

A VMsources Whitepaper

PVE Basic Setup

Basic installation of Proxmox Virtual Environment (PVE) with
Network, iSCSI, Migration from ESXi and Building a VM

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Proxmox Virtual Environment (PVE)

Installing Proxmox (PVE) is a very simple process. Since PVE has such a wide hardware compatibility, it will install on most servers, even legacy hardware, but it is always recommended to use the best/latest servers your Organization can afford.

Furthermore, PVE supports both traditional SAN and hyperconverged storage at no additional cost. That means you can use your existing servers and install PVE in-place of other hypervisors, then gradually migrate your VMs from the other platform to PVE.

For the most part, managing PVE is simple and straightforward, using the embedded GUI. There are some instances where PVE will absolutely require the use of the command-line. In terms of features, PVE is comparable to all major hypervisors, and superior to many. PVE supports the following features critical to many Organizations:

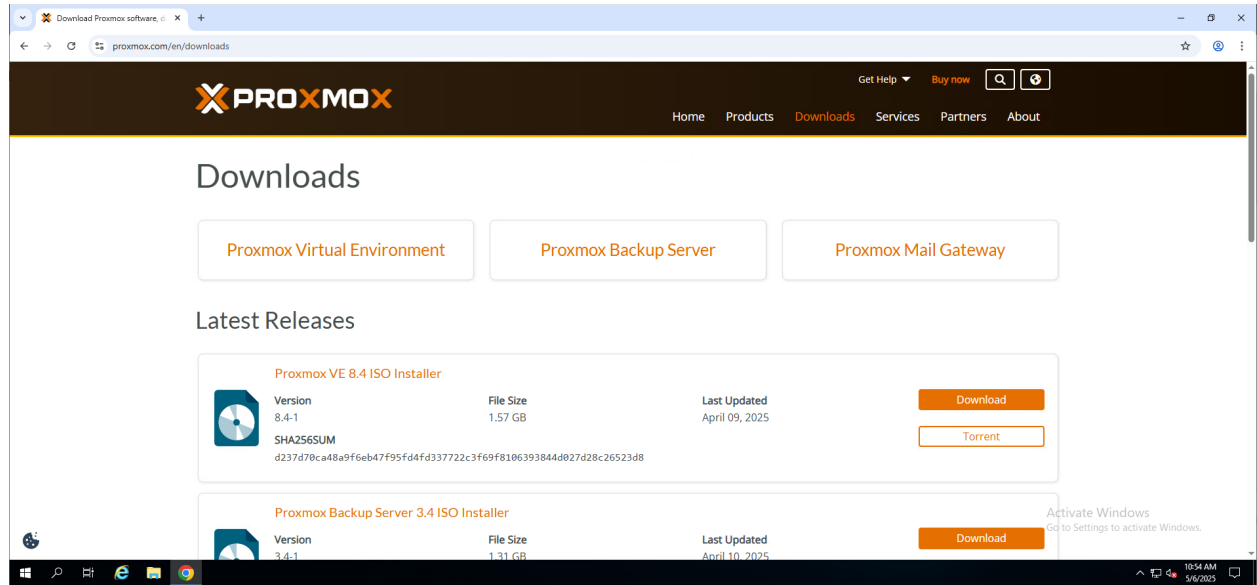
- High Availability failover of VMs
- Live Migration of VMs between PVE hosts
- iSCSI & FC SAN
- Hyperconverged storage
- Live patching of PVE hosts
- Supported by major backup platforms including Veeam

Downloads:

- PVE
 - <https://www.proxmox.com/en/downloads>
- VirtIO
 - <https://fedorapeople.org/groups/virt/virtio-win/direct-downloads/stable-virtio/virtio-win.iso>

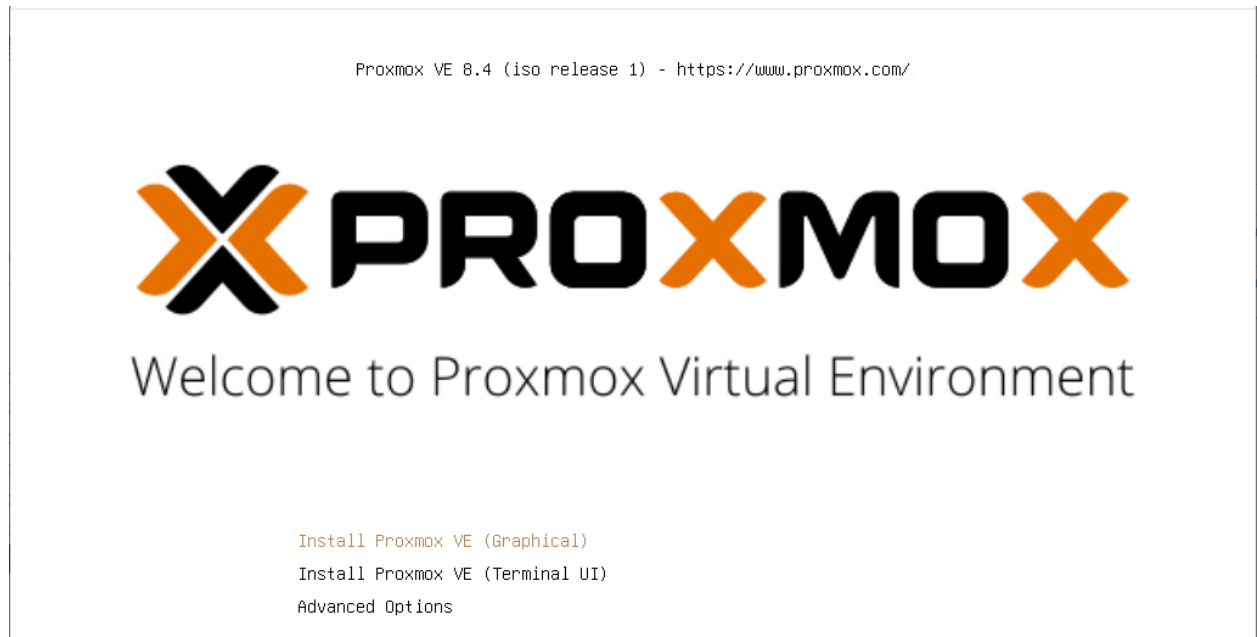
Installing PVE

1. Download the PVE ISO: <https://www.proxmox.com/en/downloads>

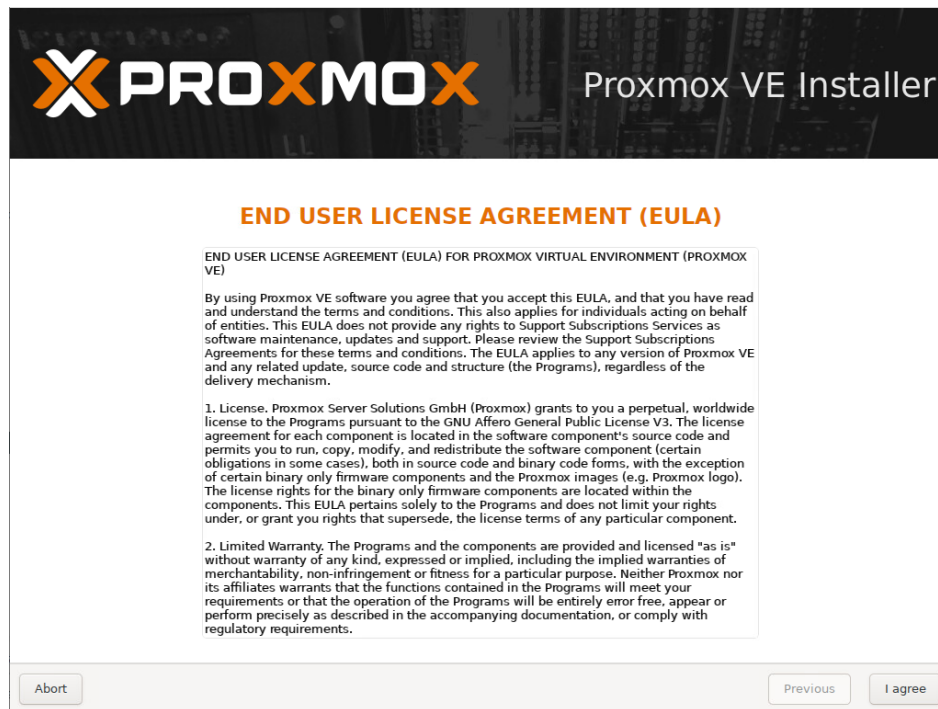


a.

2. Mount the ISO to the server you will be installing to and boot to ISO:



a.



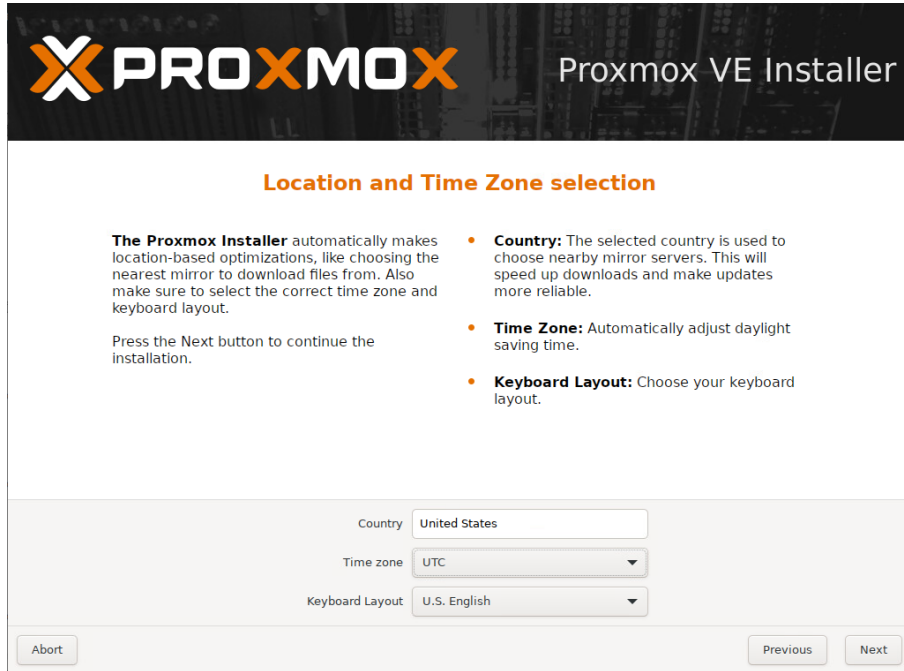
b.

3. Select the install disk, PVE can be installed to flash-media, but it is recommended to install PVE on redundant disks (RAID 1 or equivalent) such as HDD, SSD or NVMe



a.

4. Select your country, time zone and language. **We recommend using UTC for all infrastructure servers.**



Proxmox VE Installer

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:

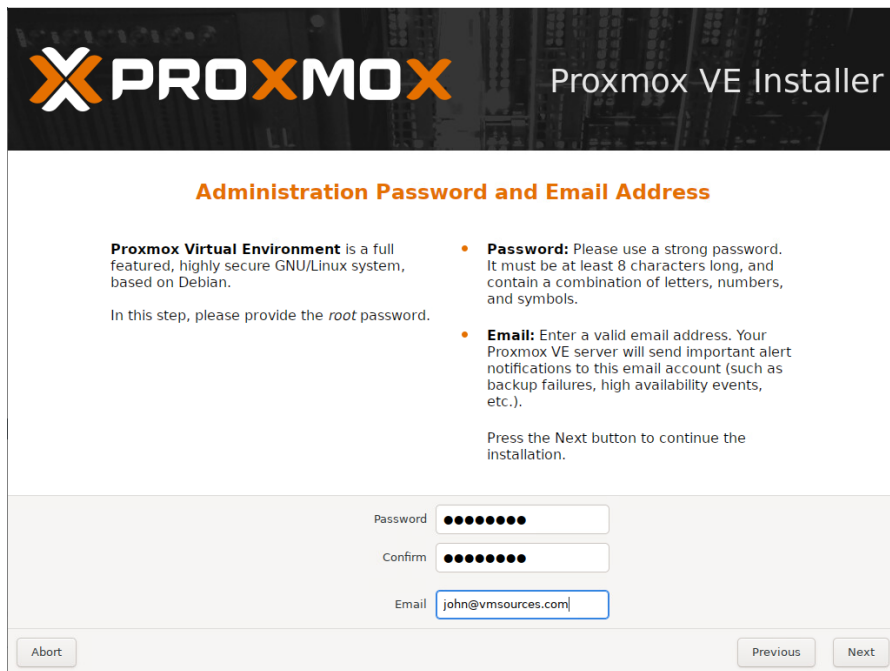
Time zone:

Keyboard Layout:

Abort Previous Next

a.

5. Set password and email.



Proxmox VE Installer

Administration Password and Email Address

Proxmox Virtual Environment is a full featured, highly secure GNU/Linux system, based on Debian.

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

- Password:** Please use a strong password. It must be at least 8 characters long, and contain a combination of letters, numbers, and symbols.
- Email:** Enter a valid email address. Your Proxmox VE server will send important alert notifications to this email account (such as backup failures, high availability events, etc.).

Press the Next button to continue the installation.

Password:

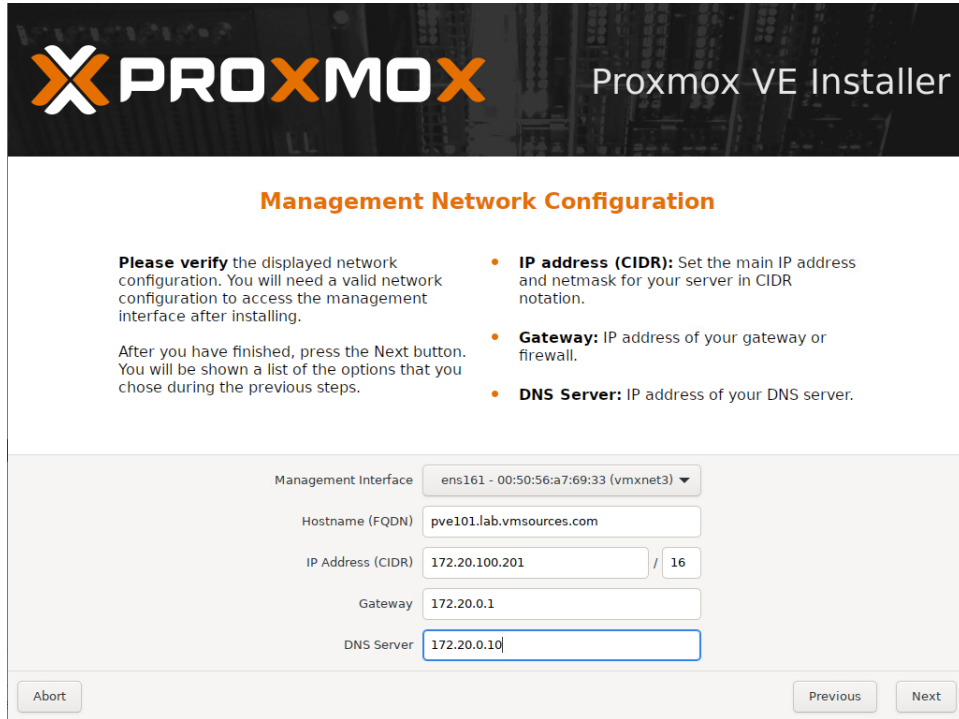
Confirm:

Email:

Abort Previous Next

a.

6. Set the initial network properties for this PVE host.



Proxmox VE Installer

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: ens161 - 00:50:56:a7:69:33 (vmxnet3)

Hostname (FQDN): pve101.lab.vmsources.com

IP Address (CIDR): 172.20.100.201 / 16

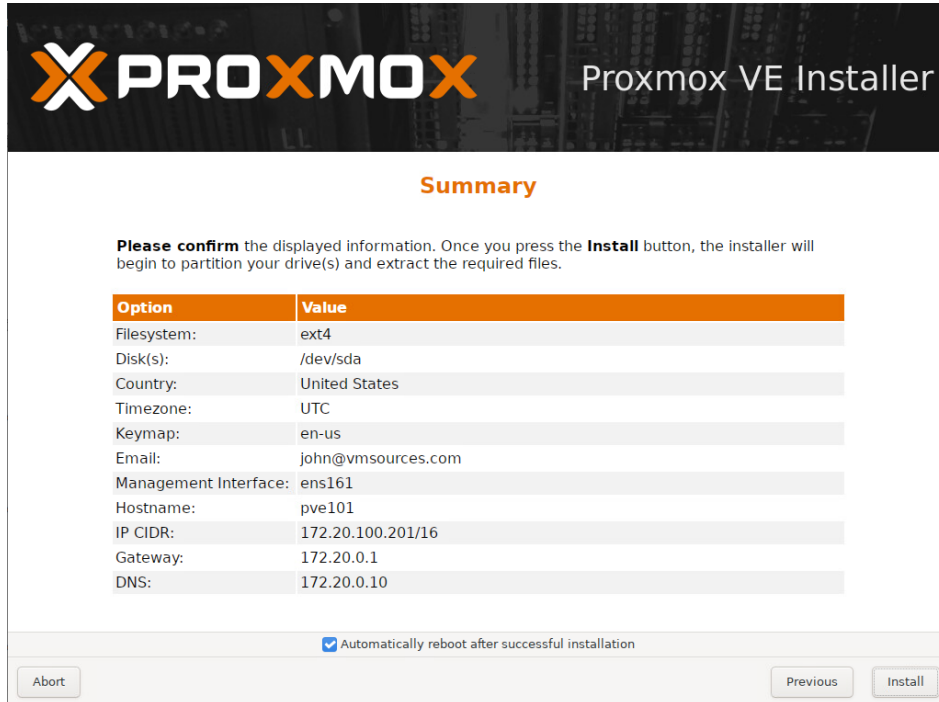
Gateway: 172.20.0.1

DNS Server: 172.20.0.10

Buttons: Abort, Previous, Next

a.

