

Table of Contents

| | |
|--------------------------------|----------|
| <i>Parts List</i> | 1 |
|--------------------------------|----------|

Selecting hardware can be a difficult business even for the initiated. It usually takes a lot of time and research, and even then it can still go very wrong (much like DIY surgery).

For those who don't have the time, here is a specific list of hardware for a quiet FreeNAS server I made in early January 2016.

The intention was to build an expandable, 8 bay, quiet FreeNAS system that would be situated in the living room.

(The "quiet" part was very important as I did not want to upset the psychopath I share a house with, although she prefers to be introduced to people as my girlfriend.)

If you don't need a quiet system you can dispense with the costly Noctua fans and use the ones that come as standard in the case.

Also, rack mounting your equipment makes things very neat and tidy, but I couldn't find a rack mount case that accommodated the Noctua fans.

The SSD capacity (in this case 256GB) is excessively large. If you can get smaller you will save some money. As long as it is 16GB or more you should be fine.

The big expense with this system was the storage hard drives. If you don't need 8 of these then the total cost of the server can be significantly reduced.

Incidentally, I do not recommend the SilverStone SST-SDP10B bay adaptor. In the words of my old Professor, "Bag of shite!" He was a plain speaking man.

Parts List

NocturaNF-A14

| Item | Description | Qty |
|------------------|--|-----|
| Processor | Intel Xeon E5-2620v3 | 1 |
| CPU Heatsink/Fan | Noctua NH-U12DX i4 High Performance Intel Xeon CPU Cooler & 120mm Fan | 1 |
| Motherboard | Supermicro X10SRH-CLN4 Single socket R3 (LGA 2011) 8 SAS3 12Gb and 10 SATA 3 6GB | 1 |
| Memory | Samsung 8GB DDR4 2133MHz ECC Registered Server Memory - M393A1G40DB0 | 2 |
| Graphics Card | Not needed | |
| OS HDD | 256GB Samsung 850 PRO | 1 |
| Data HDDs | WD Red 4 TB | 8 |
| HBA Card | Not needed | |
| Optical Drive | Not needed | |

| Item | Description | Qty |
|------------------------|---|-----|
| Operating System | Not needed | |
| PSU | Seasonic AU-650x | 1 |
| Case | Fractal Design Define XL R2 Titanium Gray | 1 |
| Rails | Not Needed | |
| Case Fans (Front) | Noctura NF-A14 | 2 |
| Case Fans (Back) | No | |
| Gigabit Network Switch | Not needed | |
| UPS | Eaton 5SC 1000i | 1 |
| SAS Cable | LSI 0.6m Cable SFF8643 to X4 SATA CBL-SFF8643-SATASB-06M (SFF8643 to X4 SATA) | 2 |
| Server Rack | Not needed | |
| KVM Switch | Not needed | |
| SATA Cable | | |
| Bay Adaptor | | |
| Molex-to-SATA Adaptor | | |

The whole thing came to just over £2600 with the UPS (when the bill came in I slightly soiled myself).

From:
<https://familybrown.org/dokuwiki/> - **danb35's Wiki**

Permanent link:
https://familybrown.org/dokuwiki/doku.php?id=fester:hardware_specific&rev=1465341233

Last update: **2016/06/07 23:13**

