

HDDS-11483 s3g ozone.s3g.client.buffer.size test

Summary

Ozone.client.bytes.per.checksum	ozone.s3g.client.buffer.size	average Get throughput
16KB	8KB	224.64 MiB/s, 11.78 obj/s
	128KB	843.91 MiB/s, 44.25 obj/s
	256KB	985.46 MiB/s, 51.67 obj/s
	512KB	999.82 MiB/s, 52.42 obj/s
	1MB	1020.08 MiB/s, 53.48 obj/s
	2MB	1001.25 MiB/s, 52.49 obj/s
	4MB	929.41 MiB/s, 48.73 obj/s
1MB	8KB	980.89 MiB/s, 51.43 obj/s

Note: All data are collected within the same physical cluster.

Detail Runs

→ Ozone.client.bytes.per.checksum 16KB && ozone.s3g.client.buffer.size 8KB

Unset

```
[root@vc0616 systest]# warp get --warp-client=vc0616.halxg.cloudera.com
--host=localhost:9879 --tls --autoterm --insecure --access-key=$AWS_ACCESS_KEY_ID
--secret-key=$AWS_SECRET_ACCESS_KEY --obj.size=20mb --concurrent=20
--bucket=bucket-20-24 --objects 10000 --duration=5m
warp: Running benchmark on all clients...
warp: Benchmark data written to "warp-remote-2024-09-20[053918]-cTQe.csv.zst"
```

```
-----
Operation: PUT. Concurrency: 20
* Average: 358.85 MiB/s, 18.81 obj/s
```

```
Throughput, split into 104 x 5s:
* Fastest: 452.0MiB/s, 23.70 obj/s
* 50% Median: 360.3MiB/s, 18.89 obj/s
* Slowest: 267.6MiB/s, 14.03 obj/s
```

```
-----
Operation: GET. Concurrency: 20
* Average: 224.64 MiB/s, 11.78 obj/s
```

```
Throughput, split into 294 x 1s:
* Fastest: 262.4MiB/s, 13.76 obj/s
* 50% Median: 230.3MiB/s, 12.08 obj/s
* Slowest: 49.0MiB/s, 2.57 obj/s
warp: Cleanup done.
```

→ Ozone.client.bytes.per.checksum 16KB && ozone.s3g.client.buffer.size 128KB

```
Unset
root@vc0621 systest]# warp get --warp-client=vc0621.halxg.cloudera.com
--host=localhost:9879 --tls --autoterm --insecure --access-key=$AWS_ACCESS_KEY_ID
--secret-key=$AWS_SECRET_ACCESS_KEY --obj.size=20mb --concurrent=20
--bucket=bucket-27-19-12 --objects 10000 --duration=5m
warp: Client 10.17.212.31:7761: Requested stage prepare start...

warp: Running benchmark on all clients...

warp: Benchmark data written to "warp-remote-2024-09-27[042822]-fGIn.csv.zst"

-----
Operation: PUT. Concurrency: 20
* Average: 307.03 MiB/s, 16.10 obj/s

Throughput, split into 119 x 5s:
* Fastest: 426.2MiB/s, 22.35 obj/s
* 50% Median: 312.7MiB/s, 16.40 obj/s
* Slowest: 175.0MiB/s, 9.18 obj/s

-----
Operation: GET. Concurrency: 20
* Average: 843.91 MiB/s, 44.25 obj/s

Throughput, split into 297 x 1s:
* Fastest: 898.9MiB/s, 47.13 obj/s
* 50% Median: 857.3MiB/s, 44.95 obj/s
* Slowest: 105.4MiB/s, 5.53 obj/s
warp: Cleanup done.
```

