Comparitive Performance Report for squid-ec-2+2-4k vs squid-ec-4+2-4k vs squid-ec-6+2-4k

Table of contents

Comparison summary for squid-ec-2+2-4k vs squid-ec-4+2-4k vs squid-ec-6+2-4k

Sequential Read	squid-ec-2+2-4k	squid-ec-4+2-4k	%change	squid-ec-6+2-4k	%change
4K	94850@1.0ms	81908@4.7	-14%	58638@6.5	-38%
8K	69102@5.6ms	67577@5.7	-2%	53638@5.4	-22%
16K	65610@4.4ms	51153@5.6	-22%	46954@6.1	-28%
32K	60081@3.2ms	48711@3.9	-19%	38463@5.0	-36%
64K	3326@5.0ms	2675@6.3	-20%	2255@7.4	-32%
256K	6442@2.6ms	5814@2.9	-10%	4536@3.7	-30%
512K	6621@2.5ms	6157@2.7	-7%	5135@3.3	-22%
1024K	5820@3.6ms	5832@3.6	0%	5217@4.0	-10%

Sequential Write	squid-ec-2+2-4k	squid-ec-4+2-4k	%change	squid-ec-6+2-4k	%change
4K	199873@7.7ms	151417@10.1	-24%	136232@11.3	-32%
8K	232463@6.6ms	154665@9.9	-33%	130892@11.7	-44%
16K	132920@7.7ms	131050@7.8	-1%	86109@11.9	-35%
32K	74942@10.2ms	78224@9.8	4%	50412@15.2	-33%
64K	2565@13.1ms	2783@12.0	8%	2095@16.0	-18%
256K	3179@21.0ms	3506@19.0	10%	2797@23.9	-12%
512K	3420@19.4ms	3562@18.6	4%	2870@23.2	-16%
1024K	3793@34.9ms	4308@30.7	14%	3689@45.0	-3%

Random Read	squid-ec-2+2-4k	squid-ec-4+2-4k	%change	squid-ec-6+2-4k	%change
4K	82748@7.1ms	53372@14.4	-36%	36952@10.4	-55%
8K	81281@9.4ms	53802@14.3	-34%	36424@21.1	-55%
16K	77611@7.6ms	53274@11.0	-31%	35473@16.6	-54%
32K	70360@5.4ms	48583@2.6	-31%	32165@7.9	-54%
64K	3807@4.4ms	2926@5.7	-23%	1897@8.8	-50%
256K	8382@4.0ms	6280@5.3	-25%	4363@3.8	-48%
512K	9275@3.6ms	7318@4.6	-21%	5493@4.6	-41%
1024K	7708@4.3ms	7028@4.8	-9%	5846@5.7	-24%

Random Write	squid-ec-2+2-4k	squid-ec-4+2-4k	%change	squid-ec-6+2-4k	%change
4K	15611@8.2ms	14381@8.9	-8%	10725@71.6	-31%
8K	18101@42.5ms	13490@28.4	-25%	10706@71.7	-41%
16K	17949@21.4ms	16340@31.3	-9%	10123@50.5	-44%
32K	17281@22.2ms	15972@32.0	-8%	10117@50.6	-41%
64K	1116@22.5ms	1108@22.7	-1%	596@42.2	-47%
256K	3097@21.5ms	2853@23.4	-8%	1785@37.5	-42%
512K	3587@9.1ms	3623@9.0	1%	2534@9.7	-29%
1024K	3858@12.6ms	4264@11.3	11%	3217@15.2	-17%

Comparison summary for squid-ec-2+2-4k vs squid-ec-4+2-4k vs squid-ec-6+2-4k

Random Read/Write	squid-ec-2+2-4k	squid-ec-4+2-4k	%change	squid-ec-6+2-4k	%change
4K_70/30	33145@11.6ms	24698@15.5	-25%	21146@18.1	-36%
16K_70/30	33470@3.8ms	25335@2.5	-24%	19770@12.9	-41%
64K_30/70	1308@12.8ms	1215@6.9	-7%	739@22.7	-44%
64K_70/30	2026@4.1ms	1621@5.2	-20%	1147@14.6	-43%

Random Read/Write	squid-ec-2+2-4k	squid-ec-4+2-4k	%change	squid-ec-6+2-4k	%change

