



Upgrading Proxmox VE 8 to 9

A careful, step-by-step guide for a Home Assistant server

The short version

Back up first. Run the checker. Read what it says. Fix the warnings. Then upgrade. This is not the moment for optimistic clicking.

Based on the WrongWords On Porpoise Proxmox/Home Assistant video workflow: practical checks, clear commands, repository fixes and enough time for a cup of tea.

<https://youtu.be/Hv2wzKEvBiM>

Companion video

If things go horribly wrong you can reinstall proxmox 9 here
2026 Proxmox V9 Setup for Home Assistant (This Changes Everything)
<https://youtu.be/fkievT0cilk>



Before touching anything

There is no magic undo button

An in-place operating-system upgrade changes the host underneath every VM and container. A snapshot is useful, but it is not a substitute for a backup stored somewhere else.

This guide assumes

- A standalone Proxmox VE 8.4 host used for Home Assistant and other home-lab services.
- You can reach the physical machine, or have a genuinely working remote console.
- Your VMs and containers can be stopped for the maintenance window.
- You are comfortable pasting commands into the Proxmox shell and reading the result before continuing.

Pause and use the official guide if...

- This host belongs to a cluster.
- You use Ceph, custom storage drivers or unusual networking.
- The checker reports a failure you do not understand.
- The machine is still on Proxmox VE 8.0–8.3 rather than 8.4.

Martyn's rule

If you cannot explain how you will restore Home Assistant when the host will not boot, you are not ready to upgrade it yet.

Pre-flight checklist

- ☐ Home Assistant full backup downloaded to another computer
- ☐ VM/container backups completed to separate storage
- ☐ Encryption keys and passwords safely recorded
- ☐ Proxmox host name, IP address, gateway and DNS recorded
- ☐ A screen and keyboard, IPMI or other console access available
- ☐ At least a few GB of free space on the root filesystem
- ☐ A maintenance window with no urgent automations depending on the server



Stage 1 — make Proxmox 8 boring

1

Record what you have

Open the Proxmox web interface and note the node name, storage, network bridges and the VMs/containers that normally run. Take screenshots if that is quicker. Boring evidence is extremely useful when something looks different later.

```
pveversion -v  
hostname -f  
ip -br address  
df -h
```

2

Back up Home Assistant

In Home Assistant, create a full backup and download it to your PC. If the backup is encrypted, save the emergency kit or encryption key away from the Proxmox host.

3

Back up the guests

Use Proxmox Backup Server or the Proxmox backup job to back up every important VM and container to storage that will survive a failed host upgrade. Check the task log for SUCCESS.

4

Update Proxmox VE 8 fully

The major upgrade starts from the latest Proxmox VE 8.4 packages. Update the current system first, then reboot if a new kernel was installed.

```
apt update  
apt full-upgrade
```

Stop if apt reports errors

A broken repository or half-configured package will not improve when a major Debian upgrade is added on top. Fix Proxmox 8 first.



Stage 2 — ask the checker

5

Run the official upgrade checker

The pve8to9 checker looks for known problems. Run the full check, read every line and keep correcting issues until there are no FAIL entries.

```
pve8to9 --full
```

Warnings are not decorative. Some are informational; others are telling you that continuing will turn a short evening job into tomorrow's problem.



Stage 3 — repositories

This is the fiddly bit

Proxmox VE 8 is based on Debian 12 “Bookworm”; Proxmox VE 9 is based on Debian 13 “Trixie”. Every enabled Debian and Proxmox repository must point at the new release, with no old CD-ROM or third-party entry getting in the way.

Find every active source

```
grep -R --line-number --extended-regexp 'bookworm|proxmox|ceph' \  
+ /etc/apt/sources.list /etc/apt/sources.list.d 2>/dev/null
```

Make a copy before editing:

```
cp -a /etc/apt/sources.list /etc/apt/sources.list.pre-pve9 2>/dev/null || true  
cp -a /etc/apt/sources.list.d /etc/apt/sources.list.d.pre-pve9
```

Change Bookworm to Trixie

Edit the files shown by the grep command. Change the Debian suite from bookworm to trixie. Change the Proxmox VE suite to trixie as well. Keep the repository type you already use—enterprise if you have a subscription, or no-subscription if you do not.

