

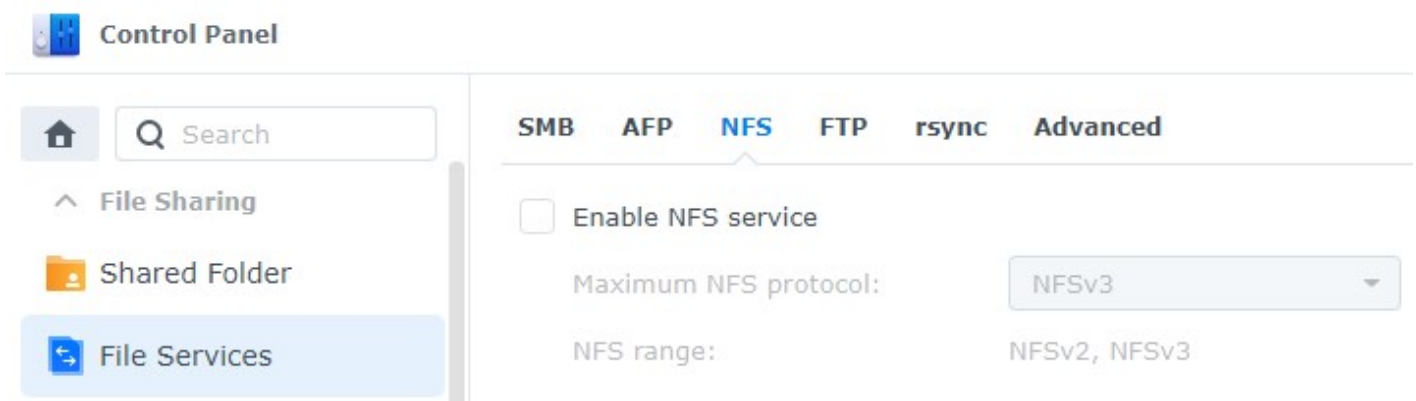
Backing up Proxmox Virtual Environment to Synology NAS

This article goes through setting up NFS connection between Synology and PVE Database. Although using Proxmox Backup Server is better for keeping more backups using deduplication, verification and pruning options, having additional backup job directly from PVE instance can increase redundancy in case of PBS failure.


Having Proxmox Virtual Environment and Synology NAS up and running are pre requisite for this setup.

Setting up NFS connection on Synology

1. Open the **Control Panel** on Synology **DSM** and select **File Services** then **NFS**
2. Select **Enable NFS service** and then **Apply**. (NFSv3 is still a safe, but selecting latest protocol is always a good idea)



3. Select **Shared Folder** in Control Panel, then **Create** new or **Edit** the folder where you'd like your Proxmox data to be stored
4. Select **NFS Permissions**
 1. **IP:** put the IP address of Proxmox machine
 2. **Privilege:** Leave it Read/Write so pve can access backups when needed
 3. **Squash:** Set to No Mapping
 4. Select **Allow users to access mounted subfolders**
5. Click **Save**

Hostname or IP:	<input type="text" value="10.2.0.218"/>	
Privilege:	<input type="text" value="Read/Write"/>	▼
Squash:	<input type="text" value="No mapping"/>	▼
Security:	<input type="text" value="sys"/>	▼

Enable asynchronous

Allow connections from non-privileged ports (ports higher than 1024)

