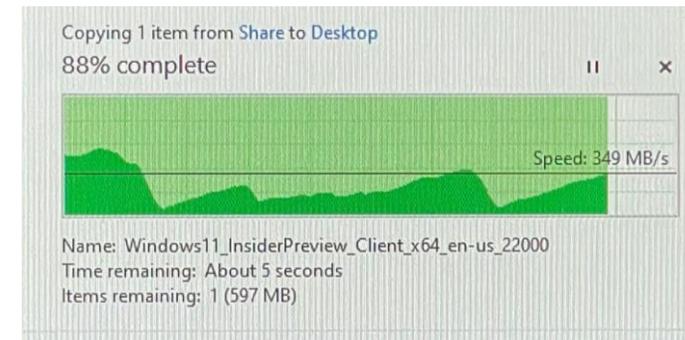
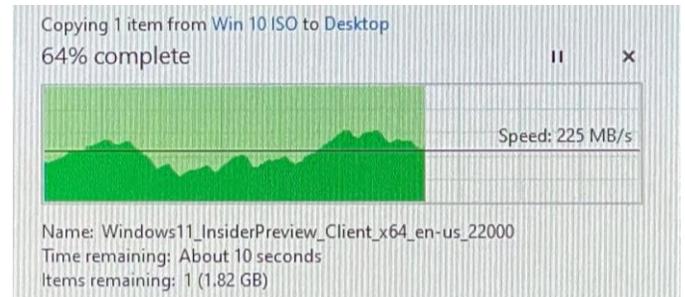
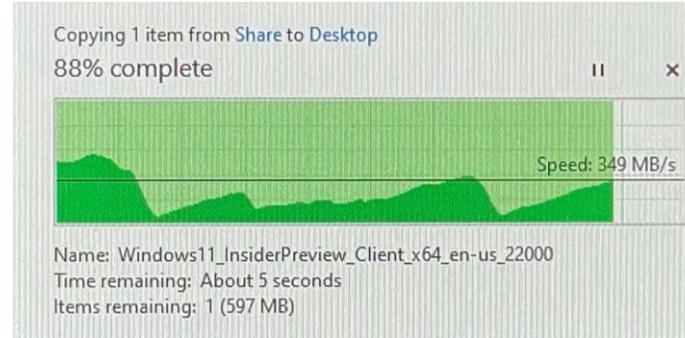
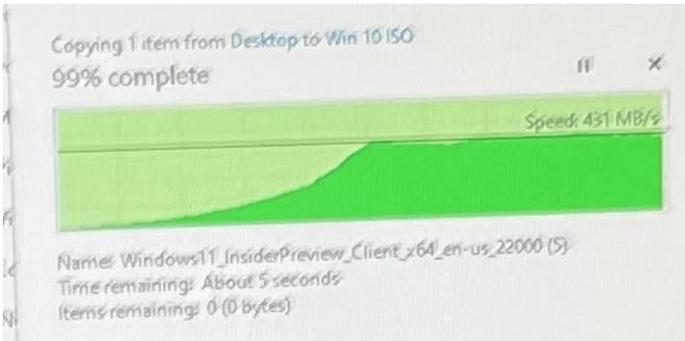


Benchmark Truenas Bridge



Data transfer from NVME to Truenas pool

Raw network performance

```
root@truenas[~]# iperf -c 192.168.0.70 -P 6
[ 5] local 192.168.0.60 port 10409 connected with 192.168.0.70 port 5001
-----
Client connecting to 192.168.0.70, TCP port 5001
TCP window size: 32.8 KByte (default)
-----
[ 3] local 192.168.0.60 port 45855 connected with 192.168.0.70 port 5001
[ 6] local 192.168.0.60 port 42624 connected with 192.168.0.70 port 5001
[ 1] local 192.168.0.60 port 63613 connected with 192.168.0.70 port 5001
[ 4] local 192.168.0.60 port 53473 connected with 192.168.0.70 port 5001
[ 2] local 192.168.0.60 port 51361 connected with 192.168.0.70 port 5001
[ ID] Interval      Transfer      Bandwidth
[ 2] 0.00-10.01 sec  2.19 GBytes  1.88 Gbits/sec
[ 1] 0.00-10.01 sec  1.22 GBytes  1.04 Gbits/sec
[ 4] 0.00-10.01 sec  2.11 GBytes  1.81 Gbits/sec
[ 5] 0.00-10.01 sec  2.15 GBytes  1.84 Gbits/sec
[ 3] 0.00-10.03 sec  1.30 GBytes  1.11 Gbits/sec
[ 6] 0.00-10.01 sec  1.91 GBytes  1.64 Gbits/sec
[SUM] 0.00-10.00 sec  10.9 GBytes  9.33 Gbits/sec
[ CT] final connect times (min/avg/max/stdev) = 0.204/0.364/0.490/0.186 ms (tot/err) = 6/0
root@truenas[~]#
```

