# Comparitive Performance Report for squid-ec-6+2-4k-appends vs tentacle-fast-ec-2+2-16k-appends vs tentacle-fast-ec-4+2-16k-appends vs tentacle-fast-ec-6+2-16k-appends
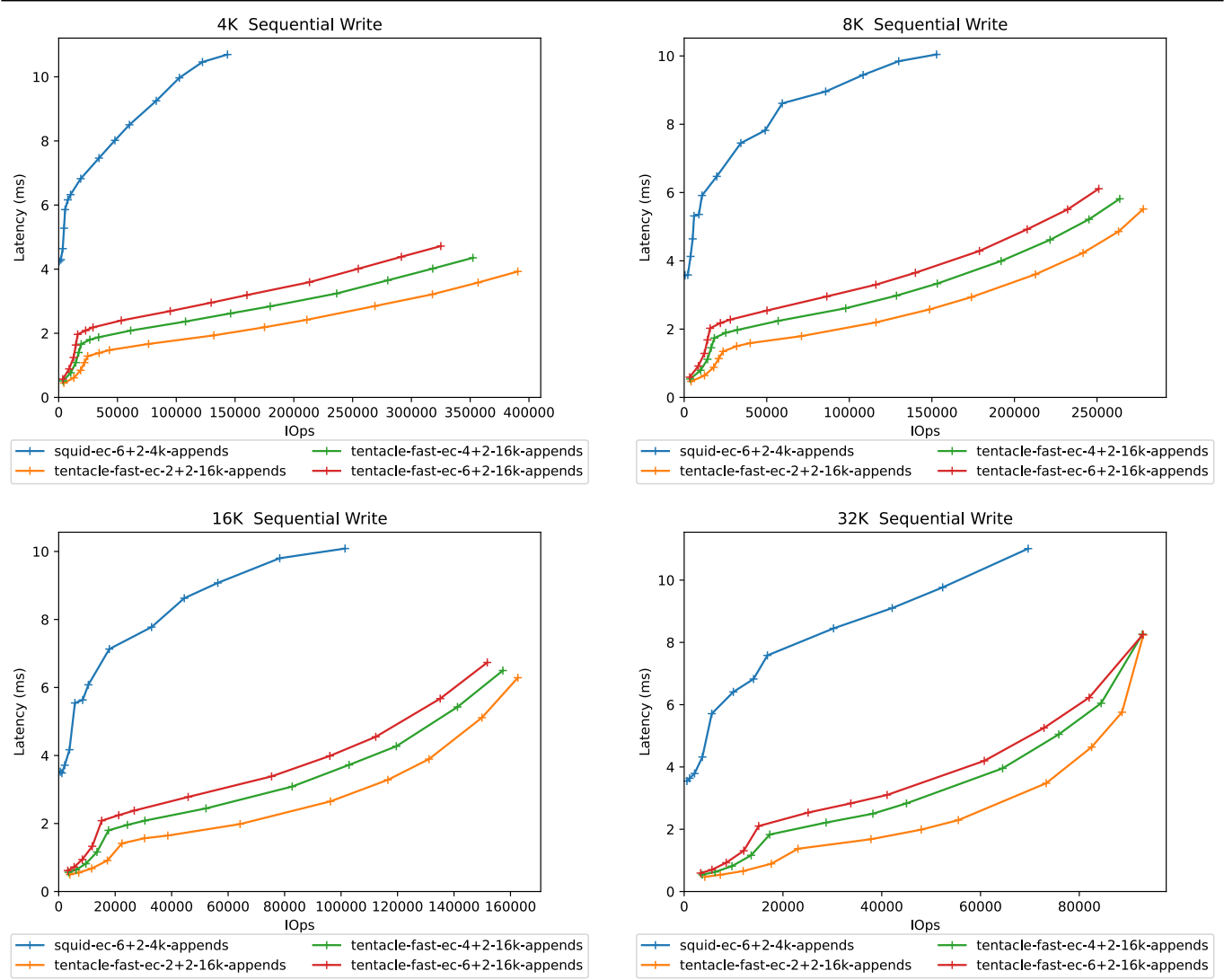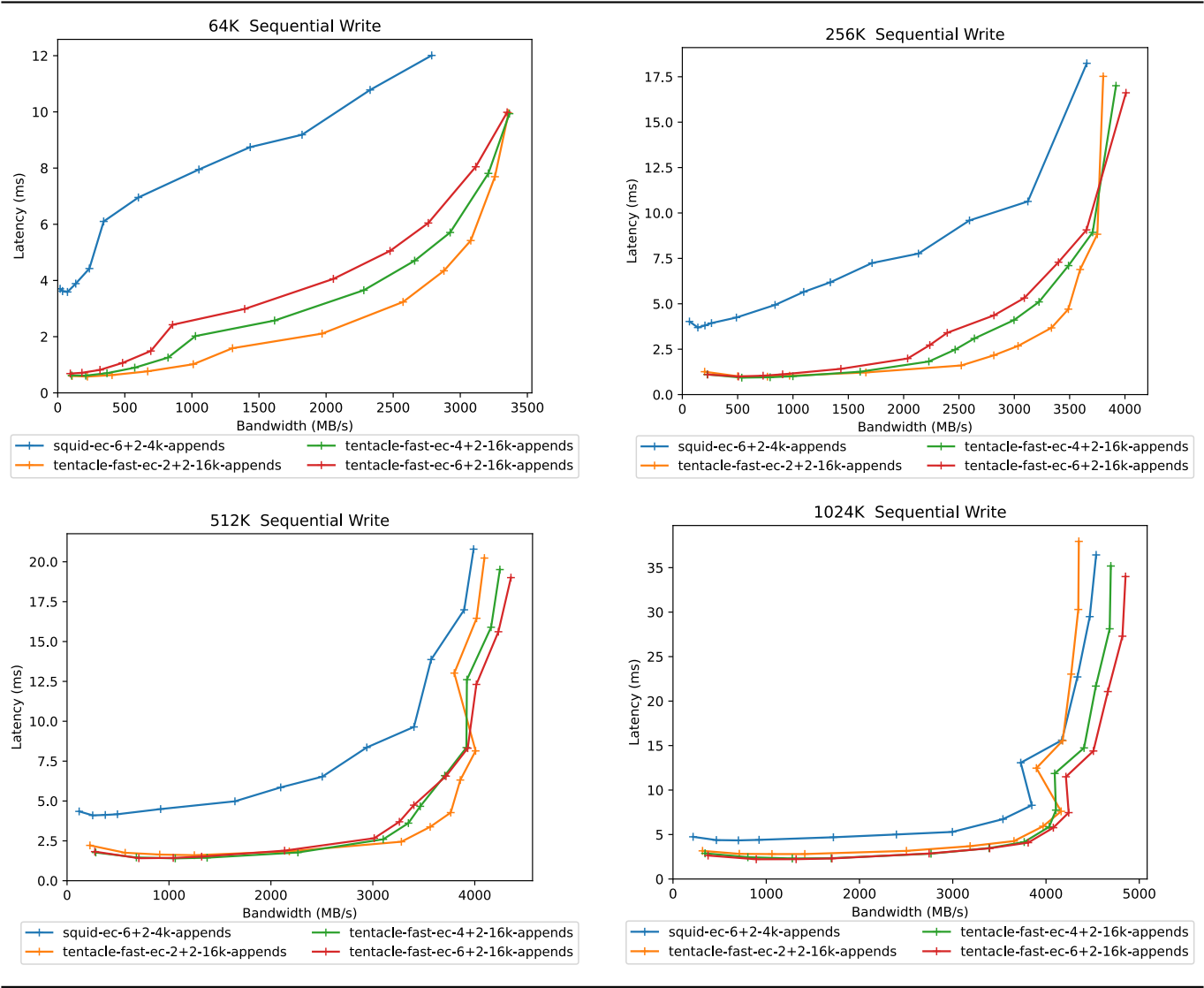
# Table of contents