Response Curves

Sequential Read

## 64K Sequential Read

256K Sequential Read

512K Sequential Read

1024K Sequential Read

Sequential Write

4K Sequential Write
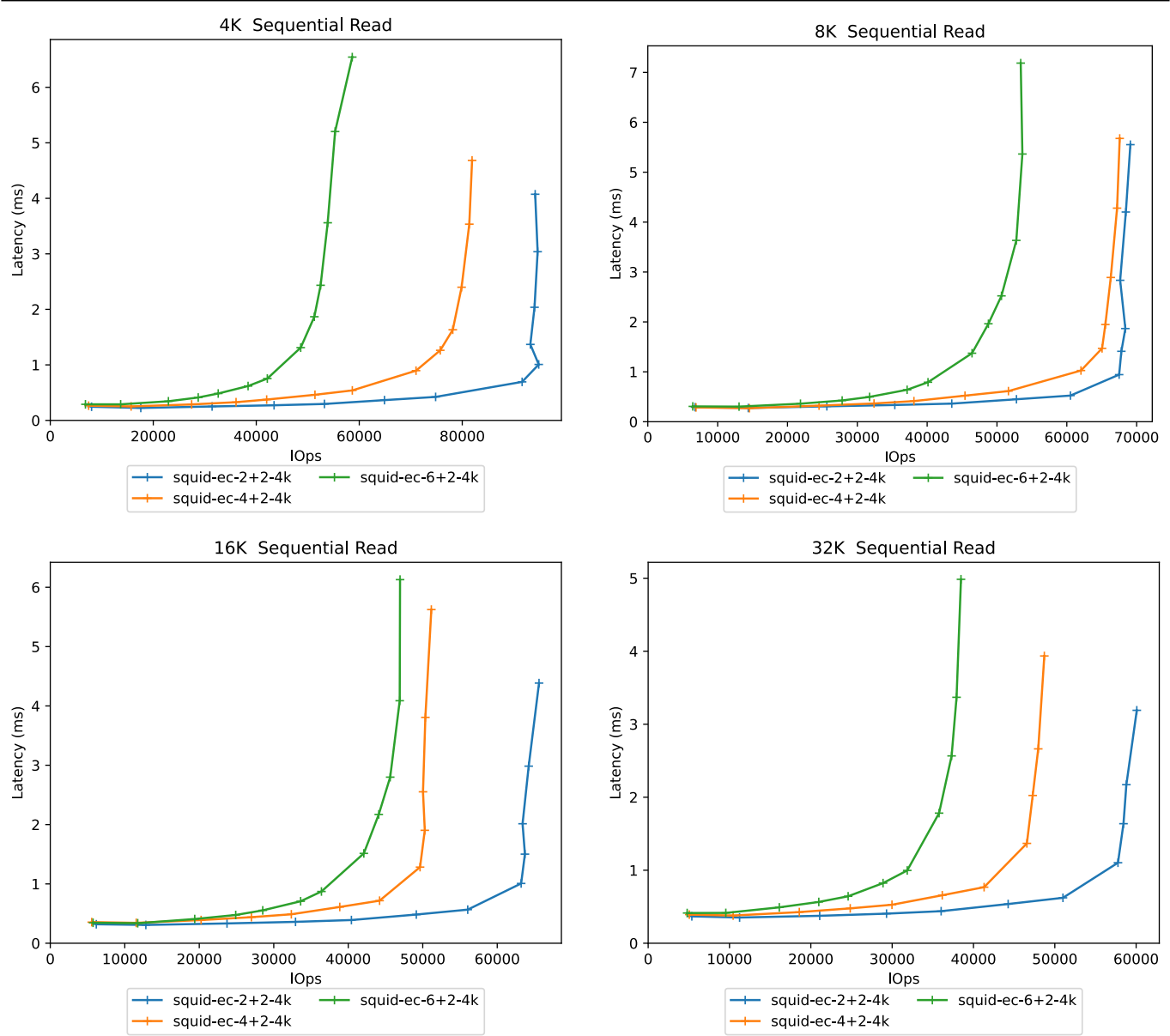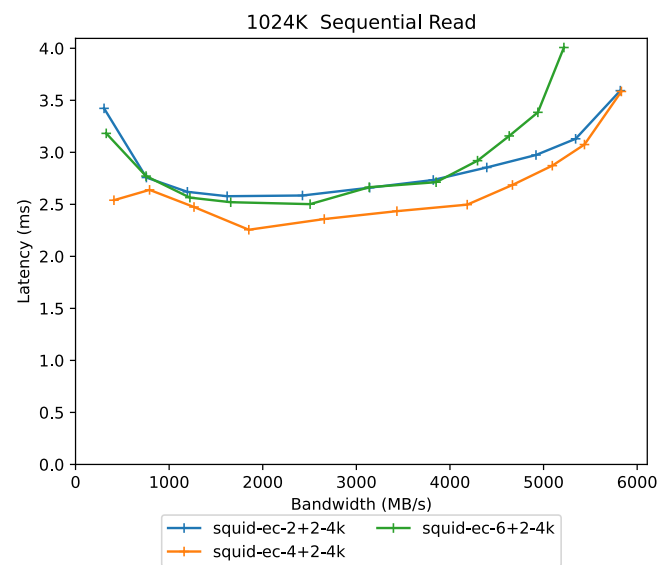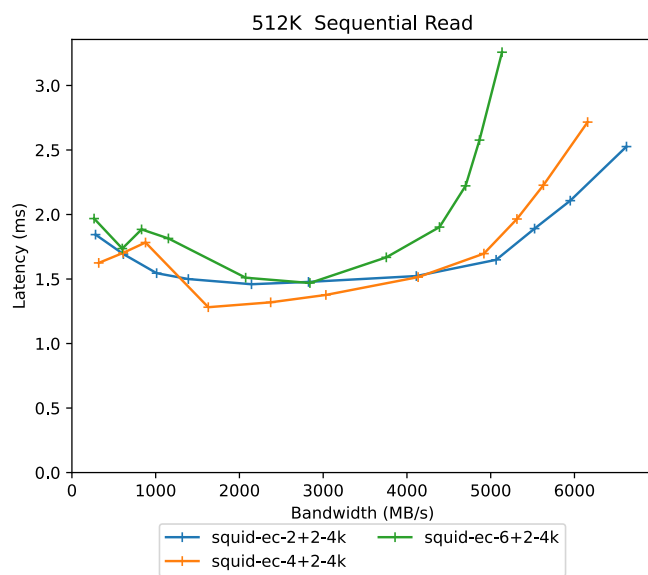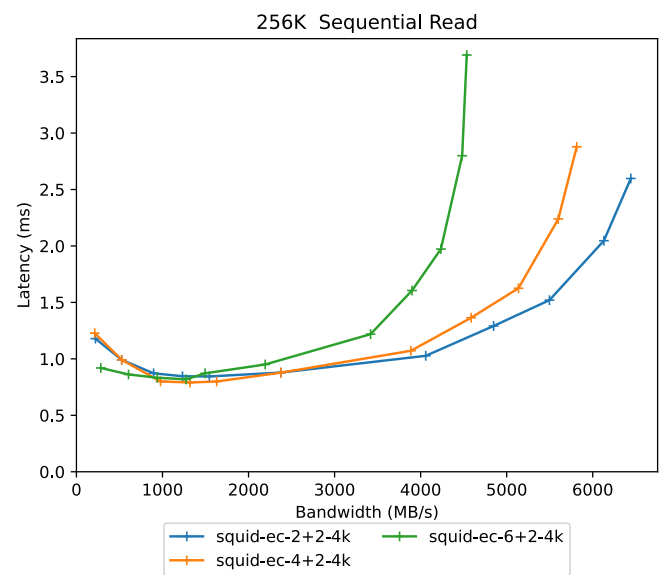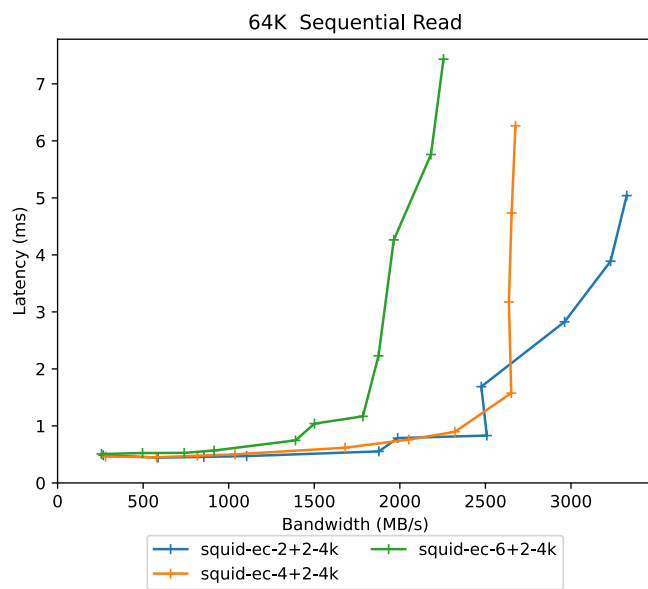

