

Proxmox Backup Server

Capitoul 14 octobre 2021

Laurent GUERBY

IMT Mines Albi

Proxmox

- Logiciel libre avec option support payant
- 3 produits / service
- <https://proxmox.com/en/proxmox-ve>
- <https://proxmox.com/en/proxmox-backup-server>
- <https://proxmox.com/en/proxmox-mail-gateway>

Pricing PBS

- <https://proxmox.com/en/proxmox-backup-server/pricing>
- 449 / 898 / 1796 / 3592 EUR HT/an
- Community / basic / standard / premium
- <https://forum.proxmox.com/>

Proxmox et debian

- PVE et PBS : base debian + repo apt
- PVE 6.x PBS 1.x = debian 10
- PVE 7.x PBS 2.x = debian 11
- Proxmox EOL \geq debian EOL
- <https://pve.proxmox.com/wiki/FAQ>

Repository Apt

- Si support payant alors acces au repo apt “enterprise” via clés a saisir dans la Web UI et reçues après paiement
- Sinon repo “no-subscription” (ou “test”)
- Entreprise plus conservateur en version que no-subscription
- https://pve.proxmox.com/wiki/Package_Repositories
- Installation via ISO ou via apt par dessus une debian

Mises à jour

- apt-get update && apt dist-upgrade
- Ou via web UI
- Changement de version majeure bien documentées
- Note : incluant mise à jour majeure ceph pour PVE
- https://pbs.proxmox.com/wiki/index.php/Upgrade_from_1.1_to_2.x
- https://pve.proxmox.com/wiki/Upgrade_from_6.x_to_7.0

Apports proxmox

- Kernel incluant ZFS
- Pour PVE qemu/KVM à jour
- Démons et command line PVE (perl) et PBS (rust) - systemd
- Fichiers de config flat file dans /etc/pve ou /etc/proxmox-backup-server
- Installeur graphique simple et efficace incluant ZFS
- Boot UEFI multi disque
- UI web port 8006 pour PVE et 8007 pour PBS

Roadmap

- <https://pbs.proxmox.com/wiki/index.php/Roadmap>
- Listes de diffusion publiques et revue de patch
- Utilisées par les salariés pour leur patch
- Patch communautaires acceptés (exemple OVS pour PVE contribué)
- Ajout progressif gestion de bandes

PBS en bref

- Sauvegarde déduplication / compression
- Pour block basé sur les bitmaps de qemu/KVM pour ne sauver que les blocks modifiés depuis le dernier backup
- Pour filesystem : peu efficace car lecture complete (pas d'optimisation mtime/ctime)
- Si VM eteinte ou KVM stop/start : relecture complete aussi
- Block : lié a PVE
- Filesystem : outil command line indépendant (linux récent)

Configuration PBS

```
root@backup2:~# cat /etc/proxmox-backup/datastore.cfg
datastore: datastore2
        path /mnt/datastore/datastore2
root@backup2:~# ls -l /etc/proxmox-backup/
total 36
-rw----- 1 root root  3243 Oct 13 10:26 authkey.key
-rw-r----- 1 root backup  800 Oct 13 10:26 authkey.pub
-rw-r----- 1 root backup 1679 Oct 13 10:26 csrf.key
-rw-r----- 1 root backup   54 Oct 13 10:37 datastore.cfg
-rw-r----- 1 root backup 3243 Oct 13 10:26 proxy.key
-rw-r----- 1 root backup 2159 Oct 13 10:26 proxy.pem
-rw-r----- 1 root backup  185 Oct 13 10:44 remote.cfg
-rw-r----- 1 root backup  137 Oct 13 10:45 sync.cfg
-rw-r--r-- 1 root root     0 Oct 13 10:30 tfa.json.lock
-rw-r----- 1 root backup   52 Oct 13 10:25 user.cfg
```

Configuration VM PVE

```
root@pollux:~# cat /etc/pve/qemu-server/8001.conf
agent: 1
bios: ovmf
boot: order=scsi0;ide2;net0
cores: 16
cpu: host
ide2: none,media=cdrom
machine: q35
memory: 65536
name: backup1
net0: virtio=56:CE:6E:89:F0:39,bridge=vmbr0
numa: 0
ostype: l26
scsi0: ssdbck1:vm-8001-disk-0,backup=0,discard=on,size=10000G,ssd=1
scsihw: virtio-scsi-pci
smbios1: uuid=e4cb598b-fb30-4ddb-be66-03511ed71576
sockets: 1
```

