

Proxmox-NUT Homelab HOWTO — Step 3: Install Windows Server 2022 and Configure Shutdown from Proxmox/QEMU Guest Agent

 chribonn.medium.com/proxmox-nut-homelab-howto-step-3-install-windows-server-2022-and-configure-shutdown-from-1485423b9349

Alan C. Bonnici

January 16, 2025



Alan C. Bonnici

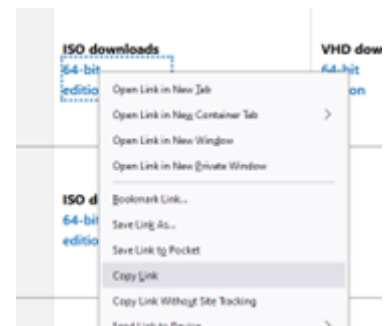


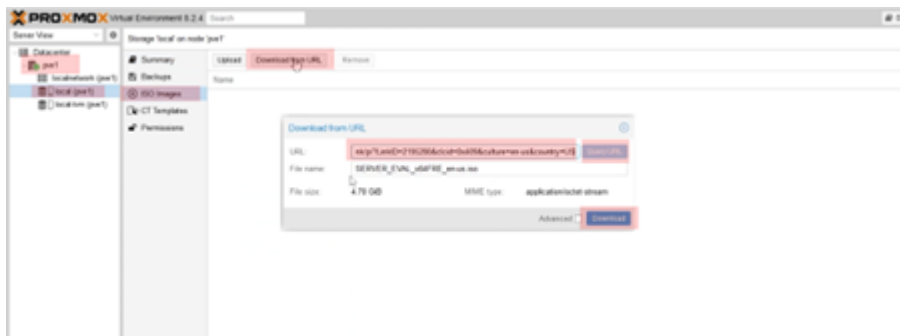
We will install Windows Server 2022 and configure it to shut down from Proxmox without human intervention.

Downloading the ISOs

You will need the Windows Server ISO from Microsoft and the VirtIO from Fedora.

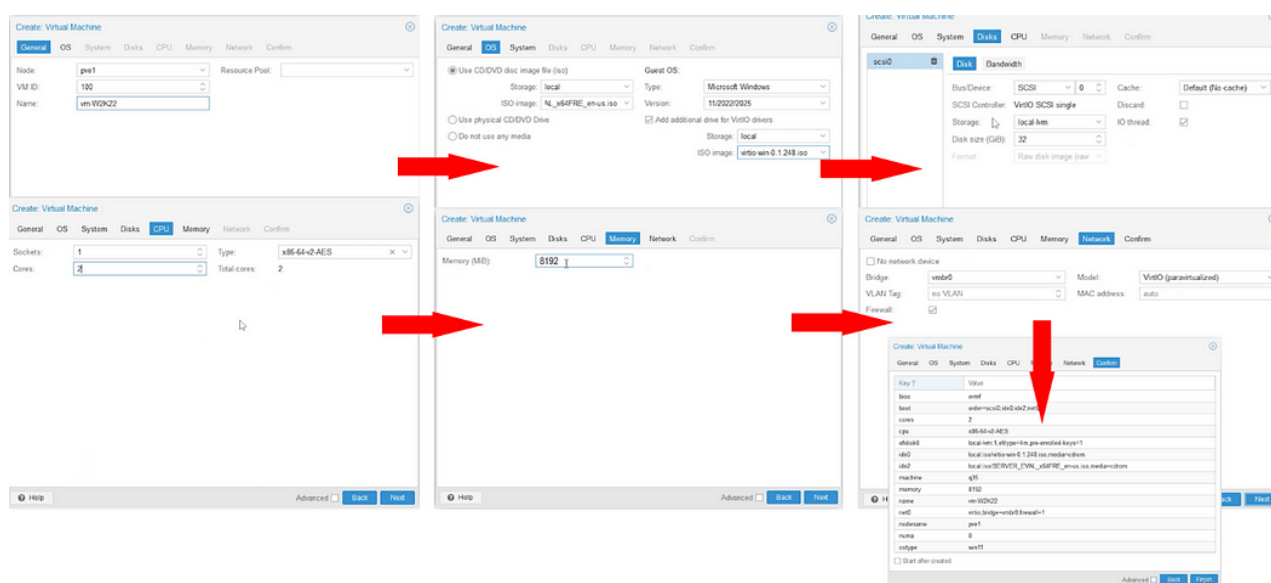
1. Go to the from Microsoft. Right-click on the hyperlink representing the ISO you want and choose
2. In Proxmox, head over to the