7. Summary



Proxmox VE Installer

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:	United States
Timezone:	UTC
Keymap:	en-us
Email:	john@vmsources.com
Management Interface:	ens161
Hostname:	pve101
IP CIDR:	172.20.100.201/16
Gateway:	172.20.0.1
DNS:	172.20.0.10

☒ Automatically reboot after successful installation

Buttons: Abort, Previous, Install

a.

8. Install complete.

```
-----  
Welcome to the Proxmox Virtual Environment. Please use your web browser to  
configure this server - connect to:  
  
https://172.20.100.201:8006/  
  
-----  
pve101 login:
```

a.

9. Login as root with the password you set.

```
-----  
Welcome to the Proxmox Virtual Environment. Please use your web browser to  
configure this server - connect to:  
  
https://172.20.100.201:8006/  
  
-----  
pve101 login: root  
Password: _
```

a.

10. Test networking by pinging the gateway or other known good IP: ping 172.20.0.1

```
root@pve101:~# ping 172.20.0.1  
PING 172.20.0.1 (172.20.0.1) 56(84) bytes of data:  
From 172.20.100.201 icmp_seq=1 Destination Host Unreachable  
From 172.20.100.201 icmp_seq=2 Destination Host Unreachable  
From 172.20.100.201 icmp_seq=3 Destination Host Unreachable  
^C  
--- 172.20.0.1 ping statistics ---  
6 packets transmitted, 0 received, +3 errors, 100% packet loss, time 5110ms  
pipe 4  
root@pve101:~# _
```

a.

- b. As you can see, network connectivity is not presently functioning because our environment uses TRUNK ports for everything except iSCSI storage. We will need to configure our VLAN at the CLI to proceed

If you use VLANs and ping was unsuccessful, run: `vi /etc/network/interfaces`

```
-----
Welcome to the Proxmox Virtual Environment. Please use your web browser to
configure this server - connect to:

https://172.20.100.201:8006/

-----

pve101 login: root
password:
linux pve101 6.8.12-9-pve #1 SMP PREEMPT_DYNAMIC PMX 6.8.12-9 (2025-03-16T19:18Z) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
root@pve101:~# vi /etc/network/interfaces_

```

C.

11. This is the configuration created by the installer without VLAN

```
auto lo
iface lo inet loopback

iface ens161 inet manual

auto umbr0
iface umbr0 inet static
    address 172.20.100.201/16
    gateway 172.20.0.1
    bridge-ports ens161
    bridge-stp off
    bridge-fd 0

iface ens192 inet manual

iface ens193 inet manual

iface ens224 inet manual

iface ens225 inet manual

iface ens256 inet manual

source /etc/network/interfaces.d/*

```

a.



12. If you use VLANs (TRUNK ports), you will need to make your initial config look like the example, except substituting your correct values.

```
auto lo
iface lo inet loopback

iface ens161 inet manual

auto vmbr0.26
iface vmbr0.26 inet static
    address 172.20.100.201/16
    gateway 172.20.0.1

auto vmbr0
iface vmbr0 inet manual
    bridge-ports ens161
    bridge-stp off
    bridge-fd 0
    bridge-vlan-aware yes
    bridge-vids 24-26

iface ens192 inet manual

iface ens193 inet manual

iface ens224 inet manual

iface ens225 inet manual

iface ens256 inet manual

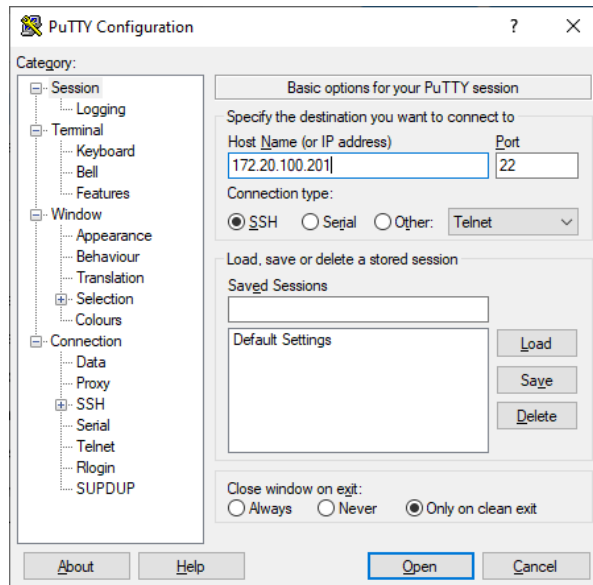
source /etc/network/interfaces.d/*
```

- a.
- b. We are using VLAN 26, so we have specified that in several places with: vmbr0.26
- c. We have also separated the bridge settings and added some VLAN specific lines under: auto vmbr0

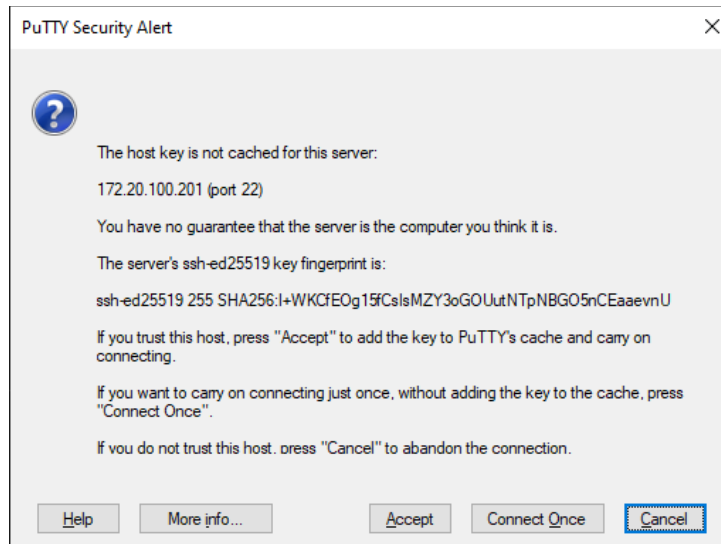
13. Reboot

Initial Updates for PVE

- Now we can access the PVE host in-band at its assigned IP address with SSH



a.



b.



2. Login as: root

```
172.20.100.201 - PuTTY
login as: root
root@172.20.100.201's password:
Linux pvel01 6.8.12-9-pve #1 SMP PREEMPT_DYNAMIC PMX 6.8.12-9 (2025-05-07) x86_64

The programs included with the Debian GNU/Linux system are free software; the
exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Wed May  7 15:17:39 2025
root@pvel01:~#
```

a.

3. Run: apt update

```
172.20.100.201 - PuTTY
permitted by applicable law.
Last login: Wed May  7 15:17:39 2025
root@pvel01:~# apt update
Get:1 http://ftp.us.debian.org/debian bookworm InRelease [151 kB]
Get:2 http://security.debian.org bookworm-security InRelease [48.0 kB]
Get:3 http://security.debian.org bookworm-security/main amd64 Packages [258 kB]
Get:4 http://security.debian.org bookworm-security/main Translation-en [154 kB]
Get:5 http://security.debian.org bookworm-security/contrib amd64 Packages [896 B]
Get:6 http://security.debian.org bookworm-security/contrib Translation-en [652 B]
Get:7 http://ftp.us.debian.org/debian bookworm-updates InRelease [55.4 kB]
Get:8 http://ftp.us.debian.org/debian bookworm/main amd64 Packages [8,792 kB]
Err:9 https://enterprise.proxmox.com/debian/ceph-quincy bookworm InRelease
 401 Unauthorized [IP: 66.70.154.82 443]
Err:10 https://enterprise.proxmox.com/debian/pve bookworm InRelease
 401 Unauthorized [IP: 66.70.154.82 443]
Get:11 http://ftp.us.debian.org/debian bookworm/main Translation-en [6,109 kB]
Get:12 http://ftp.us.debian.org/debian bookworm/contrib amd64 Packages [54.1 kB]
Get:13 http://ftp.us.debian.org/debian bookworm/contrib Translation-en [48.8 kB]
Get:14 http://ftp.us.debian.org/debian bookworm-updates/main amd64 Packages [512 B]
Get:15 http://ftp.us.debian.org/debian bookworm-updates/main Translation-en [360 B]
Reading package lists... Done
E: Failed to fetch https://enterprise.proxmox.com/debian/ceph-quincy/dists/bookworm/InRelease 401 Unauthorized [IP: 66.70.154.82 443]
E: The repository 'https://enterprise.proxmox.com/debian/ceph-quincy bookworm 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.
E: Failed to fetch https://enterprise.proxmox.com/debian/pve/dists/bookworm/InRelease 401 Unauthorized [IP: 66.70.154.82 443]
E: The repository 'https://enterprise.proxmox.com/debian/pve bookworm 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@pvel01:~#
```

a.



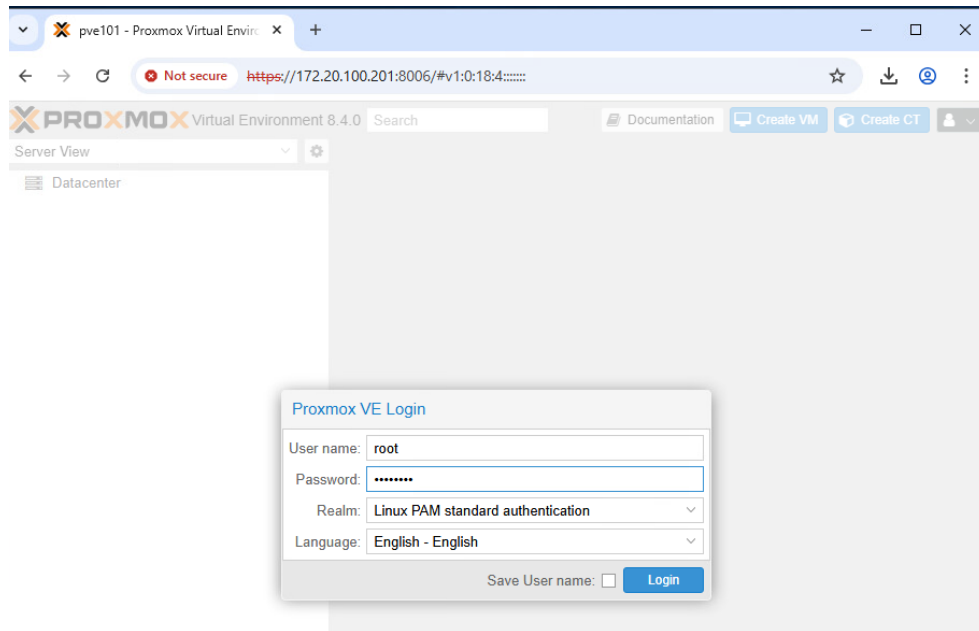
4. Run: apt upgrade

```
172.20.100.201 - PuTTY
Calculating upgrade... Done
The following packages will be upgraded:
  libperl5.36 perl perl-base perl-modules-5.36
4 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Need to get 8,870 kB of archives.
After this operation, 4,096 B of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://security.debian.org bookworm-security/main amd64 libperl5.36 amd64 5.36.0-7+deb12u2 [4,207 kB]
Get:2 http://security.debian.org bookworm-security/main amd64 perl amd64 5.36.0-7+deb12u2 [239 kB]
Get:3 http://security.debian.org bookworm-security/main amd64 perl-base amd64 5.36.0-7+deb12u2 [1,609 kB]
Get:4 http://security.debian.org bookworm-security/main amd64 perl-modules-5.36 all 5.36.0-7+deb12u2 [2,815 kB]
Fetched 8,870 kB in 0s (152 MB/s)
Reading changelogs... Done
(Reading database ... 46312 files and directories currently installed.)
Preparing to unpack .../libperl5.36_5.36.0-7+deb12u2_amd64.deb ...
Unpacking libperl5.36:amd64 (5.36.0-7+deb12u2) over (5.36.0-7+deb12u1) ...
Preparing to unpack .../perl_5.36.0-7+deb12u2_amd64.deb ...
Unpacking perl (5.36.0-7+deb12u2) over (5.36.0-7+deb12u1) ...
Preparing to unpack .../perl-base_5.36.0-7+deb12u2_amd64.deb ...
Unpacking perl-base (5.36.0-7+deb12u2) over (5.36.0-7+deb12u1) ...
Setting up perl-base (5.36.0-7+deb12u2) ...
(Reading database ... 46312 files and directories currently installed.)
Preparing to unpack .../perl-modules-5.36_5.36.0-7+deb12u2_all.deb ...
Unpacking perl-modules-5.36 (5.36.0-7+deb12u2) over (5.36.0-7+deb12u1) ...
Setting up perl-modules-5.36 (5.36.0-7+deb12u2) ...
Setting up libperl5.36:amd64 (5.36.0-7+deb12u2) ...
Setting up perl (5.36.0-7+deb12u2) ...
Processing triggers for man-db (2.11.2-2) ...
Processing triggers for libc-bin (2.36-9+deb12u10) ...
root@pvel01:~#
```

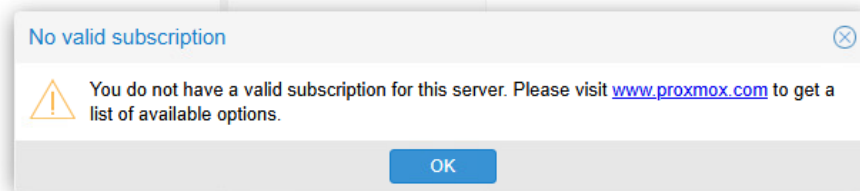
a.

GUI Network Config for PVE

1. Now connect to the GUI at: `https://<IP>:8006`



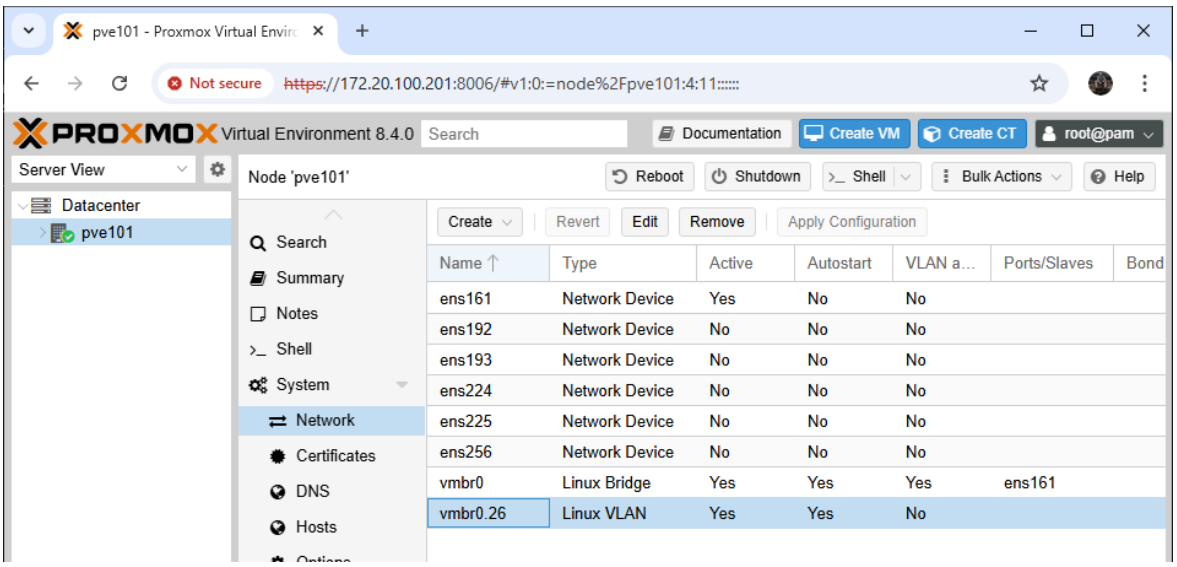
a.



b.

- First thing we are going to do is setup the basic network for trunking all available TRUNK ports. Select the LinuxVLAN (if specified) and remove

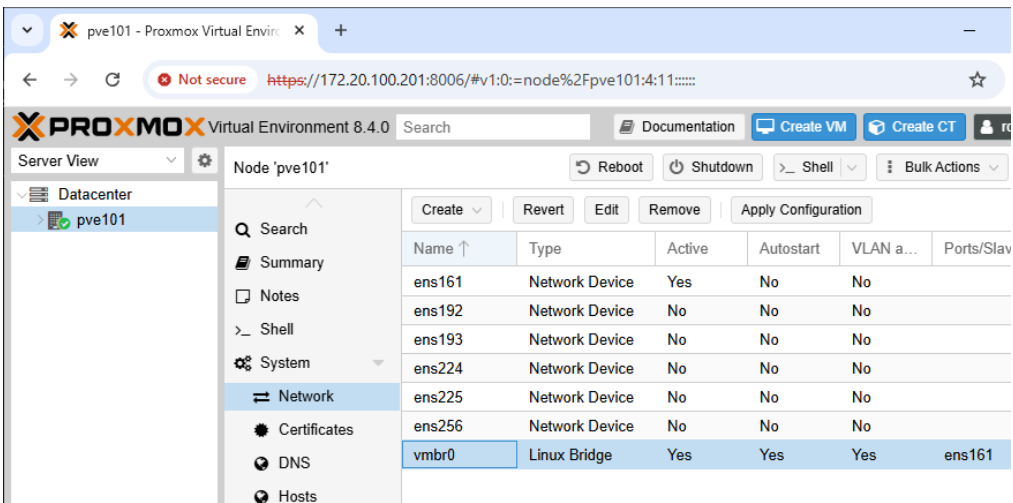
a.



b.