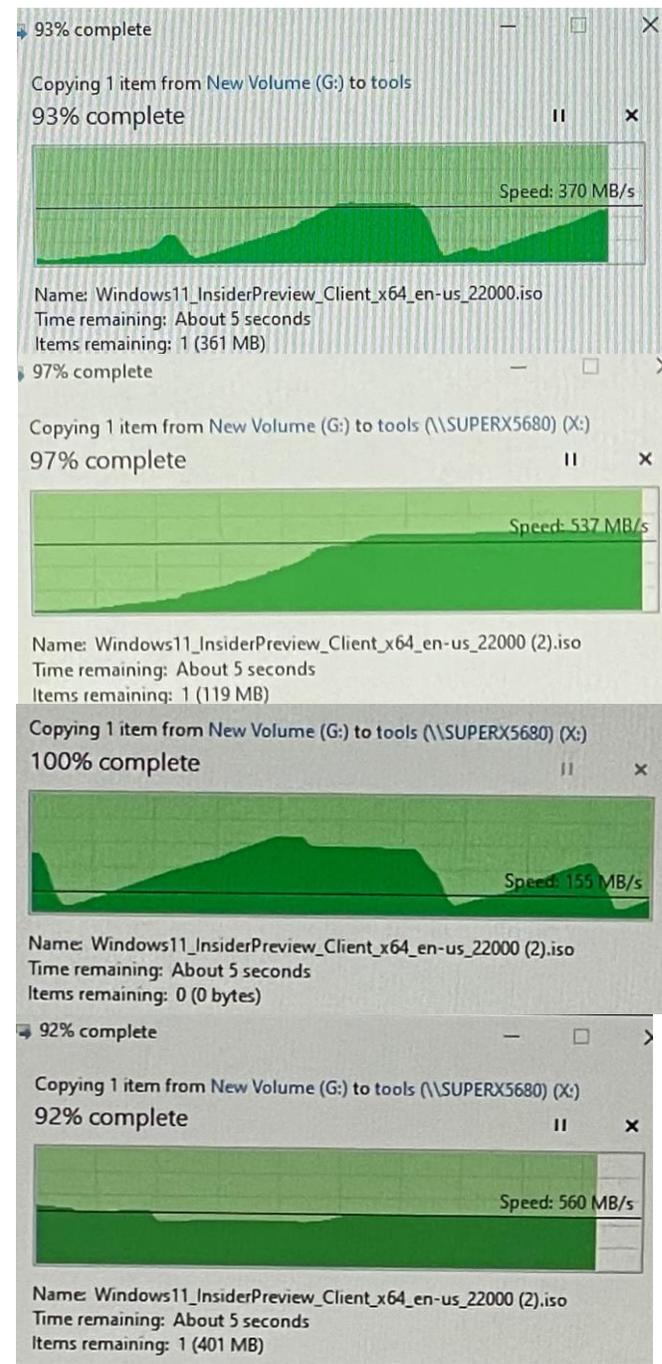
Benchmark of Tp-Link



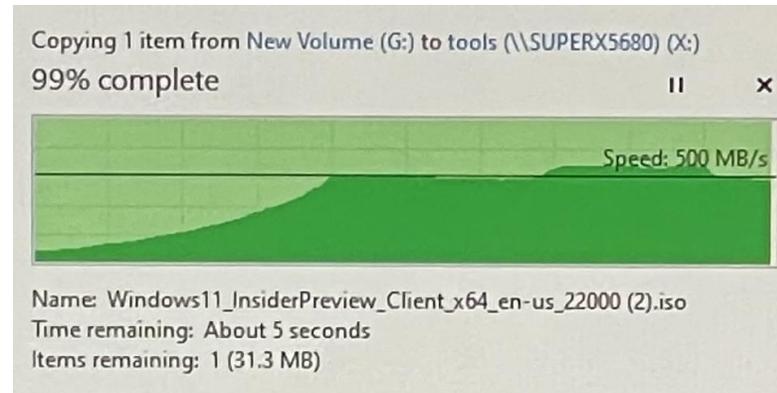
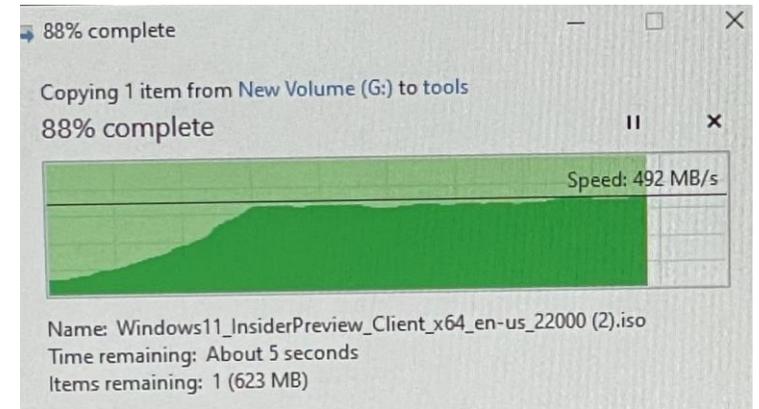