3. Click on **ISO images** and paste the URL you copied in step 1.
4. Click the **QueryURL**. This should resolve to the Win2K22 ISO.
5. Click **Download**. The download should commence. Close the Download window.
6. Head over to the [VirtIO driver page](#) from Fedora.
7. Click on the latest driver (this HowTo uses driver version 0.1.248 — <https://fedorapeople.org/groups/virt/virtio-win/direct-downloads/archive-virtio/virtio-win-0.1.248-1/>).
8. Right click on the ISO file and copy the URL.
9. Repeat steps 2–5 for this ISO.
10. Wait until both ISOs have downloaded.

Creating the Win2K22 VM in Proxmox

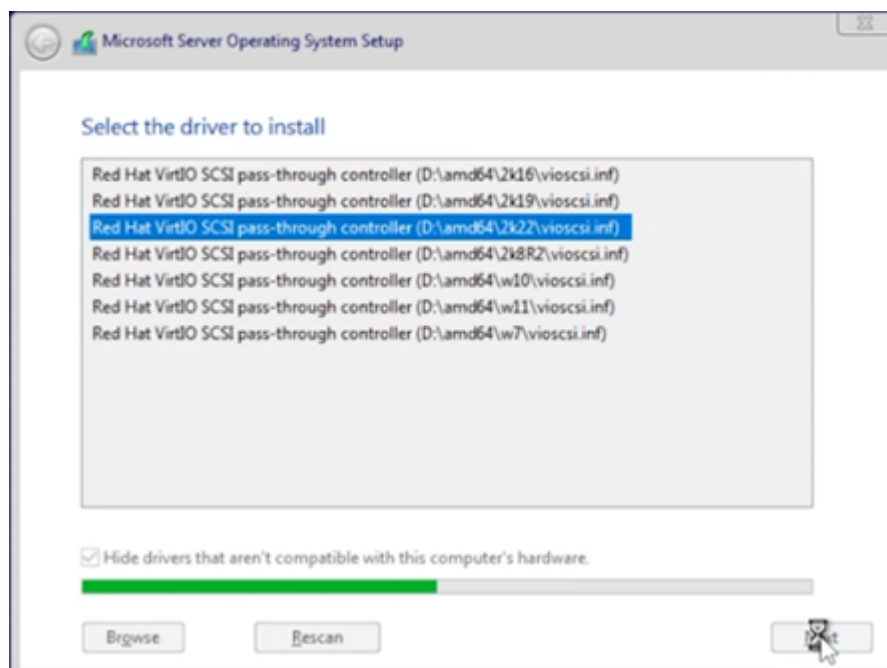
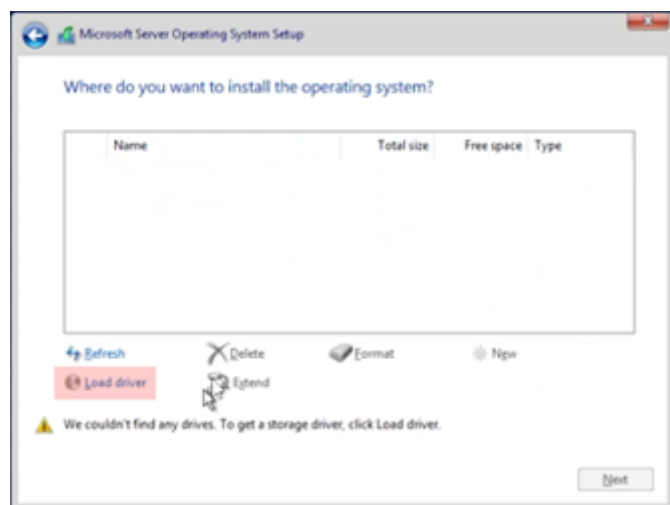


1. Click on the
2. Under the tab choose a name for your VM. Click .
3. Under the tab, set the Storage to , and select the Windows Server ISO you had previously downloaded.
4. For choose and for choose .