→ Ozone.client.bytes.per.checksum 16KB && ozone.s3g.client.buffer.size 256KB

```
Unset
[root@vc0621 systest]# warp get --warp-client=vc0621.halxg.cloudera.com
--host=localhost:9879 --tls --autoterm --insecure --access-key=$AWS_ACCESS_KEY_ID
--secret-key=$AWS_SECRET_ACCESS_KEY --obj.size=20mb --concurrent=20
--bucket=bucket-27-18-18 --objects 10000 --duration=5m
warp: Running benchmark on all clients...
```

```
warp: Benchmark data written to "warp-remote-2024-09-27[033347]-ZGPe.csv.zst"
```

```
-----  
Operation: PUT. Concurrency: 20  
* Average: 345.09 MiB/s, 18.09 obj/s
```

```
Throughput, split into 96 x 5s:  
* Fastest: 448.2MiB/s, 23.50 obj/s  
* 50% Median: 351.6MiB/s, 18.44 obj/s  
* Slowest: 238.2MiB/s, 12.49 obj/s
```

```
-----  
Operation: GET. Concurrency: 20  
* Average: 985.46 MiB/s, 51.67 obj/s
```

```
Throughput, split into 297 x 1s:  
* Fastest: 1051.6MiB/s, 55.14 obj/s  
* 50% Median: 1016.2MiB/s, 53.28 obj/s  
* Slowest: 108.0MiB/s, 5.66 obj/s
```

```
warp: Cleanup done.
```

→ `Ozone.client.bytes.per.checksum 16KB` && `ozone.s3g.client.buffer.size 512KB`

```
Unset
```

```
[root@vc0621 systest]# warp get --warp-client=vc0621.halxg.cloudera.com  
--host=localhost:9879 --tls --autoterm --insecure --access-key=$AWS_ACCESS_KEY_ID  
--secret-key=$AWS_SECRET_ACCESS_KEY --obj.size=20mb --concurrent=20  
--bucket=bucket-27-17-43 --objects 10000 --duration=5m  
warp: Client 10.17.212.31:7761: Requested stage prepare start...
```

```
warp: Running benchmark on all clients...
```

```
warp: Benchmark data written to "warp-remote-2024-09-27[030040]-HBHb.csv.zst"
```

```
-----  
Operation: PUT. Concurrency: 20  
* Average: 277.14 MiB/s, 14.53 obj/s
```

```
Throughput, split into 127 x 5s:  
* Fastest: 449.5MiB/s, 23.57 obj/s  
* 50% Median: 278.2MiB/s, 14.58 obj/s  
* Slowest: 129.7MiB/s, 6.80 obj/s
```

```
-----  
Operation: GET. Concurrency: 20  
* Average: 999.82 MiB/s, 52.42 obj/s
```

```
Throughput, split into 297 x 1s:
```

```
* Fastest: 1063.6MiB/s, 55.77 obj/s
* 50% Median: 1027.0MiB/s, 53.84 obj/s
* Slowest: 59.5MiB/s, 3.12 obj/s
warp: Cleanup done.
```

→ Ozone.client.bytes.per.checksum 16KB && ozone.s3g.client.buffer.size 1MB

Unset

```
[root@vc0621 systest]# warp get --warp-client=vc0621.halxg.cloudera.com
--host=localhost:9879 --tls --autoterm --insecure --access-key=$AWS_ACCESS_KEY_ID
--secret-key=$AWS_SECRET_ACCESS_KEY --obj.size=20mb --concurrent=20
--bucket=bucket-23-22-59 --objects 10000 --duration=5m
warp: Client 10.17.212.31:7761: Requested stage prepare start...
```

warp: Running benchmark on all clients...

warp: Benchmark data written to "warp-remote-2024-09-27[012521]-591V.csv.zst"

```
-----
Operation: PUT. Concurrency: 20
* Average: 290.75 MiB/s, 15.24 obj/s
```

```
Throughput, split into 120 x 5s:
* Fastest: 408.5MiB/s, 21.42 obj/s
* 50% Median: 284.0MiB/s, 14.89 obj/s
* Slowest: 122.1MiB/s, 6.40 obj/s
```

```
-----
Operation: GET. Concurrency: 20
* Average: 1020.08 MiB/s, 53.48 obj/s
```

```
Throughput, split into 283 x 1s:
* Fastest: 1121.6MiB/s, 58.80 obj/s
* 50% Median: 1037.5MiB/s, 54.39 obj/s
* Slowest: 702.8MiB/s, 36.85 obj/s
warp: Cleanup done.
```