Do not blindly copy somebody else’s repository list

Your host may use .list files, newer .sources files, Ceph repositories or third-party software. Disable unsupported third-party entries for the upgrade, and follow the official Proxmox page for Ceph and cluster-specific steps.

Check the result

```
apt update
```

- ☐ No Bookworm repository is still enabled.
- ☐ No 401 error from the enterprise repository if you have no subscription.
- ☐ No duplicate repository warnings.
- ☐ The Proxmox VE repository is for Trixie.



Stage 4 — do the upgrade

6

Stop the guests

Shut down Home Assistant and the other VMs/containers cleanly. This reduces activity while core libraries and services are replaced.

7

Start the distribution upgrade

Run the full upgrade from a local console if possible. If using SSH, use tmux or screen so a dropped connection does not lose the session.

```
apt full-upgrade
```

When configuration questions appear

Read the file name and the explanation. For a file you deliberately customised—networking is the obvious example—keeping the local version is normally safer. For a package file you never changed, the maintainer version is often appropriate. If unsure, open another console and compare the files before choosing.

Tea is allowed; abandoning the console is not

The upgrade can take a while and may ask more than one question. Do not close the browser tab or terminal because it looks quiet.

8

Run the checker again

When apt finishes without an error, run the checker once more. Resolve anything important before rebooting.

```
pve8to9 --full
```

9

Reboot

Reboot from the console, watch the machine return and give it a few minutes before deciding it has failed.



```
reboot
```

Stage 5 — prove it worked

Logging in is encouraging. It is not the same as testing.

```
pveversion -v  
uname -r  
systemctl --failed  
apt update
```

Validation checklist

- ☐ The Proxmox web interface opens and shows version 9.x
- ☐ The expected node, storage and network bridges are present
- ☐ No failed service looks relevant to Proxmox, storage or networking
- ☐ Home Assistant starts and its web interface loads
- ☐ Zigbee, Thread, Bluetooth or USB passthrough devices are still attached
- ☐ Automations run and external integrations reconnect
- ☐ Other VMs and containers start normally
- ☐ A new backup job completes successfully
- ☐ Repository checks show only the intended Trixie/PVE 9 sources

USB users: check the boring details

A major upgrade can change kernel/device behaviour. If a coordinator or Coral is missing, confirm the USB device is visible on the host and that the VM hardware entry still targets the correct device.

If something has gone horribly wrong

Do not keep rebooting

Use the local console, photograph the error and note the last successful step.

Check the basics

Confirm network link, IP address, storage mounts, free disk space and failed services.



Finish interrupted packages

If apt was interrupted, the error usually tells you whether `dpkg --configure -a` or `apt --fix-broken install` is appropriate. Read before running.

Restore instead of improvising

If the host will not recover cleanly, a fresh Proxmox VE 9 installation plus restored guests may be safer than hours of random commands.

Command card

These are the main commands used in the guide. They are a memory aid, not a replacement for reading the output.

Inventory

```
pveversion -v
hostname -f
ip -br address
df -h
```

Bring version 8 fully up to date

```
apt update
apt full-upgrade
```

Run the upgrade checker

```
pve8to9 --full
```

Find old suites and Proxmox sources

```
grep -R --line-number --extended-regexp 'bookworm|proxmox|ceph' \
+ /etc/apt/sources.list /etc/apt/sources.list.d 2>/dev/null
```

Upgrade after repository changes

```
apt update
```



```
apt full-upgrade
```

Verify after reboot

```
pveversion -v  
uname -r  
systemctl --failed  
apt update
```

Official reference

Always check the live Proxmox page immediately before starting. It contains current breaking changes, package requirements and the special procedures for clusters and Ceph.

https://pve.proxmox.com/wiki/Upgrade_from_8_to_9

Last word

Take your time, keep the console visible and do not ignore red text. With working backups, the worst outcome is usually an inconvenient rebuild. Without them, it becomes a much more interesting video.