

Comparitive Performance Report for squid-ec-6+2-4k vs tentacle-fast-ec-6+2-16k vs tentacle-3way-replica

Table of contents

- Comparison summary for squid-ec-6+2-4k vs tentacle-fast-ec-6+2-16k vs tentacle-3way-replica
- Response Curves
 - Sequential Read
 - Sequential Write
 - Random Read
 - Random Write
 - Random Read/Write
- Configuration yaml files
 - results

Comparison summary for squid-ec-6+2-4k vs tentacle-fast-ec-6+2-16k vs tentacle-3way-replica

| Sequential Read | squid-ec-6+2-4k | tentacle-fast-ec-6+2-16k | %change | tentacle-3way-replica | %change |
|-----------------|-----------------|--------------------------|---------|-----------------------|---------|
| 4K | 58638@6.5ms | 165897@2.3 | 183% | 139206@0.7 | 137% |
| 8K | 53638@5.4ms | 155175@2.5 | 189% | 126086@0.8 | 135% |
| 16K | 46954@6.1ms | 140148@2.0 | 198% | 112627@2.6 | 140% |
| 32K | 38463@5.0ms | 71375@0.9 | 86% | 90377@2.1 | 135% |
| 64K | 2255@7.4ms | 3172@5.3 | 41% | 4561@3.7 | 102% |
| 256K | 4536@3.7ms | 5330@3.1 | 18% | 7908@2.1 | 74% |
| 512K | 5135@3.3ms | 6067@2.8 | 18% | 7991@2.1 | 56% |
| 1024K | 5217@4.0ms | 6186@3.4 | 19% | 6651@3.1 | 27% |

| Sequential Write | squid-ec-6+2-4k | tentacle-fast-ec-6+2-16k | %change | tentacle-3way-replica | %change |
|------------------|-----------------|--------------------------|---------|-----------------------|---------|
| 4K | 136232@11.3ms | 252680@6.1 | 85% | 500105@3.1 | 267% |
| 8K | 130892@11.7ms | 198909@7.7 | 52% | 336933@4.6 | 157% |
| 16K | 86109@11.9ms | 121584@8.4 | 41% | 185698@5.5 | 116% |
| 32K | 50412@15.2ms | 73998@10.4 | 47% | 103300@7.4 | 105% |
| 64K | 2095@16.0ms | 2668@12.5 | 27% | 3436@9.7 | 64% |
| 256K | 2797@23.9ms | 3346@19.9 | 20% | 3874@17.2 | 39% |
| 512K | 2870@23.2ms | 3453@19.2 | 20% | 3896@4.1 | 36% |
| 1024K | 3689@45.0ms | 4218@39.2 | 14% | 3674@4.2 | -0% |

| Random Read | squid-ec-6+2-4k | tentacle-fast-ec-6+2-16k | %change | tentacle-3way-replica | %change |
|-------------|-----------------|--------------------------|---------|-----------------------|---------|
| 4K | 36952@10.4ms | 104960@7.3 | 184% | 191467@4.0 | 418% |
| 8K | 36424@21.1ms | 99102@7.7 | 172% | 183567@4.2 | 404% |
| 16K | 35473@16.6ms | 90721@4.2 | 156% | 169312@3.5 | 377% |
| 32K | 32165@7.9ms | 61724@4.1 | 92% | 138987@3.7 | 332% |
| 64K | 1897@8.8ms | 2610@6.4 | 38% | 6946@3.6 | 266% |
| 256K | 4363@3.8ms | 4839@6.9 | 11% | 12882@2.6 | 195% |
| 512K | 5493@4.6ms | 6387@5.2 | 16% | 12426@2.7 | 126% |
| 1024K | 5846@5.7ms | 7048@4.7 | 21% | 10000@3.3 | 71% |

| Random Write | squid-ec-6+2-4k | tentacle-fast-ec-6+2-16k | %change | tentacle-3way-replica | %change |
|--------------|-----------------|--------------------------|---------|-----------------------|---------|
| 4K | 10725@71.6ms | 23646@21.6 | 120% | 50963@7.5 | 375% |
| 8K | 10706@71.7ms | 22343@34.4 | 109% | 50946@5.0 | 376% |
| 16K | 10123@50.5ms | 20872@24.5 | 106% | 48329@5.3 | 377% |
| 32K | 10117@50.6ms | 15269@16.7 | 51% | 44974@8.5 | 345% |
| 64K | 596@42.2ms | 827@30.4 | 39% | 2467@10.2 | 314% |