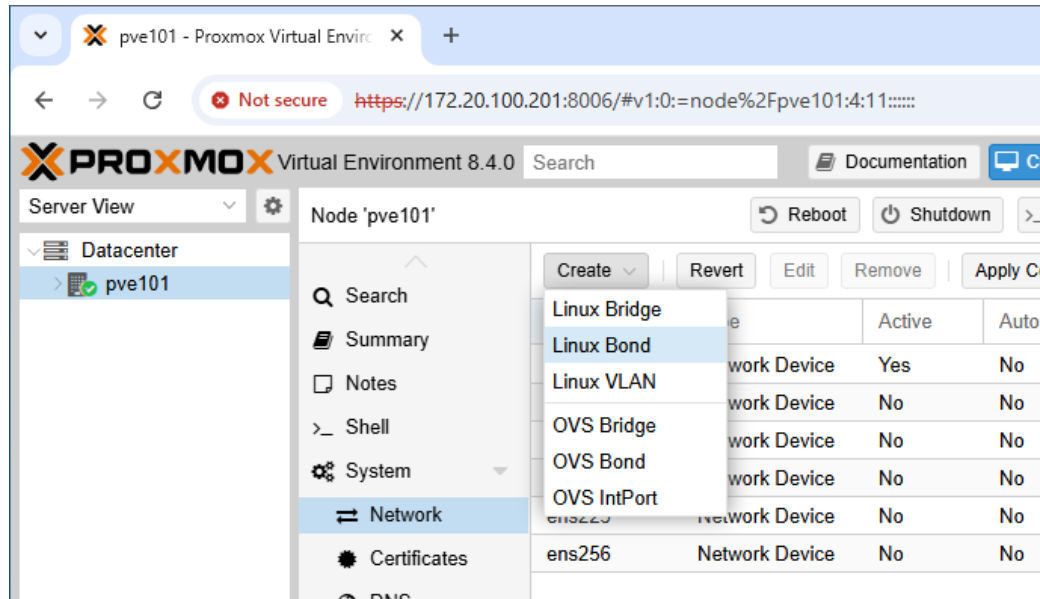
- Now select the bridge itself and remove

a.

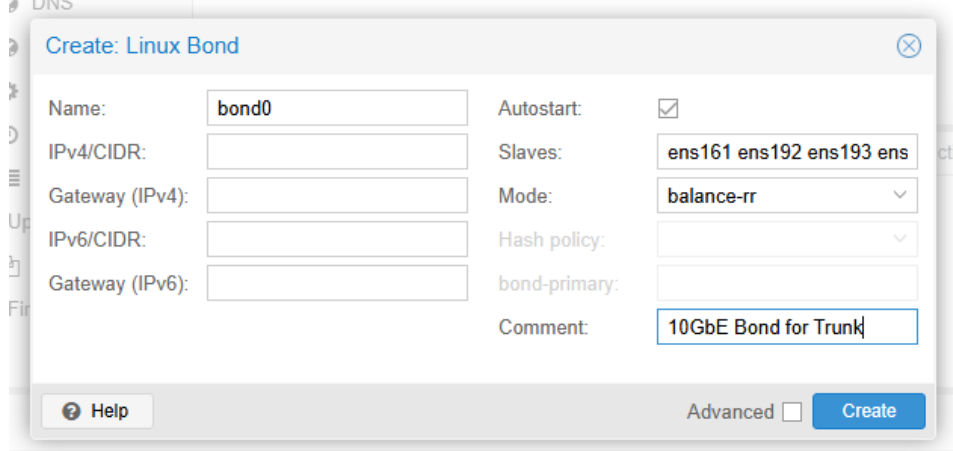


b.

4. Now we'll add a Bond so that we can specify load-balancing

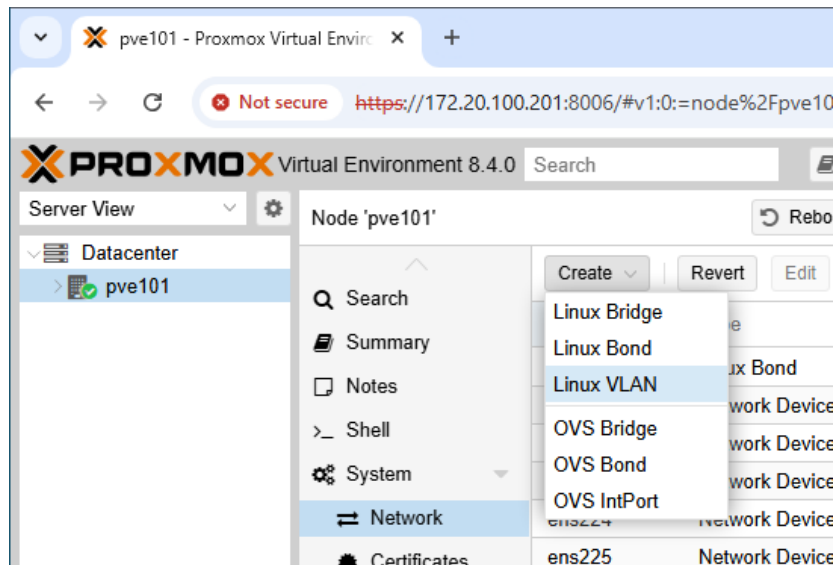


- a.
- b. Set the Bond to use all TRUNKED ports available and name it

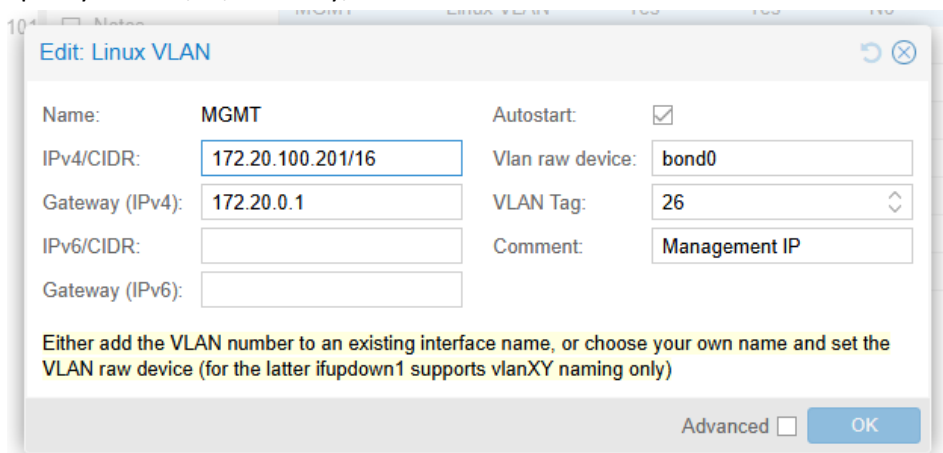


- c.

5. Next we'll create a Linux VLAN (IP) on the bond for management



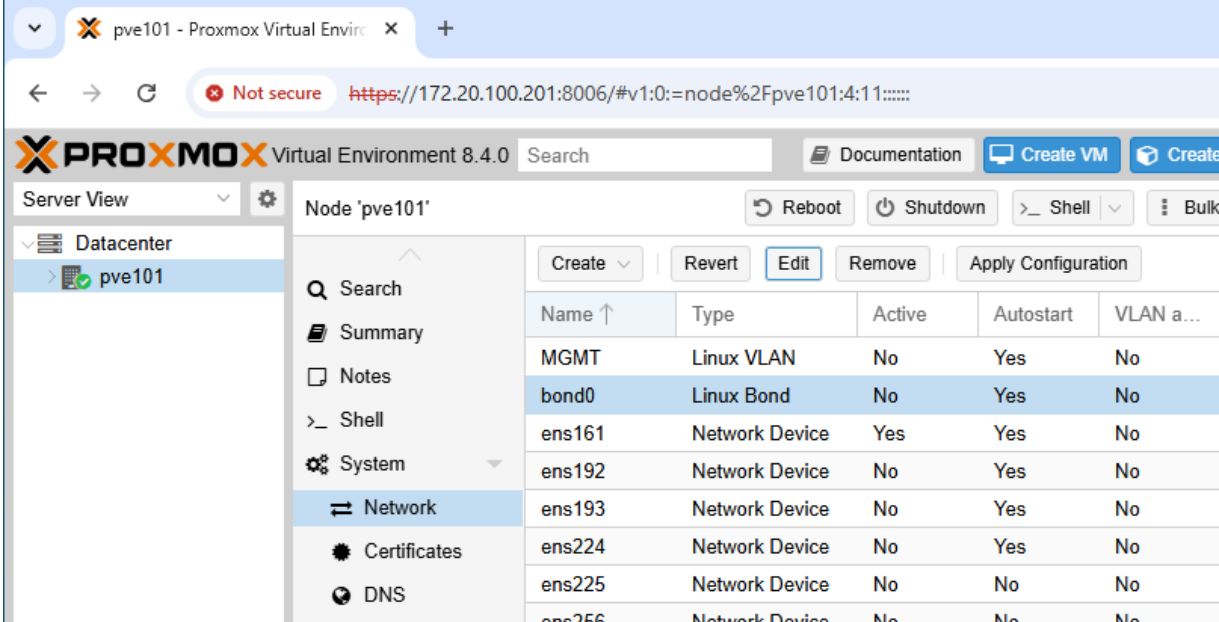
- a.
b. Specify a name, IP, Gateway, bond and VLAN as shown



- c.

6. Now Apply Configuration

a.



Node 'pve101'

Name ↑	Type	Active	Autostart	VLAN a...
MGMT	Linux VLAN	No	Yes	No
bond0	Linux Bond	No	Yes	No
ens161	Network Device	Yes	Yes	No
ens192	Network Device	No	Yes	No
ens193	Network Device	No	Yes	No
ens224	Network Device	No	Yes	No
ens225	Network Device	No	No	No
ens256	Network Device	No	No	No

b.

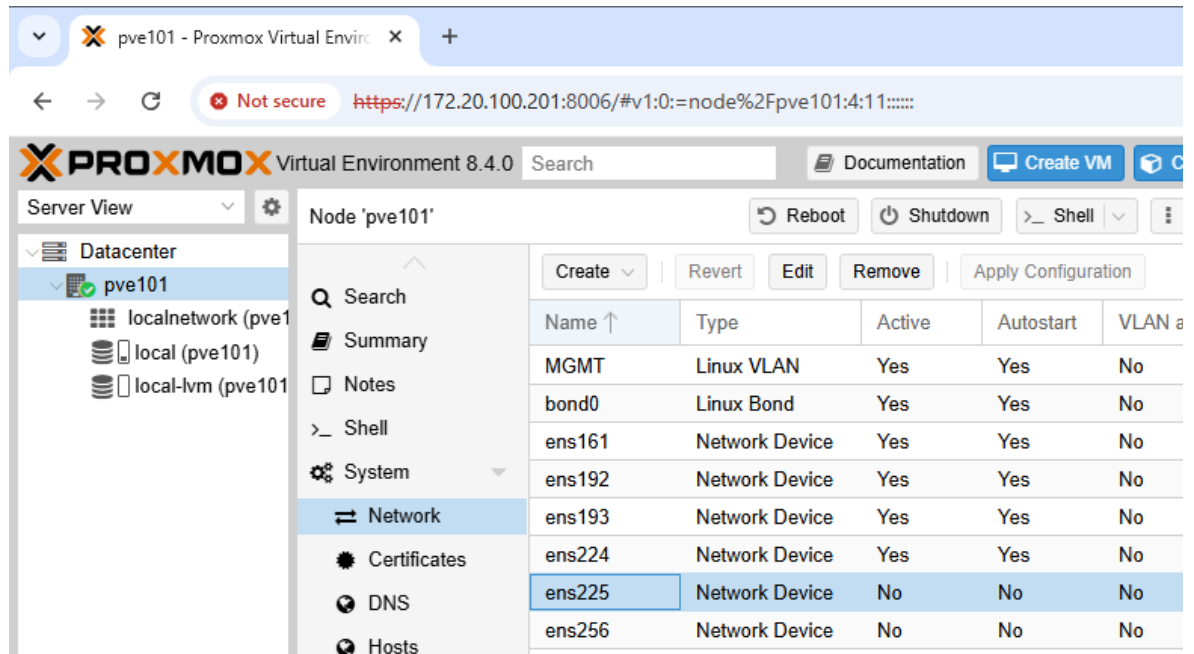
Confirm

Do you want to apply pending network changes?

Yes No

GUI iSCSI Config for PVE

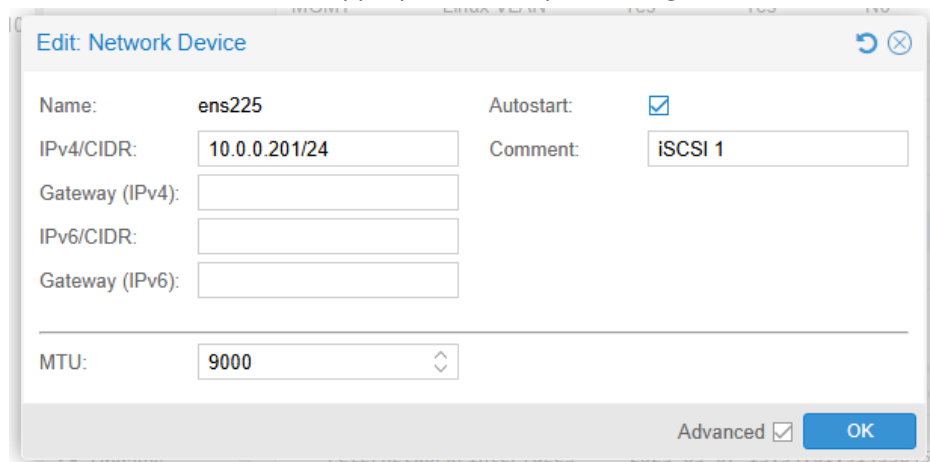
1. We are going to set up networking for iSCSI. Choose an iSCSI interface and select Edit.



Node 'pve101'

Name ↑	Type	Active	Autostart	VLAN a
MGMT	Linux VLAN	Yes	Yes	No
bond0	Linux Bond	Yes	Yes	No
ens161	Network Device	Yes	Yes	No
ens192	Network Device	Yes	Yes	No
ens193	Network Device	Yes	Yes	No
ens224	Network Device	Yes	Yes	No
ens225	Network Device	No	No	No
ens256	Network Device	No	No	No

- a.
- b. Give the iSCSI interface an appropriate IP on your storage network, set MTU and name it.



Edit: Network Device

Name: ens225 Autostart: ☒

IPv4/CIDR: 10.0.0.201/24 Comment: iSCSI 1

Gateway (IPv4):

IPv6/CIDR:

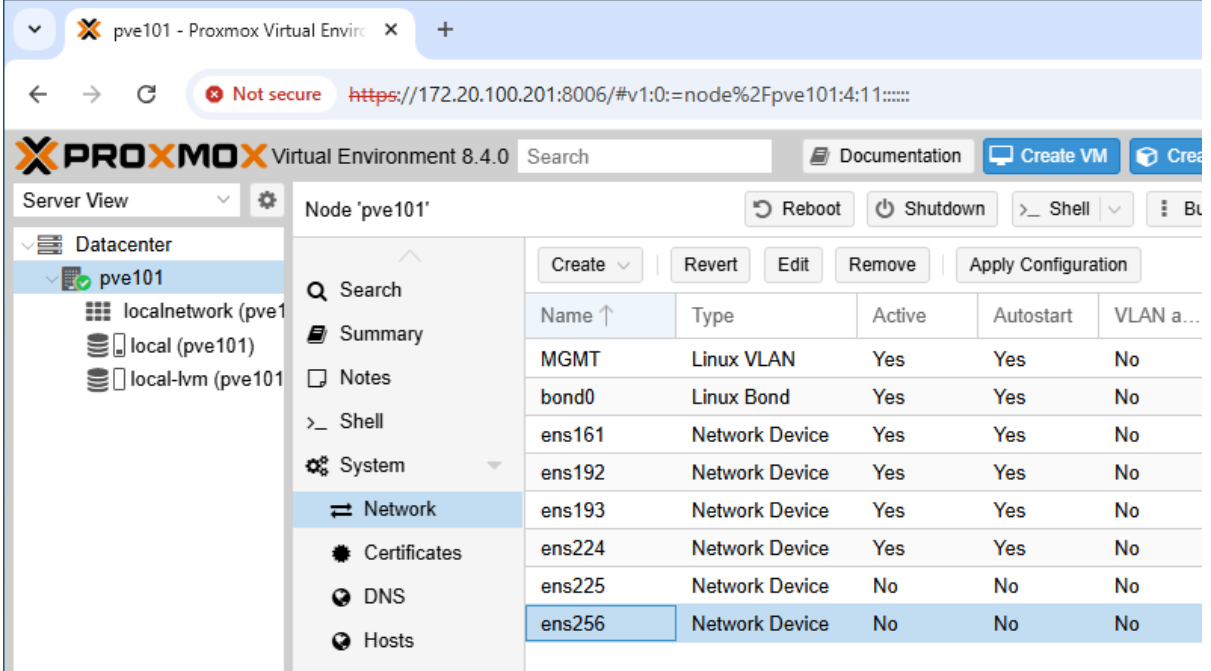
Gateway (IPv6):

MTU: 9000

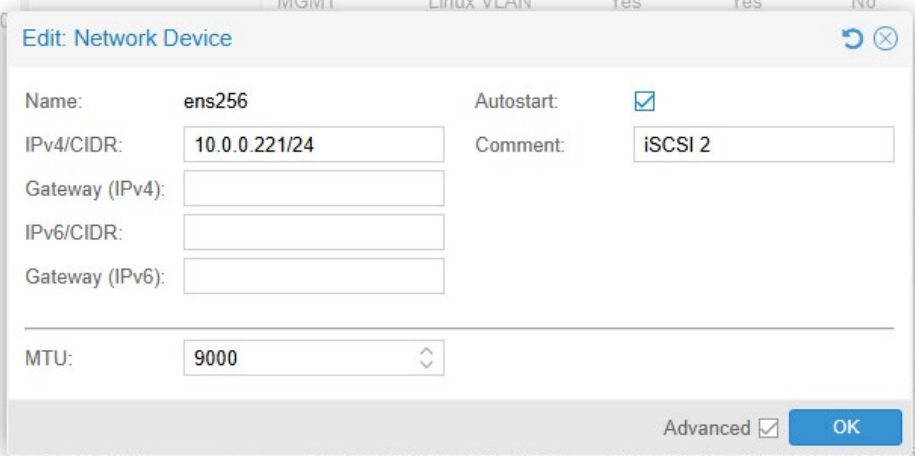
Advanced ☒ OK

- c.