Configuration PBS dans PVE

```
root@pollux:~# tail -8 /etc/pve/storage.cfg
pbs: backup1
    datastore datastore1
    server 172.16.1.151
    content backup
    fingerprint xx:xx:xx:...
    prune-backups keep-all=1
    username root@pam
```

Installation ISO PBS

Proxmox Backup Server 1.1 (iso release 1) - <https://www.proxmox.com/>



Welcome to Proxmox Backup Server

Install Proxmox Backup Server (Debug mode)

Rescue Boot

Test memory

Installation ISO PBS EULA



Proxmox Backup Server

END USER LICENSE AGREEMENT (EULA)

END USER LICENSE AGREEMENT (EULA) FOR PROXMOX BACKUP SERVER

By using Proxmox Backup Server software you agree that you accept this EULA, and that you have read and understand the terms and conditions. This also applies for individuals acting on behalf of entities. This EULA does not provide any rights to Support Subscriptions Services as software maintenance, updates and support. Please review the Support Subscriptions Agreements for these terms and conditions. The EULA applies to any version of Proxmox Backup Server and any related update, source code and structure (the Programs), regardless of the the delivery mechanism.

- 1. License.** Proxmox Server Solutions GmbH (Proxmox) grants to you a perpetual, worldwide license to the Programs pursuant to the GNU Affero General Public License V3. The license agreement for each component is located in the software component's source code and permits you to run, copy, modify, and redistribute the software component (certain obligations in some cases), both in source code and binary code forms, with the exception of certain binary only firmware components and the Proxmox images (e.g. Proxmox logo). The license rights for the binary only firmware components are located within the components. This EULA pertains solely to the Programs and does not limit your rights under, or grant you rights that supersede, the license terms of any particular component.
- 2. Limited Warranty.** The Programs and the components are provided and licensed "as is" without warranty of any kind, expressed or implied, including the implied warranties of merchantability, non-infringement or fitness for a particular purpose. Neither Proxmox nor its affiliates warrants that the functions contained in the Programs will meet your requirements or that the operation of the Programs will be entirely error free, appear or perform precisely as described in the accompanying documentation, or comply with regulatory requirements.
- 3. Limitation of Liability.** To the maximum extent permitted under applicable law, under no

Abort

Previous

I agree

Installation ISO PBS disque



Installation ISO PBS FS



Proxmox Backup Server (PBS)

The Proxmox Installer automatically partitions your hard disk. It installs the system packages and makes the system bootable. All existing partitions on the hard disk will be lost.

To continue the installation, press the **Next** button.

Harddisk options	
Filesystem	ext4 xfs zfs (RAID0) zfs (RAID1) zfs (RAID10) zfs (RAIDZ-1) zfs (RAIDZ-2) zfs (RAIDZ-3)
hdspace	8.0
swapspace	
minfree	

Installation target
The hard disk will be used for the installation. All existing partitions and data will be lost.

Hardware detection
The installer automatically configures your hardware.

Web interface
The installation will be done on the web interface, via a web browser.

Target Harddisk: /dev/sda (8GB, QEMU HARDDISK) Options

Abort Previous Next

Installation ISO PBS Locale



Proxmox Backup Server

Location and Time Zone selection

The Proxmox Installer automatically makes location-based optimizations, like choosing the nearest mirror to download files from. Also make sure to select the correct time zone and keyboard layout.

Press the Next button to continue the installation.

- **Country:** The selected country is used to choose nearby mirror servers. This will speed up downloads and make updates more reliable.
- **Time Zone:** Automatically adjust daylight saving time.
- **Keyboard Layout:** Choose your keyboard layout.

Country

Time zone

Keyboard Layout

Abort

Previous

Next

Installation ISO PBS login



Administration Password and Email Address

Proxmox Backup Server is a full-featured, highly secure system, based on Debian GNU/Linux.

In this step, please provide the *root* password.

- **Password:** Please use a strong password. It should be at least 8 characters long, and contain a combination of letters, numbers, and symbols.
- **Email:** Enter a valid email address. Your Proxmox Backup Server will send important alert notifications to this email account (all emails for 'root').

To continue the installation, press the Next button.