# Comparison summary for squid-ec-6+2-4k-appends vs tentacle-fast-ec-2+2-16k-appends vs tentacle-fast-ec-4+2-16k-appends vs tentacle-fast-ec-6+2-16k-appends

| Sequential Write | squid-ec-6+2-4k-appends | tentacle-fast-ec-2+2-16k-appends | %change | tentacle-fast-ec-4+2-16k-appends | %change | tentacle-fast-ec-6+2-16k-appends | %change |
|---|---|---|---|---|---|---|---|
| 4K | 143545@10.7ms | 390483@3.9 | 172% | 352285@4.4 | 145% | 325004@4.7 | 126% |
| 8K | 152824@10.0ms | 278026@5.5 | 82% | 263768@5.8 | 73% | 251059@6.1 | 64% |
| 16K | 101415@10.1ms | 162606@6.3 | 60% | 157301@6.5 | 55% | 151782@6.7 | 50% |
| 32K | 69639@11.0ms | 92974@8.2 | 34% | 92758@8.3 | 33% | 92868@8.3 | 33% |
| 64K | 2787@12.0ms | 3359@10.0 | 21% | 3366@9.9 | 21% | 3349@10.0 | 20% |
| 256K | 3655@18.2ms | 3804@17.5 | 4% | 3919@17.0 | 7% | 4009@16.6 | 10% |
| 512K | 3989@20.8ms | 4094@20.2 | 3% | 4246@19.5 | 6% | 4355@19.0 | 9% |
| 1024K | 4538@36.4ms | 4352@38.0 | -4% | 4695@35.2 | 3% | 4853@34.0 | 7% |

