Datasheet

Proxmox Virtual Environment

AT A GLANCE

- Complete virtualization solution for production environments
- KVM hypervisor
- Lightweight Linux containers (LXC)
- Web-based management interface
- Comprehensive management feature-set
- Multi-node highly available clusters (HA)
- VM templates and clones
- Live migration
- Proxmox VE Firewall
- Multiple storage types supported like Ceph, NFS, ZFS, Gluster, iSCSI,...
- Backup/Restore
- Open-source license GNU AGPL, v3

OVERVIEW

Proxmox VE is a complete open-source solution for enterprise virtualization that tightly integrates KVM hypervisor and LXC containers, software-defined storage and networking functionality on a single platform. With the central built-in web interface you can easily run VMs and containers, manage software-defined storage and networking functionality, high-availability clustering, and multiple integrated out-of-the-box tools like backup/restore, live migration, replication, and the firewall. Proxmox VE allows to virtualize even the most demanding Linux and Windows application workloads.

By combining two virtualization technologies, Proxmox VE is giving maximum flexibility to your virtual IT environment. It includes strong high-availability (HA) support and thanks to the unique multi-master design there is no need for an additional management server thus saving resources and allowing high availability without single point of failures (SPOF).

ENTERPRISE-READY

Enterprises use the powerful yet easy-to-manage solution Proxmox VE to deploy hyper-converged clusters in their data center. Multiple authentication sources combined with role based user and permission management enable full control of your HA clusters. The REST API enables easy integration of third party management tools such as custom hosting environments.

The future-proof open source development model of Proxmox VE guarantees full access to the products source code as well as maximum flexibility and security.

KEY FEATURES

INDUSTRY-LEADING ENTERPRISE VIRTUALIZATION TECHNOLOGY

- Linux and Windows Servers, 32 and 64 bit operation systems
- Support for the latest Intel and AMD server chipsets for great VM performance
- Leading performance relative to bare metal for real-world enterprise workloads
- Management layer contains all the capabilities required to create and manage a virtual infrastructure

OPEN-SOURCE SOFTWARE

- Licensed under the free, copyleft GNU Affero General Public License, version 3 (AGPL, V3: http://www.gnu.org/licenses/agpl-3.0.html)
- Designed to ensure cooperation with community
- Public code repository (GIT)
- Bugtracker
- Public community forum
- Free Wiki for documention and HowTo´s

RESTFUL WEB API

- Easy integration for third party management tools like custom hosting environments
- REST like API (JSON as primary data format, and the whole API is formally defined using JSON Schema)
- Easy and human readable data format (native web browser format)
- Automatic parameter verification (verification of return values)
- Automatic generation of API documentation
- Easy way to create command line tools (use the same API)
- Resource Oriented Architecture (ROA)
- Declarative API definition using JSON Schema

HIGH AVAILABILITY CLUSTER

- No single point of failure (no SPOF)
- Mulit-master cluster (no single master)
- GUI for managing KVM and container HA settings
- pmxcfs—Proxmox VE Cluster File System: database-driven file system for storing configuration files replicated in realtime on all nodes using Corosync
- Based on proven Linux HA technologies, providing stable and reliable HA service
- Resource agents for KVM and Linux Containers (LXC)
- Watchdog based Fencing

FENCING

- Proxmox VE HA Manger uses self fencing provided by hardware Watchdog or kernel Softdog
- No simultaneous data access and corruption
- Works „out-of-the-box“
- Proxmox VE HA Simulator included for testing

INTEGRATED WEB-BASED MANAGEMENT GUI

- No need to install a separate management tool or any additional management node
- Fast search-driven interface, capable of handling thousands of VM´s
- Secure HTML5 VNC console, supporting SSL
- Wizard based creation of virtual servers and containers
- Seamless integration and management of Proxmox VE 4.x Cluster
- Subscription management via GUI
- Role based permission management for all objects (VM´s and CT´s, storages, etc.)
- Support for multiple authentication sources (e.g. local, MS ADS, LDAP, ...)
- AJAX technologies for dynamic updates of resources
- Based on Ext JS JavaScript framework.
- Cluster-wide Task and Cluster logs: The GUI shows all running tasks from the whole cluster but also the history and the syslog of each node. This includes running backup or restore jobs, live-migration or HA triggered activities

LIVE MIGRATION

- Moving QEMU virtual servers from one physical host to another without any downtime.

