxmox logs.
- Troubleshooting common errors.
- Integration with an external monitoring solution (Zabbix, Grafana).

### Hands-on work

Troubleshooting a network problem on a VM and analyzing logs.

## Dates and locations

### REMOTE CLASS

2026: 18 Mar., 22 June, 7 Oct., 25 Nov.

### PARIS LA DÉFENSE

2026: 15 June, 30 Sep., 18 Nov.

## 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](mailto:psh-accueil@orsys.fr) to review your request and its feasibility.