# Response Curves

## Sequential Write

## 64K  Sequential Write



## 256K  Sequential Write



## 512K  Sequential Write



## 1024K  Sequential 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

```
librbdfio:
  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-librbdfio
  time: 90
  time_based: true
  use_existing_volumes: true
  vol_size: 1000
  volumes_per_client:
  - 16
  workloads:
    64kseqwriteappend:
      jobname: write
      mode: write
      numjobs:
      - 1
      op_size: 65536
      pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
      total_iodepth:
      - 1
      - 2
      - 4
      - 8
      - 16
      - 32
      - 64
      - 128
      - 192
      - 256
      - 384
      - 512
    seq16kwriteappend:
      jobname: seqwrite
      mode: write
      numjobs:
      - 1
      op_size: 16384
      pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
      total_iodepth:
      - 2
      - 4
      - 8
      - 16
      - 32
      - 48
      - 64
      - 128
```

```
      - 256
      - 384
      - 512
      - 768
      - 1024
  seq1Mwriteappend:
    jobname: seqwrite
    mode: write
    numjobs:
    - 1
    op_size: 1048576
    pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 48
    - 64
    - 96
    - 128
    - 160
  seq256kwriteappend:
    jobname: seqwrite
    mode: write
    numjobs:
    - 1
    op_size: 262144
    pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 48
    - 64
    - 96
    - 128
    - 256
  seq32kwriteappend:
    jobname: seqwrite
    mode: write
    numjobs:
    - 1
    op_size: 32768
    pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
    total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 96
```

```
                - 128
                - 256
                - 384
                - 512
                - 768
            seq4kwriteappend:
              jobname: seqwrite
              mode: write
              numjobs:
              - 1
              op_size: 4096
              pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
              total_iodepth:
              - 2
              - 8
              - 16
              - 24
              - 32
              - 48
              - 64
              - 128
              - 256
              - 384
              - 512
              - 768
              - 1024
              - 1280
              - 1536
            seq512kwriteappend:
              jobname: seqwrite
              mode: write
              numjobs:
              - 1
              op_size: 524288
              pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
              total_iodepth:
              - 1
              - 2
              - 3
              - 4
              - 8
              - 16
              - 24
              - 32
              - 48
              - 64
              - 96
              - 128
              - 160
            seq8kwriteappend:
              jobname: seqwrite
              mode: write
              numjobs:
              - 1
              op_size: 8192
              pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
              total_iodepth:
              - 2
              - 8
              - 16
              - 24
              - 32
              - 48
```

squid-ec-6+2-4k-appends vs tentacle-fast-ec-2+2-16k-appends vs tentacle-fast-ec-4+2-16k-appends vsOctober 8, 2025
tentacle-fast-ec-6+2-16k-appends

9

```
              - 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: /etc/ceph/ceph.conf
  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}
  librbdfio:
    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-librbdfio
    time: 90
```

```
    time_based: true
    use_existing_volumes: true
    vol_size: 1000
    volumes_per_client:
    - 16
    workloads:
      64kseqwriteappend:
        jobname: write
        mode: write
        numjobs:
        - 1
        op_size: 65536
        pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
        total_iodepth:
        - 1
        - 2
        - 4
        - 8
        - 16
        - 32
        - 64
        - 128
        - 192
        - 256
        - 384
        - 512
      seq16kwriteappend:
        jobname: seqwrite
        mode: write
        numjobs:
        - 1
        op_size: 16384
        pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
        total_iodepth:
        - 2
        - 4
        - 8
        - 16
        - 32
        - 48
        - 64
        - 128
        - 256
        - 384
        - 512
        - 768
        - 1024
      seq1Mwriteappend:
        jobname: seqwrite
        mode: write
        numjobs:
        - 1
        op_size: 1048576
        pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
        total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 8
        - 12
        - 16
        - 24
```

```
            - 32
            - 48
            - 64
            - 96
            - 128
            - 160
        seq256kwriteappend:
          jobname: seqwrite
          mode: write
          numjobs:
          - 1
          op_size: 262144
          pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
          total_iodepth:
          - 1
          - 2
          - 3
          - 4
          - 8
          - 16
          - 24
          - 32
          - 48
          - 64
          - 96
          - 128
          - 256
        seq32kwriteappend:
          jobname: seqwrite
          mode: write
          numjobs:
          - 1
          op_size: 32768
          pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
          total_iodepth:
          - 2
          - 4
          - 8
          - 16
          - 32
          - 64
          - 96
          - 128
          - 256
          - 384
          - 512
          - 768
        seq4kwriteappend:
          jobname: seqwrite
          mode: write
          numjobs:
          - 1
          op_size: 4096
          pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
          total_iodepth:
          - 2
          - 8
          - 16
          - 24
          - 32
          - 48
          - 64
          - 128
```

```
        - 256
        - 384
        - 512
        - 768
        - 1024
        - 1280
        - 1536
    seq512kwriteappend:
      jobname: seqwrite
      mode: write
      numjobs:
      - 1
      op_size: 524288
      pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
      total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 8
      - 16
      - 24
      - 32
      - 48
      - 64
      - 96
      - 128
      - 160
    seq8kwriteappend:
      jobname: seqwrite
      mode: write
      numjobs:
      - 1
      op_size: 8192
      pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
      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: /etc/ceph/ceph.conf
  fs: xfs
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```
  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
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  use_existing: true
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monitoring_profiles:
  collectl:
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