Installation and Configuration Guides for Proxmox Backup Server

Initial Setup Guides for Proxmox Backup Server

- Installing Proxmox Backup Server
- Configuring Updates for Proxmox Backup Server
- Configuring Datastore
- Security Configuration

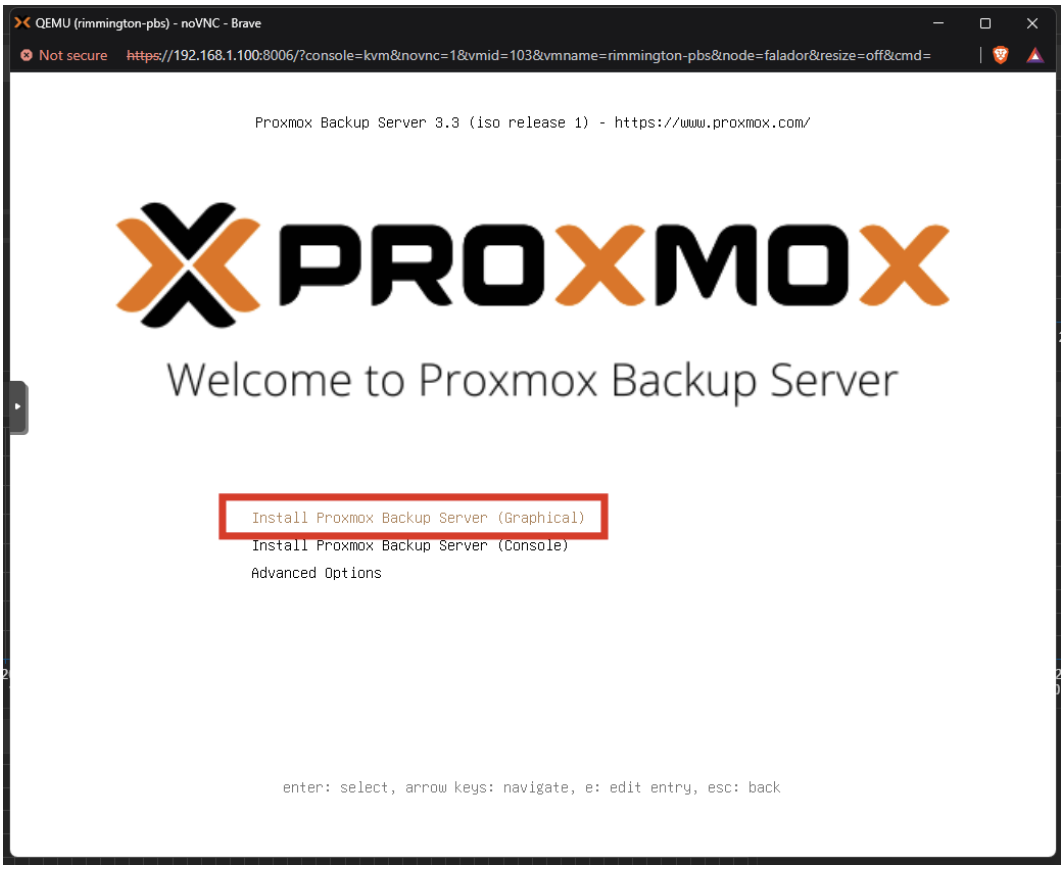
Installing Proxmox Backup Server

This article goes over steps for installing Proxmox Backup Server. There is multiple options on where to run PBS instance, however for best performance running it on seperate bare metal machine would be the best option. PBS can run in virtual machine if needed, just like any other OS with ISO image. If PBS runs in vm do not select that vm when scheduling backup job with PBS.

Prerequisite is machine ready and Proxmox Backup Server ISO flashed to flash drive

