

TESTING System OMV6

Installation fresh install, baremetal, on internal SATA Samsung 32GB SSD.
Hostname openmediavault.WORKGROUP
Version 6.0-34 (Shaitan)
Processor Intel(R) Core(TM) i5-4570S CPU @ 2.90GHz
Machine Acer Veriton N4630G, 8GB DDR3 RAM
Kernel Linux 5.14.0-0.bpo.2-amd64

Details:

1. Shared disk is a external USB3.0, fast shielded cable, Samsung 860QVO 2.5inch SATA SSD, NTFS filesystem, tested functional, updated, tuned up, copying read/write at over 3-400MB/s over USB cable...
2. Connection is through CAT5 LAN gigabit cables to a wireless AC bridge (Asus EA-AC87) which in turn connects wifiAC-only to router Asus RT-AC-87U).
3. Internet gigabit optical cable link.
4. Connection of bridge to router is presumed functional, **bridge is working** on AC speed, since another android Q10Pro mediaplayer gets internet speed ookla over 600Mbps DLD/700Mbps UP, with its own link to asus media bridge, **BUT recently FTP transfer speed DROPPED from 65 to 2 MB/s..., TOO..**.
5. So, I suspect internal servers of OMV and laptop Windows Explorer are culprit...
6. OMV machine shared folder contains media files needed administration from Windows Explorer in laptop Alienware 17R5, Windows 11 Pro 64bit, superfast. Connection LAN cat5 cable to asus router.
7. **Need shared files on Samba SMB v.1** for my mediaplayers, so SMB setting advanced are:
ntlm auth=yes
min receivefile size = 16384
write cache size = 524288
getwd cache = yes
socket options = TCP_NODELAY IPTOS_LOWDELAY
read raw = yes
write raw = yes
client min protocol = NT1
server min protocol = NT1

RESULTS after something obviously messed up

INITIALLY

1. Q10Pro mediaplayer used to be fast, internal FTP server copying from Laptop to shared usb disk at over 60MB/s, and got internet speed ookla over 600Mbps DLD/700Mbps UP – through same chain of cat5, bridge, router, optical gigabit link.
2. First OMV6 installation, windows 11 64bit explorer copy were write to share –85MB/s – and read from share 4MB/s... I was not happy, but now I would gladly accept it.
3. Wanted additionally EMBY and Xnoppo so I got to mess up the install, not knowing Debian.
4. Tried several other tuneups, unsuccessful, freshly reinstalled other several xpenology (totally not happy) and unsuccessful OMV5.
5. I still have a functional backup of Rufus disk image, booting from SD card in SD card reader. Tried to restore it, but speeds remained low, non success.

This is where I SUPPOSE I messed up something else, too, along this chain, if lucky and not have hardware malfunctions.

AT PRESENT

1. FRESH install OMV6, baremetal, on internal SATA Samsung 32GB SSD.
2. I reset all network stacks. All fresh. Lightning internal speed.
3. OMV6 speeds very low through cable/wireless bridge. 7-8 MB/s read write.
4. OMV6 speeds through DIRECT cat5 lan cable to gigabit router (bypassing the wireless AC bridge) ALSO comparably LOW.
5. All results measured are following.

ATTENTION - Mediaplayer Q10Pro same setup, internet Ookla fast 6-700 Mbps upload, download, **BUT** ftp write speed dropped TOO at 2-5 MB/s from initial 65 MB/s on same laptop through external USB3 disk of mediaplayer...

SO I expect some problems along the transmission lanes on BOTH laptop to OMV and laptop to Q10Pro mediaplayer.

I attach many measured information, showing some possible issues, BUT I also have to take into consideration that the enclosure USB3 interface was SAME initially when everything still worked.

I will make these measurements with another USB3 interface sata as well at the end.