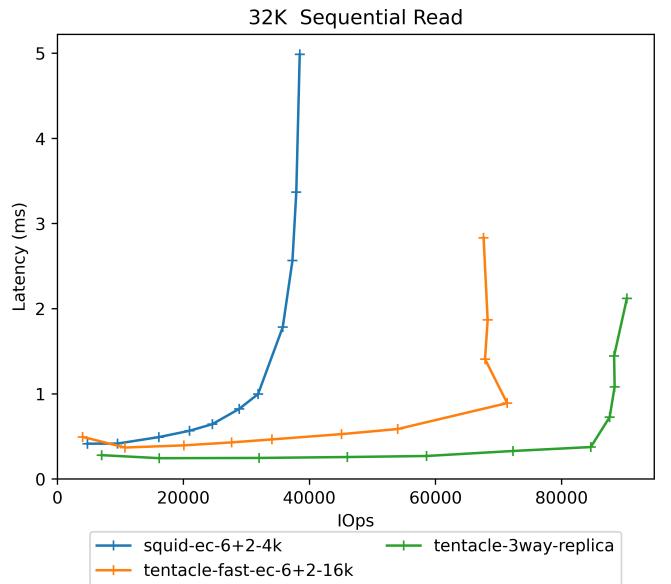
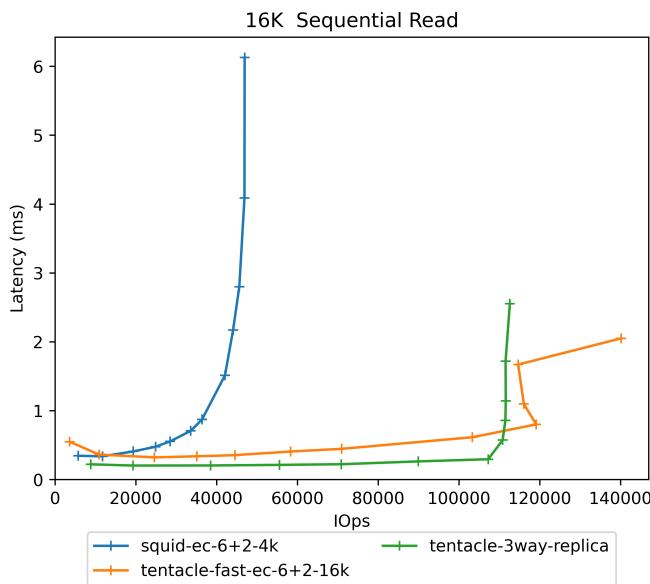
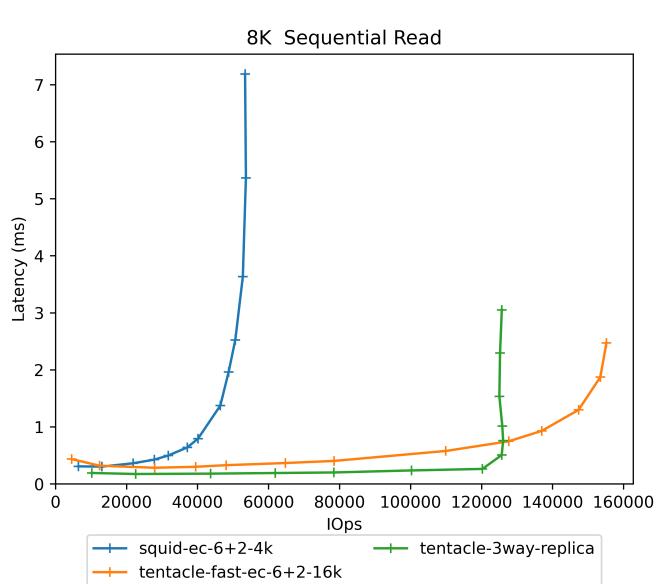
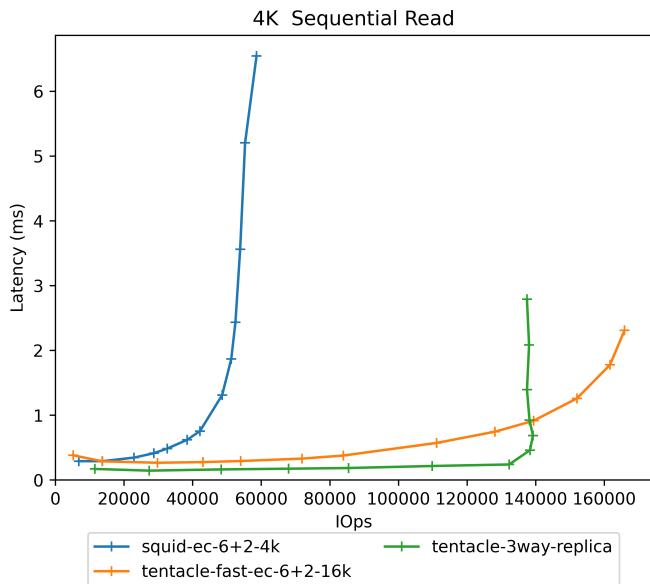
Comparison summary for squid-ec-6+2-4k vs tentacle-fast-ec-6+2-16k vs tentacle-3way-replica

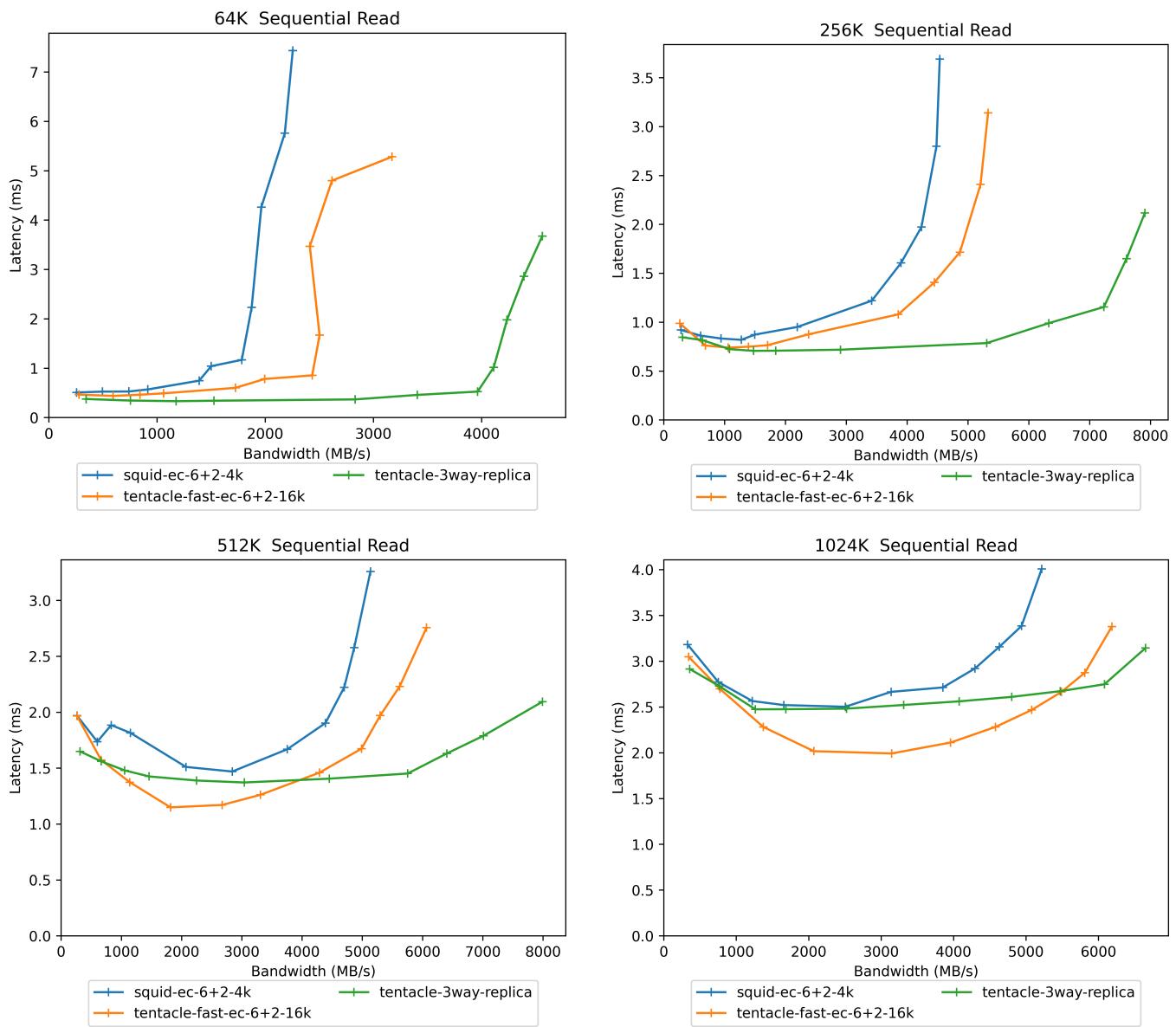
| Random Write | squid-ec-6+2-4k | tentacle-fast-ec-6+2-16k | | tentacle-3way-replica | |
|--------------|-----------------|--------------------------|---------|-----------------------|---------|
| | | | %change | | %change |
| 256K | 1785@37.5ms | 2105@31.7 | 18% | 4315@15.4 | 142% |
| 512K | 2534@9.7ms | 2910@11.3 | 15% | 3894@4.1 | 54% |
| 1024K | 3217@15.2ms | 3905@12.4 | 21% | 4301@7.3 | 34% |

