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# Proxmox VE training: master container virtualization

2 days (14 hours)

## Presentation

Our Proxmox VE training course will enable you to master a powerful bare-metal virtualization and container management solution, offering a complete set of tools for creating and managing virtualized environments. This course will introduce you to the inner workings of Proxmox VE, enabling you to become a virtualization expert.

This Proxmox VE training course will teach you the fundamental concepts of virtualization and familiarize you with the installation and initial configuration of the tool. You'll also explore the user interface and take your first steps with the command line. You'll learn how to use KVM on Linux to run multiple virtual machines and orchestrate application containers.

At the end of this course, you'll also be able to create VMs efficiently, use templates to simplify deployment, and manage your advanced VMs. Backup techniques and snapshot management will also be covered.

## Objectives

- Master the installation and initial configuration of Proxmox VE
- Understand the fundamental concepts of virtualization and container management
- Learn how to efficiently create and manage Virtual Machines (VMs)

## Target audience

- System and Network Administrators
- Cloud engineers

## Prerequisites

- Basic knowledge of Linux systems

## Our Proxmox VE certification training program

### Introduction to Proxmox VE

- Why Proxmox VE?
- Understanding virtualization
- Initial installation of Proxmox VE
- KVM configuration
- Configuration of basic parameters
- Exploring the user interface
- Getting started with the command line

### Virtual Machine (VM) management

- Simple VM creation
  - Use templates to accelerate deployment
  - VM task automation
- Advanced VM management
- Snapshots for backup
- Migration and cloning
- Container management

### Storage and Networking

- Local storage configuration
- External storage integration
- Optimizing storage performance
- Network management
- Creating network bridges
- VPN configuration for security

### High Availability and Backup

- High availability configuration
- Proxmox cluster management
- Scheduling regular backups
- Data restoration in the event of a breakdown
- Node health monitoring

### Security and Updates

- User and group management
- Secure access to the web interface
- Update management
- Tracking security patches
- Response to security incidents
- Logging and auditing

## Performance Optimization

- Monitor system resources
- Diagnose performance problems
- VM optimization for specific workloads
- Automation of maintenance tasks
- Best practice in performance
- Preparing for certification

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.

