

# AFS Benchmarks on GigE

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# Test Setup

- Test Client: Dell 2.8GHz P4, 512M, Intel PRO/1000, GigE to server
- Live systems, but no appreciable load
- 5 runs, discard low and high, take average, flush AFS cache for test file with fs flush between runs
- Server: Dell Dual 3.2GHz Xeon, 2G

# Windows XP, File size 100M

- Cache size 195M, OpenAFS 1.3.73, crypt on, no maxMTU:
  - read: 17.16s -> 5.82MB/s
  - write: 22.83s -> 4.38MB/s
- crypt off:
  - read: 7.21s -> 13.86MB/s
  - write: 7.08s -> 14.12MB/s

# XP Continued, 500M

- crypt on, no maxMTU
  - read: 89.21s -> 5.60MB/s
  - write: 120.67s -> 4.14MB/s
- crypt off, no maxMTU
  - read: 32.50s -> 15.38MB/s
  - write: 38.39s -> 13.02MB/s

# Linux 2.4.24, File Size 100M

- 122M Cache, OpenAFS 1.2.10, crypt on:
  - read: 5.16s -> 19.37MB/s
  - write: 8.89s -> 11.24MB/s
- crypt off:
  - read: 5.20s -> 19.23MB/s
  - write: 5.51s -> 18.14MB/s

# Linux 2.4.24, File Size 500M

- crypt on:
  - read: 34.33s -> 14.56MB/s
  - write: 50.05s -> 9.99MB/s
- crypt off:
  - read: 32.27s -> 15.49MB/s
  - write: 44.50s -> 11.23MB/s

## 2.4.21, 1.3.73, 100M

- crypt on, cache size 195M:
  - read: 2.84s -> 35.21MB/s
  - write: 9.06s -> 11.03MB/s
- crypt off:
  - read: 2.64s -> 37.87MB/s
  - write: 3.51s -> 28.49MB/s

## 2.4.21, 500M

- crypt on:
  - 43.48s -> 11.49MB/s
  - 100.29s -> 4.98MB/s
- crypt off:
  - read: 40.72s -> 12.27MB/s
  - write: 96.56s -> 5.17MB/s

## 2.4.21, 1.3.73, 100M

- crypt on, memcache:
  - read: 8.63s -> 11.58MB/s
  - write: 3.23s -> 30.95MB/s
- crypt off:
  - read: 8.53s -> 11.72MB/s
  - write: 3.21s -> 31.15MB/s

## 2.4.21, 500M, memcache

- crypt on:
  - read: 48.91s -> 10.22MB/s
  - write: 43.68s -> 11.44MB/s
- crypt off:
  - read: 49.56s -> 10.08MB/s
  - write: 43.82s -> 11.41MB/s

# afscp tests

- Different client hardware: same as server
  - Dual 3.2GHz Xeon, 2G, etc.
- Copy from AFS to local disk:
  - 63.91MB/s, max: 69.83MB/s
- Copy to AFS (file overwrite):
  - 76.62MB/s, max 86.29MB/s

# afscp continued

- Copy to AFS with newfile and remove
  - 54.65MB/s, max 60.34MB/s
- Copy to AFS newfile
  - 51.52MB/s, max 60.32 MB/s