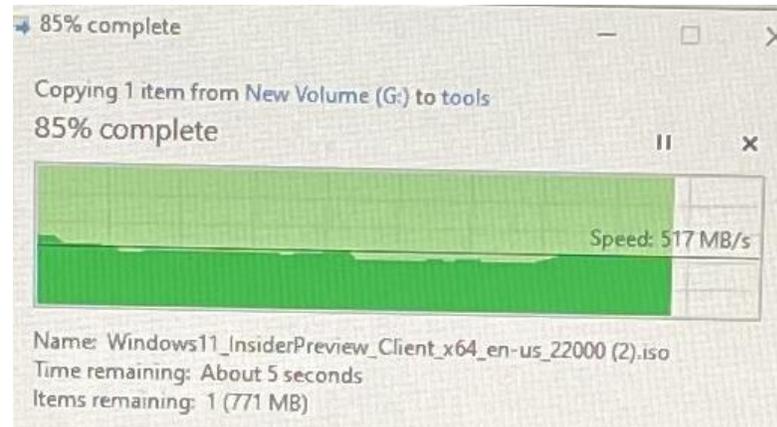
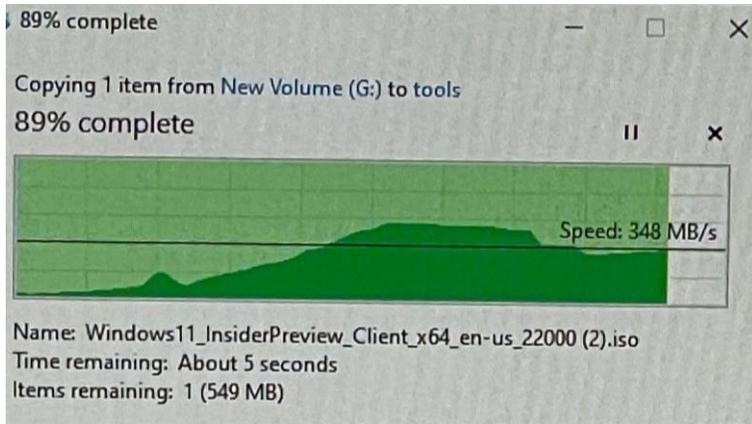
Raw network performance