Installing PBS

1. Boot the machine and select flash drive with ISO image
2. Install PBS with a graphical user interface



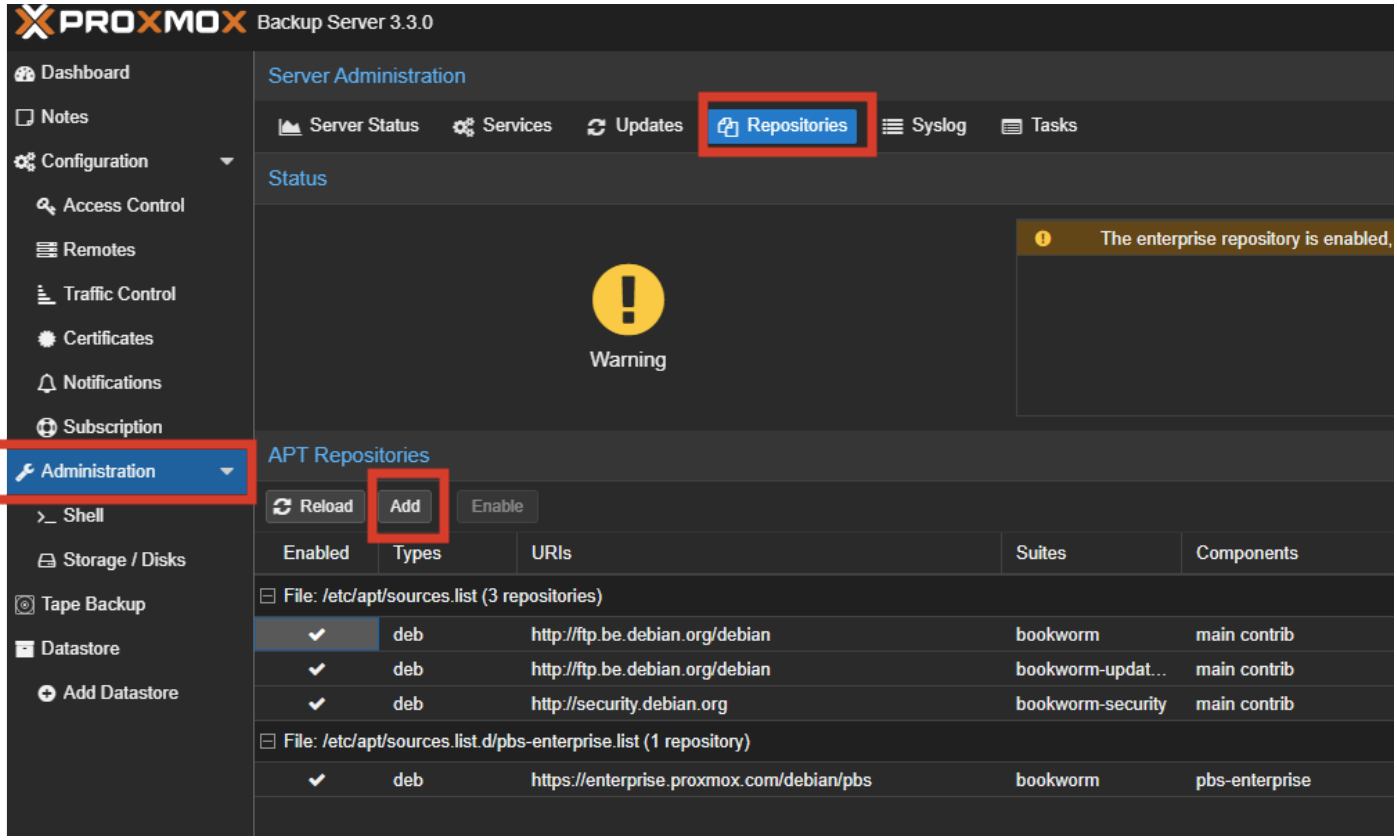
3. **Accept** EULA
4. Select Target Disk to where OS will live (Hopefully separate from main storage if you have couple)
5. Fill in your country, timezone and keyboard layout
6. Choose a unique password and fill in your email address for your **root** access (you can disable root later)

7. Fill in your network details
    1. ID: A name for the connection, e.g., pbs-backup
    2. **Managment** Interface: unless you want/have a different interface, leave this as default
    3. **Hostname:** "NameOfYourPBS":local
    4. **IP Address:** Choose a static IP address
    5. **Gateway:** Fill in the gateway
    6. **DNS server:** Fill in a DNS server
8. Finish the installation by clicking continue
9. Access the PBS Dashboard by going to its [IP Address] and pot 8007 eg. https://192.168.1.101:8007