→ Ozone.client.bytes.per.checksum 16KB && ozone.s3g.client.buffer.size 2MB

Unset

```
[root@vc0621 systest]# warp get --warp-client=vc0621.halxg.cloudera.com
--host=localhost:9879 --tls --autoterm --insecure --access-key=$AWS_ACCESS_KEY_ID
--secret-key=$AWS_SECRET_ACCESS_KEY --obj.size=20mb --concurrent=20
--bucket=bucket-27-16-40 --objects 10000 --duration=5m
warp: Client 10.17.212.31:7761: Requested stage prepare start...
```

```
warp: Benchmark data written to "warp-remote-2024-09-27[015625]-SjKZ.csv.zst"
```

```
-----  
Operation: PUT. Concurrency: 20  
* Average: 349.90 MiB/s, 18.35 obj/s
```

```
Throughput, split into 96 x 5s:  
* Fastest: 464.6MiB/s, 24.36 obj/s  
* 50% Median: 363.9MiB/s, 19.08 obj/s  
* Slowest: 142.2MiB/s, 7.45 obj/s
```

```
-----  
Operation: GET. Concurrency: 20  
* Average: 1001.25 MiB/s, 52.49 obj/s
```

```
Throughput, split into 298 x 1s:  
* Fastest: 1051.7MiB/s, 55.14 obj/s  
* 50% Median: 1005.9MiB/s, 52.74 obj/s  
* Slowest: 793.7MiB/s, 41.61 obj/s
```

```
warp: Cleanup done.
```

→ `Ozone.client.bytes.per.checksum 16KB` && `ozone.s3g.client.buffer.size 4MB`

```
Unset
```

```
[root@vc0621 systest]# warp get --warp-client=vc0621.halxg.cloudera.com  
--host=localhost:9879 --tls --autoterm --insecure --access-key=$AWS_ACCESS_KEY_ID  
--secret-key=$AWS_SECRET_ACCESS_KEY --obj.size=20mb --concurrent=20  
--bucket=bucket-27-17-12 --objects 10000 --duration=5m  
warp: Running benchmark on all clients...
```

```
warp: Benchmark data written to "warp-remote-2024-09-27[022706]-SWMm.csv.zst"
```

```
-----  
Operation: PUT. Concurrency: 20  
* Average: 342.38 MiB/s, 17.95 obj/s
```

```
Throughput, split into 98 x 5s:  
* Fastest: 447.0MiB/s, 23.44 obj/s  
* 50% Median: 354.5MiB/s, 18.59 obj/s  
* Slowest: 193.2MiB/s, 10.13 obj/s
```

```
-----  
Operation: GET. Concurrency: 20  
* Average: 929.41 MiB/s, 48.73 obj/s
```

```
Throughput, split into 294 x 1s:  
* Fastest: 1003.4MiB/s, 52.61 obj/s  
* 50% Median: 950.8MiB/s, 49.85 obj/s
```

```
* Slowest: 58.5MiB/s, 3.06 obj/s
warp: Cleanup done.
```

→ Ozone.client.bytes.per.checksum 1MB && ozone.s3g.client.buffer.size 8KB

Unset

```
ozone.client.bytes.per.checksum = 1MB, s3 get buffer size 8KB
[root@vc0616 systest]# warp get --warp-client=vc0616.halxg.cloudera.com
--host=localhost:9879 --tls --autoterm --insecure --access-key=$AWS_ACCESS_KEY_ID
--secret-key=$AWS_SECRET_ACCESS_KEY --obj.size=20mb --concurrent=20
--bucket=bucket-19-23 --objects 10000 --duration=5m
warp: Client 10.17.212.26:7761: Requested stage prepare start...
warp: Benchmark data written to "warp-remote-2024-09-20[044056]-999v.csv.zst"
```

```
-----
Operation: PUT. Concurrency: 20
* Average: 371.36 MiB/s, 19.47 obj/s
```

```
Throughput, split into 100 x 5s:
* Fastest: 433.5MiB/s, 22.73 obj/s
* 50% Median: 378.1MiB/s, 19.82 obj/s
* Slowest: 255.2MiB/s, 13.38 obj/s
```

```
-----
Operation: GET. Concurrency: 20
* Average: 980.89 MiB/s, 51.43 obj/s
```

```
Throughput, split into 298 x 1s:
* Fastest: 1093.4MiB/s, 57.33 obj/s
* 50% Median: 1040.7MiB/s, 54.56 obj/s
* Slowest: 31.8MiB/s, 1.67 obj/s
warp: Cleanup done.
```