| Random Read/Write | squid-ec-6+2-4k | tentacle-fast-ec-6+2-16k | | tentacle-3way-replica | |
|-------------------|-----------------|--------------------------|---------|-----------------------|---------|
| | | | %change | | %change |
| 4K_70/30 | 21146@18.1ms | 46650@8.2 | 121% | 100970@2.5 | 377% |
| 16K_70/30 | 19770@12.9ms | 41239@6.2 | 109% | 92234@2.8 | 367% |
| 64K_30/70 | 739@22.7ms | 982@17.0 | 33% | 3016@5.5 | 308% |
| 64K_70/30 | 1147@14.6ms | 1438@5.8 | 25% | 4293@3.9 | 274% |

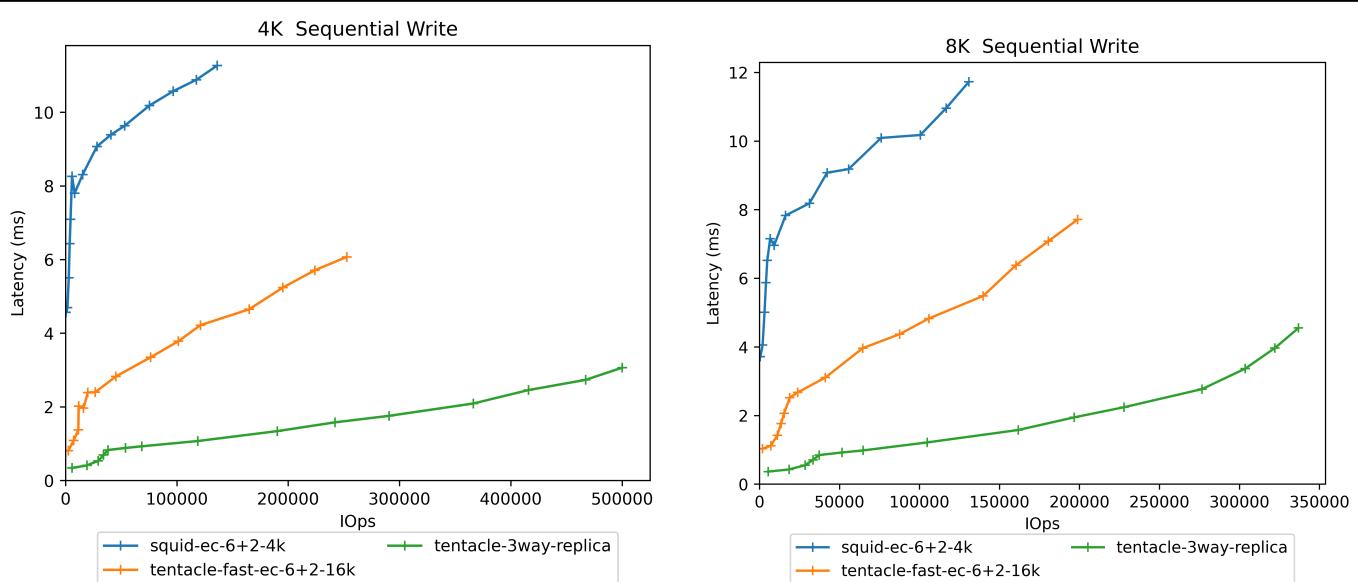
Response Curves

