Summary Description: Repurposing An Old PC Into A Media Server

Tags: software; operating system OS; TrueNAS; OpenMediaVault; Docker; Linux Ubuntu with Jellyfin

Why I did this: I had an old (really old Windows Vista) PC that was collecting dust, so I wanted to see if I could use it as a NAS storage server (just to increase my knowledge of it), or something else like a Linux distro.

(pic of solar system)

Design Walkthrough:

Parts: Old PC, media server software (tried TrueNAS, OpenMediaVault, Docker, Linux Ubuntu with server apps like Jellyfin)

I tried various tutorials with various separate attempts to install and setup the basic OS of TrueNAS or OpenMediaVault, even through a Docker container system; I was failing those attempts because of hardware limitations so I then tried installing the Ubuntu OS with then trying to install media server applications like Jellyfin (see references below for those tutorials).

Lessons Learned and Future Changes:

TrueNAS needs 2+ hard drives. It wasn’t clear at first but became apparent when I could not see any available drives after installing. If I had a small 16GB drive I could dedicate that to the OS, and use my present 500GB drive for storage. Apparently I can also use a USB stick, but that it’s prone to burning out as it being use as the main OS gateway device (also short-term testing showed that the OS is very slow from it).

Docker would be great to allow multiple containers for multiple different servers, buuuuut… My PC is so old that it’s hardware cannot support virtualization capabilities; I get an error saying I lack KVM (for Kernel-based Virtual Machine) capabilities. I could still install each OS, but I couldn’t install Docker to further install containers. However, I could still install a Cloudflare tunnel through the shell CURL method (which is the only thing I really care about for this test).

OpenMediaVault seemed to work ok locally, but that is pointless for me. I managed to set it up with a drive that I can see and share on my local network, but I wanted to have this media server accessible from the public WAN. I couldn’t seem to get the Cloudflare tunnel to function (not sure why and am not willing to router port forward; maybe I’m not knowledgeable enough on this setup).

Ubuntu with Jellyfin is what I settled with. I was able to setup Ubuntu, Jellyfin, and a Cloudflare tunnel successfully with this setup. This is fine because it can display media (mp4 and mp3, but jpg wasn’t showing), and I can still keep Ubuntu OS so that I can add more apps and more servers in future project endeavours. If I were to be serious at a true NAS development, then I would probably get some more disk drives and try one of the previous OS based options again.

References:

Hauke’s OpenMediaVault tutorial: <https://www.youtube.com/watch?v=Y3yF1Rsu7ow>

TrueNAS sources: <https://www.truenas.com/download-truenas-core/> <https://www.truenas.com/download-truenas-scale/>

Jellyfin install on Ubuntu: https://jellyfin.org/docs/general/installation/linux/

Fabrice’s ‘Jellyfin with Cloudflare’ Tutorial: <https://medium.com/@fabrice_/setting-up-a-media-server-jellyfin-and-making-it-securely-accessible-from-anywhere-in-the-world-ca3b4d9dd19e>