8K Sequential Write

Random Read

4K Random Read

8K Random Read

16K Random Read

32K Random Read

64K Random Read
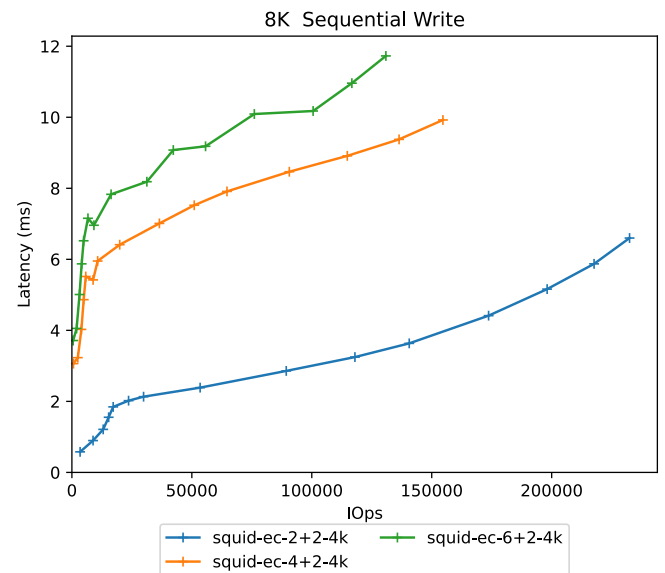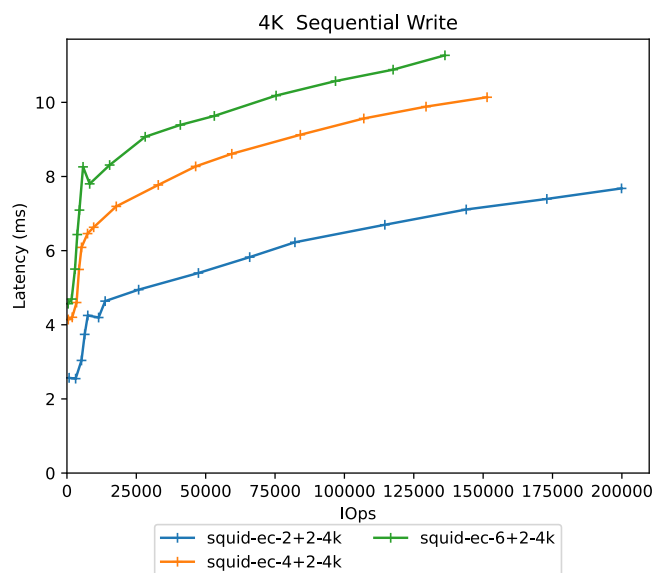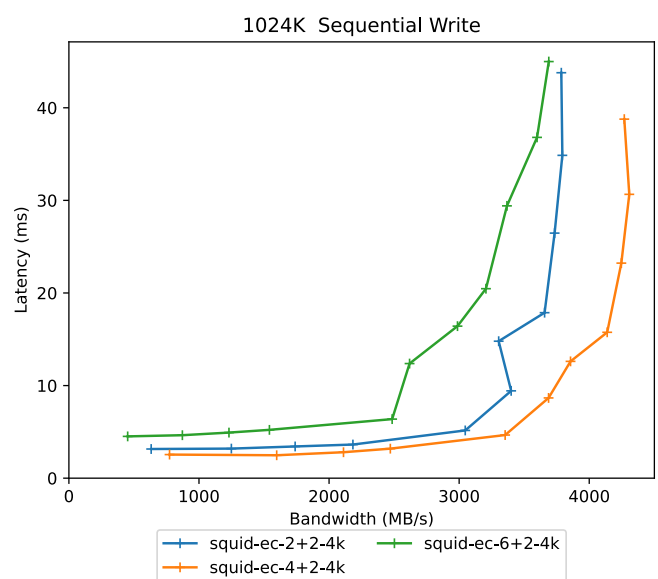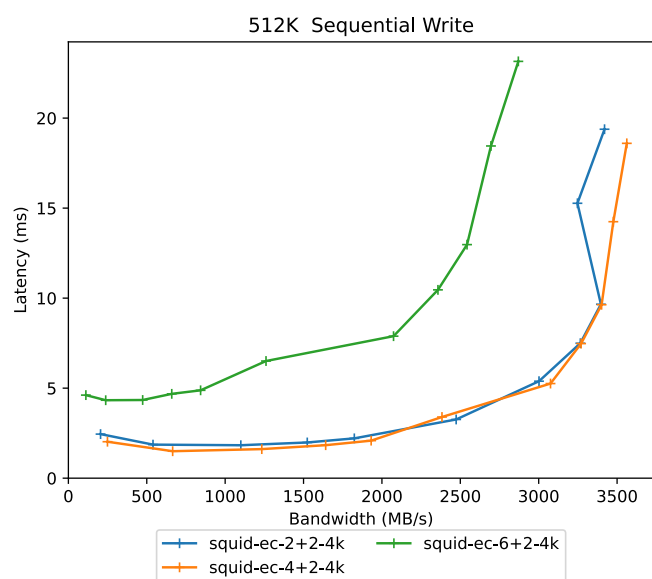