Form fields for password and email:

Password:

Confirm:

Email:

Buttons: Abort, Previous, Next

Installation ISO PBS IP



Proxmox Backup Server

Management Network Configuration

Please verify the displayed network configuration. You will need a valid network configuration to access the management interface after installing.

After you have finished, press the Next button. You will be shown a list of the options that you chose during the previous steps.

- **IP address (CIDR):** Set the main IP address and netmask for your server in CIDR notation.
- **Gateway:** IP address of your gateway or firewall.
- **DNS Server:** IP address of your DNS server.

Management Interface:	ens18 - 2a:80:e2:51:f1:3c (virtio_net) ▼	
Hostname (FQDN):	backup2.mines-albi.fr	
IP Address (CIDR)	172.16.1.152	/ 16
Gateway:	172.16.0.1	
DNS Server:	172.16.1.73	

Abort Previous Next

Installation ISO PBS résumé



Proxmox Backup Server

Summary

Please confirm the displayed information. Once you press the **Install** button, the installer will begin to partition your drive(s) and extract the required files.

Option	Value
Filesystem:	ext4
Disk(s):	/dev/sda
Country:	France
Timezone:	Europe/Paris
Keymap:	fr
Email:	msi-tina@listes.mines-albi.fr
Management Interface:	ens18
Hostname:	backup2
IP CIDR:	172.16.1.152/16
Gateway:	172.16.0.1
DNS:	172.16.1.73


Automatically reboot after successful installation

Abort

Previous

Install

Installation ISO PBS pub



The image shows the Proxmox Backup Server installation screen. At the top, there is a black banner with the Proxmox logo (a stylized 'X' in orange and white) and the text 'PROXMOX' in white and orange. To the right of the logo, it says 'Proxmox Backup Server' in white. Below the banner, the text 'Enterprise Backup Solution' is centered in orange. Underneath, there are two columns of text. The left column is titled 'Open-Source Backup Software for Servers' and lists several features: Client/server backup system, Secure backups for VMs, container, and hosts, Deduplication, Incremental backups, Remote sync, and Easy management. It also provides the website 'www.proxmox.com' and mentions the Proxmox Backup Server project page. The right column is titled 'Graphical User Interface' and 'Performance'. The 'Graphical User Interface' section says 'Easily manage your backups with the integrated web interface.' The 'Performance' section says 'The entire software stack is written in Rust and provides high speed, performance, and memory efficiency.' At the bottom of the screen, there is a progress bar with the text 'extracting base system' and '49%' below it. On the left side of the progress bar, there is an 'Abort' button, and on the right side, there is an 'Install' button.

PROXMOX Proxmox Backup Server

Enterprise Backup Solution

Open-Source Backup Software for Servers

- Client/server backup system
- Secure backups for VMs, container, and hosts
- Deduplication
- Incremental backups
- Remote sync
- Easy management

For more information, visit www.proxmox.com or the Proxmox Backup Server project page.

Graphical User Interface
Easily manage your backups with the integrated web interface.

Performance
The entire software stack is written in Rust and provides high speed, performance, and memory efficiency.

extracting base system
49%

Abort Install

Installation ISO PBS pub 2



Proxmox Backup Server

Web-Based Management

With the Proxmox Backup Server, you can safely backup and restore your business critical data.

- **Support for Proxmox VE**
The Proxmox Virtual Environment is fully supported, and the seamless integration allows you to easily backup VMs and containers.
- **Web Console**
SSL-secured, browser-integrated system console.
- **Online/Live Backup**
Backup and restore your running virtual servers.

extracting locales_2.28-10_all.deb
64%

Abort

Install

Installation ISO PBS pub 3



Proxmox Backup Server

Data Integrity

The built in SHA-256 checksum algorithm ensures the accuracy and consistency of your backups.

Compression

The ultra-fast Zstandard compression is able to compress several gigabytes of data per second.

- **Remote Sync**

Backup data to dedicated hardware or efficiently synchronize them to remote sites. Only deltas containing new data are transferred.

- **Technical Support**

Enterprise support options are available from Proxmox.