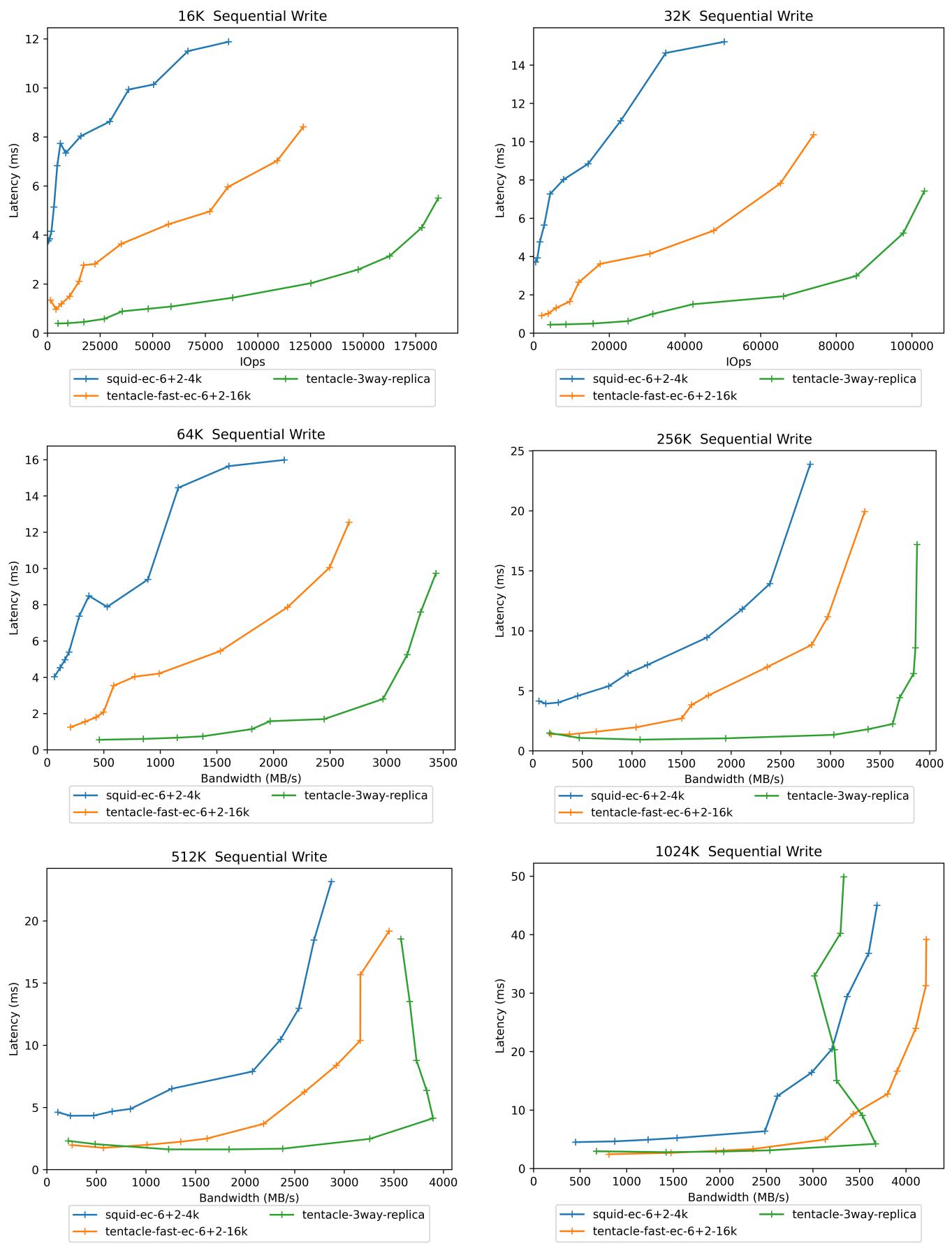
Sequential Read



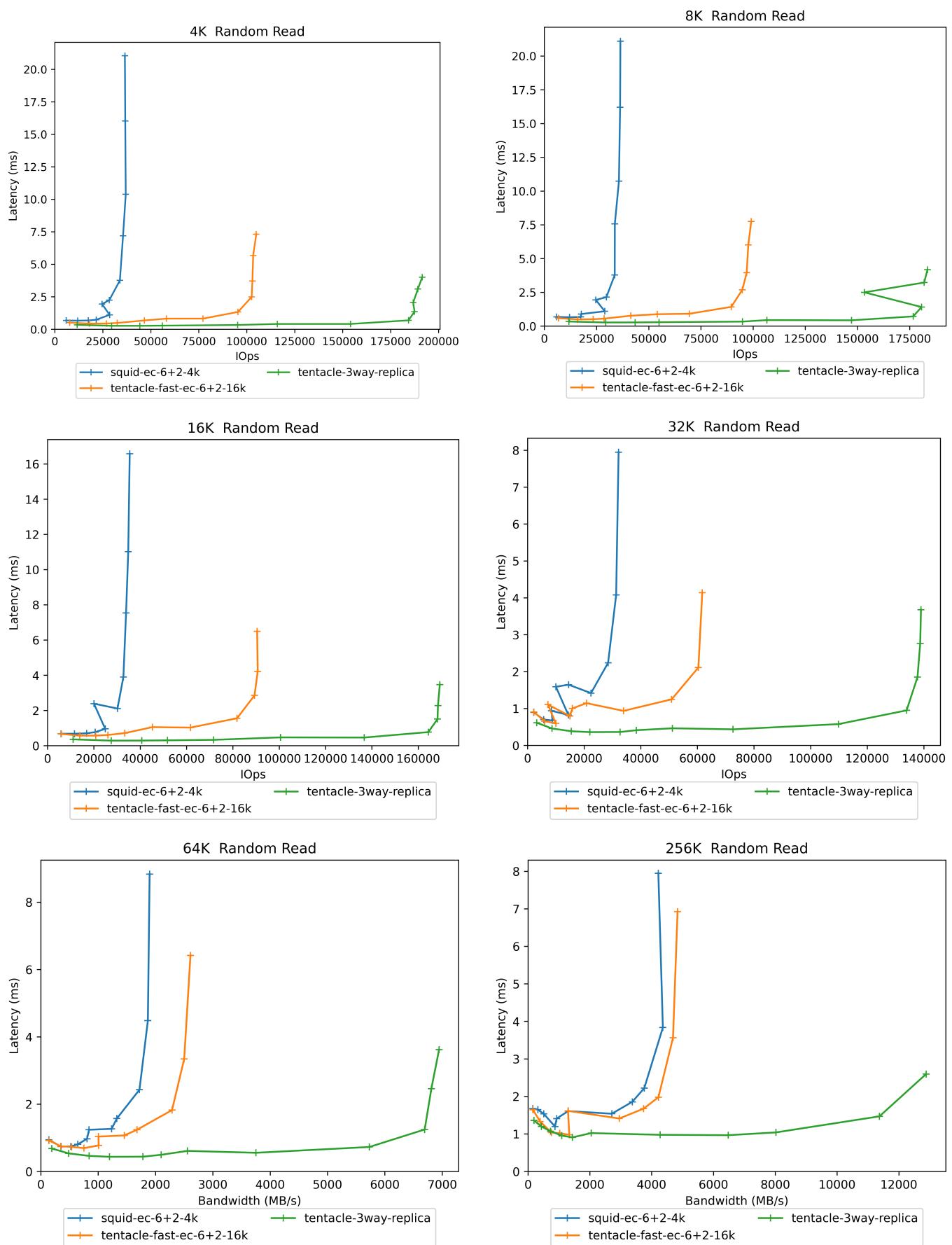


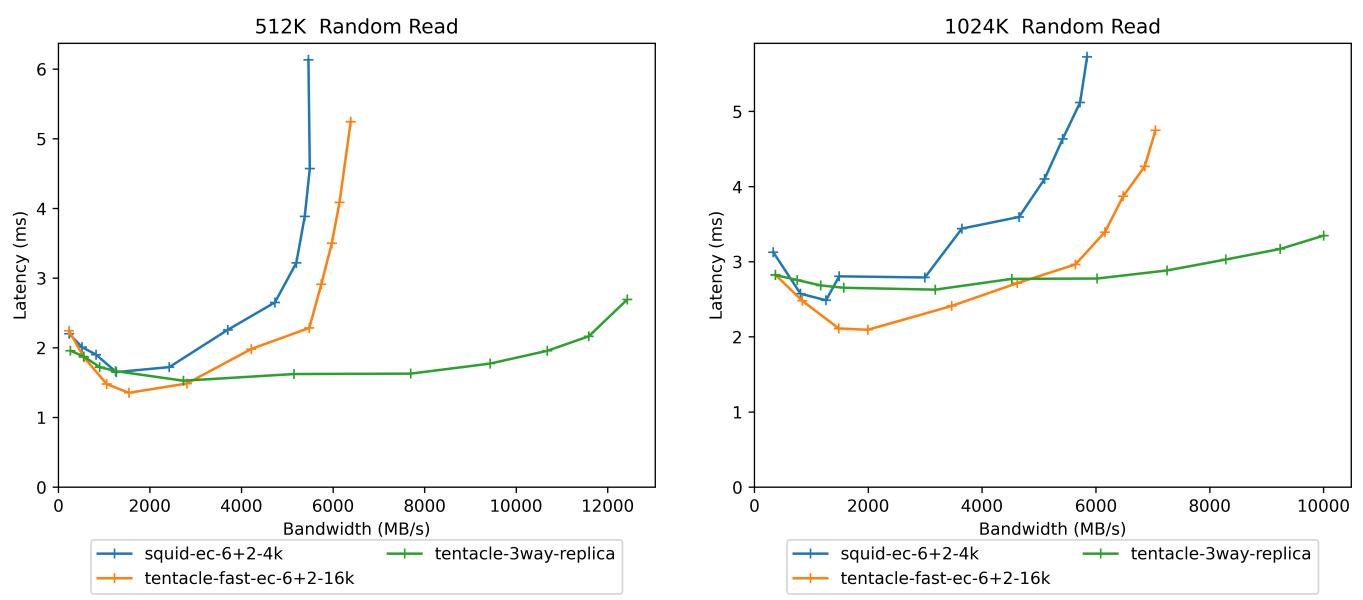
Sequential Write



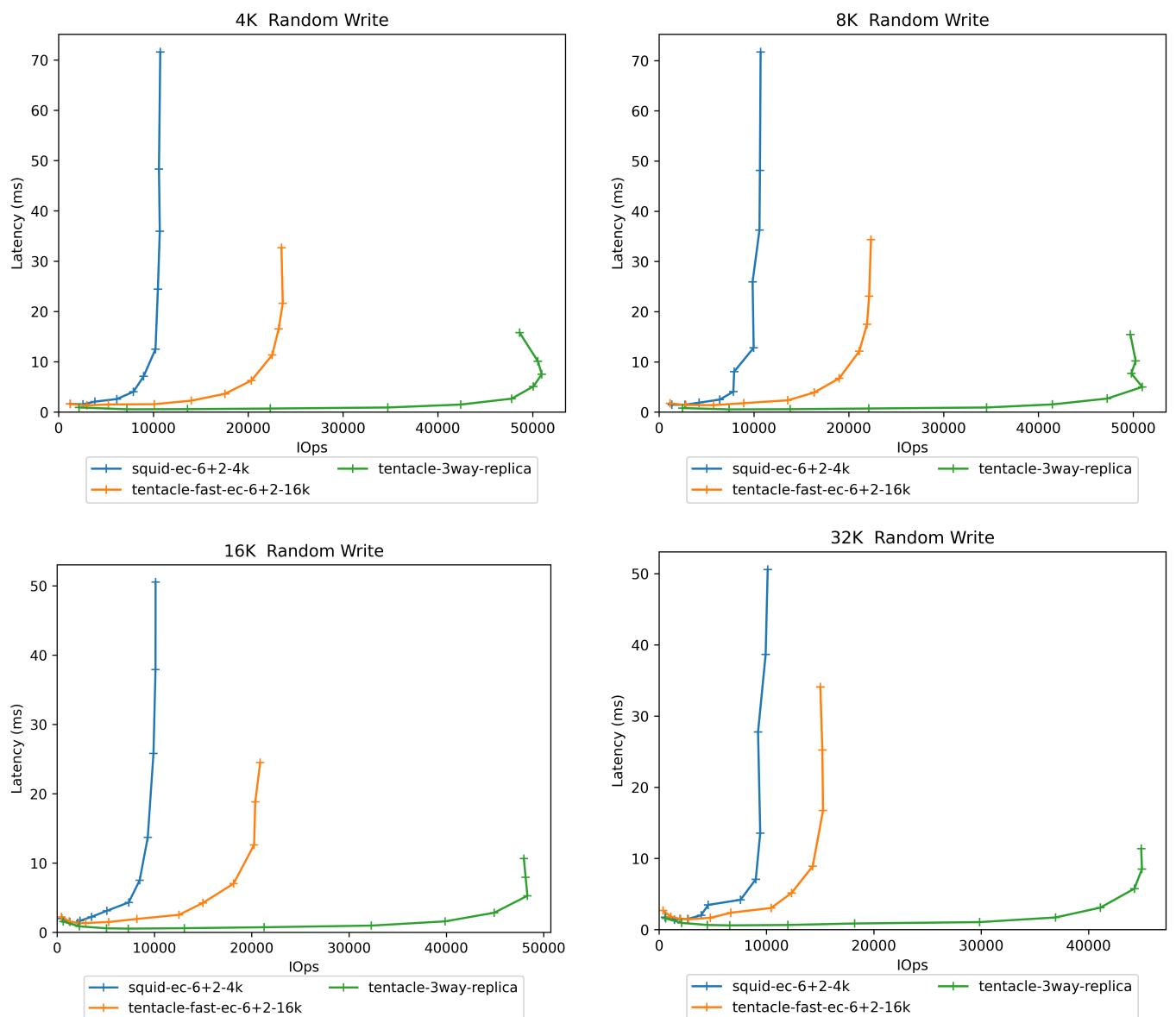


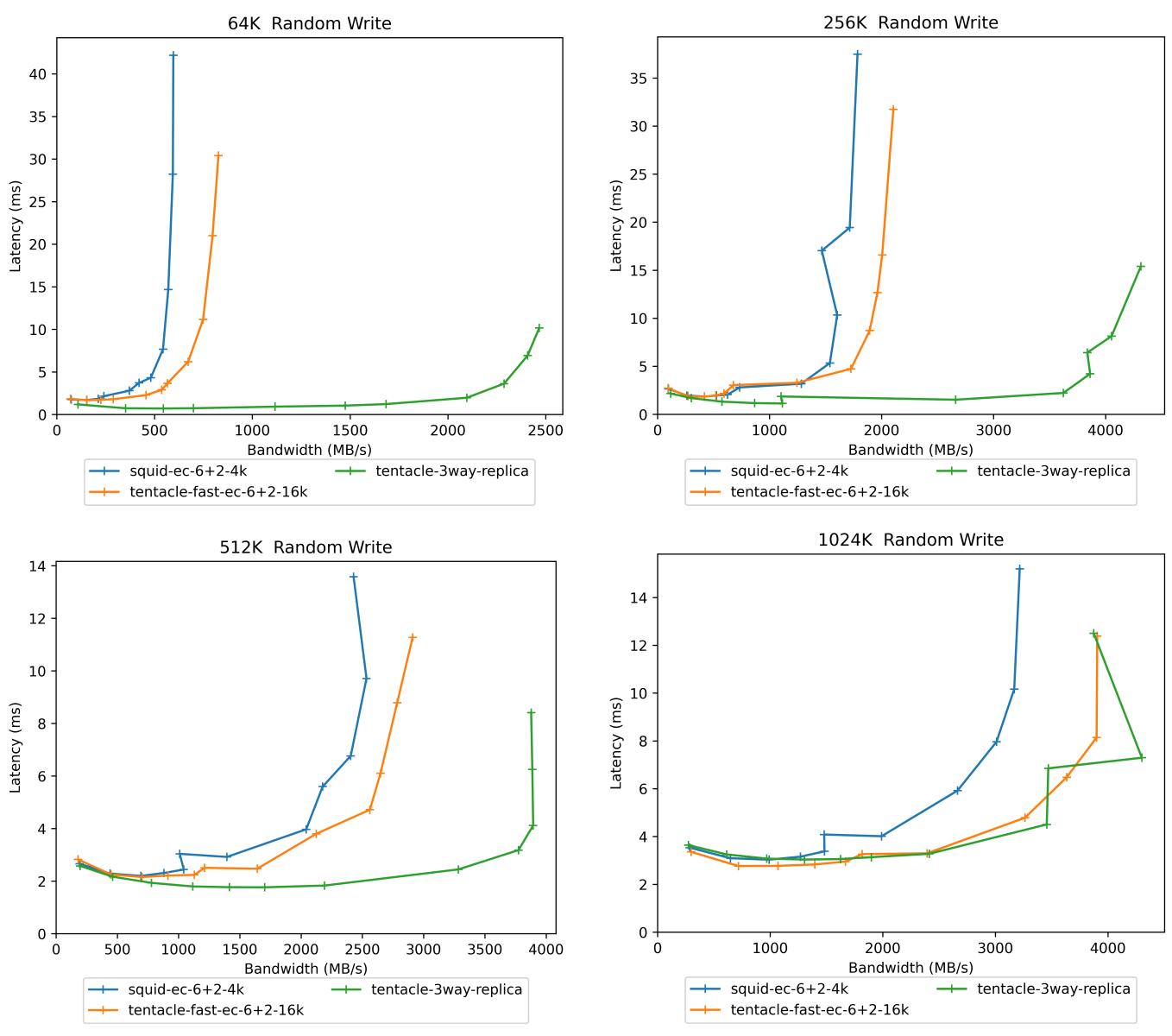
Random Read