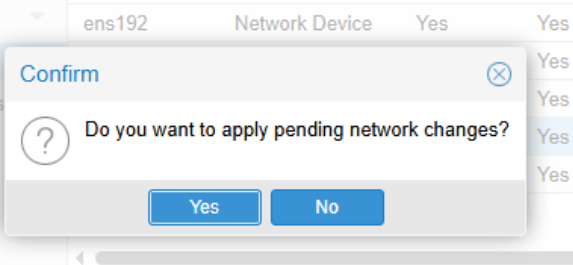
2. If you have more than one iSCSI interface, do the same for all of them,

a. 

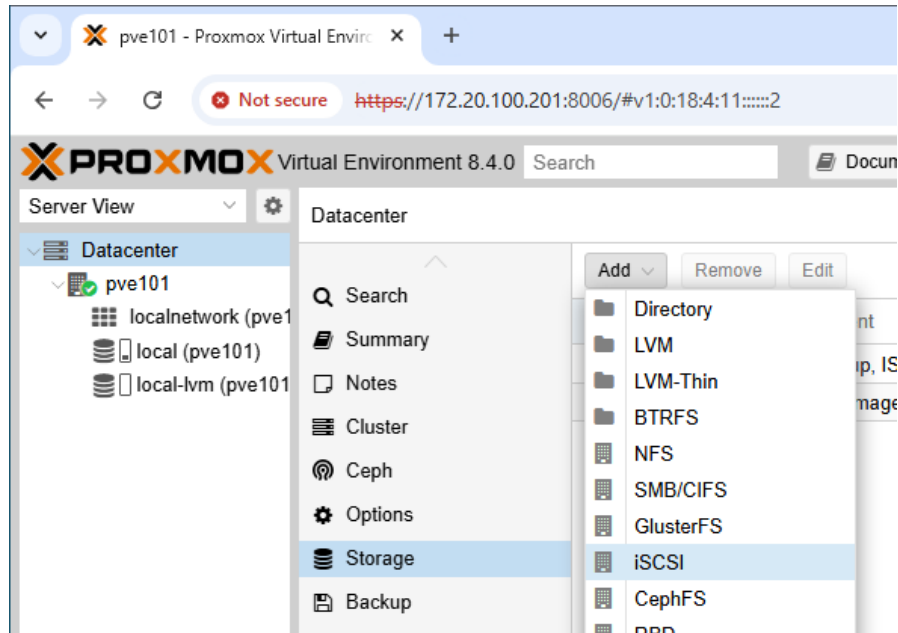
Name ↑	Type	Active	Autostart	VLAN a...
MGMT	Linux VLAN	Yes	Yes	No
bond0	Linux Bond	Yes	Yes	No
ens161	Network Device	Yes	Yes	No
ens192	Network Device	Yes	Yes	No
ens193	Network Device	Yes	Yes	No
ens224	Network Device	Yes	Yes	No
ens225	Network Device	No	No	No
ens256	Network Device	No	No	No

b. 

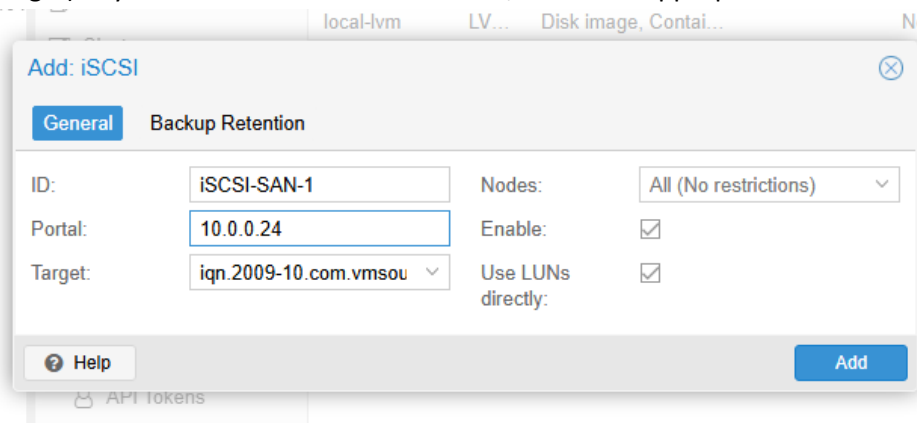
c. Apply changes.

d. 

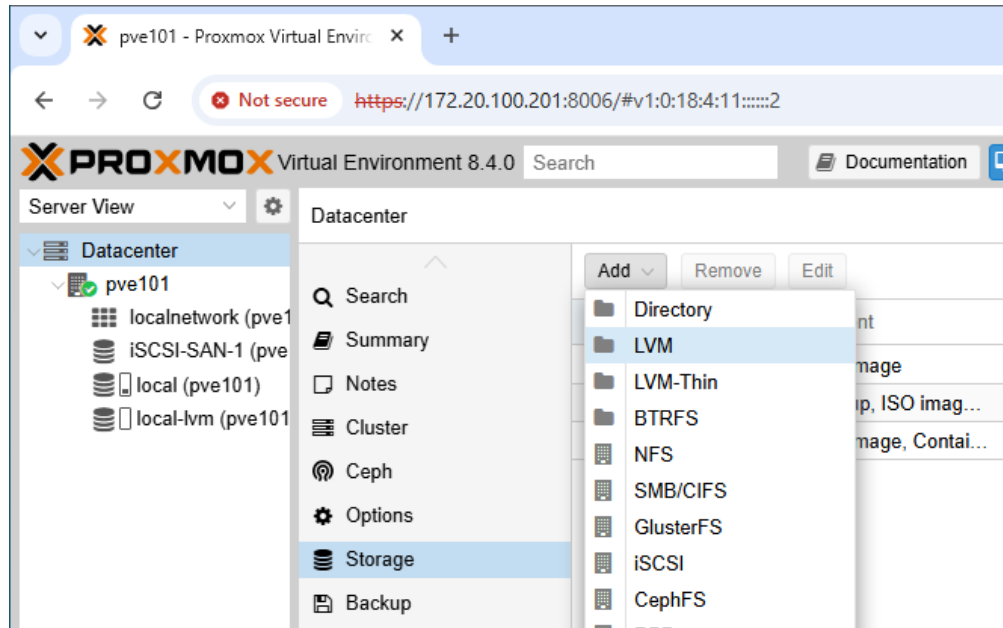
3. Now we are going to connect to the SAN: Datacenter > Storage > Add > iSCSI



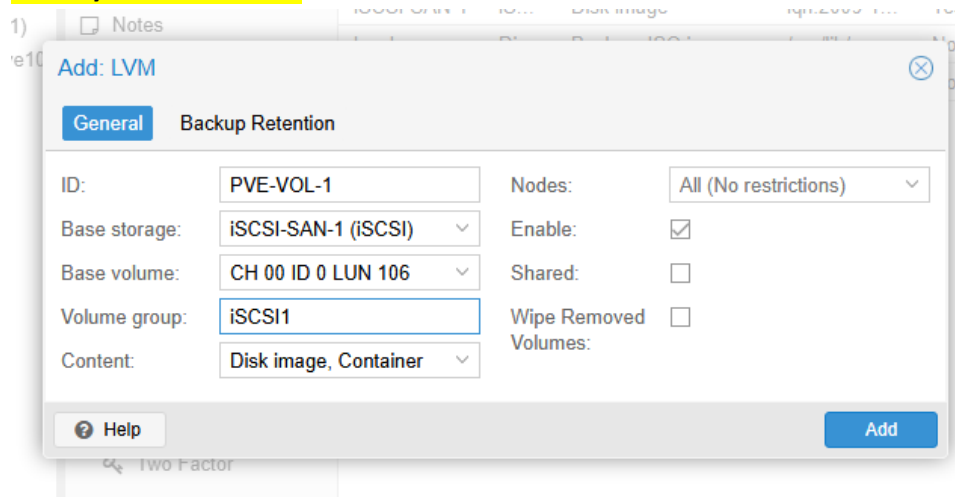
- a.
- b. Name the SAN (ID) set the SAN discovery IP (Portal) and then your SANs IQN should show up (Target). If your SAN has more than one IQN, select the appropriate one for PVE.



4. Now go to: Datacenter > Storage > Add > LVM (NOTE: LVM is only one of the ways to use iSCSI in PVE)



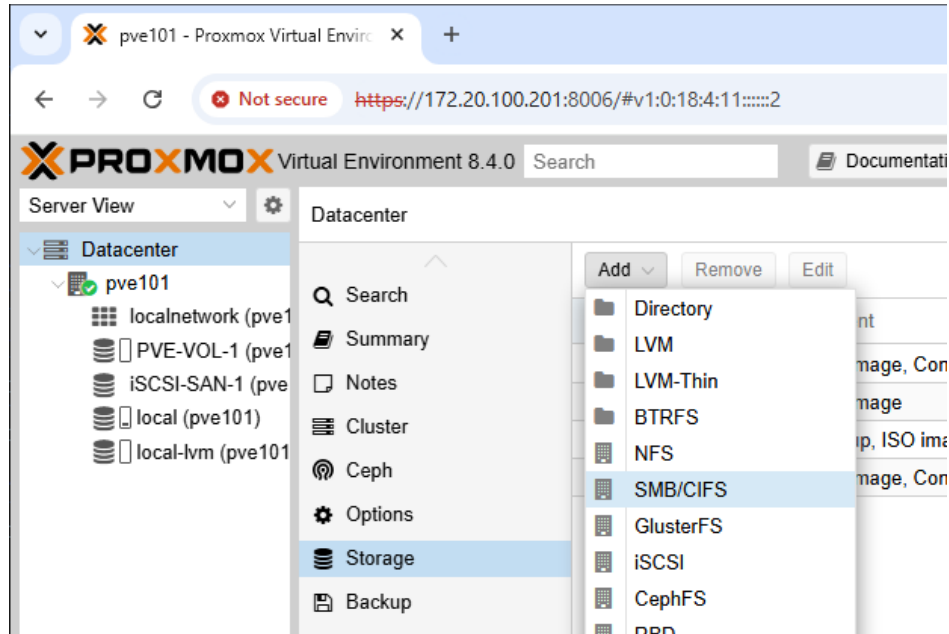
- a.
- b. Set the name for your volume (ID), Choose the SAN (Base storage), select the SAN LUN (Base Volume), name the (Volume group) and select Add. **NOTE: Do not use a SAN LUN (Base Volume) that contains any valid or in-use data as this process will overwrite the SAN LUN which you have chosen.**



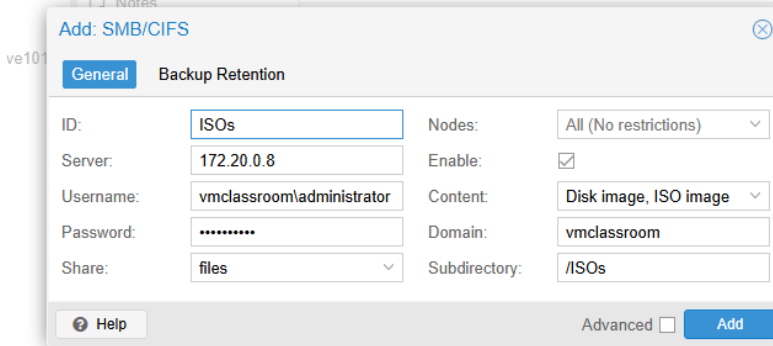
- c.

GUI SMB/CIFS for ISO Images

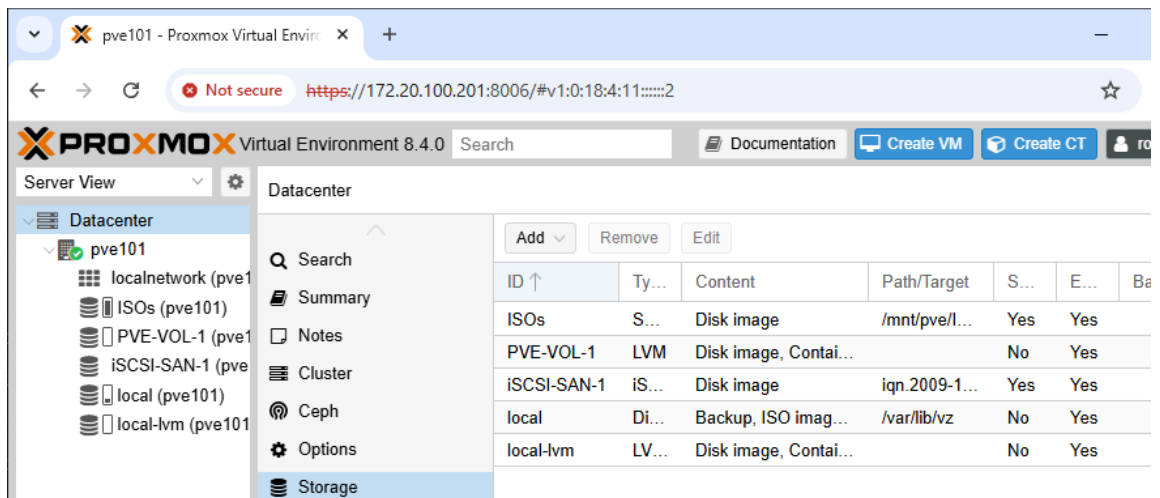
- Now we are going to set up a SMB share as a source for ISO images: Datacenter > Storage > Add > SMB/CIFS



-
- Specify the SMB parameters > Add

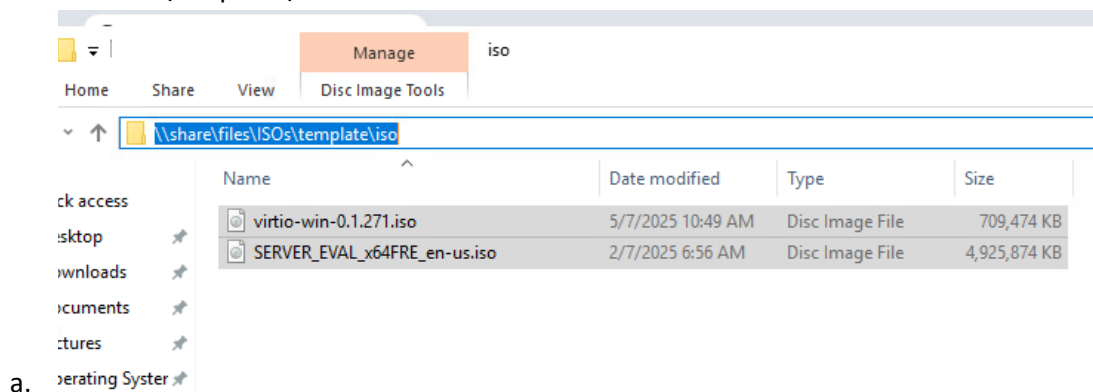


- Complete



-

2. PVE will create folders on your SMB/CIFS Share, you need to put the ISOs in the correct folder:
 <FOLDERNAME>\template\iso