PBS post install

```
root@backup2:~# df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
udev	5.9G	0	5.9G	0%	/dev
tmpfs	1.2G	17M	1.2G	2%	/run
/dev/mapper/pbs-root	5.6G	1.5G	3.9G	28%	/
tmpfs	5.9G	0	5.9G	0%	/dev/shm
tmpfs	5.0M	0	5.0M	0%	/run/lock
tmpfs	5.9G	0	5.9G	0%	/sys/fs/cgroup
/dev/sda2	511M	312K	511M	1%	/boot/efi
tmpfs	1.2G	0	1.2G	0%	/run/user/0

PBS web login

Proxmox Backup Server Login

User name:	<input type="text" value="root"/>
Password:	<input type="password" value="●●●●●●●●"/>
Realm:	<input type="text" value="Linux PAM standard authentication"/> ▾
Language:	<input type="text" value="English"/> ▾

Save User name:

PBS Web UI

PROXMOX Backup Server 1.1-1 Documentation Tasks 0 root@pam

Dashboard

Server Resources Show Fingerprint

- CPU**: 0%
- Memory**: 1%
- Root Disk**: 26%

Datastore Usage

Name ↑	Size	Used	Available	Usage %	Estimated Full	History (last Month)
No Data						

Longest Tasks (30 days)

Log Rotation

Running Tasks

Task Summary (30 days)

Backups	0	0	0
Prunes	0	0	0
Garbage collections	0	0	0
Syncs	0	0	0
Verity	0	0	0

Subscription

No valid subscription

You do not have a valid subscription for this server. Please visit www.proxmox.com to get a list of available options.

No valid subscription

You do not have a valid subscription for this server. Please visit www.proxmox.com to get a list of available options.

PBS ajout disque

The screenshot shows the Proxmox Backup Server 1.1-1 interface. The left sidebar contains navigation options: Dashboard, Configuration, Access Control, Remotes, Subscription, Administration (Shell, Storage / Disks), Tape Backup, and Datastore (Add Datastore). The main panel is titled 'Storage / Disks' and has tabs for Disks, Directory, and ZFS. The 'Directory' tab is active, showing a 'Reload' button and a 'Create: Directory' button. Below this is a table with columns 'Path ↑' and 'Device', which is currently empty with the message 'No Mount-Units found'. A modal dialog box titled 'Create: Directory' is open, containing the following fields:

- Disk: /dev/sdb
- Filesystem: ext4
- Name: datastore2
- Add as Datastore:

Buttons for 'Help' and 'Create' are located at the bottom of the dialog.

PBS édition repo apt