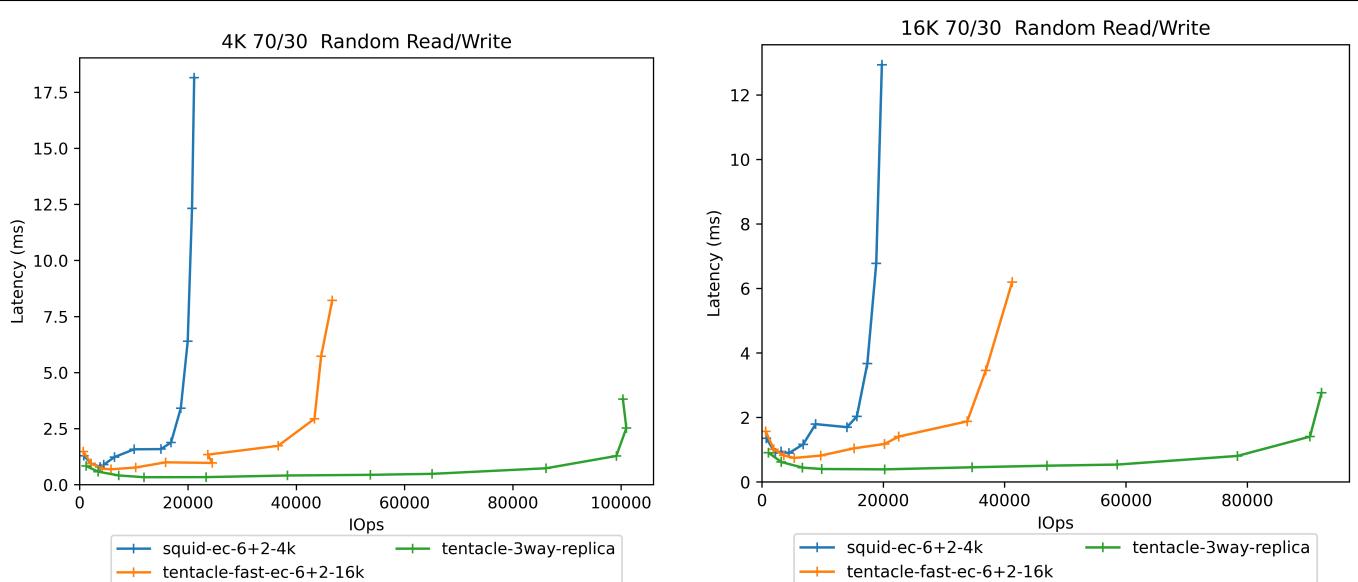


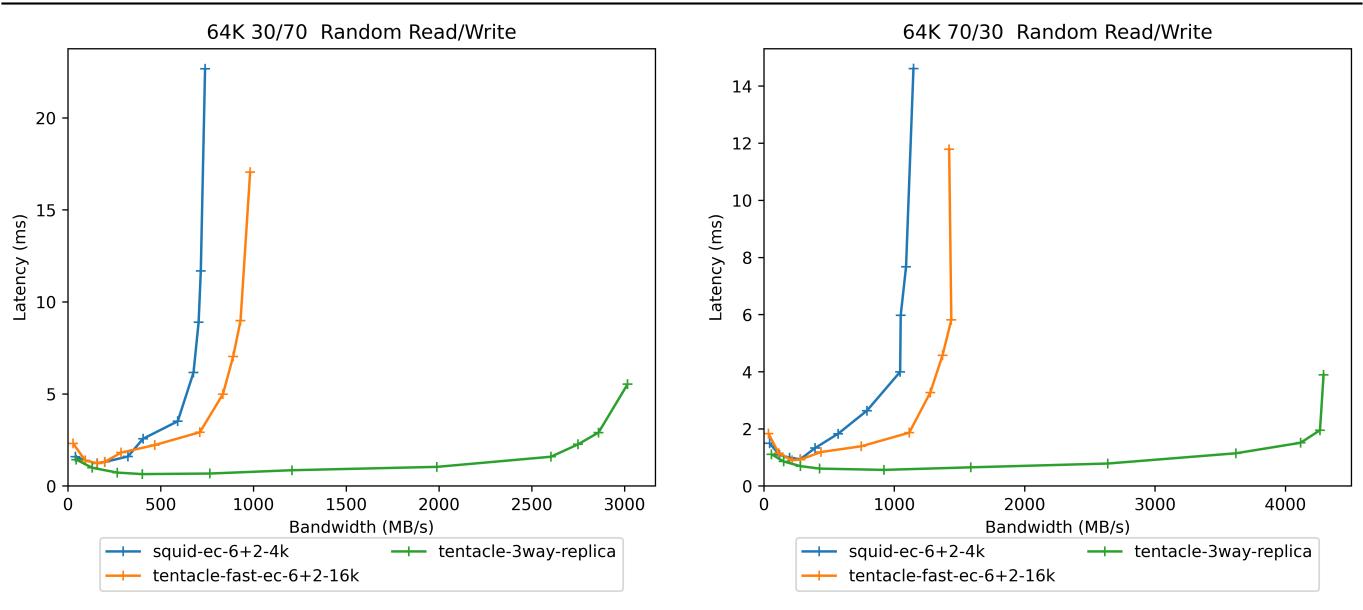
Random Write





Random Read/Write





Configuration yaml files

Only yaml files that differ by more than 20 lines from the yaml file for the baseline directory will be added here in addition to the baseline yaml