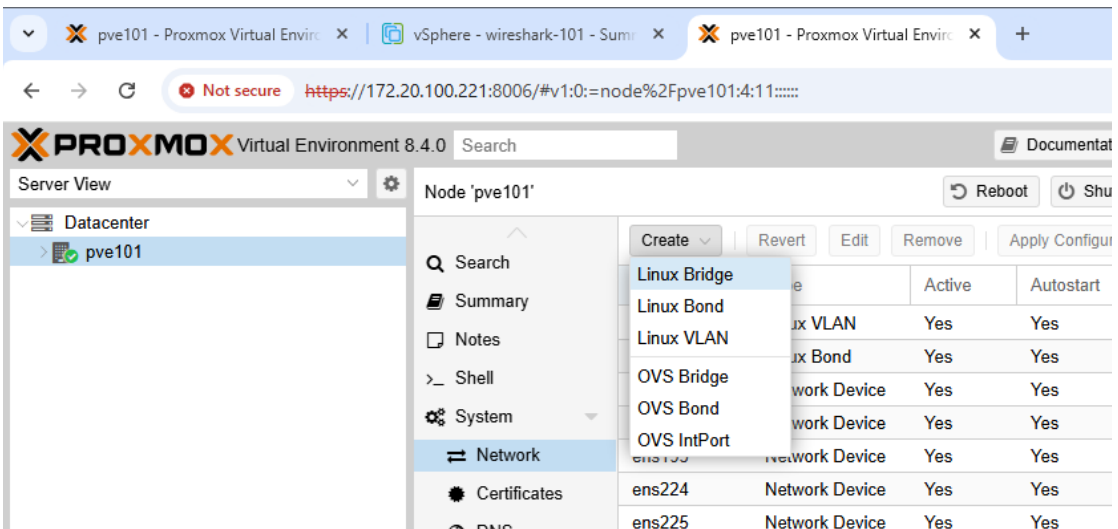


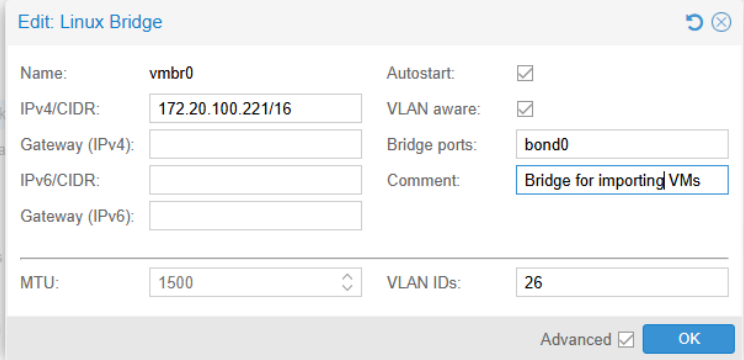
Name	Date modified	Type	Size
virtio-win-0.1.271.iso	5/7/2025 10:49 AM	Disc Image File	709,474 KB
SERVER_EVAL_x64FRE_en-us.iso	2/7/2025 6:56 AM	Disc Image File	4,925,874 KB

a. Operating System

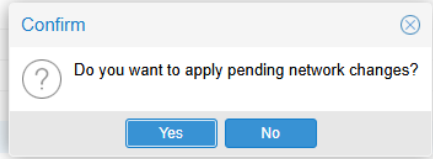
Migrate VMs from ESXi

1. To migrate VMs, we'll need a Bridge: Host > Network > Create > Linux Bridge

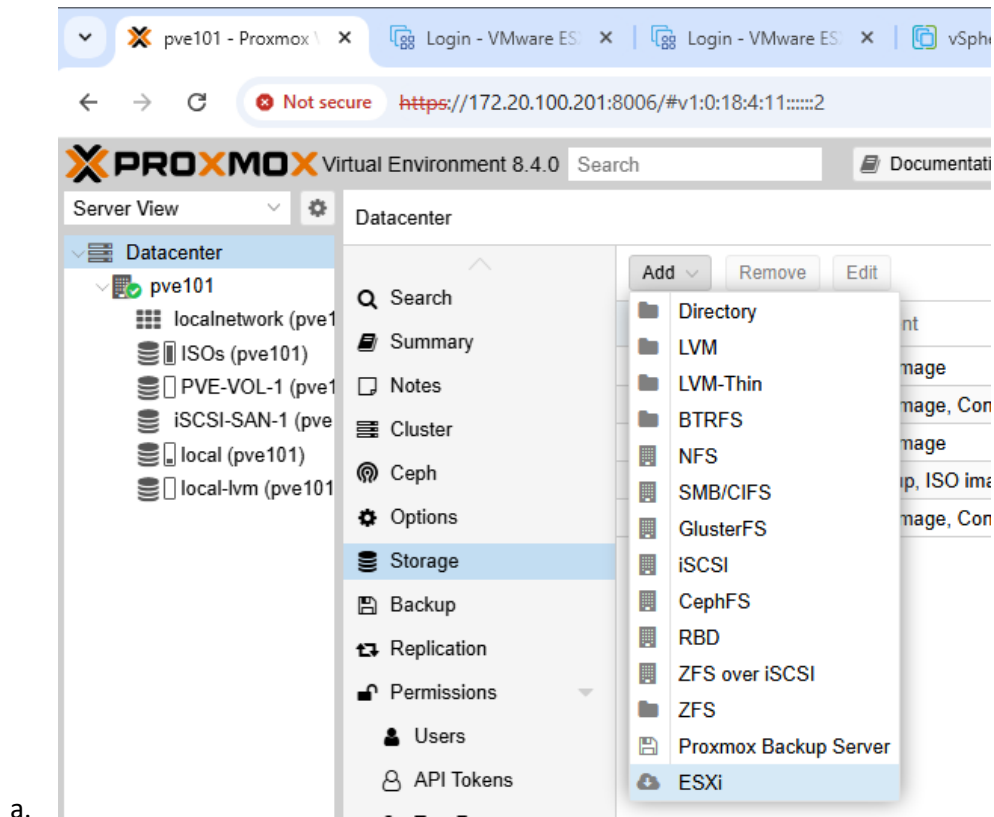
a. 

b. 

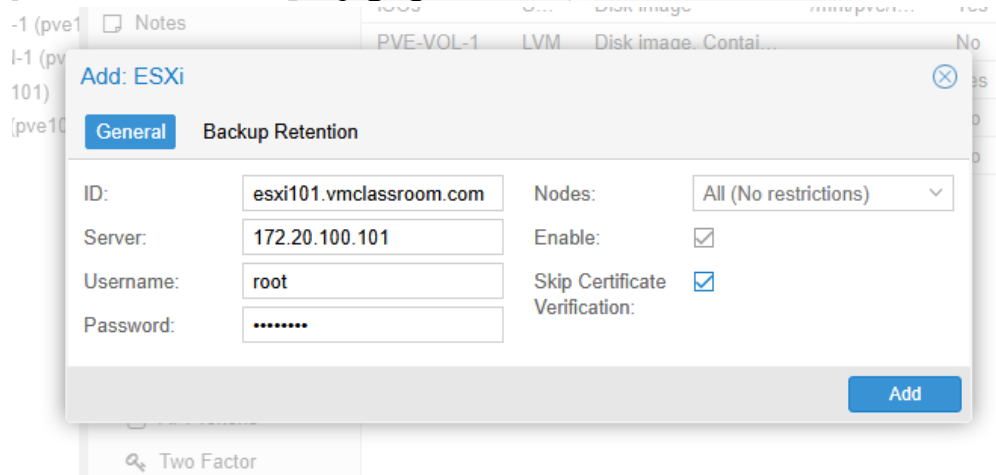
c. Don't forget to apply configuration

d. 

2. Now we can add our ESXi host(s): Datacenter > Storage > Add > ESXi

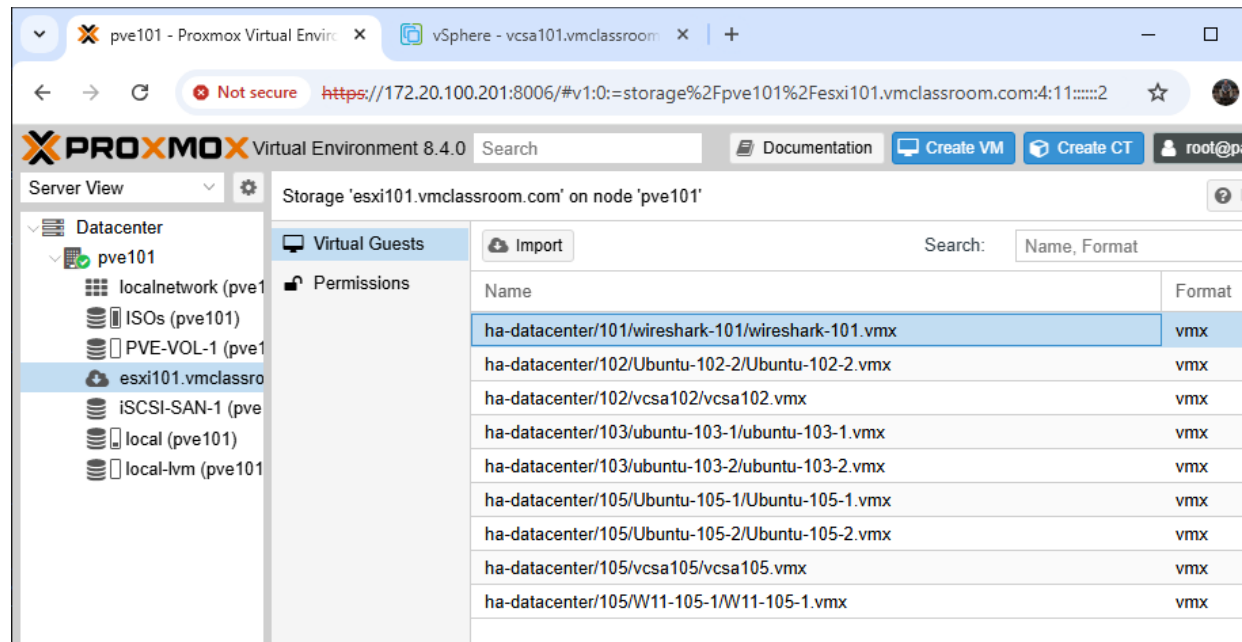


a.

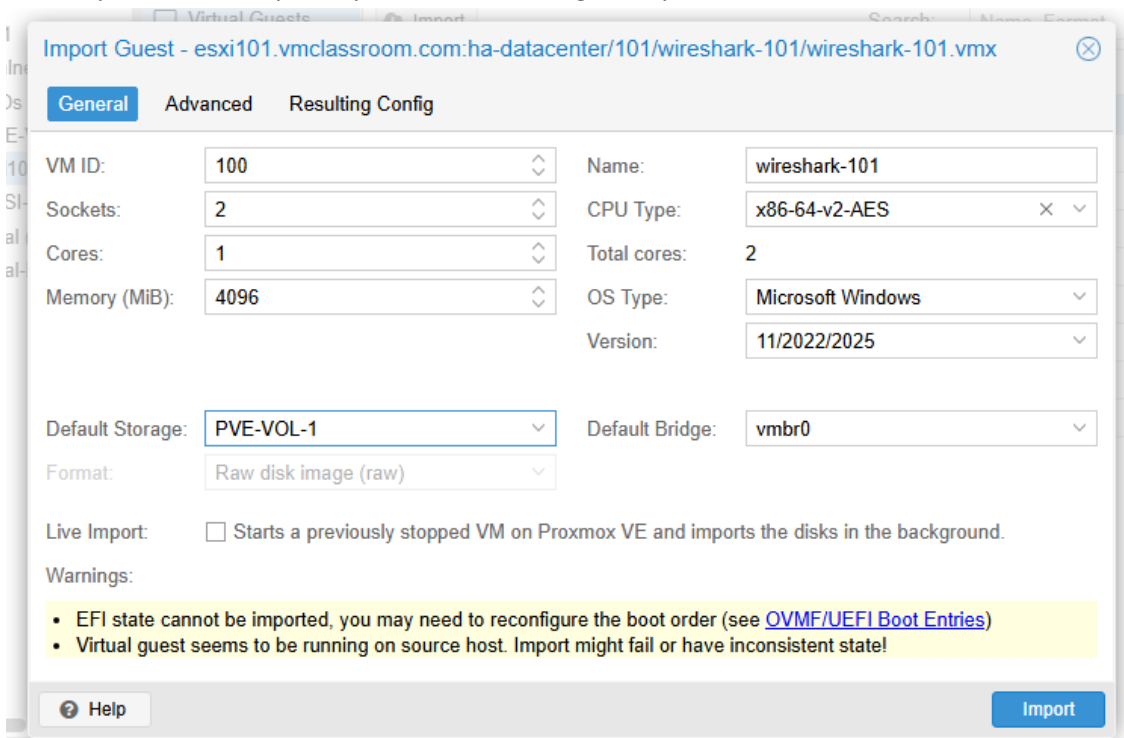


b.

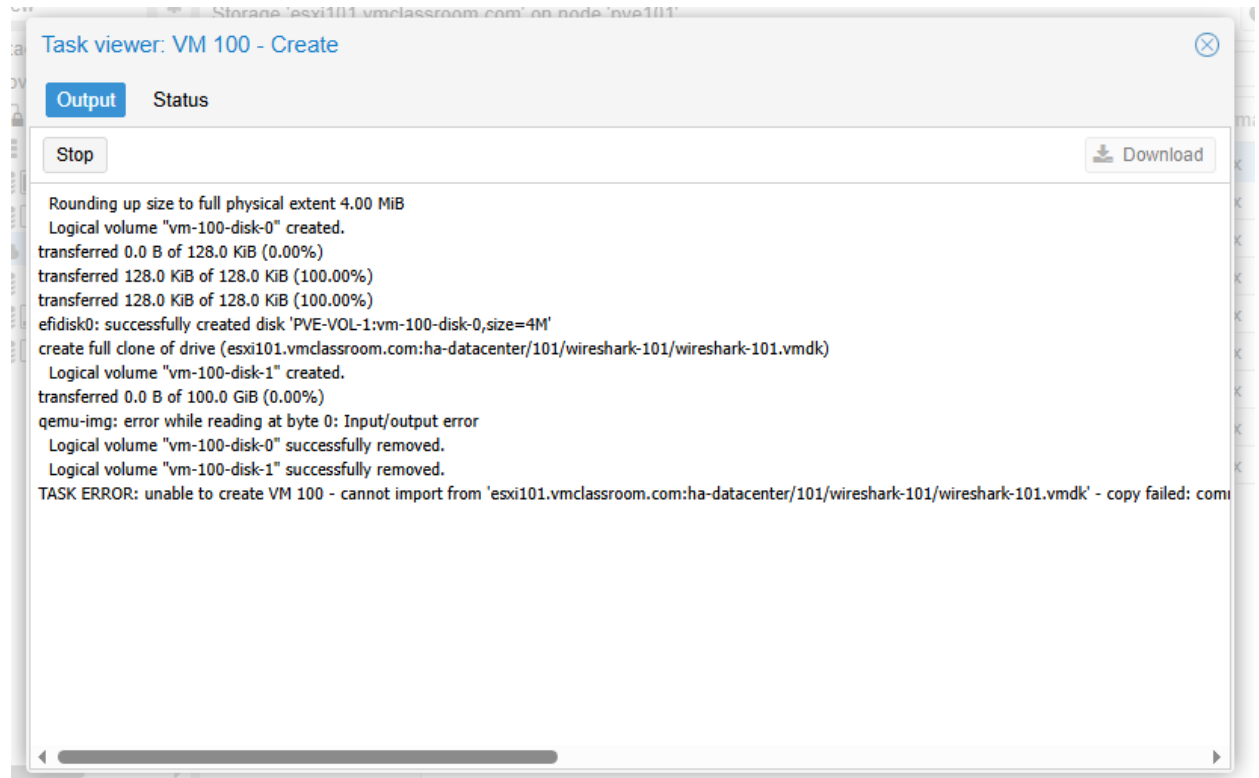
3. At this point we are ready to import VMs from ESXi: PVE Host > ESXi > Import



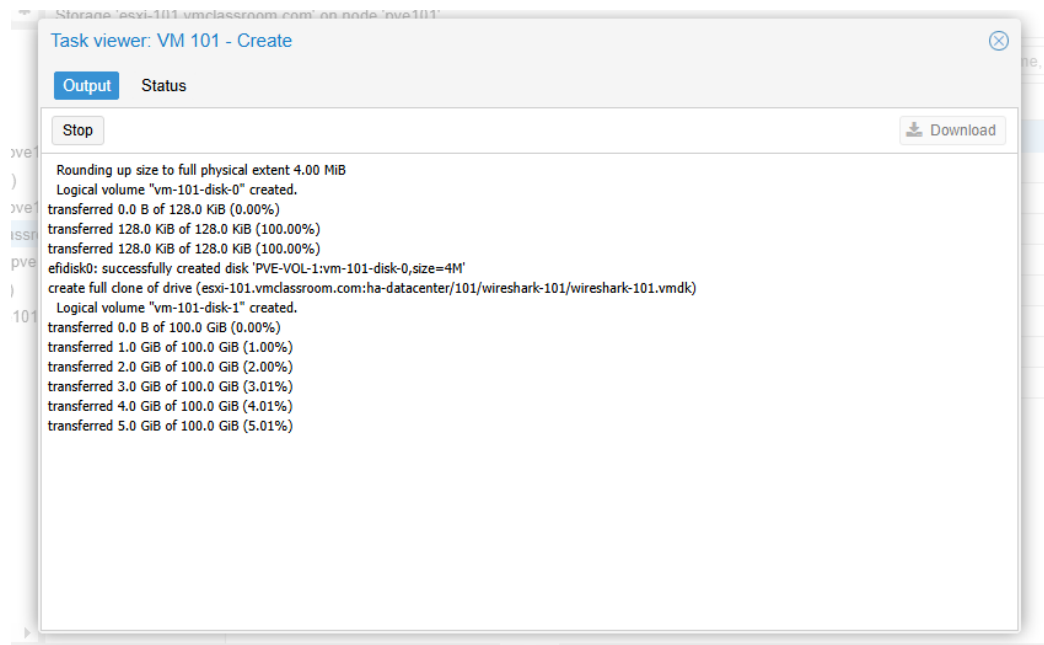
4. Set the parameters, especially destination storage > Import



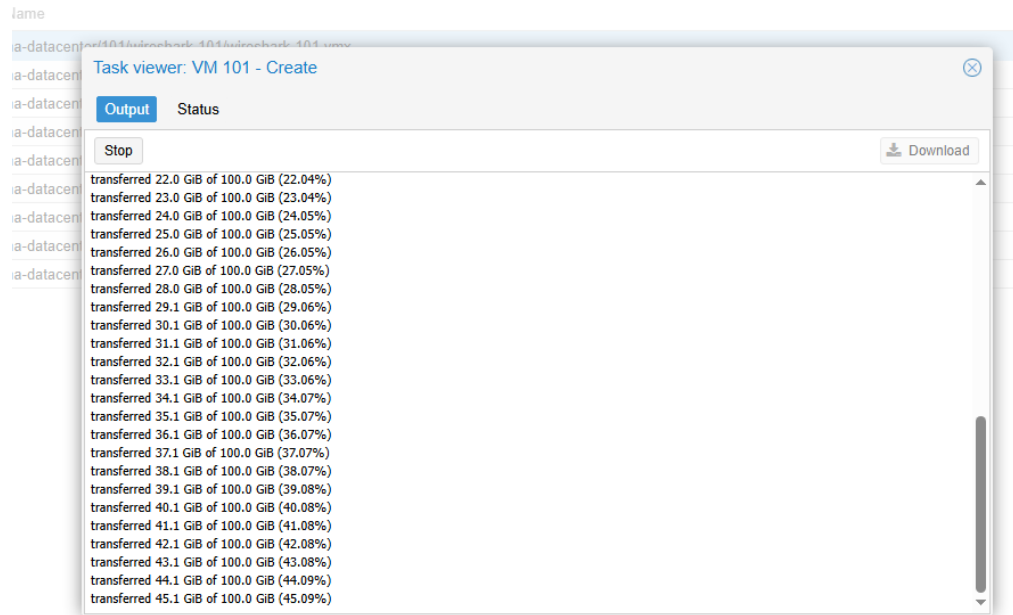
- a. If you get an error, the source VM may be powered-on



- b.
- c. This is what it should look like



- d.