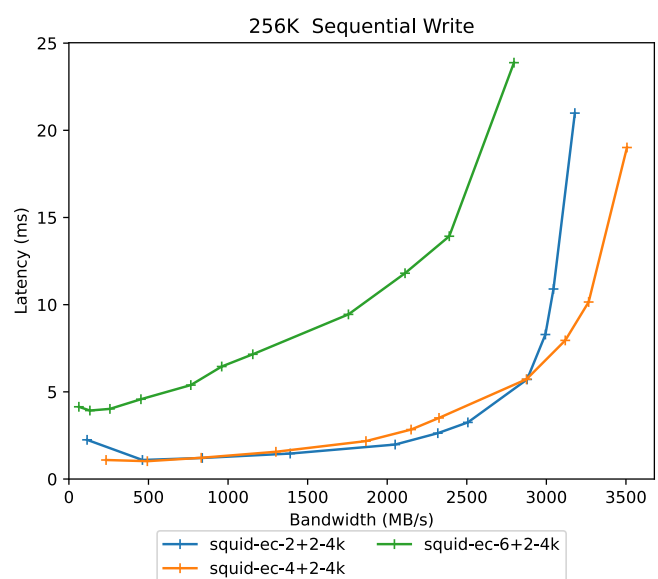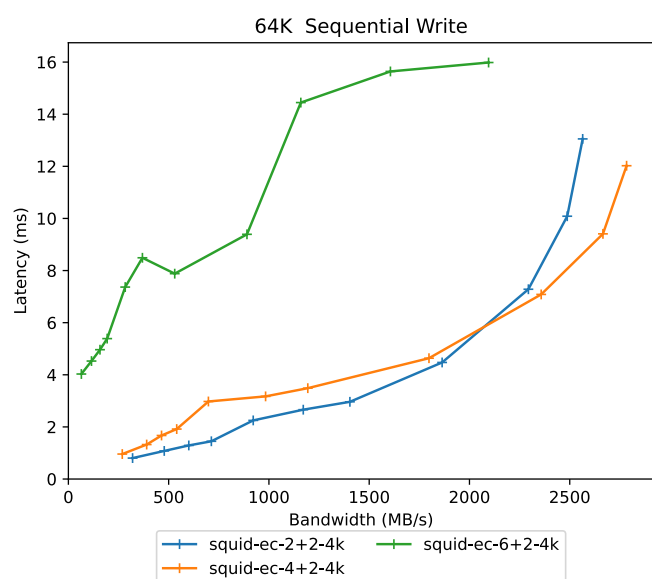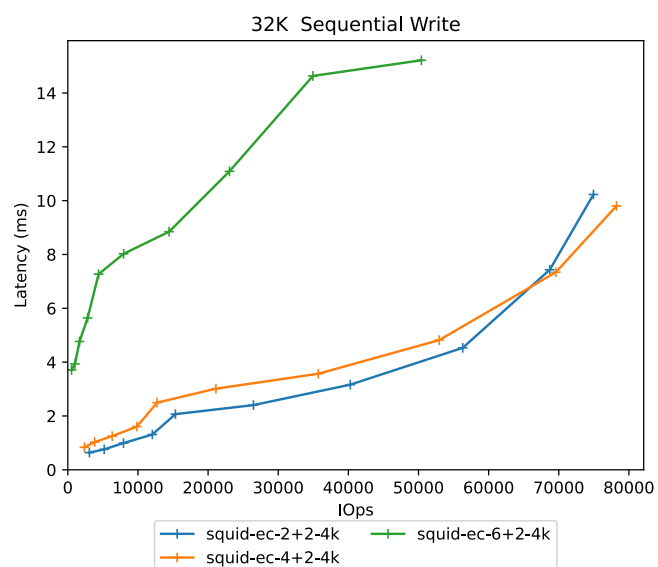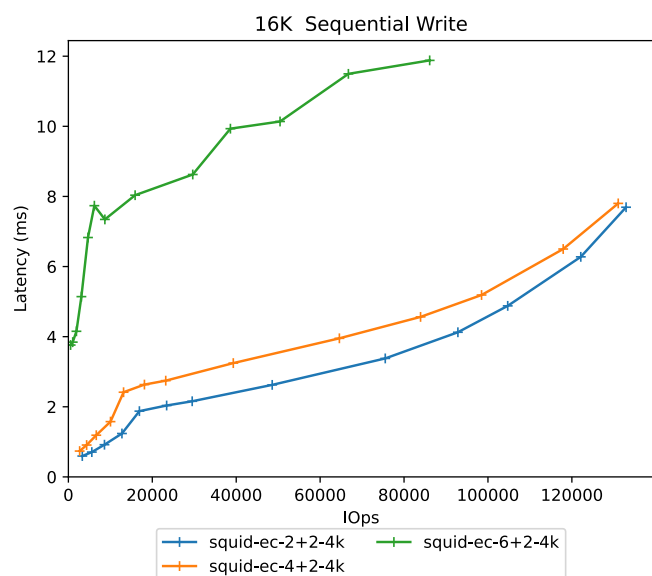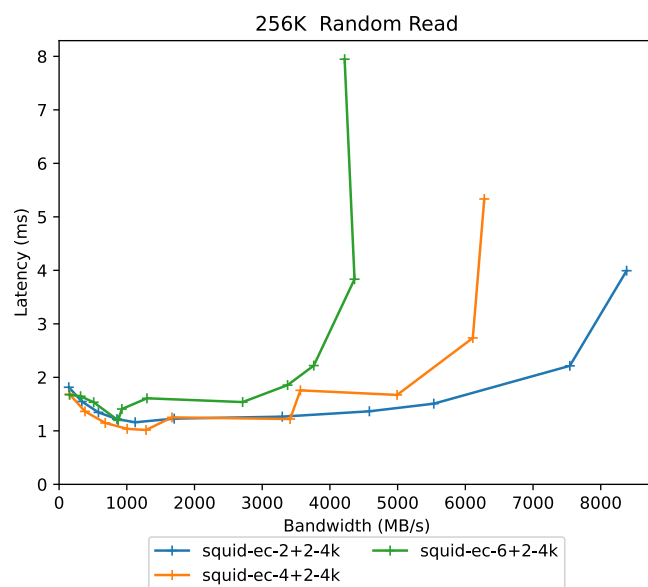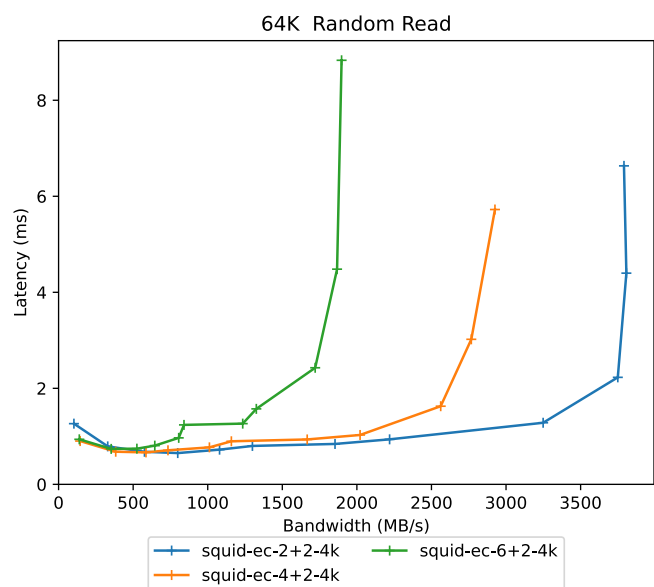