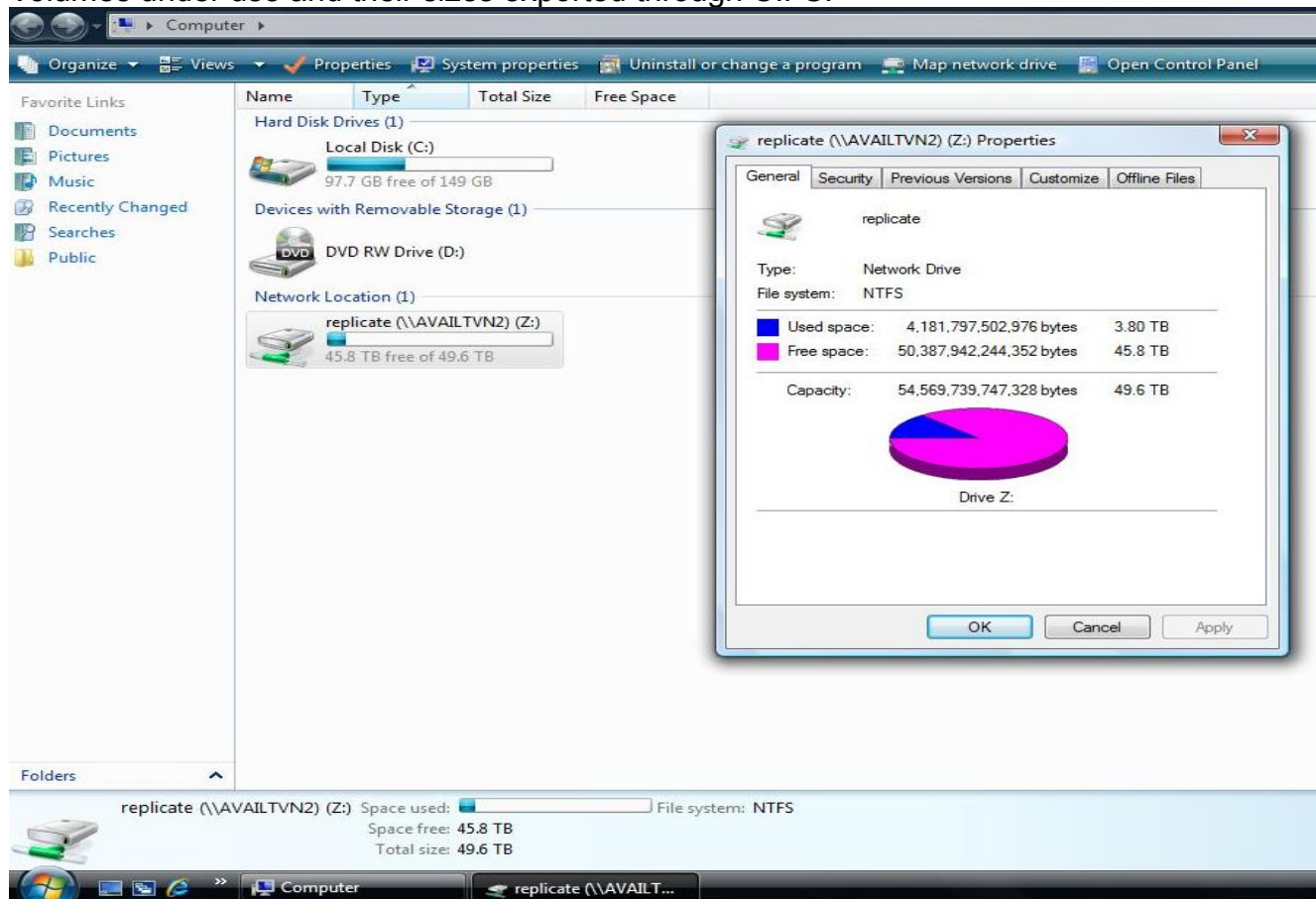


From Windows Vista:

Volumes under use and their sizes exported through CIFS:



From Linux :

```
[root@xxxxxx ~]# df -h
//XXX.XXX.XXX.XXX/replicate 50T 1.3T 46T 3% /mount/replicate-cifs (CIFS
Replicate)
//XXX.XXX.XXX.XXX/distribute 151T 2.6T 141T 2% /mount/distribute-cifs (CIFS
Distribute)
```

Server configuration:

Number of servers in the cluster: 4
OS: Storage Platform 3.0 - 2.6.30.9-102
CPU: x86_64 - Intel(R) Xeon(R) CPU E5520 @ 2.27GHz
Memory: 12GB
Network: 1GB Ethernet - Intel Corporation 82576
RAID/Disk: 3Ware AMCC 9650SE-24M8 Model - 24 drives on each servers RAID 6

Client Configuration:

OS: RHEL5 - 2.6.18-164.6.1
CPU: x86_64 - Intel(R) Xeon(R) CPU E5405 @ 2.00GHz
Memory: 2GB
Network: 1GB Ethernet - BroadCom NetExtreme

Aggregated Client Performance:

Measured concurrently from multiple clients to test scalability.

Total Number of clients: 11

Benchmark tool: dd (disk-dump)

All Benchmark Numbers are in Bytes per Sec

File Size	Block Size	Operation	Volume Type	Throughput MBytes/sec	Protocol
1GB	1M	Read	Distribute	77.4MB/sec	CIFS on RHEL 5.3 x86_64
1GB	1M	Write	Distribute	118MB/sec	CIFS on RHEL 5.3 x86_64
1GB	1M	Read	Distribute+Replicate	76.5MB/sec	CIFS on RHEL 5.3 x86_64
1GB	1M	Write	Distribute+Replicate	80MB/sec	CIFS on RHEL 5.3 x86_64

Single Client Performance:

Benchmark tools: dd.exe, drag-n-drop

All Benchmark Numbers are in Bytes per Sec

File Size	Block Size	Operation	Volume Type	Throughput MBytes/sec	Protocol
1GB	OS default	File Copy In (Write)	Distribute	51MB/sec	CIFS on Windows Vista x64
1GB	OS default	File Copy Out (Read)	Distribute	16MB/sec	CIFS on Windows Vista x64
1GB	OS default	File Copy In (Write)	Distribute+Replicate	38MB/sec	CIFS on Windows Vista x64
1GB	OS default	File Copy Out (Read)	Distribute+Replicate	15MB/sec	CIFS on Windows Vista x64
1GB	1M	Read	Distribute	15.4MB/sec	CIFS on Windows Vista x64
1GB	1M	Write	Distribute	52.8MB/sec	CIFS on Windows Vista x64
1GB	1M	Read	Distribute+Replicate	13.2MB/sec	CIFS on Windows Vista x64
1GB	1M	Write	Distribute+Replicate	35.45MB/sec	CIFS on Windows Vista x64
1GB	1M	Read	Distribute	14.3MB/sec	CIFS on RHEL 5.4 x86_64
1GB	1M	Write	Distribute	48MB/sec	CIFS on RHEL 5.4 x86_64
1GB	1M	Read	Distribute+Replicate	13.0MB/sec	CIFS on RHEL 5.4 x86_64
1GB	1M	Write	Distribute+Replicate	35.5MB/sec	CIFS on RHEL 5.4 x86_64

Note: To improve the performance further, we recommend 10 GigE or Infiniband switch on the server side. CIFS is a very chatty protocol and not optimized for high-latency 1GigE networks.