COMMAND LINE INTERFACE

- For advanced users
- Manage all components of your virtual environment
- CLI with intelligent tab completion and full UNIX man page documentation

KEY FEATURES

STORAGE TYPES

- Local storage, ZFS, LVM with ext3/ext4, and XFS
- Shared storage such as FC, iSCSI or NFS
- Distributed storage such as Ceph RBD or GlusterFS
- Unlimited number of storage definitions (cluster-wide)

BRIDGED NETWORKING

- Bridged networking model
- Each host with up to 4094 bridges
- TCP/IP configuration
- IPv4 and IPv6 support
- VLANs
- Open vSwitch

BACKUP AND RESTORE

- Full backups of containers and VMs
- Live Snapshot Backups
- Multiple schedules and backup storages
- GUI integrations, but also via CLI
- "Backup Now" and restore via GUI
- All jobs from all nodes can be monitored via the GUI tab “Tasks”

PROXMOX VE FIREWALL

- Linux-based netfilter technology. Stateful firewall. Provides high bandwith.
- Distributed: Main configuration in Proxmox VE cluster file system, iptable rules stored in nodes.
- Supports IPv4 and IPv6
- Cluster-wide settings
- 3 levels of configuration (datacenter, host, VM/CT)
- Completely customizable allowing complex configurations via GUI or CLI
- Quick setup with predefined macros

MULTIPLE AUTHENTICATION SOURCES

- Proxmox VE supports multiple authentication sources
- Linux PAM standard authentication (e.g. 'root' and other local users)
- Proxmox VE authentication server (built-in)
- Microsoft Active Directory (MS ADS)
- LDAP

ROLE-BASED ADMINISTRATION

- User- and permission management for all objects (VM´s, storages, nodes, etc.)
- A role is simply a list of privileges. Proxmox VE comes with a number of predefined roles which satisfies most needs. The whole set of predefined roles can be seen on the GUI.
- Permissions are the way to control access to objects. In technical terms they are simply a triple containing <path,user,role>. This concept is also known as access control lists. Each permission specifies a subject (user or group) and a role (set of privileges) on a specific path.

VM TEMPLATES AND CLONES

- Deploying virtual machines from templates is blazing fast, very comfortable and if you use linked clones you can optimize your storage by using base images and thin-provisioning.
- Linked and Full Clones

TWO-FACTOR AUTHENTICATION

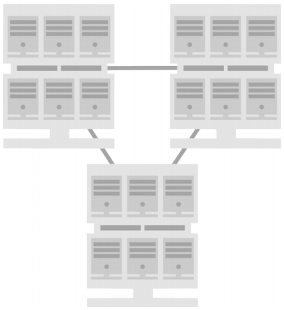
- For high security
- 2 types: Time-based One Time Passwords and YubiKey

„Exactly what we needed: High availability features, ease of use and proper integration of a shared storage technology (Ceph) without the need to set up separate storage systems.“

Martin Gollowitzer,
Voluntary System Administrator at FSFE

PROXMOX VE SUBSCRIPTIONS

Proxmox VE Subscriptions is a service program designed to help IT professionals and businesses to keep their Proxmox VE deployments stable, secure and up-to-date. A Proxmox VE Subscription enables exclusive access to the enterprise repository, to updates and to immediate professional support services for your virtualization server deployments.



PICK THE RIGHT PLAN FOR YOU AND YOUR TEAM:

	PREMIUM	STANDARD	BASIC	COMMUNITY
Access to stable Enterprise-Repository and regular updates	Yes	Yes	Yes	Yes
Complete feature-set	Yes	Yes	Yes	Yes
Technical support	via Customer Portal	via Customer Portal	via Customer Portal	Community support
Support tickets included	Unlimited	10 per year	3 per year	None *
Response time	1 business day	1 business day	1 business day	n/a
Remote support (via SSH)	Yes	Yes	No	No
Pricing	€ 796 per year & CPU	€ 398 per year & CPU	€ 249.90 per year & CPU	€ 74.90 per year & CPU

* Support from community via public forum

Note:

Subscriptions are licensed per physical server and per CPU-socket. Subscription period is one year from purchase date. All prices are net prices. VAT will be added, if applicable.

„We definitely can recommend Proxmox VE for its simplicity, its robustness and reliability, its price and the good support (if we have a problem, immediate action is taken).“

Frank Ihringer, CEO, Serwise AG

PROXMOX

LEARN MORE

Wiki: https://pve.proxmox.com

Community Forums: https://forum.proxmox.com/

Bugtracker: https://bugzilla.proxmox.com

Code repository: https://git.proxmox.com

HOW TO BUY

Visit the Proxmox Online Shop to purchase a subscription: https://shop.maurer-it.com

Find an authorized reseller in your area: www.proxmox.com/partners

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Forum: https://forum.proxmox.com

TRAINING PROXMOX VE

Learn Proxmox VE easily! Visit https://www.proxmox.com/training

ABOUT PROXMOX

Proxmox Server Solutions GmbH is a software provider dedicated to develop powerful and efficient open-source server solutions. The privately held company is based in Vienna (Europe).

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