```
root@backup2:~# apt-get update
Get:1 http://security.debian.org buster/updates InRelease [65.4 kB]
Get:2 http://ftp.fr.debian.org/debian buster InRelease [122 kB]
Get:3 http://ftp.fr.debian.org/debian buster-updates InRelease [51.9 kB]
Get:4 http://security.debian.org buster/updates/main amd64 Packages [307 kB]
Err:5 https://enterprise.proxmox.com/debian/pbs buster InRelease
 401 Unauthorized [IP: 51.91.38.34 443]
Get:6 http://security.debian.org buster/updates/main Translation-en [161 kB]
Get:7 http://ftp.fr.debian.org/debian buster/main amd64 Packages [7,906 kB]
Get:8 http://ftp.fr.debian.org/debian buster/main Translation-en [5,968 kB]
Get:9 http://ftp.fr.debian.org/debian buster/contrib amd64 Packages [50.1 kB]
Get:10 http://ftp.fr.debian.org/debian buster/contrib Translation-en [44.2 kB]
Get:11 http://ftp.fr.debian.org/debian buster-updates/main amd64 Packages [15.2 kB]
Get:12 http://ftp.fr.debian.org/debian buster-updates/main Translation-en [13.9 kB]
Reading package lists... Done
E: Failed to fetch https://enterprise.proxmox.com/debian/pbs/dists/buster/InRelease 401 Unauthorized [IP: 51.91.38.34 443]
E: The repository 'https://enterprise.proxmox.com/debian/pbs buster InRelease' is not signed.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.
root@backup2:~# cat /etc/apt/sources.list.d/pbs-enterprise.list
deb https://enterprise.proxmox.com/debian/pbs buster pbs-enterprise
root@backup2:~# vi /etc/apt/sources.list.d/pbs-enterprise.list
root@backup2:~# cat /etc/apt/sources.list.d/pbs-enterprise.list
#deb https://enterprise.proxmox.com/debian/pbs buster pbs-enterprise
root@backup2:~# echo "deb http://download.proxmox.com/debian/pbs buster pbs-no-subscription" > /etc/apt/sources.list.d/pbs-install-repo.list
root@backup2:~# apt-get update
Hit:1 http://security.debian.org buster/updates InRelease
Get:2 http://download.proxmox.com/debian/pbs buster InRelease [3,065 B]
Get:3 http://download.proxmox.com/debian/pbs buster/pbs-no-subscription amd64 Packages [139 kB]
Hit:4 http://ftp.fr.debian.org/debian buster InRelease
Hit:5 http://ftp.fr.debian.org/debian buster-updates InRelease
Fetched 143 kB in 2s (87.8 kB/s)
Reading package lists... Done
root@backup2:~# █
```

PBS fingerprint

The screenshot displays the Proxmox Backup Server 1.1-12 dashboard. The top navigation bar includes the Proxmox logo, the version number, and links for Documentation, Tasks (0), and the user profile (root@par). The left sidebar contains a menu with categories like Dashboard, Configuration, Access Control, Remotes, Certificates, Subscription, Administration, Shell, Storage / Disks, Tape Backup, and Datastore.

The main content area is divided into several sections:

- Server Resources:** A section with a "Show Fingerprint" button. It contains three gauge charts: CPU at 0%, Memory at 6%, and Root Disk at 82%.
- Datastore Usage:** A table showing the usage of the 'datastore1'.
- Longest Tasks (30 days):** A list of tasks, all labeled as "Verify Job datastore1.v-b9f55f57-1bd1 - Scheduled Verification".
- Running Tasks:** A list of tasks with their durations and status (all green checkmarks).

A "Fingerprint" dialog box is overlaid on the bottom right, containing a redacted fingerprint string and "Copy" and "Ok" buttons.

Name ↑	Size	Used	Available	Usage %	Estimated Full	History (last Month)
datastore1	9.66 TiB	7.96 TiB	1.22 TiB	82.36%	In 30d 7h 38m	

Task Name	Duration	Status
Verify Job datastore1.v-b9f55f57-1bd1 - Scheduled Verification	17h 22m 13s	✓
Verify Job datastore1.v-b9f55f57-1bd1 - Scheduled Verification	17h 18m 12s	✓
Verify Job datastore1.v-b9f55f57-1bd1 - Scheduled Verification	17h 11m 14s	✓
Verify Job datastore1.v-b9f55f57-1bd1 - Scheduled Verification	17h 9m 33s	✓

PBS ajout remote

The screenshot displays the Proxmox Backup Server 1.1-1 web interface. The left sidebar contains navigation options: Dashboard, Configuration, Access Control, Remotes (selected), Subscription, Administration, Shell, Storage / Disks, Tape Backup, and Datastore. The main content area shows the 'Remotes' configuration page with 'Add', 'Edit', and 'Remove' buttons. Below these is a table with columns for Remote, Host, Auth ID, Fingerprint, and Comment. An 'Add: Remote' dialog box is open in the foreground, containing the following fields:

Remote	Host	Auth ID	Password	Fingerprint	Comment
backup1	172.16.1.151	root@pam	[Redacted]	

At the bottom of the dialog box, there are 'Help' and 'Add' buttons.

PBS ajout sync job

PROXMOX Backup Server 1.1-1

Dashboard
Configuration
Access Control
Remotes
Subscription
Administration
Shell
Storage / Disks
Tape Backup
Datastore
datastore2
Add Datastore

Datastore: **datastore2**

Summary Content Prune & GC **Sync Jobs** Verify Jobs Options Permissions

Add Edit Remove Show Log Run now

Job ID ↑	Remote	Remote Store	Owner	Schedule	Last Sync	Duration	Status
----------	--------	--------------	-------	----------	-----------	----------	--------

Add: SyncJob

Local Datastore: **datastore2** Source Remote: **backup1**

Local Owner: **root@pam** Source Datastore: **datastore1**

Remove vanished: Sync Schedule: **11:00**

Comment:

Help Add

PVE PBS ajout

The screenshot displays the Proxmox VE 6.4-13 interface. The left sidebar shows the 'Server View' with a tree structure under 'Datacenter' containing a host named 'pollux' and its local storage: '8001 (backup1)', 'local (pollux)', 'local-zfs (pollux)', and 'ssdbck1 (pollux)'. The main menu on the left has 'Storage' selected. A dropdown menu is open, listing various storage options: Directory, LVM, LVM-Thin, NFS, CIFS, GlusterFS, iSCSI, CephFS, RBD, ZFS over iSCSI, ZFS, and Proxmox Backup Server. The 'Proxmox Backup Server' option is highlighted. On the right, a table lists storage types and their content:

Type	Content
Directory	VZDump backup file, ISO image, Container template
ZFS	Disk image, Container
ZFS	Disk image, Container

PVE PBS restore

The screenshot displays the Proxmox VE 6.4-9 interface. On the left, the 'Server View' shows a tree of storage nodes, with 'backup1 (r640e)' selected. The main area shows the 'Storage 'backup1' on node 'r640e' page, with a 'Backups' tab active. A table lists various backup tasks for VM 100. A 'Task viewer: VM 100 - Restore' window is open, showing the progress of a specific restore task. The task viewer includes a 'Stop' button and a detailed log of the restore process.

Name	Notes	Date	Format	Size	Encrypted	Verify State
vm/116/2021-03-03T05:44:36Z		2021-03-03 06:44:36	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-04T01:33:27Z		2021-03-04 02:33:27	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-05T23:05:50Z		2021-03-06 00:05:50	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-06T23:02:40Z		2021-03-07 00:02:40	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-07T23:20:50Z		2021-03-08 00:20:50	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-08T23:08:16Z		2021-03-09 00:08:16	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-09T23:09:36Z		2021-03-10 00:09:36	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-10T23:17:20Z		2021-03-11 00:17:20	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-11T22:18:51Z		2021-03-11 23:18:51	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-12T22:20:26Z		2021-03-12 23:20:26	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-13T22:18:49Z		2021-03-13 23:18:49	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-14T22:19:45Z		2021-03-14 23:19:45	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-15T22:18:30Z		2021-03-15 23:18:30	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-16T22:21:02Z		2021-03-16 23:21:02	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-17T22:19:20Z		2021-03-17 23:19:20	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-18T22:21:04Z		2021-03-18 23:21:04	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-19T22:18:57Z		2021-03-19 23:18:57	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-20T22:18:01Z		2021-03-20 23:18:01	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-21T22:18:13Z		2021-03-21 23:18:13	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-22T22:18:27Z		2021-03-22 23:18:27	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-23T22:17:57Z		2021-03-23 23:17:57	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-24T22:18:13Z		2021-03-24 23:18:13	pbs-vm	178.24 GB	No	✓ OK
vm/116/2021-03-25T22:17:39Z		2021-03-25 23:17:39	pbs-vm	178.24 GB	No	✓ OK

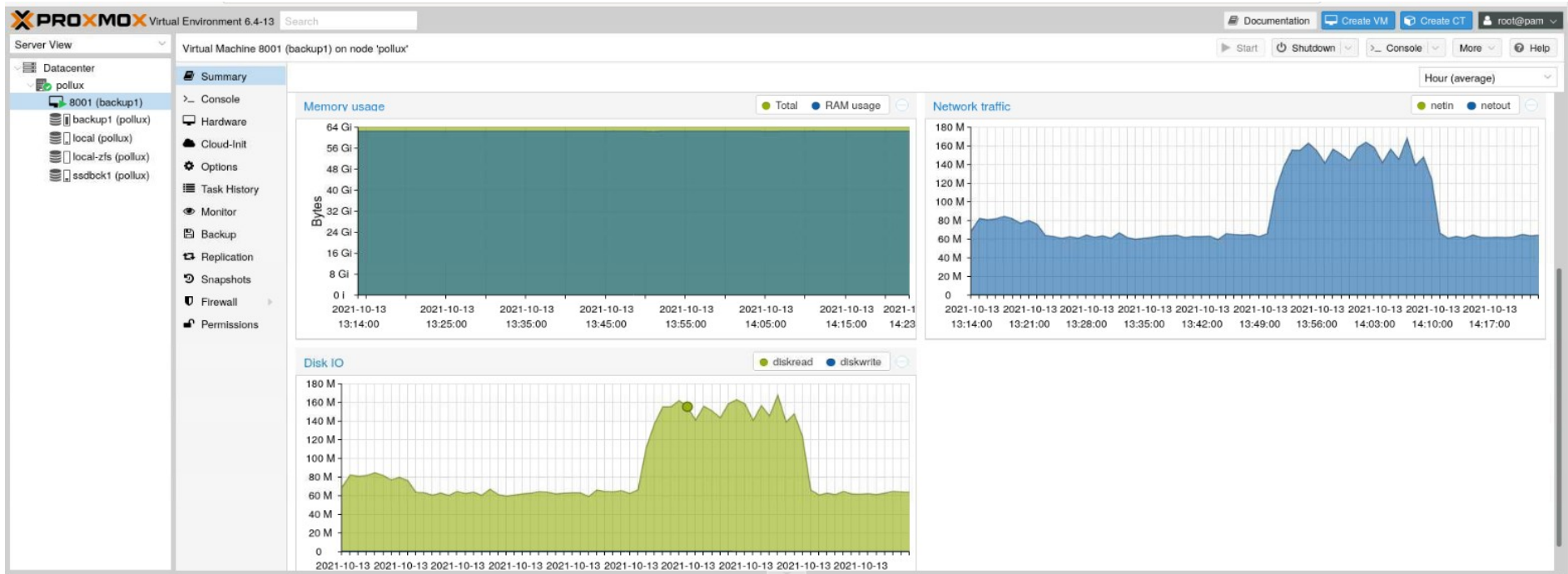
Task viewer: VM 100 - Restore

Output **Status**

Stop