Allow users to access mounted subfolders

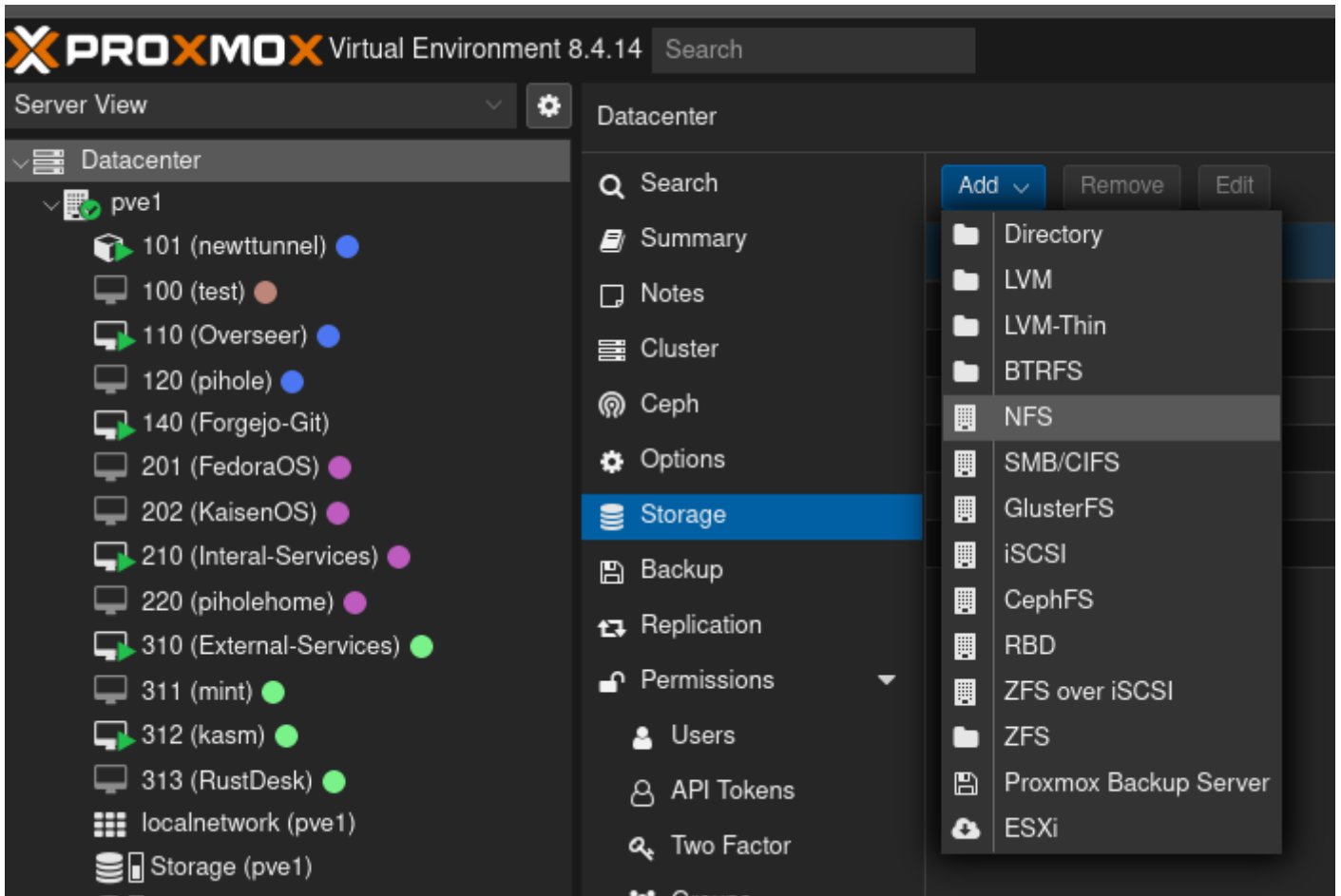
Cancel

Save

Make sure Synology Firewall is configured to allow Proxmox IP address to access Synology via NFS. Also, on Unifi router settings ensure that there is a rule set to allow access.