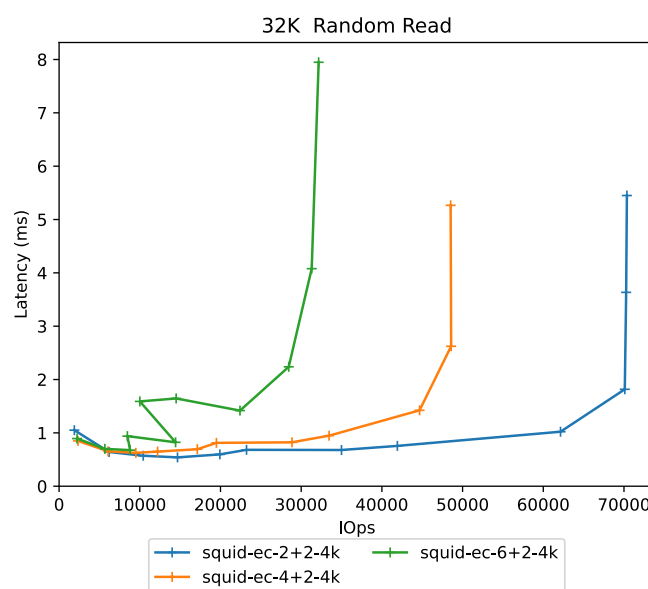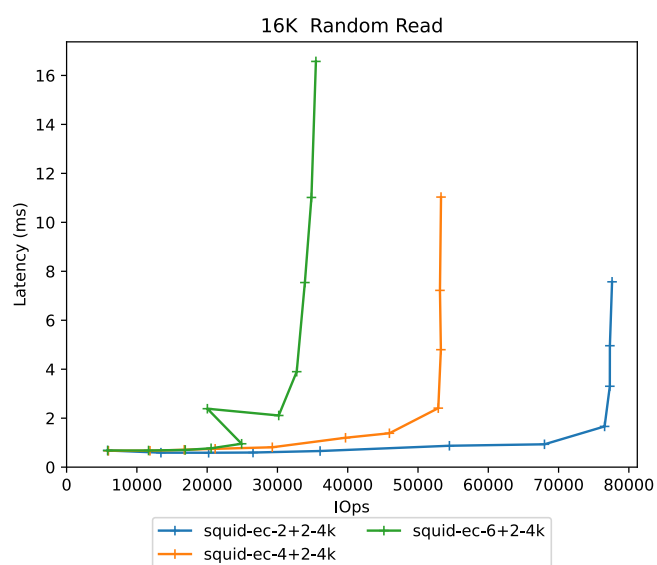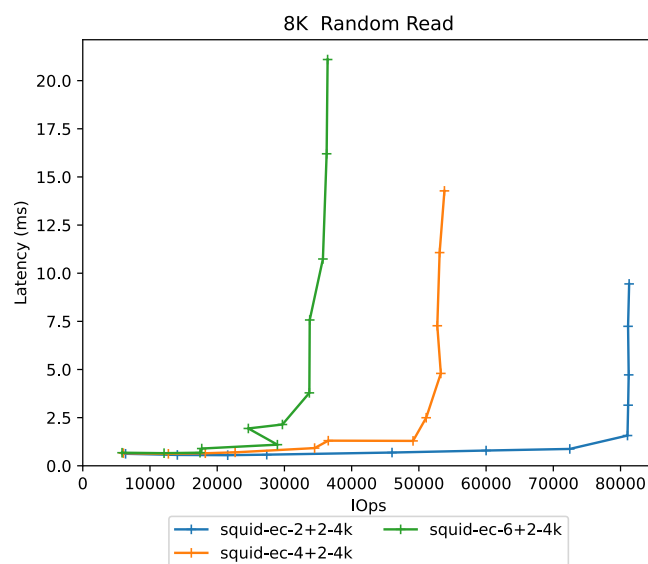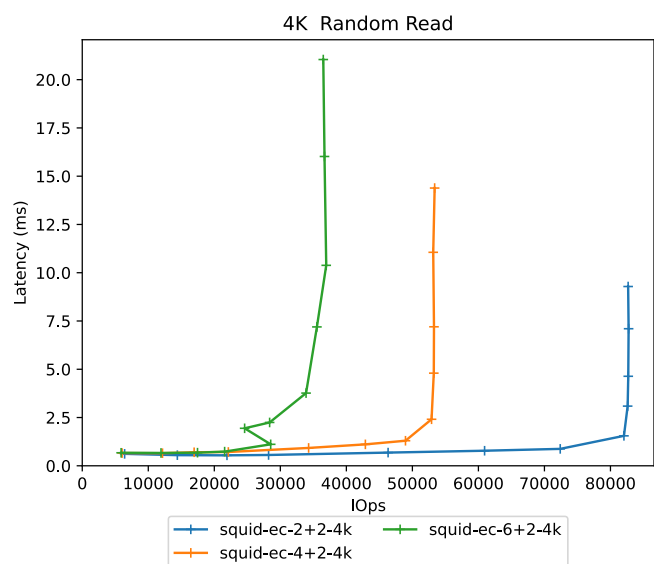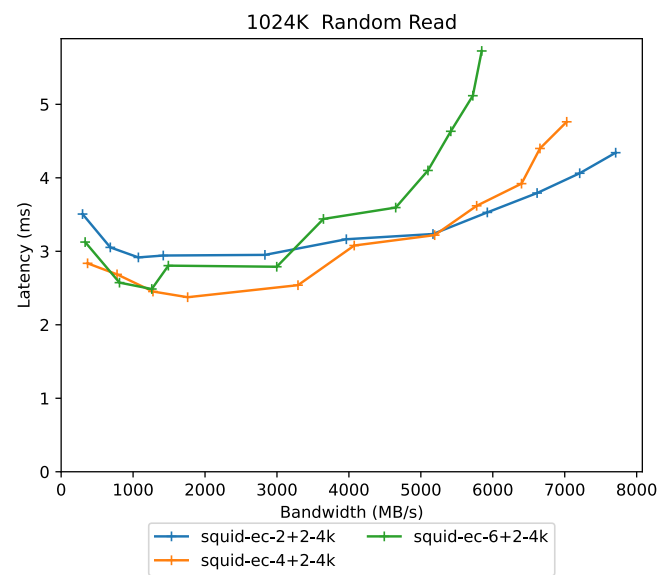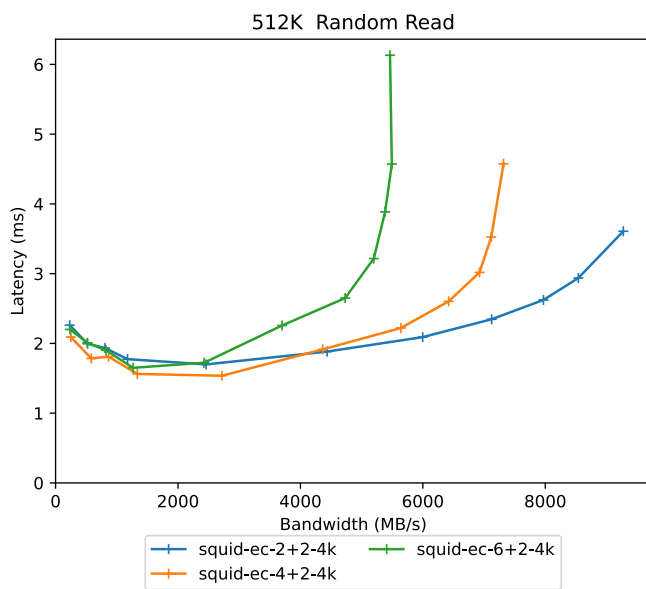
### 256K Random Read

