Virtualization (Virtual Machines)

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https://www.youtube.com/embed/38G0ghc5RfM

Proxmox is an excellent, powerful, and sophisticated Virtualization Operating System built on Linux. It's Open Source, and, of course, self hosted. I know I usually cover Docker based apps for virtualization, but there are benefits to being able to install an entire OS as a virtual machine, and Proxmox is an excellent tool for managing those virtual machines.

Installation

To install Proxmox, you want to have a machine available that you want to install on, and you'll want it to have network connectivity, as the Proxmox UI is accessed over the network in your browser.

Download the ISO

You can get the Proxmox VE installation ISO from here. If you prefer to download via BitTorrent, then grab the torrent file from here.

Note: At the time of writing, the version is 6.3. If you have found this page months after publishing, please check the main downloads page to ensure you are getting the newest available version. That page is found here.

Burn the ISO file

Once downloaded, you'll need / want to burn the ISO file to a USB flash drive. I highly recommend an 8 GB or larger flash drive for this. NOTE: Burning the ISO to a flahs drive will delete / destroy all existing data on the flash drive.

Use a tool like Balena Etcher to burn this ISO easily.

Once Etcher is installed, start it up, select the ISO image, select your Flash Drive (CAREFUL - don't select the wrong drive), then click Flash, and if prompted enter your admin credentials. Let it burn. Once complete, remove the drive, and take it to the machine you want to install Proxmox VE on.

Start the Installer

On the machine you've inserted your USB into, power up, and use the hotkey for your system's motherboard to select your boot device. Sometimes this is F12, sometimes Delete, sometimes ESC, F9, F10, F11 - it just depends, so you'll need to figure that out. Once you know, power on the machine, and start pressing that hotkey about once per second until you get the list of boot options.

If you have your machine setup to boot in UEFI mode, then select the UEFI boot option for your USB flash drive. If you are using legacy Bios, then make sure to select that option for your flash drive.

Press Enter, and be patient.

Install Wizard

1. Select Install Proxmox-VE, and press Enter.
2. Accept the EULA by clicking Agree in the bottom right.
3. Now select the drive that you want to install Proxmox VE on. Make sure you select the right drive, then click 'Next'.
4. Now, enter you Country, Time Zone, etc, and click Next.
5. Now enter your desired root user password twice, then a valid email address, and click Next.
6. Now, select the host NIC (network card) you want as your primary network interface. Enter a host name (e.g. my-virtual-machines.local), set an IP address if you don't like the one it pulls automatically, then make sure your gateway and DNS server settings are correct. If not, set those to the addresses you prefer, then click Next.
7. Now, on the summary screen, verify all of the settings you've selected, and if it all looks good, click Install.
8. When it's complete, you may want to reboot the machine. Feel free to remove the monitor from the machine, as you'll be accessing it through the browser.

Access Proxmox VE from the WebUI

Go to your machine's IP address at port 8006. Make sure to enter it in this format on your browser (e.g. 192.168.0.21:8006/). make sure you have that ending '/' on there, or it may not resolve properly. Of course, use your own IP address.

You'll get a Self Sigend certificate warning, but this is okay since we just did the installation, and it's on our local network. So accept those certificates, and move forward.

When you get to the login screen, enter 'root' as your user, and the root password you create during the install as the password.

Click 'Login'.

The Web UI

You'll get a prompt about a license key. Don't sweat it. This is how Proxmox (like many open source projects) support their continued development, so if you decide to continue using Proxmox, it may be worth-while to purchase a license key, plus it supports the project.

Next, you'll want to puruse the UI, and follow along on the video at the top to get a feel for the sections and options in Proxmox VE.

CONGRATULATIONS! You've successfully installed Proxmox and logged in.