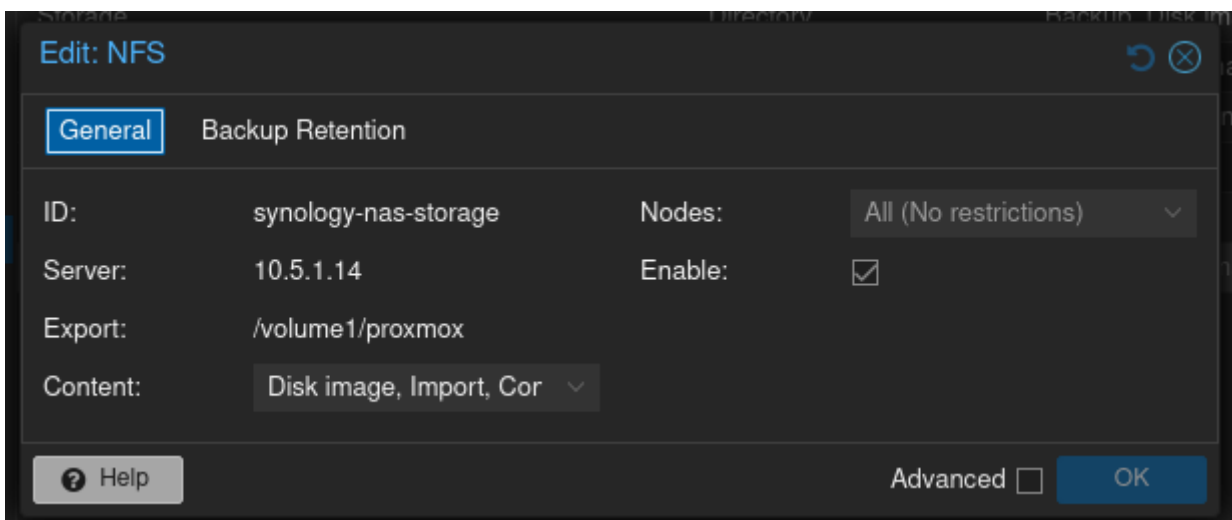
Proxmox Storage Configuration

1. Login to Proxmox Virtual Environment
2. Select **Datacenter** then **Storage**
3. Select **Add** then **NFS**



4. At the **NFS** screen

1. Create an **ID**
2. **IP** Address of your Synology NAS server
3. In the **Export** drop-down menu, the location of your Proxmox folder should automatically appear (If not, there is problem with Synology Firewall or Router Firewall)
4. In the Content drop-down, select **ALL** entries. You can then select **Add**



Proxmox should now show the Synology NAS Storage that we created above

Setting up Backup Job

We can now backup individual machines or create a backup job

1. Under Datacenter go to **Backups**
2. Select **Add** button
3. In Backup Job window under **General**
 1. Keep Node to All
 2. Storage: Select NFS storage we configured
 3. Schedule: Pick date that works best for you
 4. Selection Mode: Either select all or manually choose which VMs and LXC's to run backup for
 5. Mode: Snapshot for daily backup, Suspend or Stop for weekly (make sure that your applications are set to automatically start at reboot)

Edit: Backup Job ↻ ⊗

General Retention Note Template Advanced

Node: -- All -- Notification mode: Default (Auto)

Storage: synology-nas-storage

Schedule: 21:00

Selection mode: Include selected VMs

Send email to:

Send email: Always

Compression: ZSTD (fast and good)

Mode: Snapshot

Enable:

Job Comment:

<input type="checkbox"/>	ID ↑	Node	Status	Name	Type
<input type="checkbox"/>	100	pve1	stopped	test	Virtual Machine
<input checked="" type="checkbox"/>	101	pve1	running	newtunnel	LXC Container
<input checked="" type="checkbox"/>	110	pve1	running	Overseer	Virtual Machine
<input type="checkbox"/>	120	pve1	stopped	pihole	Virtual Machine
<input checked="" type="checkbox"/>	140	pve1	running	Forgejo-Git	Virtual Machine
<input type="checkbox"/>	201	pve1	stopped	FedoraOS	Virtual Machine
<input type="checkbox"/>	202	pve1	stopped	KaisenOS	Virtual Machine
<input checked="" type="checkbox"/>	210	pve1	running	Interal-Services	Virtual Machine
<input type="checkbox"/>	220	pve1	stopped	piholehome	Virtual Machine
<input checked="" type="checkbox"/>	310	pve1	running	External-Services	Virtual Machine
<input type="checkbox"/>	311	pve1	stopped	mint	Virtual Machine

ⓘ Help OK

4. In Backup Job window under **Retention**

1. Set retention that best works for you, depending on the storage size allocated

Edit: Backup Job ↶ ⊗

General **Retention** Note Template Advanced

Keep all backups

Keep Last:	7	↕	Keep Hourly:		↕
Keep Daily:		↕	Keep Weekly:		↕
Keep Monthly:		↕	Keep Yearly:		↕

ⓘ Help OK

Revision #2

Created 2025-12-01 14:51:01 UTC by lumxux

Updated 2025-12-01 15:29:29 UTC by lumxux