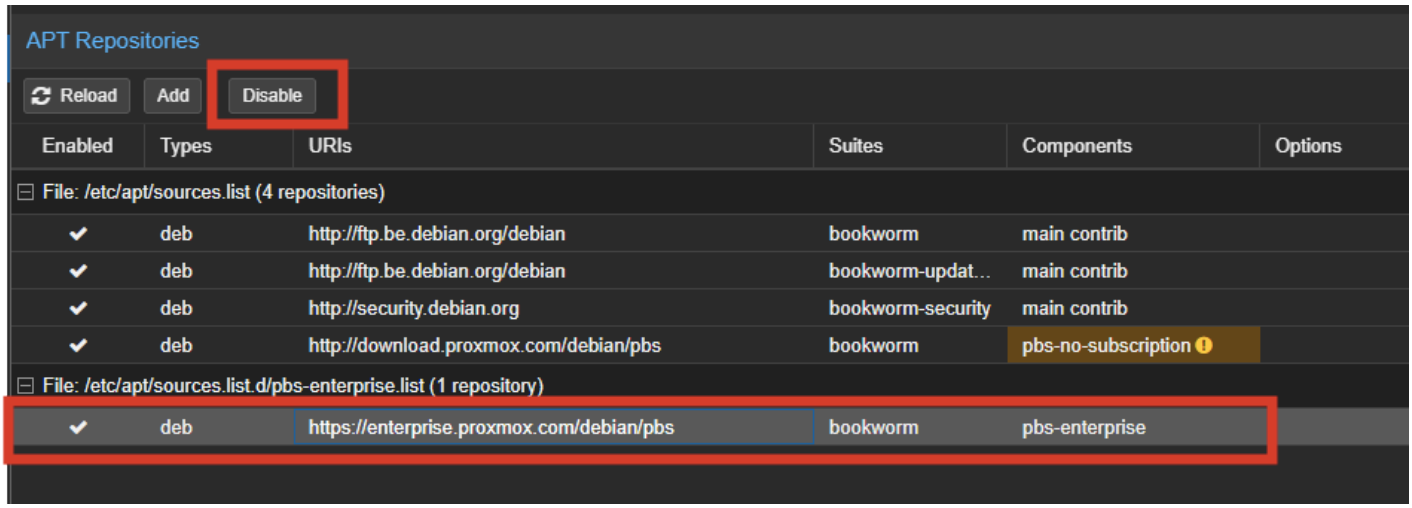
Configuring Updates for Proxmox Backup Server

This article goes over setting up Community based updates. By default, PBS (and Proxmox VE), are configured to download the 'Enterprise' repository for your updates. Unless you do have an enterprise license, we need to add the 'no-subscription' repository and disable the enterprise repository.

1. Login to PBS
2. Go to **Administration, Repositories** and click **Add**



3. Select the '**no-subscription**' repository and click **Add**
4. Select the '**pbs-enterprise**' repository and click '**disable**'



Go to 'administration', 'Updates', and click 'refresh'. This will will check the repository for updates. Afterwards click on 'update' or run update from the ssh or shell

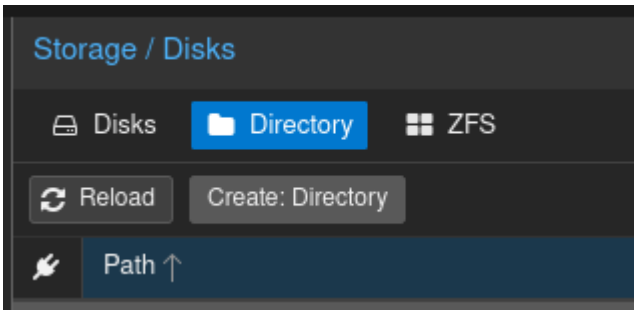
```
sudo apt update && sudo apt upgrade -y
```

Configuring Datastore

Datastore is where the backups will be saved. This article goes over configuring datastore using a disk on the machine. If not using volume from machine check out this article to use NAS storage via NFS

Creating Datastore

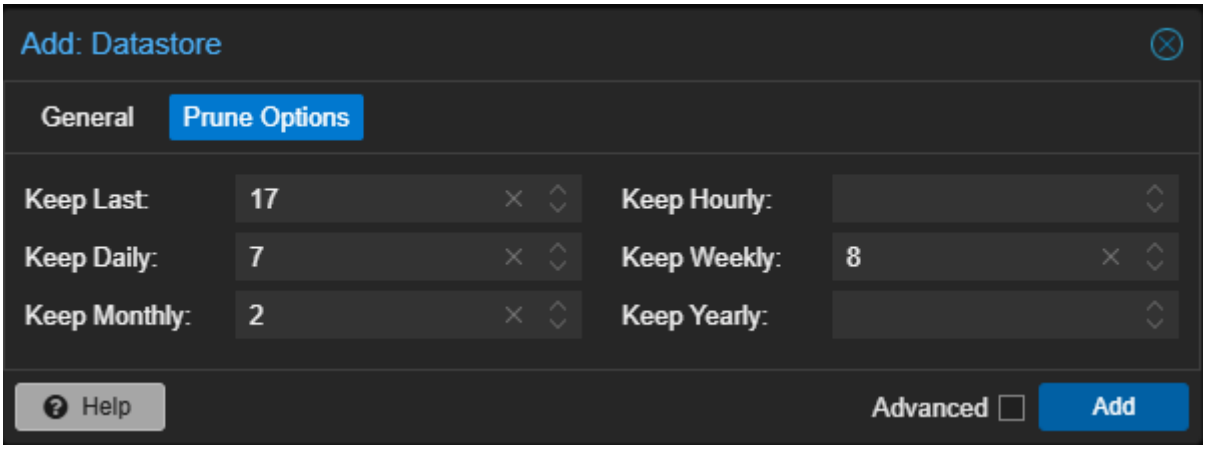
1. Login to PBS
2. Under **Storage/Disks** got to **Directory**