Data transfer from NVME to Truenas pool

```
cmd: Command Prompt
[ 9] local 192.168.0.114 port 51169 connected with 192.168.0.70 port 5001
[10] local 192.168.0.114 port 51171 connected with 192.168.0.70 port 5001
[16] local 192.168.0.114 port 51172 connected with 192.168.0.70 port 5001
[ 7] local 192.168.0.114 port 51166 connected with 192.168.0.70 port 5001
[13] local 192.168.0.114 port 51173 connected with 192.168.0.70 port 5001
[ 6] local 192.168.0.114 port 51163 connected with 192.168.0.70 port 5001
[ 5] local 192.168.0.114 port 51167 connected with 192.168.0.70 port 5001
[14] local 192.168.0.114 port 51178 connected with 192.168.0.70 port 5001
[ 2] local 192.168.0.114 port 51174 connected with 192.168.0.70 port 5001
[12] local 192.168.0.114 port 51176 connected with 192.168.0.70 port 5001
ID Interval Transfer Bandwidth
[12] 0.00-10.02 sec 1.49 GBytes 1.27 Gbits/sec
[ 6] 0.00-10.02 sec 147 MBytes 123 Mbits/sec
[ 9] 0.00-10.02 sec 168 MBytes 141 Mbits/sec
[ 3] 0.00-10.02 sec 140 MBytes 117 Mbits/sec
[ 4] 0.00-10.02 sec 1005 MBytes 842 Mbits/sec
[ 2] 0.00-10.02 sec 248 MBytes 207 Mbits/sec
[ 5] 0.00-10.02 sec 1.02 GBytes 878 Mbits/sec
[10] 0.00-10.02 sec 172 MBytes 144 Mbits/sec
[13] 0.00-10.02 sec 363 MBytes 304 Mbits/sec
[ 7] 0.00-10.02 sec 245 MBytes 205 Mbits/sec
[ 1] 0.00-10.04 sec 1.30 GBytes 1.11 Gbits/sec
[16] 0.00-10.02 sec 1.63 GBytes 1.40 Gbits/sec
[ 8] 0.00-10.02 sec 609 MBytes 510 Mbits/sec
[14] 0.00-10.02 sec 245 MBytes 205 Mbits/sec
[11] 0.00-10.18 sec 1.07 GBytes 902 Mbits/sec
[15] 0.00-11.08 sec 1.03 GBytes 800 Mbits/sec
[SUM] 0.00-10.17 sec 10.8 GBytes 9.12 Gbits/sec
C:\tools>
```



Transfer from NVME to Truenas drive



Performance evaluation using Crystal Drive – TP-Link 10GB/s Switch
 Different drive technology

Stop	5	256MiB	C: 70% (156/223GiB)	MB/s
Stop	Read (MB/s)		Write (MB/s)	
Stop	191.14	194.67		
Stop	187.30	189.75		
Stop	23.22	72.76		
Stop	15.82	40.39		

Local Crucial SSD drive

All	5	256MiB	F: 12% (56/465GiB)	MB/s
All	Read (MB/s)		Write (MB/s)	
SEQ1M Q8T1	112.64	112.56		
SEQ1M Q1T1	112.33	111.14		
RND4K Q32T1	0.73	0.64		
RND4K Q1T1	0.70	0.59		

Local Seagate Spinner drive

All	5	256MiB	G: 15% (35/238GiB)	MB/s
All	Read (MB/s)		Write (MB/s)	
SEQ1M Q8T1	1557.69	1111.73		
SEQ1M Q1T1	1340.46	1055.49		
RND4K Q32T1	130.49	86.72		
RND4K Q1T1	29.38	51.37		

Local NVME drive

Stop	5	256MiB	U: 67% (10112/15074C)	MB/s
Stop	Read (MB/s)		Write (MB/s)	
Stop	415.02	518.88		
Stop	260.75	385.40		
Stop	123.42	116.66		
Stop	6.33	9.96		

Truenas Server – 4 x 3TB drives

All	5	256MiB	W: 1% (1/213GiB)	MB/s
All	Read (MB/s)		Write (MB/s)	
SEQ1M Q8T1	412.50	497.88		
SEQ1M Q1T1	274.88	347.41		
RND4K Q32T1	117.35	122.95		
RND4K Q1T1	11.65	11.63		

Truenas SSD single drive pool

All	5	64GiB	W: 1% (1/213GiB)	MB/s
All	Read (MB/s)		Write (MB/s)	
SEQ1M Q8T1	417.86	500.08		
SEQ1M Q1T1	272.45	363.52		
RND4K Q32T1	40.92	26.02		
RND4K Q1T1	7.21	8.47		

Truenas SSD single drive pool Big Pool