Random Write
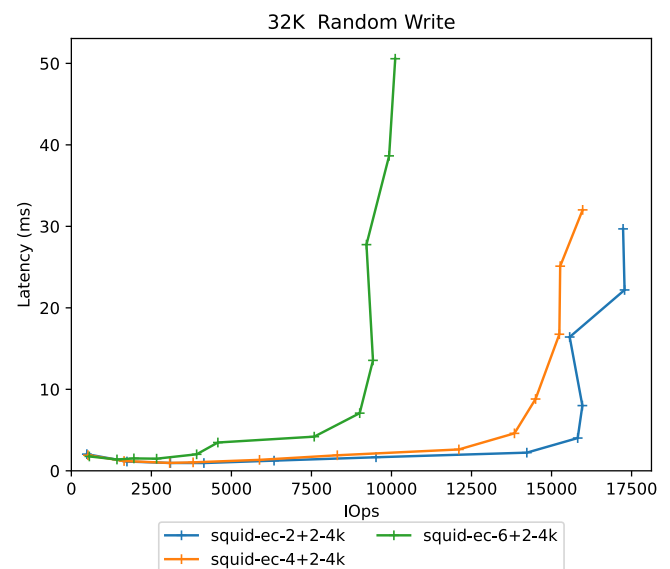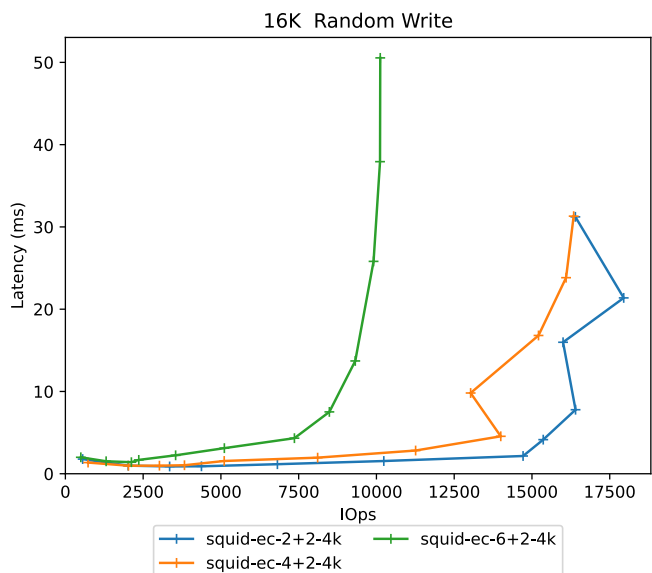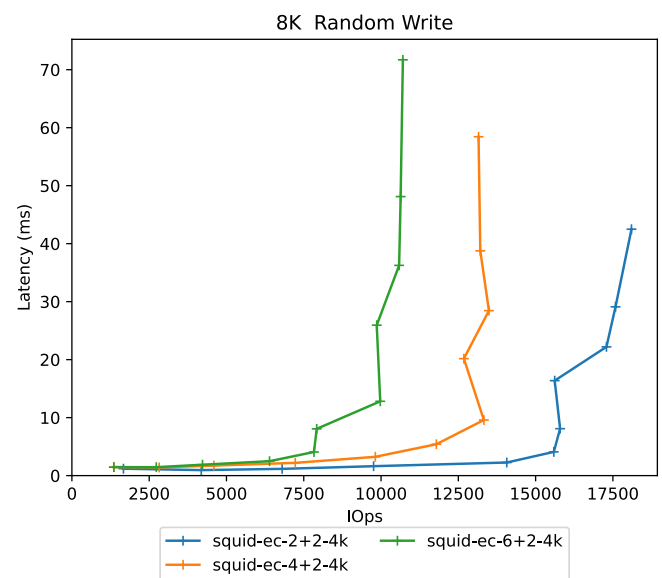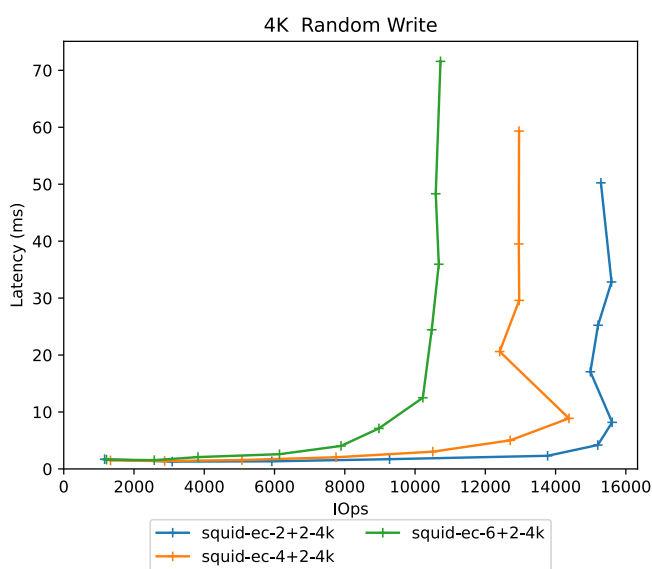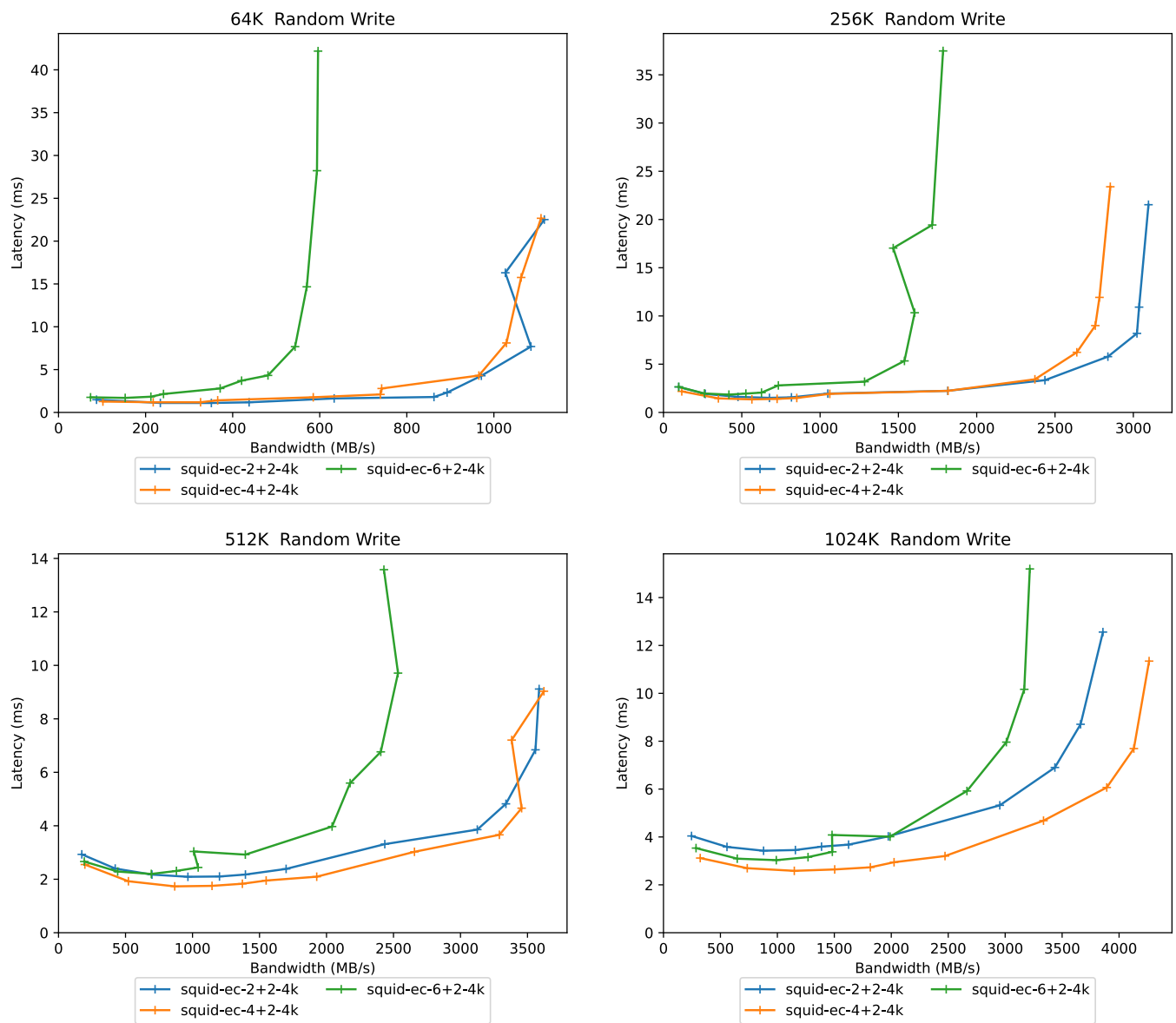
Random Read/Write
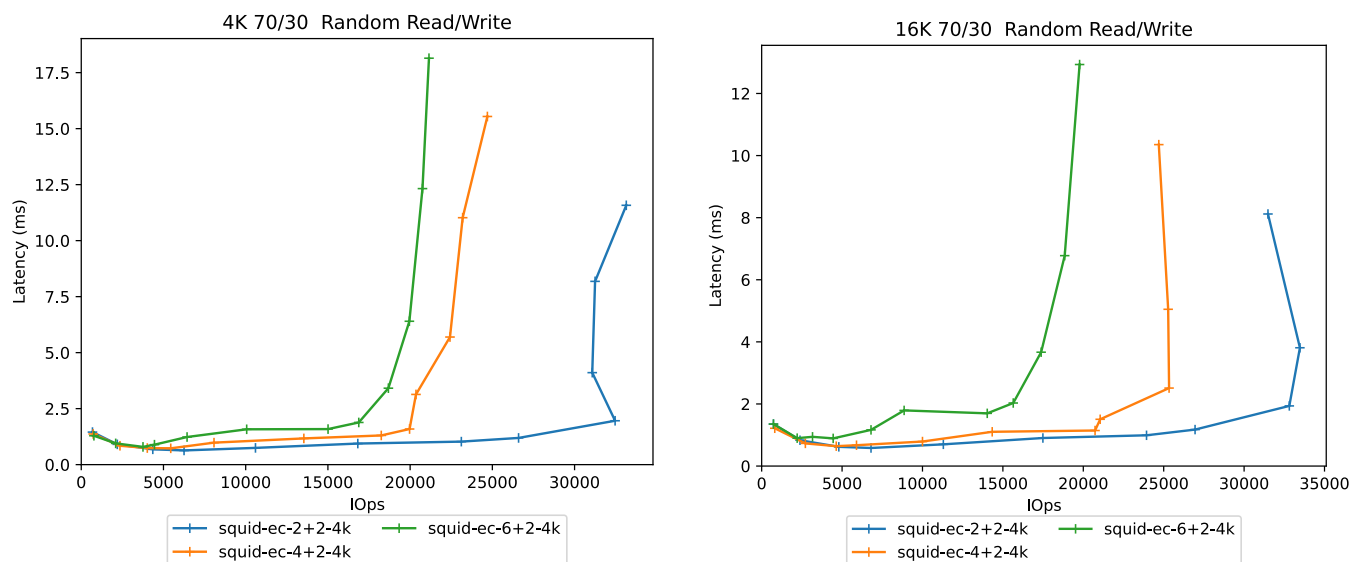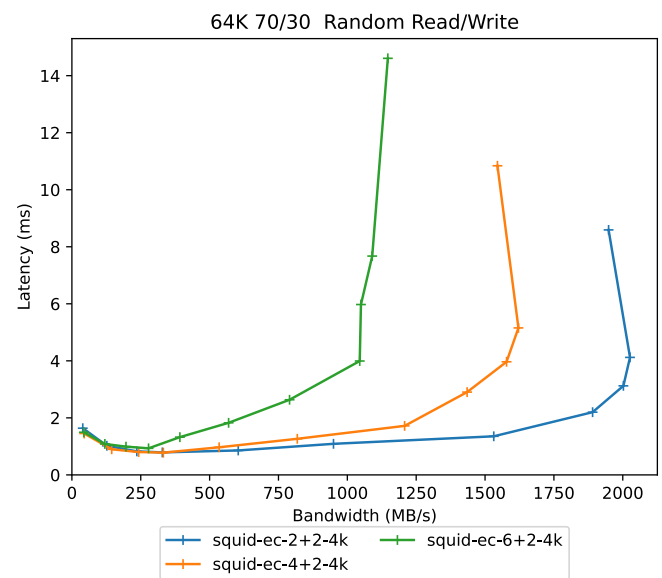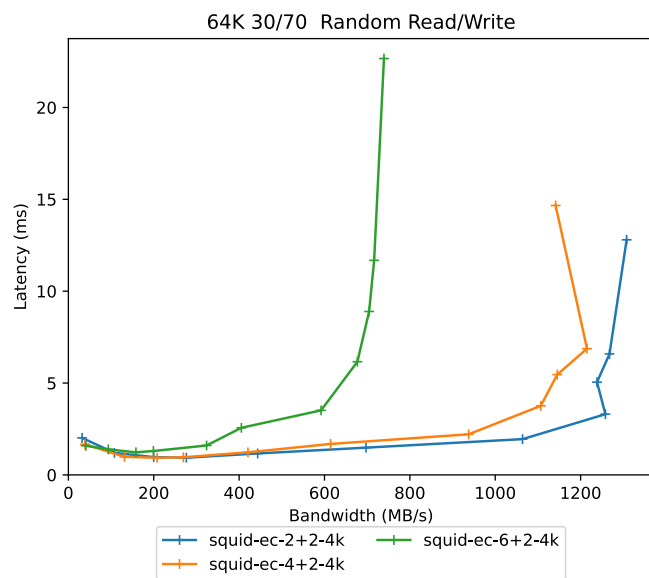
Configuration yaml files

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

```
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: 912500
  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
        - 384
      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
      - 384
    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
    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
```

```yaml
      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}

  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: 912500
      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
        - 384
    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
      - 384
    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
    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}
```