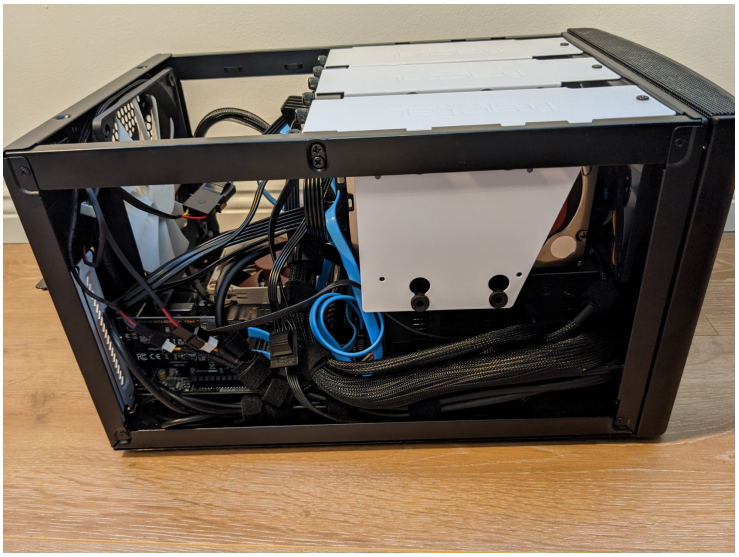
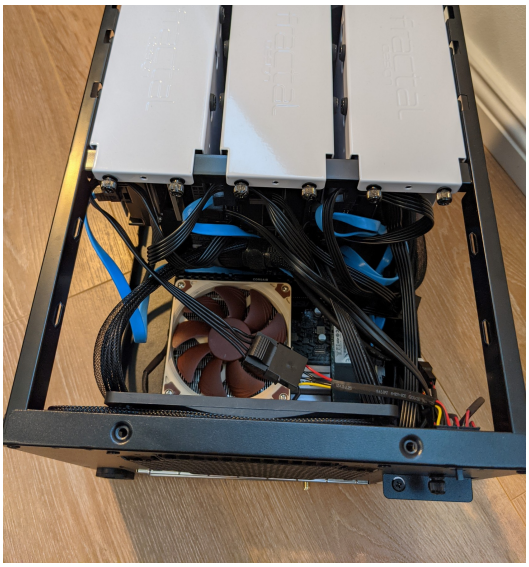
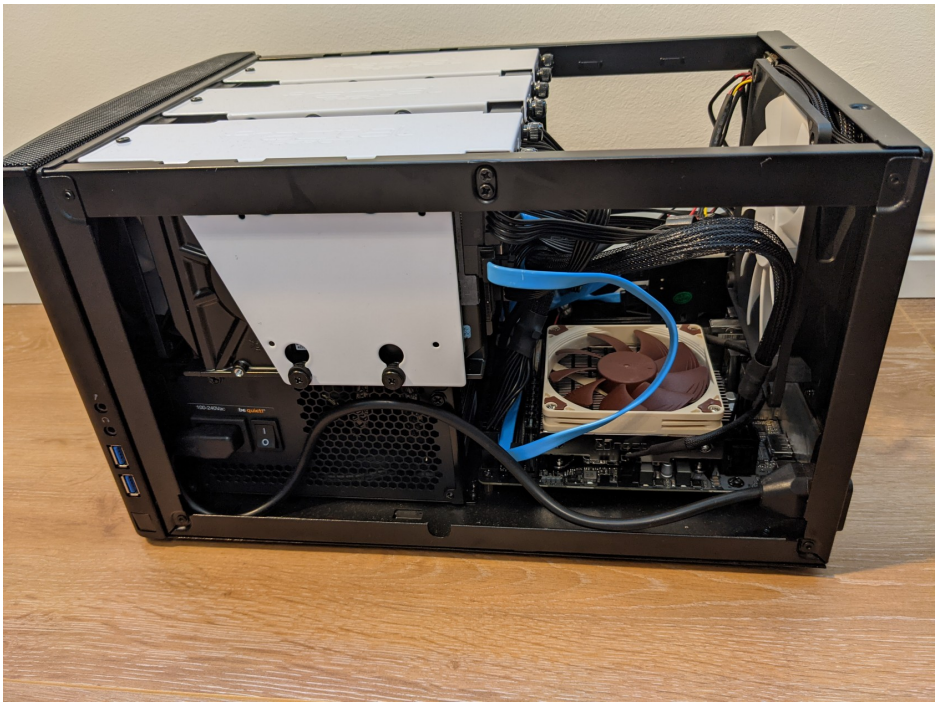
Hardware

NAS







Components

Component	Model
CPU	Intel Core i3-10100 3.6 GHz Quad-Core
CPU Cooler	Noctua NH-L9i
Mainboard	ASRock H510M-ITX/ac Mini ITX LGA1200
Memory	Crucial RAM CT8G4DFRA266 8GB DDR4 2666 MHz CL19

Case	Fractal Design Node 304 Mini ITX Tower
Power Supply	be quiet! Pure Power 11 CM 400W (80+ Gold Certified Semi-modular ATX)
Extension Card	BEYIMEI PCI Express to 2 Port SATA III 6Gbps
Drives	• Transcend 120GB SSD SATA III 6Gb/s MTS820S • WD Red 6TB 3.5" 5400 RPM (WD60EFRX) • WD Red 6TB 3.5" 5400 RPM (WD60EFRX) • WD Red 8TB 3.5" 5400 RPM (WD80EFAX) • WD Red 8TB 3.5" 5400 RPM (WD80EFAX) • Seagate IronWolf 8TB 3.5" 7200 RPM (ST8000VN004) • Seagate IronWolf 8TB 3.5" 7200 RPM (ST8000VN004)

Notes

- At first I bought the Intel Core i3-10100F CPU (F => no integrated GPU), because it did only cost half of what the version with GPU costs and to minimize the power usage of the CPU (why should I need a GPU on a NAS anyway). I wasn't aware that I couldn't even get into the mainboards BIOS/UEFI without GPU, so that did not work.
- The mainboard only has 4x SATA III interfaces but the case supports 6x 3.5" drives, this is why I needed the PCI-E extension card (I found no cheap mini ITX mainboard with 6x SATA interfaces)
- I opted for the (more expensive) gold certified PSU so that I can utilize as much of the drawn power as possible to save energy and cost
- I currently use only one memory module. I plan to upgrade this to two memory modules in the future, so I can utilize dual channel RAM for a bit of performance gain and be more safer in case one module dies.

Backup

Components

Component	**Model**
Hard Drive Enclosure	Xystec 4-Bay Hard Drive Enclosure, USB 3.0 or eSATA

Drives	• Seagate Barracuda 5TB 3.5" (ST500DM003) • Toshiba 6TB 3.5" (MD04ACA600) • Seagate Barracuda 8TB 3.5" (ST800DM004) • WD 10TB 3.5" (WD1EMAZ)

Notes

- I used the USB hard drive enclosure in combination with a Raspberry Pie as my old NAS. Now that I have build my new NAS I did no longer have a usage for it.
- All backup drives are from shucked external drives which I used as backup drives in my old setup. I decided it was more practical to combine the external drives into one enclosure instead of having them separate.

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