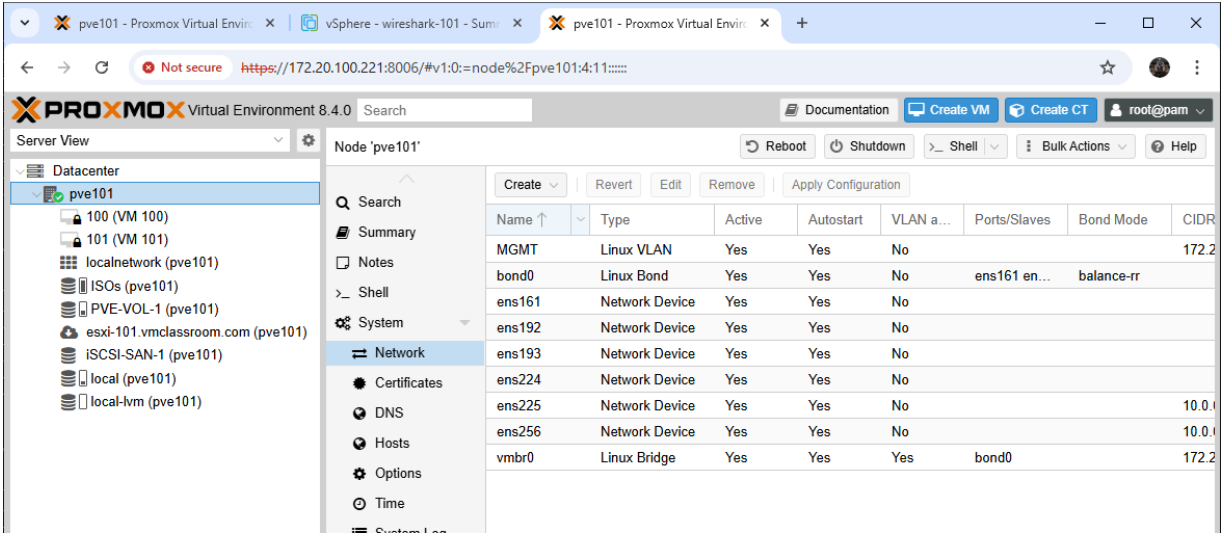
e.

- Once the VM is fully imported, you will need to add or assign the CD/DVD to the VirtIO ISO in the SMB share you created earlier and install the VirtIO Tools for Windows (if it is a Windows VM)

Building a VM

1. Click on > Create VM

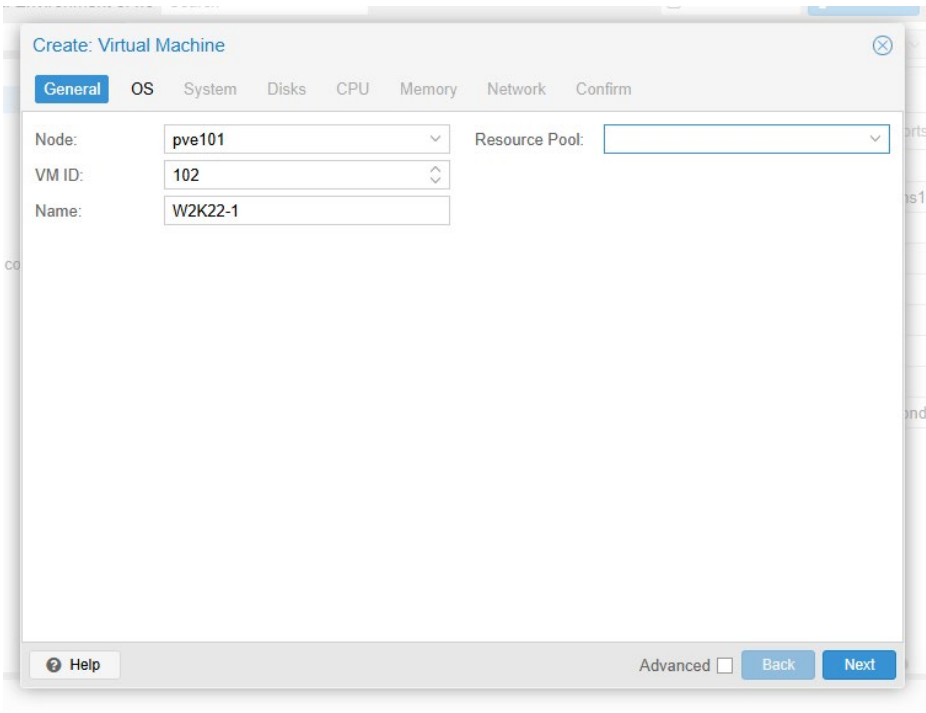
a.



Name	Type	Active	Autostart	VLAN a...	Ports/Slaves	Bond Mode	CIDR
MGMT	Linux VLAN	Yes	Yes	No			172.2
bond0	Linux Bond	Yes	Yes	No	ens161 en...	balance-rr	
ens161	Network Device	Yes	Yes	No			
ens192	Network Device	Yes	Yes	No			
ens193	Network Device	Yes	Yes	No			
ens224	Network Device	Yes	Yes	No			
ens225	Network Device	Yes	Yes	No			10.0.0
ens256	Network Device	Yes	Yes	No			10.0.0
vbr0	Linux Bridge	Yes	Yes	Yes	bond0		172.2

2. Set the VM friendly name

a.

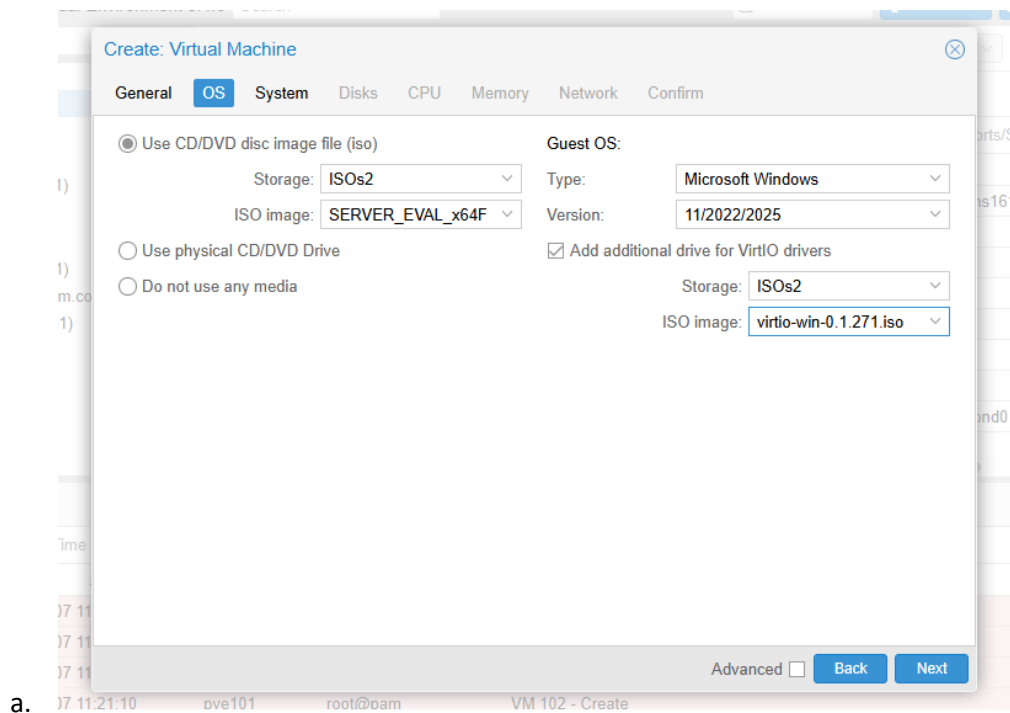


Create: Virtual Machine
 General OS System Disks CPU Memory Network Confirm

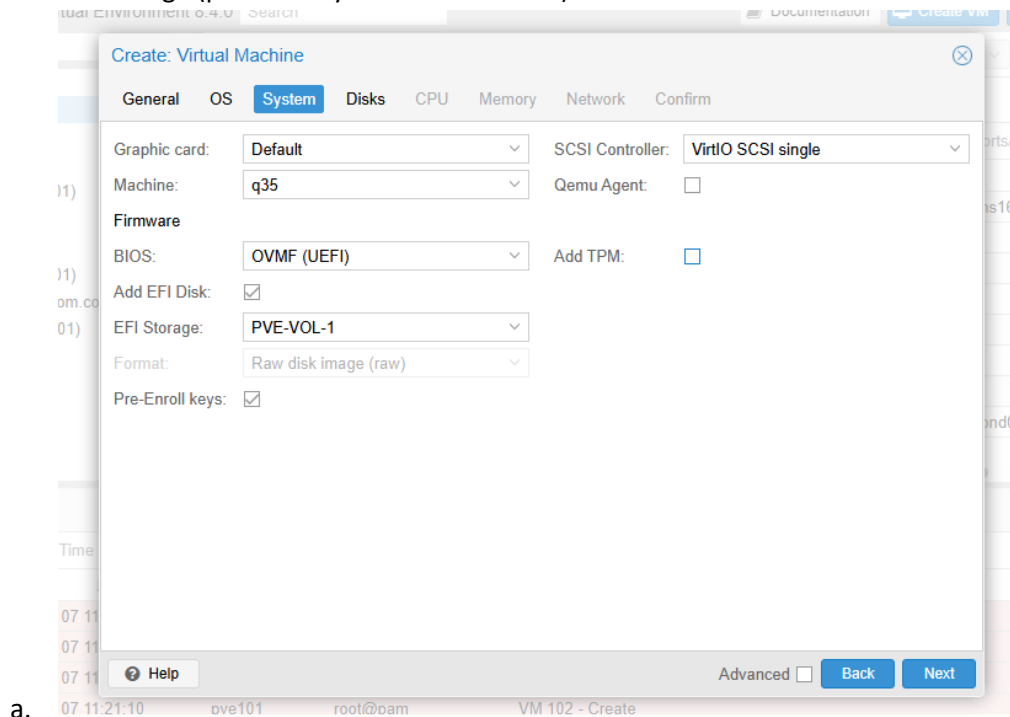
Node: Resource Pool:
 VM ID:
 Name:

Help Advanced ☐ Back Next

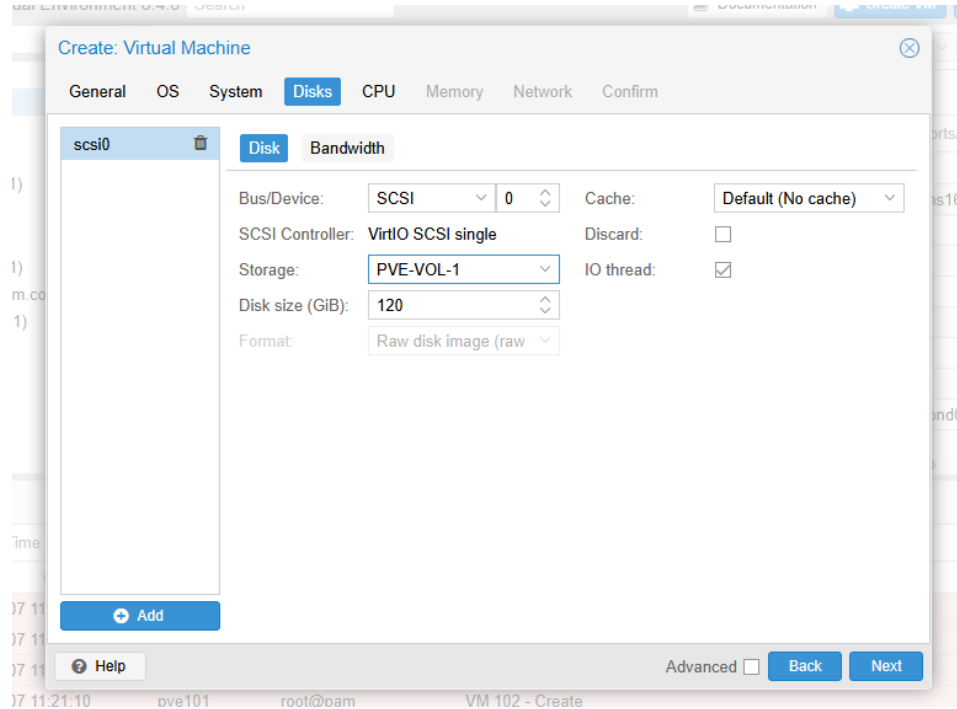
3. Choose the source for the ISO and select your ISO. Then add an additional disk for VirtIO drivers and choose the VirtIO ISO



4. Choose EFI Storage (presumably iSCSI SAN volume)



5. Choose disk storage (presumably iSCSI SAN volume)



Create: Virtual Machine

General OS System **Disks** CPU Memory Network Confirm

scsi0 **Disk** Bandwidth

Bus/Device: SCSI 0 Cache: Default (No cache)

SCSI Controller: VirtIO SCSI single Discard: ☐

Storage: PVE-VOL-1 IO thread: ☒

Disk size (GiB): 120

Format: Raw disk image (raw)

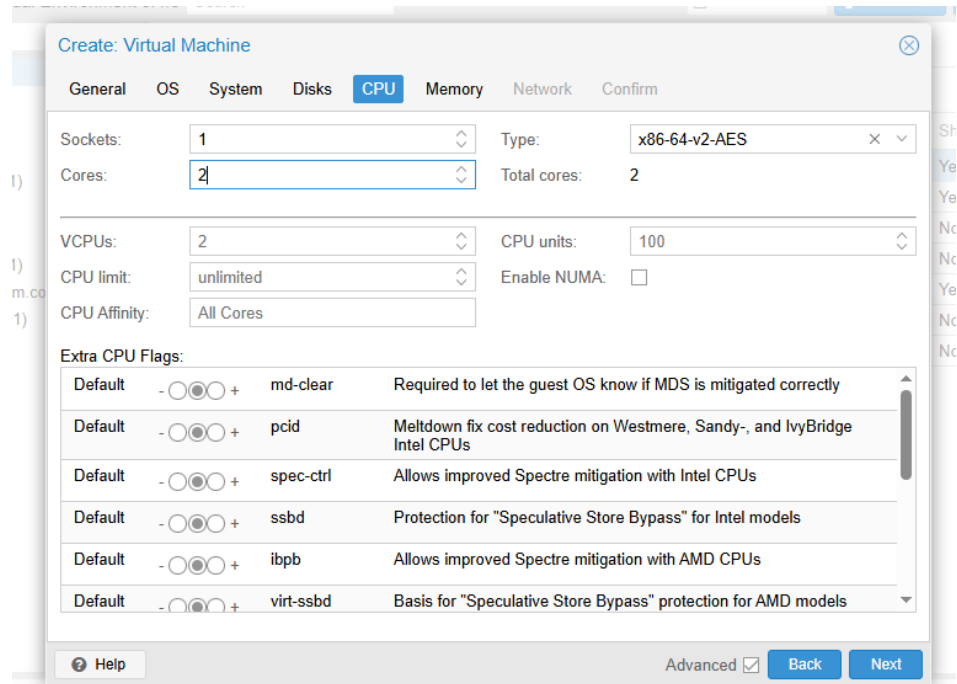
+ Add

Help Advanced ☐ Back Next

17 11:21:10 pve101 root@pam VM 102 - Create

a.