3. Click **Create: Directory**
    1. Select the disk
    2. Choose Filesystem (I chose ext4)
    3. Give datastore a name
    4. Make sure **Add as Datastore** is selected
    5. Click **Create**

Setting up Datastore in Proxmox Backup Server

1. Under **Datastore** click **Create Datastore**
    1. Name: Choose name to call it
    2. Backup Path: Select the path to folder directory on the machine.
    3. Under Prune option this is personal preference, but deduplication really lowers the amount of space needed, so keeping more backups is not bad decision.
2. Once done click **Add**



When the datastore is added, clicking on datastore will give you info, and also ability to adjust Prune and CG Jobs. Also, under Verify Jobs it's good idea to add Verify Job for checking that backup isn't corrupted and that will work when needed.

3. Under **Prune & CG Jobs** make sure CG Job is set to daily. You can adjust Prune job here as well
4. Under **Verify Job** click **Add** and schedule Verify to run Daily and Re-Verify to run every 30 days

It is optional to create a namespace. Storing your backups in separate namespaces is very useful if you ever plan on planning to use your PBS to store backups from multiple Proxmox hosts, or even other Linux server.

5. Under **Content** click **Add Namespace**
    1. **Parent Namespace:** This would be folder in which this subfolder will live, usually root
    2. **Namespace Name:** name of the folder where backups will live

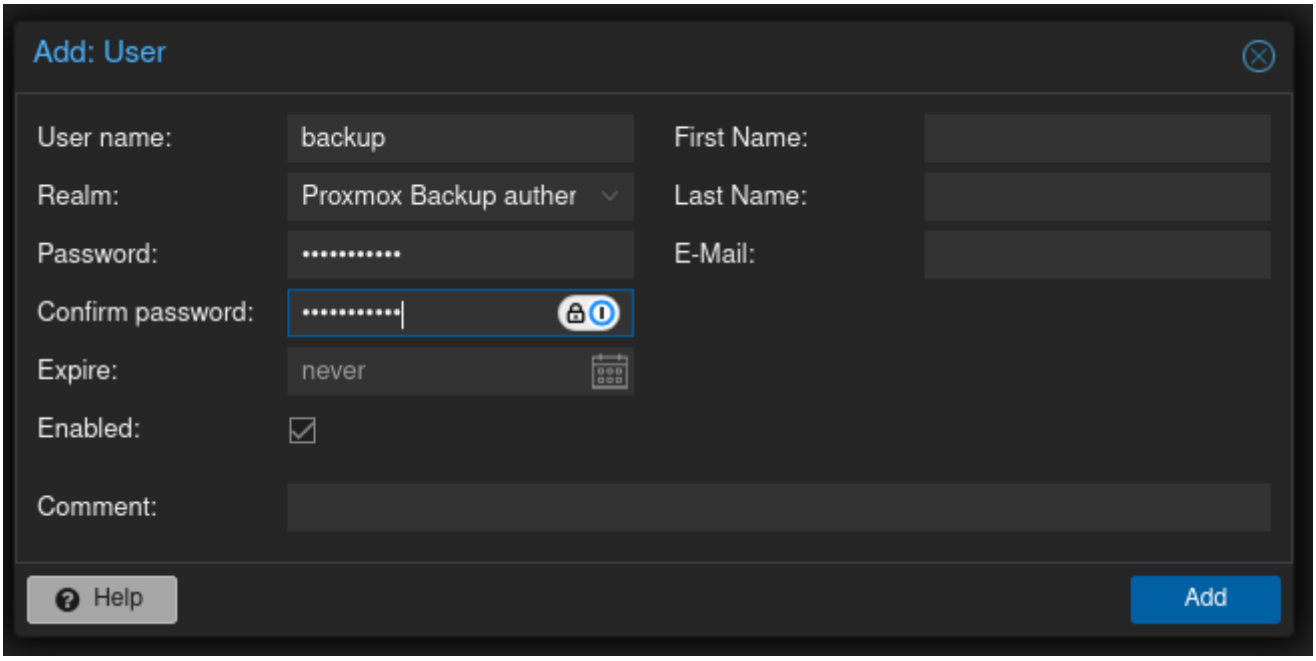
Security Configuration

It is optional but recommended to create a separate backup user. In the next step we will connect our PBS to Proxmox VE, and for that you need a user. You could simply use the root user, but best practices dictate that a separate user is better for security reasons. Also, Add Two Factor Authentication to secure your root account.