```
progress 79% (read 13572767744 bytes, zeroes = 0% (62914560 bytes), duration 128 sec)
progress 80% (read 13744734208 bytes, zeroes = 0% (62914560 bytes), duration 129 sec)
progress 81% (read 13916700672 bytes, zeroes = 0% (62914560 bytes), duration 131 sec)
progress 82% (read 14088667136 bytes, zeroes = 0% (62914560 bytes), duration 133 sec)
progress 83% (read 14260633600 bytes, zeroes = 0% (62914560 bytes), duration 135 sec)
progress 84% (read 14432600064 bytes, zeroes = 0% (62914560 bytes), duration 137 sec)
progress 85% (read 14604566528 bytes, zeroes = 0% (62914560 bytes), duration 138 sec)
progress 86% (read 14776532992 bytes, zeroes = 0% (62914560 bytes), duration 140 sec)
progress 87% (read 14948499456 bytes, zeroes = 0% (62914560 bytes), duration 142 sec)
progress 88% (read 15120465920 bytes, zeroes = 0% (62914560 bytes), duration 143 sec)
progress 89% (read 15292432384 bytes, zeroes = 0% (62914560 bytes), duration 145 sec)
progress 90% (read 15464398848 bytes, zeroes = 0% (62914560 bytes), duration 147 sec)
progress 91% (read 15636365312 bytes, zeroes = 0% (62914560 bytes), duration 148 sec)
progress 92% (read 15808331776 bytes, zeroes = 0% (62914560 bytes), duration 150 sec)
progress 93% (read 15980298240 bytes, zeroes = 0% (62914560 bytes), duration 151 sec)
progress 94% (read 16152264704 bytes, zeroes = 0% (62914560 bytes), duration 153 sec)
progress 95% (read 16324231168 bytes, zeroes = 0% (62914560 bytes), duration 154 sec)
progress 96% (read 16496197632 bytes, zeroes = 0% (62914560 bytes), duration 157 sec)
progress 97% (read 16668164096 bytes, zeroes = 0% (62914560 bytes), duration 158 sec)
progress 98% (read 16840130560 bytes, zeroes = 0% (62914560 bytes), duration 160 sec)
progress 99% (read 17012097024 bytes, zeroes = 0% (67108864 bytes), duration 161 sec)
progress 100% (read 17179863488 bytes, zeroes = 0% (75497472 bytes), duration 163 sec)
restore image complete (bytes=17179863488, duration=163.31s, speed=100.32MB/s)
```

PVE PBS load



PVE PBS File Restore

The screenshot displays the Proxmox VE interface for Virtual Environment 6.4-9. The main window shows the configuration for Virtual Machine 116 (monitor) on node 'r640e'. The 'Backup now' tab is active, showing a list of backups. A 'File Restore' window is open, displaying the contents of a backup from 2021-09-30T23:05:11Z. The restore window shows a directory structure with folders and files, including log files and daemon logs.

Backup List (Storage: backup1)

Name	Notes	Date ↓	Format	Size	Encrypted	Verify State
vm/116/2021-10-12T23:05:29Z		2021-10-13 01:05:29	pbs-vm	178.24 GB	No	None
vm/116/2021-10-11T18:00:23Z		2021-10-11 20:00:23	pbs-vm	178.24 GB	No	OK
vm/116/2021-10-08T23:05:16Z		2021-10-09 01:05:16	pbs-vm	178.24 GB	No	OK
vm/116/2021-10-07T23:05:17Z		2021-10-08 01:05:17	pbs-vm	178.24 GB	No	OK
vm/116/2021-10-06T23:05:16Z		2021-10-07 01:05:16	pbs-vm	178.24 GB	No	OK
vm/116/2021-10-05T23:05:35Z		2021-10-06 01:05:35	pbs-vm	178.24 GB	No	OK
vm/116/2021-10-04T23:05:23Z		2021-10-05 01:05:23	pbs-vm	178.24 GB	No	OK
vm/116/2021-10-03T23:05:10Z		2021-10-04 01:05:10	pbs-vm	178.24 GB	No	OK