6. Set CPU



Create: Virtual Machine

General OS System Disks **CPU** Memory Network Confirm

Sockets: 1 Type: x86-64-v2-AES

Cores: 2 Total cores: 2

VCPUs: 2 CPU units: 100

CPU limit: unlimited Enable NUMA: ☐

CPU Affinity: All Cores

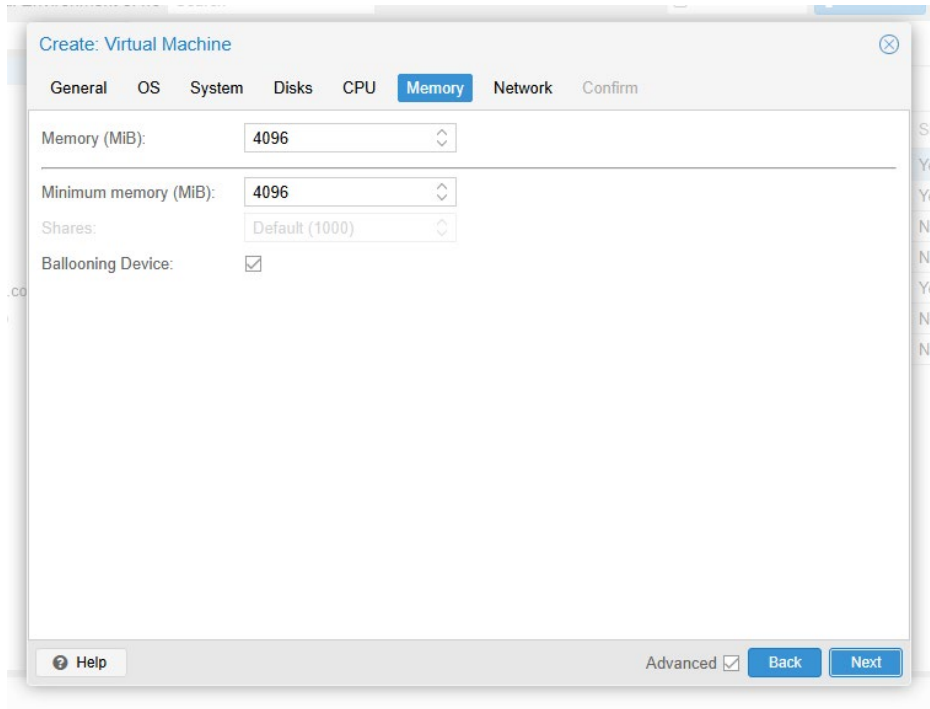
Extra CPU Flags:

Default	- ☐ ☒ +	md-clear	Required to let the guest OS know if MDS is mitigated correctly
Default	- ☐ ☒ +	pcid	Meltdown fix cost reduction on Westmere, Sandy-, and IvyBridge Intel CPUs
Default	- ☐ ☒ +	spec-ctrl	Allows improved Spectre mitigation with Intel CPUs
Default	- ☐ ☒ +	ssbd	Protection for "Speculative Store Bypass" for Intel models
Default	- ☐ ☒ +	ibpb	Allows improved Spectre mitigation with AMD CPUs
Default	- ☐ ☒ +	virt-ssbd	Basis for "Speculative Store Bypass" protection for AMD models

Help Advanced ☒ Back Next

a.

7. Set memory



Create: Virtual Machine

General OS System Disks CPU **Memory** Network Confirm

Memory (MiB): 4096

Minimum memory (MiB): 4096

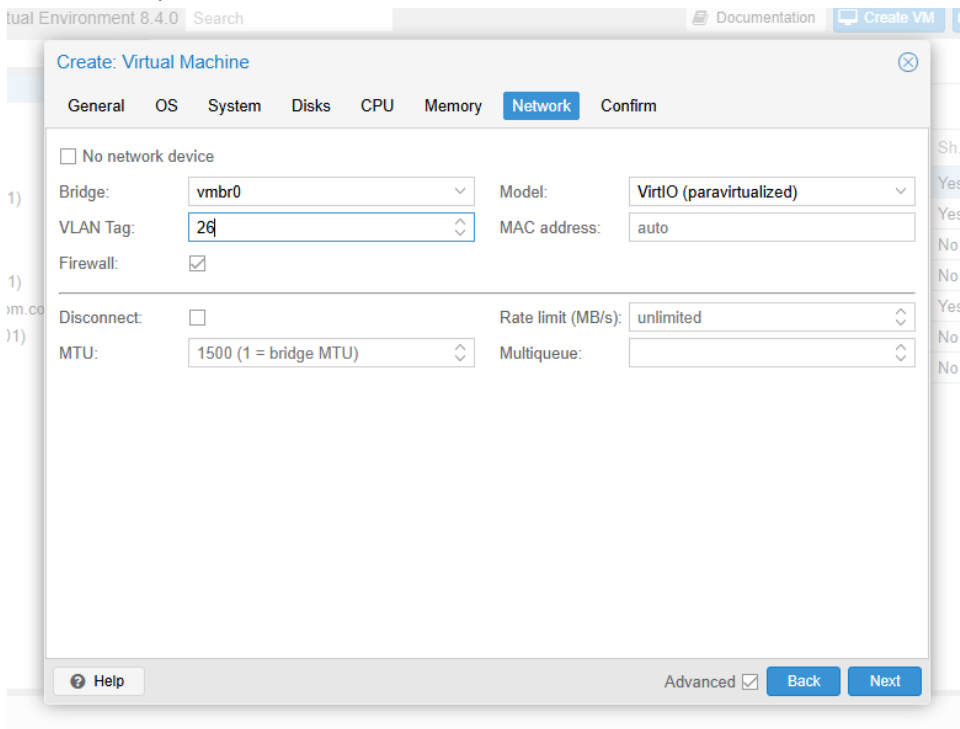
Shares: Default (1000)

Ballooning Device: ☒

Help Advanced ☒ Back Next

a.

8. Provide a VLAN if required



Create: Virtual Machine

General OS System Disks CPU Memory **Network** Confirm

☐ No network device

1) Bridge: vmbri0 Model: VirtIO (paravirtualized)

VLAN Tag: 26 MAC address: auto

1) Firewall: ☒

1) Disconnect: ☐ Rate limit (MB/s): unlimited

1) MTU: 1500 (1 = bridge MTU) Multiqueue:

Help Advanced ☒ Back Next

a.

9. Click finish

Create: Virtual Machine

General OS System Disks CPU Memory Network **Confirm**

Key ↑	Value
bios	ovmf
boot	order=scsi0;ide2;ide0;net0
cores	2
cpu	x86-64-v2-AES
efidisk0	PVE-VOL-1:1,efitype=4m,pre-enrolled-keys=1
ide0	ISOs2:iso/virtio-win-0.1.271.iso,media=cdrom
ide2	ISOs2:iso/SERVER_EVAL_x64FRE_en-us.iso,media=cdrom
machine	q35
memory	4096
name	W2K22-1
net0	virtio,bridge=vmbr0,tag=26,firewall=1
nodename	pve101
numa	0
ostype	win11

☐ Start after created

Advanced ☒ **Back** **Finish**

a.

10. Wait for the VM to create and click Start

PROXMOX Virtual Environment 8.4.0

Server View

- Datacenter
 - pve101
 - 100 (VM 100)
 - 101 (VM 101)
 - 102 (W2K22-1)**
 - localnetwork (pve101)
 - ISOs (pve101)
 - ISOs2 (pve101)
 - PVE-VOL-1 (pve101)
 - esxi-101.vmclassroom.com (pve101)
 - iSCSI-SAN-1 (pve101)
 - local (pve101)
 - local-lvm (pve101)

Virtual Machine 102 (W2K22-1) on node 'pve101' No Tags **Start** Shutdown

Summary

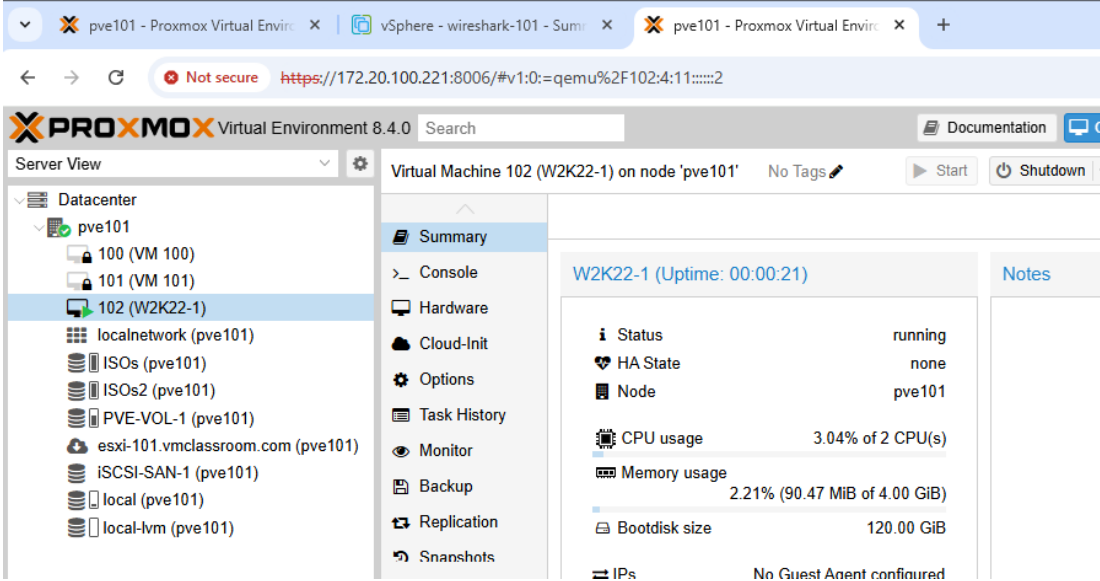
W2K22-1

Status	stopped
HA State	none
Node	pve101
CPU usage	0.00% of 2 CPU(s)
Memory usage	0.00% (0 B of 4.00 GiB)
Bootdisk size	120.00 GiB
IPs	No Guest Agent configured

a.

11. VM is now on

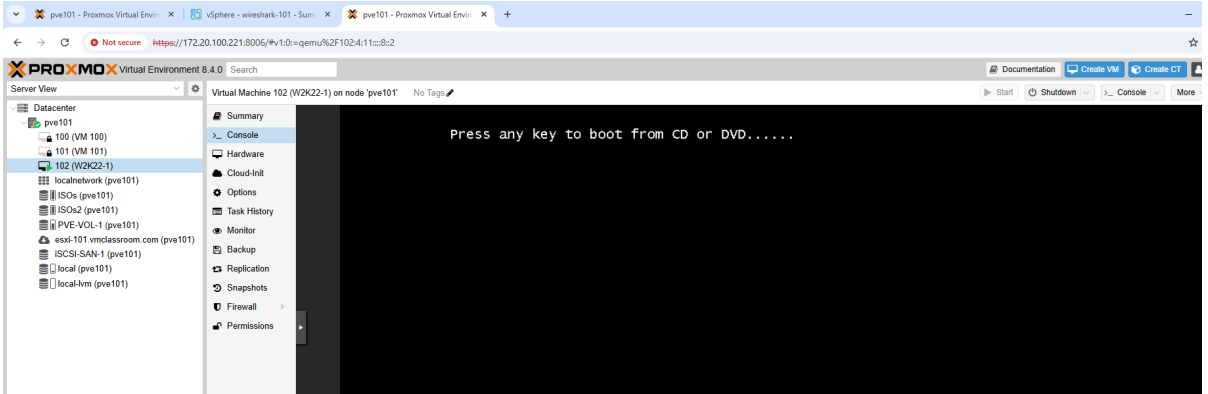
a.



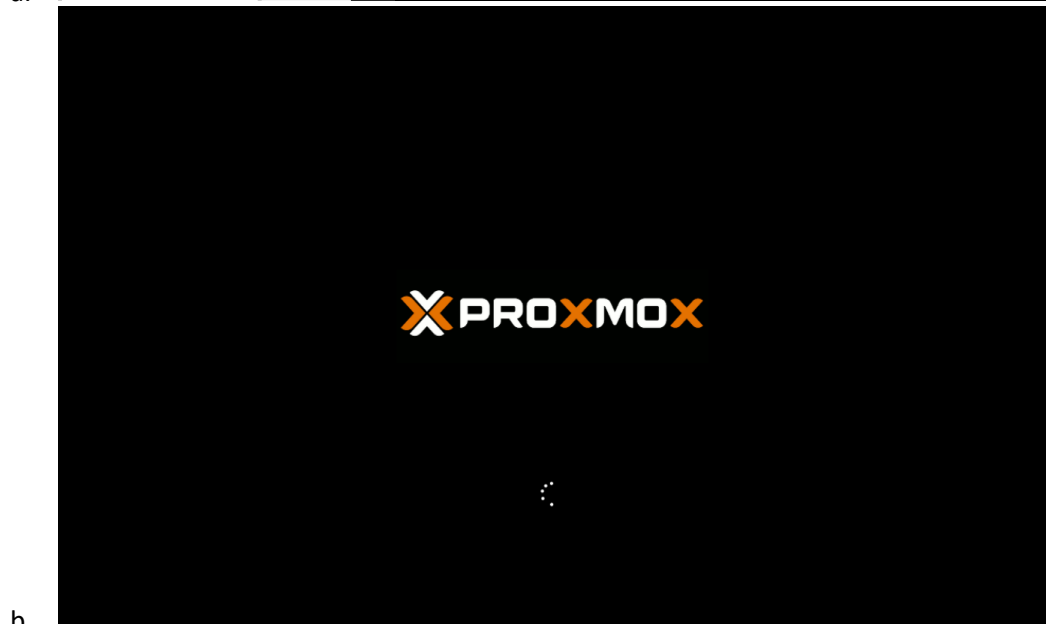
The screenshot shows the Proxmox VE 8.4.0 interface. On the left, the 'Server View' sidebar shows a list of VMs under 'pve101', with '102 (W2K22-1)' selected. The main panel displays the 'Summary' tab for 'Virtual Machine 102 (W2K22-1) on node 'pve101''. The status is 'running'. The console view shows the VM's uptime as '00:00:21'. The CPU usage is '3.04% of 2 CPU(s)' and memory usage is '2.21% (90.47 MiB of 4.00 GiB)'. The bootdisk size is '120.00 GiB'. The console output shows 'Press any key to boot from CD or DVD.....'.

12. Click your VM > Console. You may need to reset if boot has timed-out and you find yourself at UEFI. Follow standard OS Installation.

a.

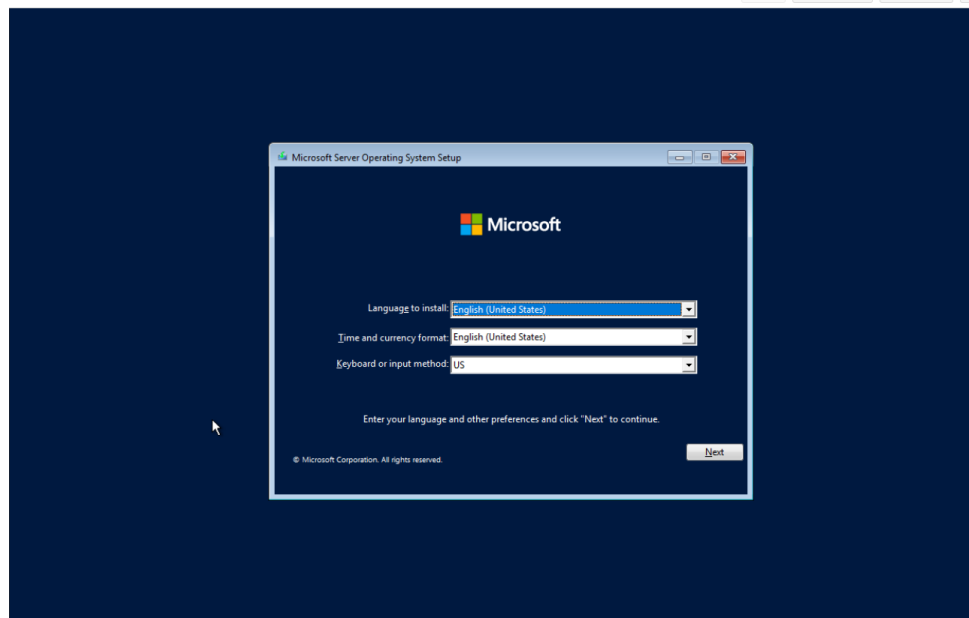


The screenshot shows the Proxmox VE 8.4.0 interface with the 'Console' tab selected for 'Virtual Machine 102 (W2K22-1) on node 'pve101''. The console output shows 'Press any key to boot from CD or DVD.....'.