5. Check the Set to and choose the VirtIO ISO image you had downloaded.
6. Click .
7. Under the tab, uncheck the Leave all other options as default. Click .
8. Keep defaults for the Click .
9. Under tab , increase to . Click .
10. Under the tab, adjust Memory to . Click .
11. Keep defaults on the
12. Click the button on the

Windows Installation

1. Follow the instructions on the screen.
2. When you get to the dialog box titled Click on
3. This brings up another dialog box titled **Microsoft Server Operating System Setup: Select driver to install**. Choose the driver for the OS for Windows Server 2022. This would be the one with *2k22* in the path.

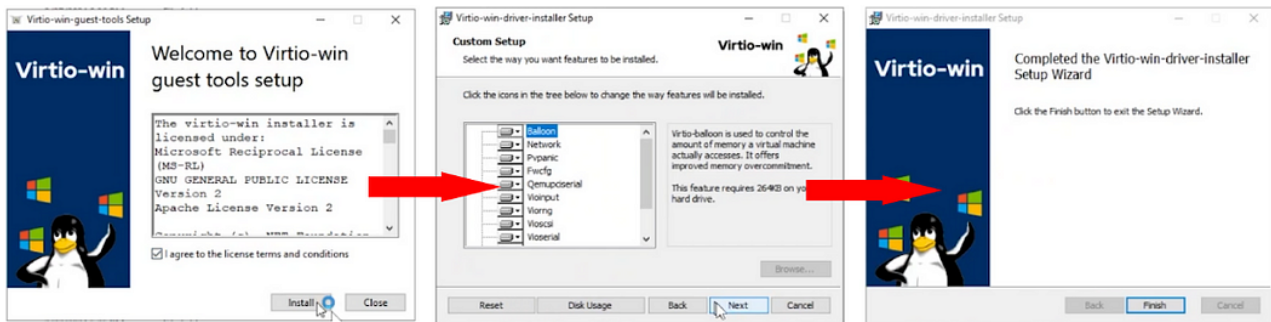


4. Proceed with the standard windows installation. The password for this VM is **1234..qwerty**. You should not use the same password throughout in production / lab environments.

Installing Virtio Guest tools (including QEMU guest)

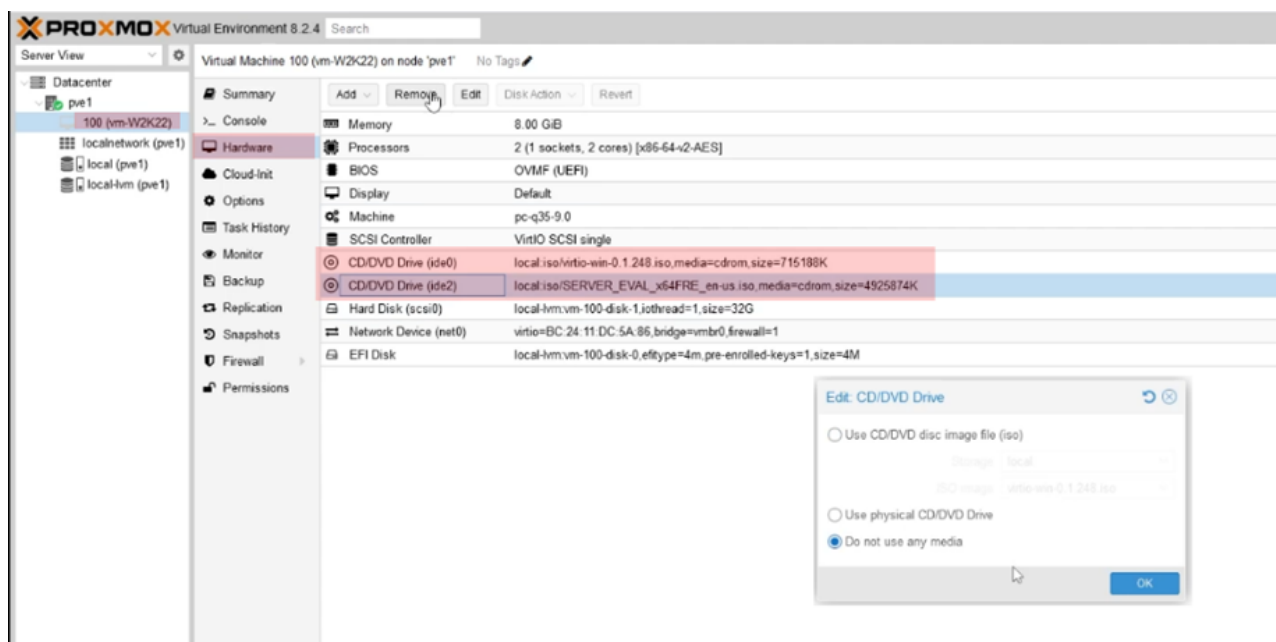
Not all devices are correctly set up because drivers are missing. Further more the QEMU guest agent that provides additional functionality is also not installed. This is necessary to be able to properly shut down Windows from Proxmox.