Measurements I take now:

1. SSD external disk alignment

```
sudo blockdev --getalignoff /dev/sdb
0
```

2. Disk information

```
fdisk -l
Disk /dev/sda: 29.82 GiB, 32017047552 bytes, 62533296 sectors
Disk model: SAMSUNG SSD PM83
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x62a2067e
```

```
Device  Boot  Start    End  Sectors  Size Id Type
/dev/sda1  *      2048 60532735 60530688 28.9G 83 Linux
/dev/sda2      60534782 62531583 1996802  975M  5 Extended
/dev/sda5      60534784 62531583 1996800  975M 82 Linux swap / Solaris
The backup GPT table is corrupt, but the primary appears OK, so that will be used.
```

```
Disk /dev/sdb: 3.64 TiB, 4000787029504 bytes, 7814037167 sectors
Disk model: BUP Slim
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 4096 bytes
```

I/O size (minimum/optimal): 4096 bytes / 4096 bytes
Disklabel type: gpt
Disk identifier: AA4F4314-6A23-4039-96C0-B5A6E0C73B31

Device	Start	End	Sectors	Size	Type
/dev/sdb1	34	32767	32734	16M	Microsoft reserved
/dev/sdb2	32768	7814033407	7814000640	3.6T	Microsoft basic data

Partition 1 does not start on physical sector boundary.

3. Transfer speed test

4. root@openmediavault:~# sudo hdparm -t /dev/sdb

/dev/sdb:

Timing buffered disk reads: 1190 MB in 3.00 seconds = 396.62 MB/sec

5. transfer rate, bypassing the hard drive's buffer cache memory, and thus reading directly from the disk

sudo hdparm -t --direct /dev/sdb

/dev/sdb:

Timing O_DIRECT disk reads: 1168 MB in 3.00 seconds = 388.69 MB/sec

6. more verbose reads, more detail

sudo hdparm -tv /dev/sdb

/dev/sdb:

multcount = 0 (off)

readonly = 0 (off)

readahead = 256 (on)

geometry = 3815447/64/32, sectors = 7814037167, start = 0

Timing buffered disk reads: 1186 MB in 3.00 seconds = 395.17 MB/sec

Here I expected another result format, including IO support, could be problems from USB3 interface, which also makes the ssd not recognized as samsung but BUP SLIM, the name of initial usb3 disk from which I took out the interface and enclosure. I expected results like this following example-only

multcount = 128 (on)

IO_support = 1 (32-bit)

readonly = 0 (off)

readahead = 256 (on)

geometry = 5221/255/63, sectors = 83886080, start = 0

Timing buffered disk reads: 1580 MB in 3.01 seconds = 525.58 MB/sec

7. My feeling is that ssd not well recognized by Debian...

hdparm -i /dev/sdb

/dev/sdb:

HDIO_GET_IDENTITY failed: Invalid argument

8. Another inquiry

hdparm -I /dev/sdb

/dev/sdb:

ATA device, with non-removable media

Standards:

Likely used: 1

Configuration:

Logical	max	current
cylinders	0	0
heads	0	0
sectors/track	0	0

--

Logical/Physical Sector size: 512 bytes
device size with M = 1024*1024: 0 MBytes
device size with M = 1000*1000: 0 MBytes
cache/buffer size = unknown

Capabilities:

IORDY not likely
Cannot perform double-word IO
R/W multiple sector transfer: not supported
DMA: not supported
PIO: pio0

9. And some timings

hdparm -Tt /dev/sdb

/dev/sdb:

Timing cached reads: 26202 MB in 1.99 seconds = 13170.89 MB/sec

Timing buffered disk reads: 1186 MB in 3.00 seconds = 395.06 MB/sec

10.

11.

OMV run as server: Code `iperf3 -s -f K`

and on the other (your PC)

Code `iperf3 -c 192.168.1.195 -f K`

WIRELESS BRIDGE CONNECTION RESULT ALIENWARE

C:\Users\mihai\Desktop\iperf-3.1.3-win64>iperf3 -c 192.168.1.195 -f K

Connecting to host 192.168.1.195, port 5201

[4] local 192.168.1.250 port 65457 connected to 192.168.1.195 port 5201

[ID]	Interval	Transfer	Bandwidth
[4]	0.00-1.01 sec	7.12 MBytes	7259 KBytes/sec
[4]	1.01-2.00 sec	5.25 MBytes	5379 KBytes/sec
[4]	2.00-3.01 sec	5.00 MBytes	5109 KBytes/sec
[4]	3.01-4.00 sec	12.9 MBytes	13268 KBytes/sec
[4]	4.00-5.00 sec	11.8 MBytes	12023 KBytes/sec
[4]	5.00-6.00 sec	11.6 MBytes	11875 KBytes/sec
[4]	6.00-7.00 sec	11.2 MBytes	11516 KBytes/sec
[4]	7.00-8.01 sec	9.75 MBytes	9938 KBytes/sec
[4]	8.01-9.00 sec	11.0 MBytes	11361 KBytes/sec
[4]	9.00-10.00 sec	12.0 MBytes	12229 KBytes/sec

[ID]	Interval	Transfer	Bandwidth	
[4]	0.00-10.00 sec	97.6 MBytes	9992 KBytes/sec	sender
[4]	0.00-10.00 sec	97.5 MBytes	9975 KBytes/sec	receiver

iperf Done.