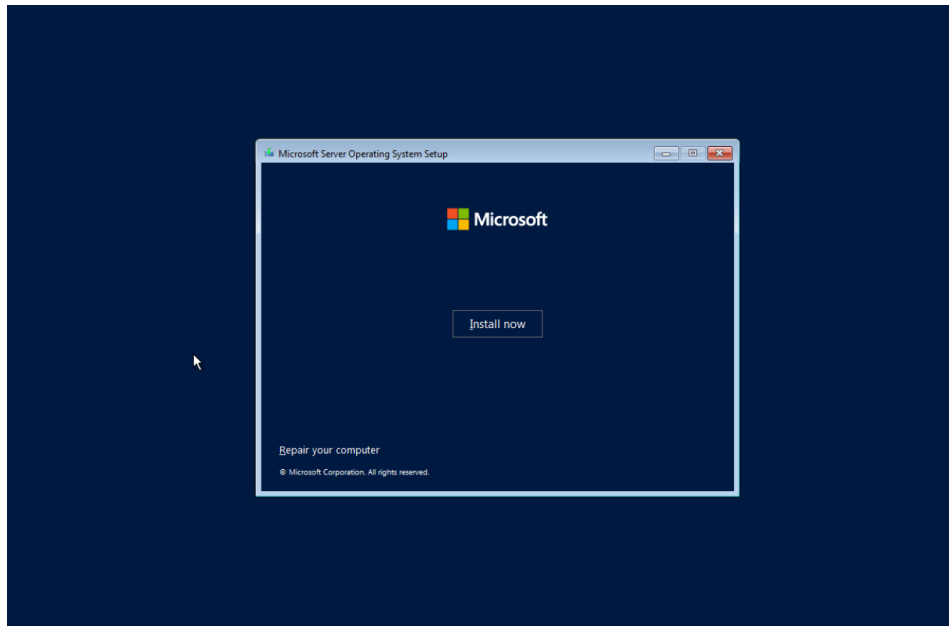




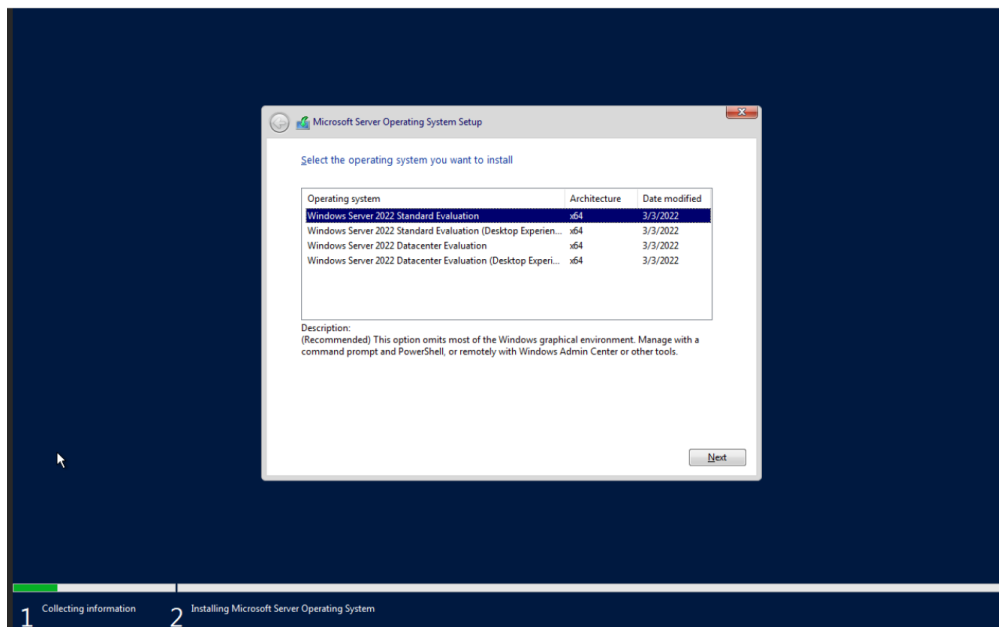
c.



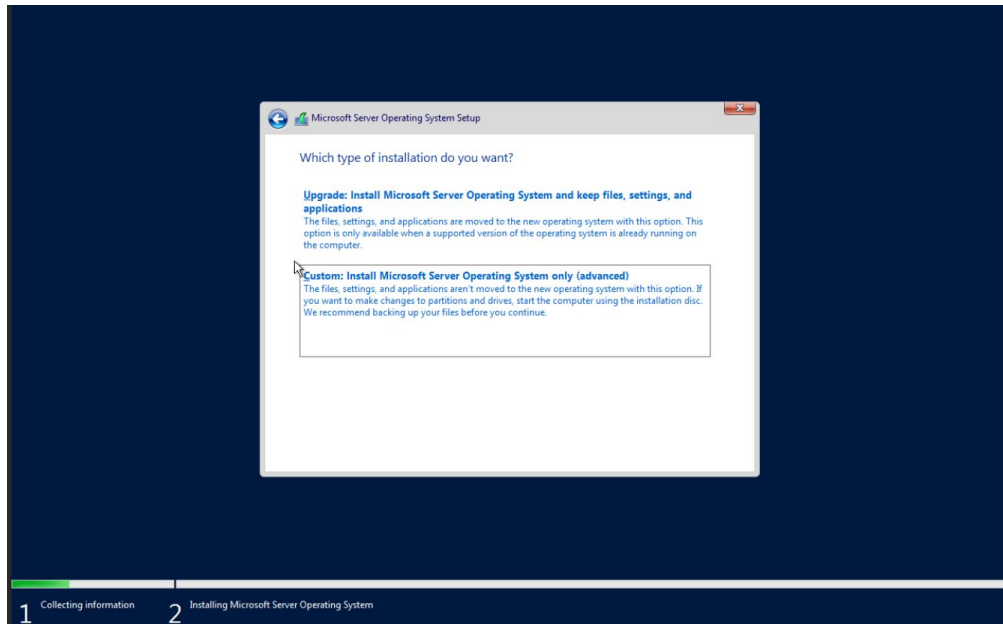
d.



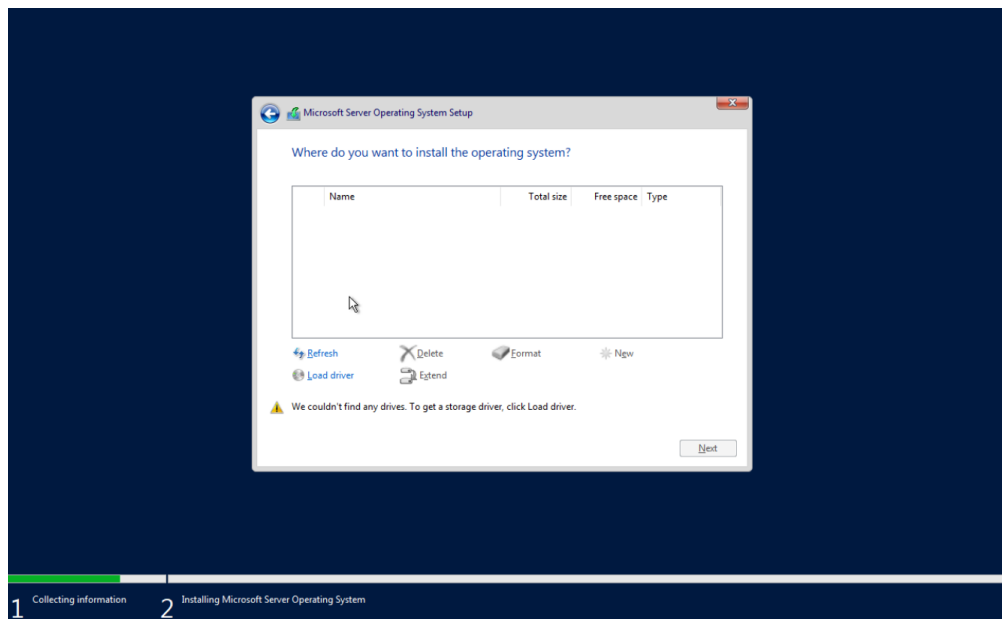
e.



f.

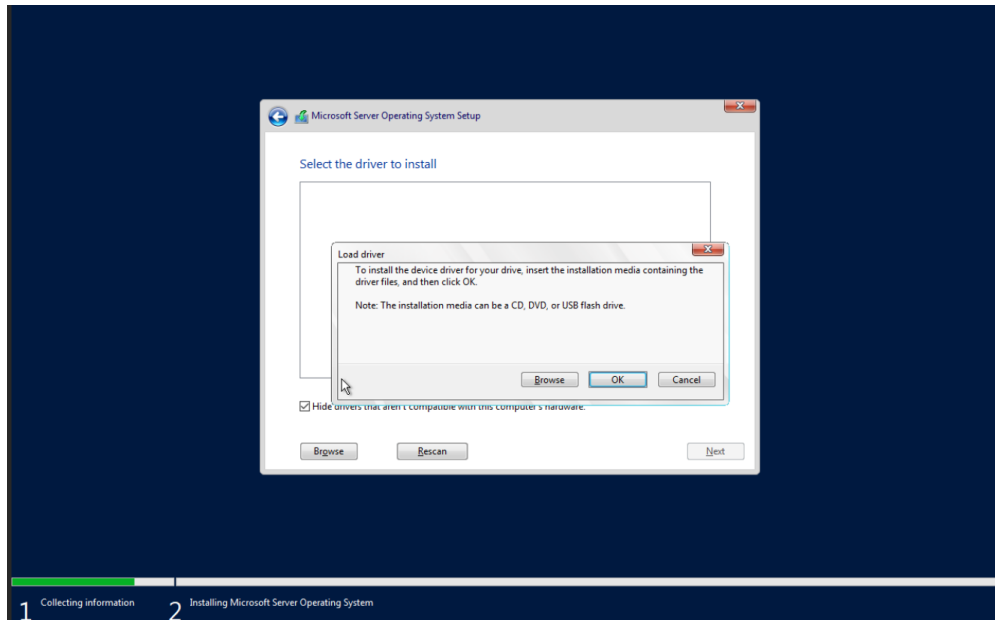


- g.
- h. When you get to this screen, there is no disk shown because the VirtIO SCSI driver is not loaded
> Load Driver

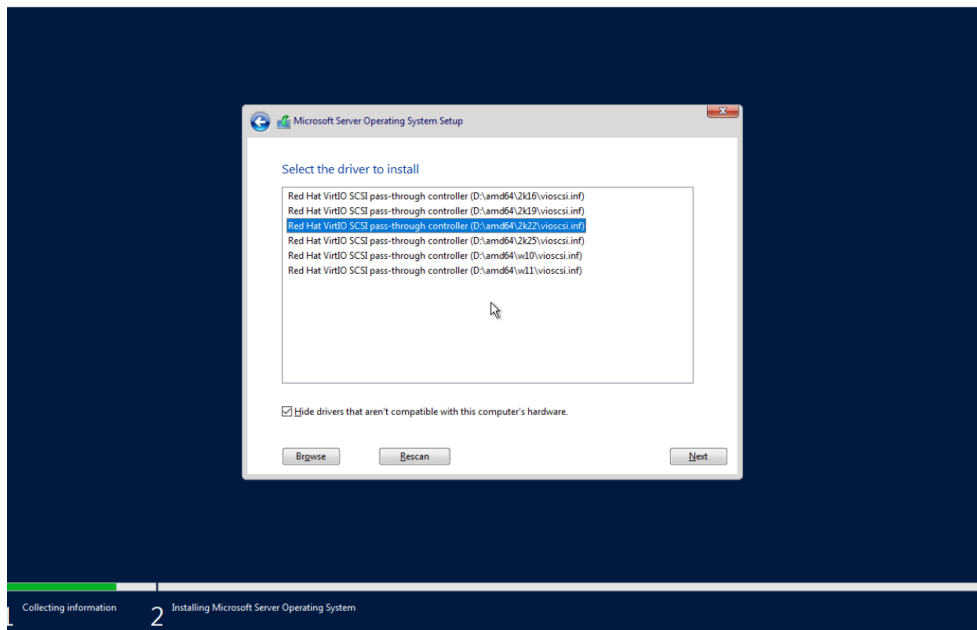


i.

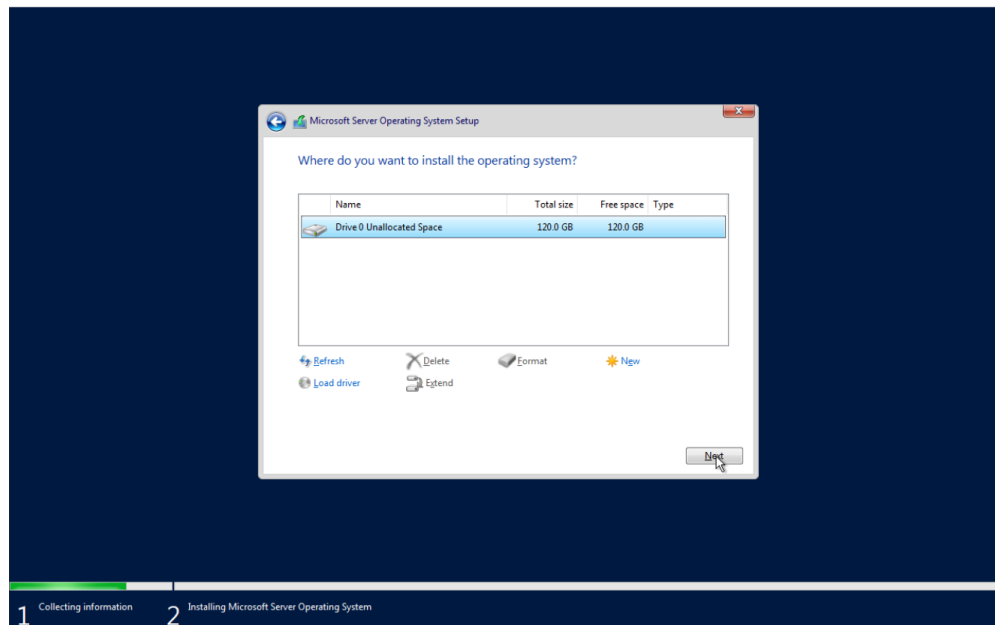
13. OK



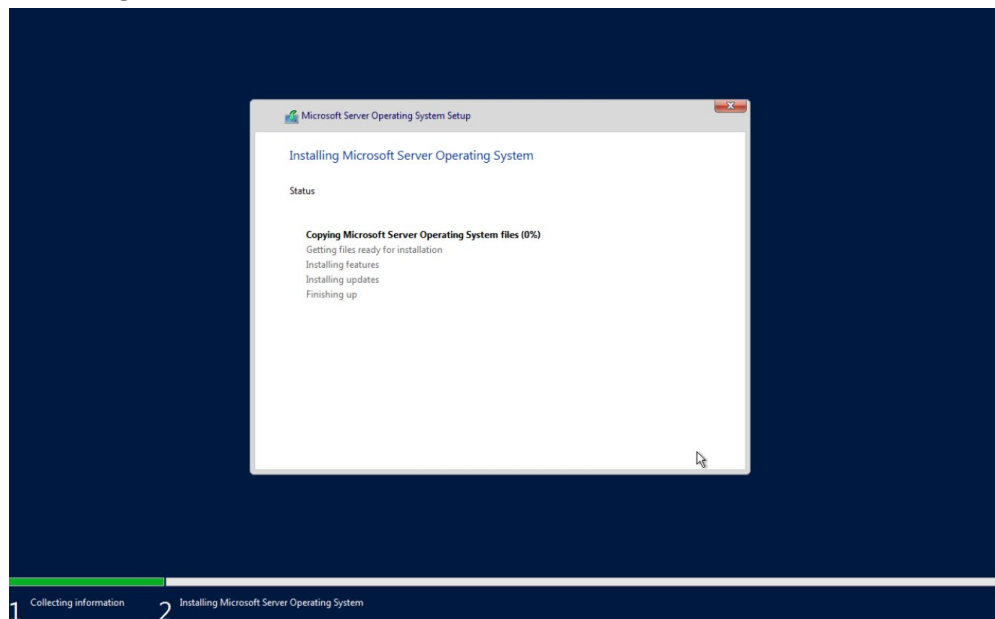
- a. 1 Collecting information 2 Installing Microsoft Server Operating System
- b. Select the VirtIO driver for your OS



c. Now you see your disk

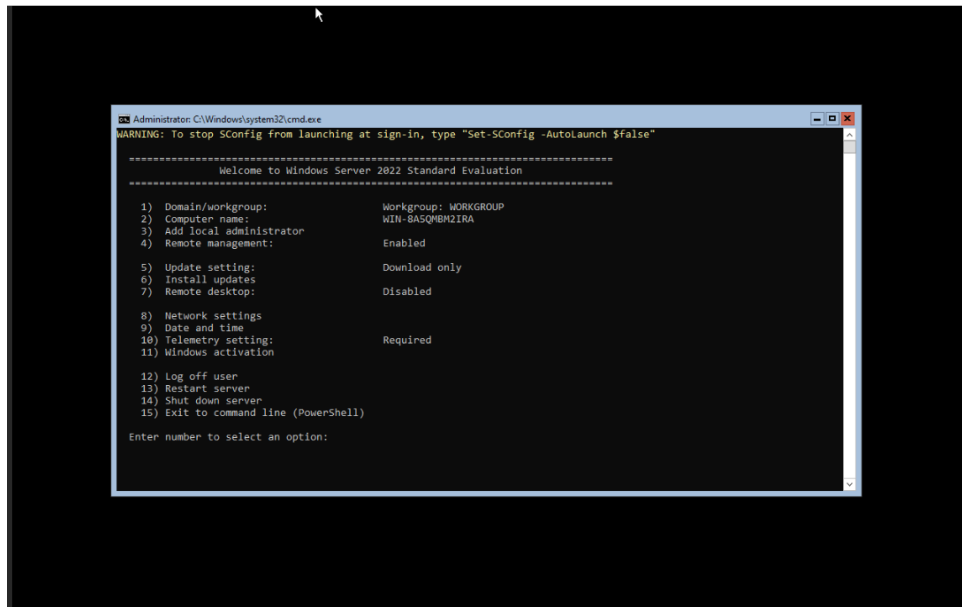


d. Install begin



e.

f. Install complete



g.