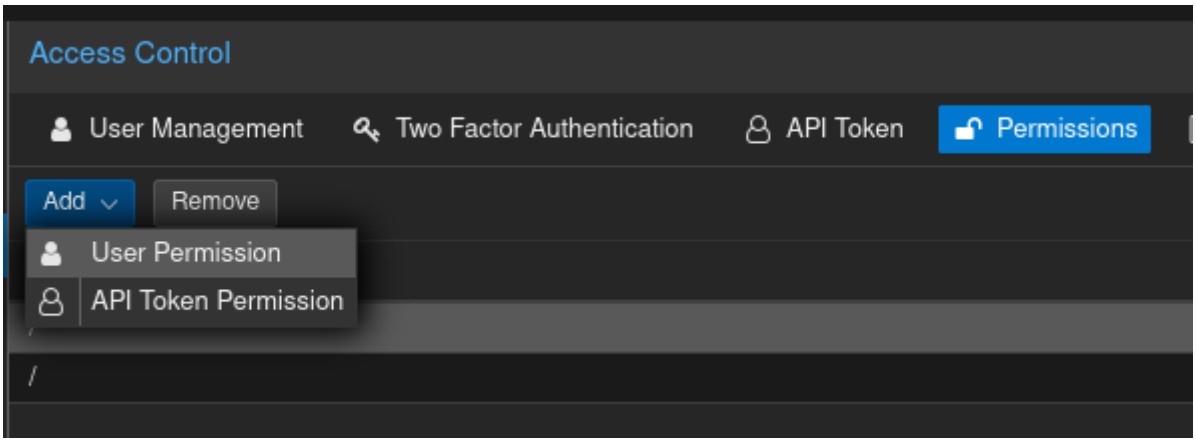
Note: a user that has Two Factor Authentication, can't be used to connect your PBS to Proxmox VE. That is also why we created a separate backup user in the previous step.

Adding Backup User

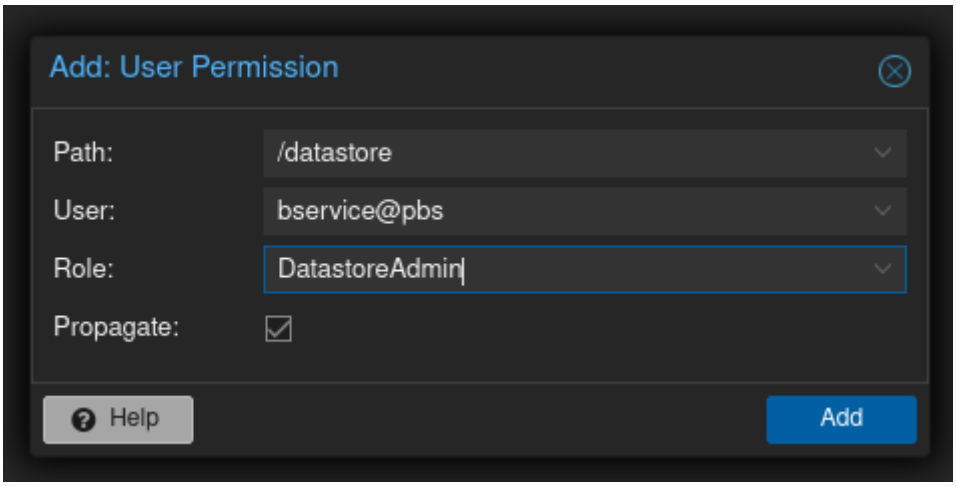
1. Login to PBS
2. Under **Configuration** go to **Access Control** and click **Add**
3. In **new user** window
    1. Give it a name
    2. Realm: Proxmox Backup authenticator
    3. Choose strong password
    4. Make sure Enabled is checked and it doesn't expire



1. Now that the account has been created, we also need to give it the correct permissions.
2. Go the **Permissions** tab
3. Click **Add** and select **User Permission**



1. In User Premission Window
    1. **Path:** select datastore only
    2. **User:** choose backup user you created
    3. **Role:** Choose DatastoreAdmin
    4. **Make** sure Propagate is selected
2. Click **Add**



Enabling Two Factor Authentication

1. Go to **Access Control**
2. Select **Two Factor Authentication** and click **Add**
3. Select **TOTP** and Fill the required details using your preferred password manager

You have to do this for each user