C:\Users\mihai\Desktop\iperf-3.1.3-win64>

RESULT OPENMEDIAVAULT

Server listening on 5201

Accepted connection from 192.168.1.250, port 65456

[5] local 192.168.1.195 port 5201 connected to 192.168.1.250 port 65457

[ID]	Interval	Transfer	Bitrate
[5]	0.00-1.00 sec	6.70 MBytes	6863 KBytes/sec
[5]	1.00-2.00 sec	5.02 MBytes	5141 KBytes/sec
[5]	2.00-3.00 sec	5.02 MBytes	5143 KBytes/sec
[5]	3.00-4.00 sec	12.9 MBytes	13176 KBytes/sec
[5]	4.00-5.00 sec	11.7 MBytes	11984 KBytes/sec
[5]	5.00-6.00 sec	11.7 MBytes	11982 KBytes/sec
[5]	6.00-7.00 sec	11.5 MBytes	11734 KBytes/sec
[5]	7.00-8.00 sec	10.0 MBytes	10285 KBytes/sec
[5]	8.00-9.00 sec	10.4 MBytes	10646 KBytes/sec
[5]	9.00-10.00 sec	12.3 MBytes	12547 KBytes/sec
[5]	10.00-10.04 sec	301 KBytes	7305 KBytes/sec

[ID]	Interval	Transfer	Bitrate	
[5]	0.00-10.04 sec	97.5 MBytes	9939 KBytes/sec	receiver

Server listening on 5201

iperf3 -c node01.srv.world

WIRED LAN CONNECTION
RESULTS ALIENWARE LAPTOP

```
iperf3 -c 192.168.1.195 -f K

Connecting to host 192.168.1.195, port 5201
[ 4] local 192.168.1.194 port 58884 connected to 192.168.1.195 port 5201
[ ID] Interval      Transfer  Bandwidth
[ 4]  0.00-1.01  sec  8.12 MBytes  8265 KBytes/sec
[ 4]  1.01-2.00  sec  7.88 MBytes  8117 KBytes/sec
[ 4]  2.00-3.01  sec  8.00 MBytes  8135 KBytes/sec
[ 4]  3.01-4.01  sec  8.25 MBytes  8406 KBytes/sec
[ 4]  4.01-5.00  sec  8.00 MBytes  8283 KBytes/sec
[ 4]  5.00-6.01  sec  8.00 MBytes  8118 KBytes/sec
[ 4]  6.01-7.01  sec  7.75 MBytes  7973 KBytes/sec
[ 4]  7.01-8.00  sec  8.12 MBytes  8339 KBytes/sec
[ 4]  8.00-9.01  sec  7.62 MBytes  7724 KBytes/sec
[ 4]  9.01-10.01 sec  8.00 MBytes  8242 KBytes/sec
-----
[ ID] Interval      Transfer  Bandwidth
[ 4]  0.00-10.01 sec  79.8 MBytes  8160 KBytes/sec
[ 4]  0.00-10.01 sec  79.6 MBytes  8148 KBytes/sec

iperf Done.
```

sender
receiver

RESULTS OPENMEDIAVAULT

```
iperf3 -s -f K

Accepted connection from 192.168.1.194, port 58883
[ 5] local 192.168.1.195 port 5201 connected to 192.168.1.194 port 58884
[ ID] Interval      Transfer  Bitrate
[ 5]  0.00-1.00  sec  7.60 MBytes  7780 KBytes/sec
[ 5]  1.00-2.00  sec  7.89 MBytes  8082 KBytes/sec
[ 5]  2.00-3.00  sec  7.96 MBytes  8153 KBytes/sec
[ 5]  3.00-4.00  sec  8.21 MBytes  8405 KBytes/sec
[ 5]  4.00-5.00  sec  8.08 MBytes  8275 KBytes/sec
[ 5]  5.00-6.00  sec  7.96 MBytes  8148 KBytes/sec
[ 5]  6.00-7.00  sec  7.77 MBytes  7958 KBytes/sec
[ 5]  7.00-8.00  sec  8.02 MBytes  8213 KBytes/sec
[ 5]  8.00-9.00  sec  7.76 MBytes  7943 KBytes/sec
[ 5]  9.00-10.00 sec  7.96 MBytes  8148 KBytes/sec
[ 5] 10.00-10.06 sec   439 KBytes  7542 KBytes/sec
-----
[ ID] Interval      Transfer  Bitrate
[ 5]  0.00-10.06 sec  79.6 MBytes  8107 KBytes/sec

Server listening on 5201
```

receiver

Now i will try same measurements with wired direct LAN to router
BUT with **USB3 interface number 2**.