results

```
librbd_fio:  
  cmd_path: /usr/local/bin/fio  
  fio_out_format: json  
  log_avg_msec: 100  
  log_bw: true  
  log_iops: true  
  log_lat: true  
  norandommap: true  
  osd_ra:  
    - 4096  
  poolname: rbd_replicated  
  prefill:  
    blocksize: 64k  
    numjobs: 1  
  procs_per_volume:  
    - 1  
  ramp: 30  
  rbdname: cbt-librbd_fio  
  time: 90  
  time_based: true  
  use_existing_volumes: true  
  vol_size: 1368750  
  volumes_per_client:  
    - 16  
  workloads:  
    16k7030:  
      jobname: randmix  
      mode: randrw  
      numjobs:  
        - 1  
      op_size: 16384  
      rwmixread: 70  
      total_iodepth:  
        - 1  
        - 2  
        - 3  
        - 4  
        - 8  
        - 16  
        - 24  
        - 32  
        - 64  
        - 128  
        - 256  
    16krandomread:  
      jobname: randread  
      mode: randread  
      numjobs:  
        - 1  
      op_size: 16384  
      total_iodepth:  
        - 4  
        - 8  
        - 12  
        - 16  
        - 24  
        - 48  
        - 64  
        - 128  
        - 256  
        - 384
```

```
- 588
16krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 16384
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
1Mrandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
1Mrandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 8
    - 16
    - 24
    - 32
    - 48
1Mseqread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
```

```
- 1
- 2
- 3
- 4
- 6
- 8
- 10
- 12
- 14
- 16
- 20
1Mseqwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 1048576
  total_iodepth:
  - 2
  - 4
  - 6
  - 8
  - 16
  - 32
  - 48
  - 64
  - 96
  - 128
  - 160
256krandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
256krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 32
  - 64
```

```
- 96
- 128
- 256
32krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
32krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
4k7030:
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 4096
  rwmixread: 70
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 384
4krandomread:
  jobname: randread
  mode: randread
```

```
numjobs:
- 1
op_size: 4096
total_iodepth:
- 4
- 8
- 12
- 16
- 32
- 48
- 64
- 128
- 256
- 384
- 588
- 768
4krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
512krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
```

```
- 5
- 6
- 8
- 16
- 24
- 32
- 48
- 64
512kseqread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 6
    - 8
    - 12
    - 16
    - 20
    - 24
    - 32
512kseqwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 4
    - 6
    - 8
    - 16
    - 32
    - 48
    - 64
    - 96
    - 128
64k3070:
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 65536
  rwmixread: 30
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 32
    - 64
    - 96
    - 128
    - 256
```

```
64k7030:  
    jobname: randmix  
    mode: randrw  
    numjobs:  
        - 1  
    op_size: 65536  
    rwmixread: 70  
    total_iodepth:  
        - 1  
        - 2  
        - 3  
        - 4  
        - 8  
        - 16  
        - 32  
        - 64  
        - 96  
        - 128  
        - 256  
64krandomread:  
    jobname: randread  
    mode: randread  
    numjobs:  
        - 1  
    op_size: 65536  
    total_iodepth:  
        - 2  
        - 4  
        - 6  
        - 8  
        - 12  
        - 16  
        - 24  
        - 32  
        - 64  
        - 128  
        - 256  
64krandomwrite:  
    jobname: randwrite  
    mode: randwrite  
    numjobs:  
        - 1  
    op_size: 65536  
    total_iodepth:  
        - 2  
        - 4  
        - 6  
        - 8  
        - 16  
        - 24  
        - 32  
        - 64  
        - 128  
        - 256  
        - 384  
64kseqread:  
    jobname: read  
    mode: read  
    numjobs:  
        - 1  
    op_size: 65536  
    total_iodepth:  
        - 2
```

```
- 4
- 6
- 8
- 16
- 24
- 32
- 64
- 128
- 192
- 256
64kseqwrite:
  jobname: write
  mode: write
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 4
    - 8
    - 12
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 512
8krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 4
    - 8
    - 12
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 588
    - 768
8krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
```

```
- 512
- 768
precondition:
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
    - 1
  op_size: 65536
  time: 600
  total_iodepth:
    - 16
seq16kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 16384
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
    - 288
seq16kwrtie:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 16384
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768
    - 1024
seq256kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
```

```
- 8
- 16
- 24
- 32
- 48
- 64
seq256kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 4
    - 8
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 256
seq32kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 512
    - 768
seq4kread:
  jobname: seqread
  mode: read
  numjobs:
```

```
- 1
op_size: 4096
total_iodepth:
- 2
- 4
- 8
- 12
- 16
- 24
- 32
- 64
- 96
- 128
- 192
- 288
- 384
seq4kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
- 1
  op_size: 4096
  total_iodepth:
- 2
- 8
- 16
- 24
- 32
- 48
- 64
- 128
- 256
- 384
- 512
- 768
- 1024
- 1280
- 1536
seq8kread:
  jobname: seqread
  mode: read
  numjobs:
- 1
  op_size: 8192
  total_iodepth:
- 2
- 4
- 8
- 12
- 16
- 24
- 32
- 64
- 96
- 128
- 192
- 288
- 384
seq8kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
- 1
```

```
op_size: 8192
total_iodepth:
  - 2
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
  - 512
  - 768
  - 1024
  - 1280
  - 1536
cluster:
  archive_dir: /tmp/cbt
  ceph-mgr_cmd: /usr/bin/ceph-mgr
  ceph-mon_cmd: /usr/bin/ceph-mon
  ceph-osd_cmd: /usr/bin/ceph-osd
  ceph-run_cmd: /usr/bin/ceph-run
  ceph_cmd: /usr/bin/ceph
  clients:
    - --- server1 ---
  clusterid: ceph
  conf_file: /cbt/ceph.conf.4x1x1.fs
  fs: xfs
  head: --- server1 ---
  iterations: 1
  mgrs:
    --- server1 ---:
      a: null
  mkfs_opts: -f -i size=2048
  mons:
    --- server1 ---:
      a: --- IP Address --:6789
  mount_opts: -o inode64,noatime,logbsize=256k
  osds:
    - --- server1 ---
    osds_per_node: 8
    pdsh_ssh_args: -a -x -l%u %h
    rados_cmd: /usr/bin/rados
    rbd_cmd: /usr/bin/rbd
    tmp_dir: /tmp/cbt
    use_existing: true
    user: ljsanders
  monitoring_profiles:
    collectl:
      args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep ";" -f {collectl_dir}
  librbd_fio:
    cmd_path: /usr/local/bin/fio
    fio_out_format: json
    log_avg_msec: 100
    log_bw: true
    log_iops: true
    log_lat: true
    norandommap: true
    osd_ra:
      - 4096
    poolname: rbd_replicated
```

```
prefill:
  blocksize: 64k
  numjobs: 1
  procs_per_volume:
  - 1
  ramp: 30
  rbdname: cbt-librbdgio
  time: 90
  time_based: true
  use_existing_volumes: true
  vol_size: 1368750
  volumes_per_client:
  - 16
workloads:
  16k7030:
    jobname: randmix
    mode: randrw
    numjobs:
    - 1
    op_size: 16384
    rwmixread: 70
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
  16krandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
    op_size: 16384
    total_iodepth:
    - 4
    - 8
    - 12
    - 16
    - 24
    - 48
    - 64
    - 128
    - 256
    - 384
    - 588
  16krandomwrite:
    jobname: randwrite
    mode: randwrite
    numjobs:
    - 1
    op_size: 16384
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
```

```
- 16
- 32
- 64
- 128
- 256
- 384
- 512
1Mrandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
1Mrandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 8
    - 16
    - 24
    - 32
    - 48
1Mseqread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 20
1Mseqwrite:
  jobname: seqwrite
```

```
mode: write
numjobs:
- 1
op_size: 1048576
total_iodepth:
- 2
- 4
- 6
- 8
- 16
- 32
- 48
- 64
- 96
- 128
- 160
```

```
256krandomread:
jobname: randread
mode: randread
numjobs:
- 1
op_size: 262144
total_iodepth:
- 1
- 2
- 3
- 4
- 5
- 8
- 16
- 24
- 32
- 64
- 128
```

```
256krandomwrite:
jobname: randwrite
mode: randwrite
numjobs:
- 1
op_size: 262144
total_iodepth:
- 1
- 2
- 3
- 4
- 5
- 8
- 16
- 32
- 64
- 96
- 128
- 256
```

```
32krandomread:
jobname: randread
mode: randread
numjobs:
- 1
op_size: 32768
total_iodepth:
- 2
- 4
- 6
```

```
- 8
- 12
- 16
- 24
- 32
- 64
- 128
- 256
32krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
4k7030:
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 4096
  rwmixread: 70
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 384
4krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 4
    - 8
    - 12
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
```

```
- 384
- 588
- 768
4krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
512krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 8
    - 16
    - 24
    - 32
    - 48
    - 64
512kseqread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
```

```
op_size: 524288
total_iodepth:
- 1
- 2
- 3
- 4
- 6
- 8
- 12
- 16
- 20
- 24
- 32
512kseqwrite:
  jobname: seqwrite
  mode: write
  numjobs:
- 1
  op_size: 524288
  total_iodepth:
- 1
- 2
- 4
- 6
- 8
- 16
- 32
- 48
- 64
- 96
- 128
64k3070:
  jobname: randmix
  mode: randrw
  numjobs:
- 1
  op_size: 65536
  rwmixread: 30
  total_iodepth:
- 1
- 2
- 3
- 4
- 8
- 16
- 32
- 64
- 96
- 128
- 256
64k7030:
  jobname: randmix
  mode: randrw
  numjobs:
- 1
  op_size: 65536
  rwmixread: 70
  total_iodepth:
- 1
- 2
- 3
- 4
- 8
```

```
- 16
- 32
- 64
- 96
- 128
- 256
64krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
64krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 384
64kseqread:
  jobname: read
  mode: read
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 192
    - 256
64kseqwrite:
  jobname: write
  mode: write
```

```
numjobs:
  - 1
op_size: 65536
total_iodepth:
  - 4
  - 8
  - 12
  - 16
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
  - 512
  - 512
8krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 4
    - 8
    - 12
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 588
    - 768
8krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768
precondition:
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
    - 1
  op_size: 65536
  time: 600
  total_iodepth:
    - 16
seq16kread:
```

```
jobname: seqread
mode: read
numjobs:
- 1
op_size: 16384
total_iodepth:
- 2
- 4
- 8
- 12
- 16
- 24
- 32
- 64
- 96
- 128
- 192
- 288
seq16kwrite:
jobname: seqwrite
mode: write
numjobs:
- 1
op_size: 16384
total_iodepth:
- 2
- 4
- 8
- 16
- 32
- 48
- 64
- 128
- 256
- 384
- 512
- 768
- 1024
seq256kread:
jobname: seqread
mode: read
numjobs:
- 1
op_size: 262144
total_iodepth:
- 1
- 2
- 3
- 4
- 5
- 8
- 16
- 24
- 32
- 48
- 64
seq256kwrite:
jobname: seqwrite
mode: write
numjobs:
- 1
op_size: 262144
total_iodepth:
```

```
- 1
- 2
- 4
- 8
- 16
- 24
- 32
- 64
- 96
- 128
- 256
seq32kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 512
    - 768
seq4kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
```

```
- 192
- 288
- 384
seq4kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 2
    - 8
    - 16
    - 24
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768
    - 1024
    - 1280
    - 1536
seq8kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
    - 288
    - 384
seq8kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 2
    - 8
    - 16
    - 24
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 512
```

```
- 768
- 1024
- 1280
- 1536
cluster:
  archive_dir: /tmp/cbt
  ceph-mgr_cmd: /usr/bin/ceph-mgr
  ceph-mon_cmd: /usr/bin/ceph-mon
  ceph-osd_cmd: /usr/bin/ceph-osd
  ceph-run_cmd: /usr/bin/ceph-run
  ceph_cmd: /usr/bin/ceph
  clients:
    - --- server1 ---
  clusterid: ceph
  conf_file: /cbt/ceph.conf.4x1x1.fs
  fs: xfs
  head: --- server1 ---
  iterations: 1
  mgrs:
    --- server1 ---:
      a: null
  mkfs_opts: -f -i size=2048
  mons:
    --- server1 ---:
      a: --- IP Address --:6789
  mount_opts: -o inode64,noatime,logbsize=256k
  osds:
    - --- server1 ---
    osds_per_node: 8
    pdsh_ssh_args: -a -x -l%u %h
    rados_cmd: /usr/bin/rados
    rbd_cmd: /usr/bin/rbd
    tmp_dir: /tmp/cbt
    use_existing: true
    user: ljsanders
  monitoring_profiles:
    collectl:
      args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep ";" -f {collectl_dir}
```