vm/116/2021-10-02T23:05:17Z		2021-10-03 01:05:17	pbs-vm	178.24 GB	No	OK
vm/116/2021-10-01T23:05:13Z		2021-10-02 01:05:13	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-30T23:05:11Z		2021-10-01 01:05:11	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-30T00:28:30Z		2021-09-30 02:28:30	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-29T23:05:22Z		2021-09-30 01:05:22	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-28T23:05:15Z		2021-09-29 01:05:15	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-27T23:05:16Z		2021-09-28 01:05:16	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-26T23:05:14Z		2021-09-27 01:05:14	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-25T23:05:20Z		2021-09-26 01:05:20	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-24T23:05:22Z		2021-09-25 01:05:22	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-23T23:05:29Z		2021-09-24 01:05:29	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-22T23:05:34Z		2021-09-23 01:05:34	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-21T23:05:22Z		2021-09-22 01:05:22	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-20T23:05:18Z		2021-09-21 01:05:18	pbs-vm	178.24 GB	No	OK
vm/116/2021-09-19T23:05:21Z		2021-09-20 01:05:21	pbs-vm	178.24 GB	No	OK

File Restore - vm/116/2021-09-30T23:05:11Z

Name ↑	Size	Modified	Type
drive-scsi0.img.fidx	16.00 GiB		Virtual
part			Virtual
drive-scsi1.img.fidx	150.00 GiB		Virtual
part			Virtual
1	150.00 GiB		Directory
172.16.1.173			Directory
172.16.10.105			Directory
172.16.10.49			Directory
172.16.42.42			Directory
172.23.8.134			Directory
172.23.8.49			Directory
192.168.7.110			Directory
authpriv.log-20210825.xz	288 B	Wed Aug 25 2021 14:58:03 ...	File
authpriv.log-20210827.xz	156 B	Fri Aug 27 2021 11:01:17 G...	File
authpriv.log-20210831.xz	156 B	Tue Aug 31 2021 08:19:51 G...	File
daemon.log	764 B	Fri Oct 01 2021 00:19:49 G...	File
daemon.log-20210825.xz	66.54 KiB	Wed Aug 25 2021 23:58:02 ...	File
daemon.log-20210826.xz	120.59 KiB	Thu Aug 26 2021 23:58:02 ...	File
daemon.log-20210827.xz	68.82 KiB	Fri Aug 27 2021 23:01:16 G...	File
daemon.log-20210828.xz	732 B	Sat Aug 28 2021 23:01:16 G...	File
daemon.log-20210829.xz	2.00 KiB	Sun Aug 29 2021 23:01:16 G...	File

Tasks

Start Time ↓	End Time	Node	User name	Description	Status
Oct 13 13:47:38	Oct 13 13:47:51	r640e	root@pam	VM 100 - Destroy	OK

PVE PVS IMT Mines Albi

- Pour la virtualisation migration de netapp + VMware + TINA sur Dell M1000
- Vers PVE ceph et ZFS + PBS + 5x Dell R640E 512G RAM 10x2.5 SATA
- (et 4 lames FX2 pour CPU+RAM)
- Environ 200 VM, reste 35 a migrer ce jour
- Disques VM autour de 3 TB utiles
- 8 TB dans PBS (février-octobre 2021 quotidien sans aucun pruning)

Test kopia.io

- Cible : portables de nos usagers Windows/Mac/Linux
- Dedup / compression / chiffrement
- Client CLI mais aussi client lourd electron (non administrateur, background)
- Serveur “Repository Server”
- Capable de piloter les clients
- Langage go, projet d’un développeur google sur son temps libre
- Conflit de message entre utilisation nextcloud et backup classique