hdparm -Tt /dev/sdb

/dev/sdb:

Timing cached reads: 26538 MB in 1.99 seconds = 13340.81 MB/sec

Timing buffered disk reads: 764 MB in 3.17 seconds = 240.90 MB/sec

RESULTS ALIENWARE LAPTOP

iperf3 -c 192.168.1.195 -f K

Connecting to host 192.168.1.195, port 5201

[4] local 192.168.1.194 port 50483 connected to 192.168.1.195 port 5201

[ID]	Interval	Transfer	Bandwidth
[4]	0.00-1.01 sec	7.88 MBytes	8004 KBytes/sec
[4]	1.01-2.00 sec	7.62 MBytes	7858 KBytes/sec
[4]	2.00-3.01 sec	8.12 MBytes	8249 KBytes/sec
[4]	3.01-4.01 sec	8.12 MBytes	8331 KBytes/sec
[4]	4.01-5.01 sec	7.75 MBytes	7905 KBytes/sec
[4]	5.01-6.00 sec	7.88 MBytes	8161 KBytes/sec
[4]	6.00-7.01 sec	7.88 MBytes	7987 KBytes/sec
[4]	7.01-8.00 sec	8.00 MBytes	8239 KBytes/sec
[4]	8.00-9.00 sec	8.12 MBytes	8339 KBytes/sec
[4]	9.00-10.00 sec	7.62 MBytes	7820 KBytes/sec

[ID]	Interval	Transfer	Bandwidth
[4]	0.00-10.00 sec	79.0 MBytes	8089 KBytes/sec
[4]	0.00-10.00 sec	78.8 MBytes	8072 KBytes/sec

iperf Done.

RESULTS OPENMEDIAVAULT

iperf3 -s -f K

Server listening on 5201

Accepted connection from 192.168.1.194, port 50482

[5] local 192.168.1.195 port 5201 connected to 192.168.1.194 port 50483

[ID]	Interval	Transfer	Bitrate
[5]	0.00-1.00 sec	7.38 MBytes	7560 KBytes/sec
[5]	1.00-2.00 sec	7.72 MBytes	7900 KBytes/sec
[5]	2.00-3.00 sec	7.96 MBytes	8154 KBytes/sec
[5]	3.00-4.00 sec	8.21 MBytes	8405 KBytes/sec
[5]	4.00-5.00 sec	7.67 MBytes	7859 KBytes/sec
[5]	5.00-6.00 sec	8.02 MBytes	8214 KBytes/sec
[5]	6.00-7.00 sec	7.77 MBytes	7959 KBytes/sec
[5]	7.00-8.00 sec	8.08 MBytes	8276 KBytes/sec
[5]	8.00-9.00 sec	7.90 MBytes	8086 KBytes/sec
[5]	9.00-10.00 sec	7.77 MBytes	7961 KBytes/sec
[5]	10.00-10.04 sec	356 KBytes	9018 KBytes/sec

[ID]	Interval	Transfer	Bitrate
[5]	0.00-10.04 sec	78.8 MBytes	8041 KBytes/sec

SECOND USB3 interface did not bring improvement, problem is elsewhere.

hdparm -I /dev/sdb

/dev/sdb:

ATA device, with non-removable media

Standards:

Likely used: 1

Configuration:

Logical	max	current
cylinders	0	0
heads	0	0
sectors/track	0	0

--

Logical/Physical Sector size: 512 bytes
device size with M = 1024*1024: 0 MBytes
device size with M = 1000*1000: 0 MBytes
cache/buffer size = unknown

Capabilities:

IORDY not likely
Cannot perform double-word IO
R/W multiple sector transfer: not supported
DMA: not supported
PIO: pio0

PLEASE ASSIST AND HELP...