1. Open file manager and select the CD Drive that has the VirtIO ISO on it.
2. Double click the executable and accept defaults.



3. Reboot and verify using Windows Device manager that the network is operational and that there aren't any devices with an exclamation mark next to them.
4. Enable Remote Desktop in the Windows VM if you prefer to use this utility. With RD, you can copy between the remote computer and the computer you connect to.
5. Update Windows (optional).
6. Shutdown Windows VM.

Windows VM hardware cleanup / Enable QEMU Guest Agent

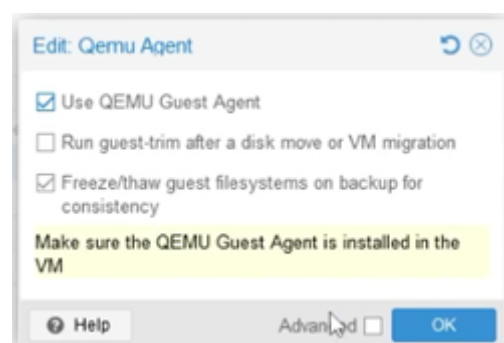
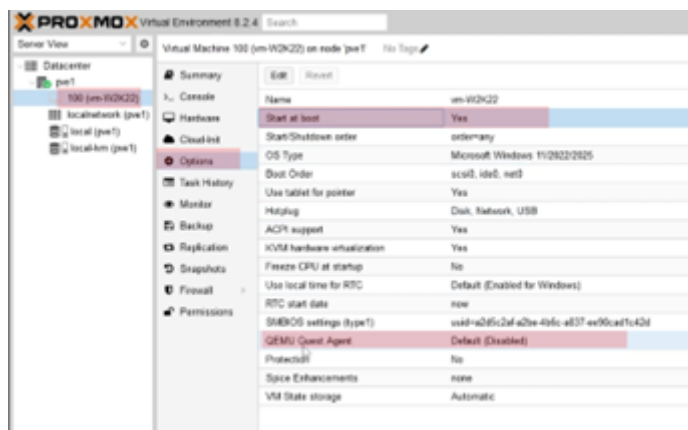


1. With the VM in a shutdown state, click on the and from the sub-menu choose .
2. (Optional) Remove the 2nd CD Drive and set the media to on the remaining one.

3. Click on

4. If you would like the VM to start automatically when Proxmox starts, click on **Start at boot** and check this option.

5. Click on QEMU Guest Agent and check **Use QEMU Guest Agent**.



Test

Restart or shutdown Proxmox while the Windows VM is running. The VM should shut down gracefully as part of this process. The next step of this guide will verify this behaviour. Check the Proxmox log at the bottom of the screen for a VM shutdown entry. Additionally, log in to Windows to confirm no unexpected shutdown alerts appear.

Node	User name	Description
pve1	root@pam	VM 100 - Shutdown
pve1	root@pam	Bulk shutdown VMs and Containers
pve1	root@pam	Bulk start VMs and Containers
pve1	root@pam	VM 100 - Start

Video

Links

(Microsoft) Please select your Windows Server 2022 download
<https://www.microsoft.com/en-us/evalcenter/download-windows-server-2022>

Windows VirtIO Drivers
https://pve.proxmox.com/wiki/Windows_VirtIO_Drivers

Fedora (VirtIO drivers)

<https://fedorapeople.org/groups/virt/virtio-win/direct-downloads/archive-virtio/?C=M;O=D>

QEMU/KVM Virtual Machines

https://pve.proxmox.com/wiki/Qemu/KVM_Virtual_Machines

How to handle ACPI events on Linux

<https://linuxconfig.org/how-to-handle-acpi-events-on-linux>