Comparitive Performance Report for cbt-19thAug-o01-squid192-2+2-4k vs cbt-18thAug-o01-2+2-16k-ecopt2

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Comparison summary for cbt-19thAug-o01-squid192-2+2-4k vs cbt-18thAug-o01-2+2-16k-ecopt2

Sequential Read	cbt_19thAug_o01_squid192-2+2-4k	cbt_18thAug_o01_2+2-16k-ecopt2	%change throughput	%change latency
4.0K	94850 IOps@1.0ms	116011 IOps@1.7ms	22%	70%
8.0K	69102 IOps@5.6ms	112092 IOps@3.4ms	62%	-39%
16.0K	65610 IOps@4.4ms	105755 IOps@2.7ms	61%	-39%
32.0K	60081 IOps@3.2ms	60913 IOps@3.1ms	1%	-3%
64.0K	3326 MB/s@5.0ms	3375 MB/s@5.0ms	1%	0%
256.0K	6442 MB/s@2.6ms	6513 MB/s@2.6ms	1%	0%
512.0K	6621 MB/s@2.5ms	6826 MB/s@2.5ms	3%	0%
1024.0K	5820 MB/s@3.6ms	6171 MB/s@3.4ms	6%	-6%

Sequential Write	cbt_19thAug_o01_squid192-2+2-4k	cbt_18thAug_o01_2+2-16k-ecopt2	%change throughput	%change latency
4.0K	199873 IOps@7.7ms	308708 IOps@5.0ms	54%	-35%
8.0K	232463 IOps@6.6ms	228367 IOps@6.7ms	-2%	2%
16.0K	132920 IOps@7.7ms	135932 IOps@7.5ms	2%	-3%
32.0K	74942 IOps@10.2ms	80391 IOps@9.5ms	7%	-7%
64.0K	2565 MB/s@13.1ms	2870 MB/s@11.7ms	12%	-11%
256.0K	3179 MB/s@21.0ms	3386 MB/s@19.7ms	7%	-6%
512.0K	3420 MB/s@19.4ms	3832 MB/s@8.5ms	12%	-56%
1024.0K	3793 MB/s@34.9ms	4199 MB/s@31.4ms	11%	-10%

Random Read	cbt_19thAug_o01_squid192-2+2-4k	cbt_18thAug_o01_2+2-16k-ecopt2	%change throughput	%change latency
4.0K	82748 IOps@7.1ms	128583 IOps@3.0ms	55%	-58%
8.0K	81281 IOps@9.4ms	117727 IOps@5.0ms	45%	-47%
16.0K	77611 IOps@7.6ms	112346 IOps@5.2ms	45%	-32%
32.0K	70360 IOps@5.4ms	68917 IOps@5.6ms	-2%	4%
64.0K	3807 MB/s@4.4ms	3627 MB/s@6.9ms	-5%	57%
256.0K	8382 MB/s@4.0ms	7952 MB/s@4.2ms	-5%	5%
512.0K	9275 MB/s@3.6ms	8769 MB/s@3.8ms	-5%	6%
1024.0K	7708 MB/s@4.3ms	7898 MB/s@4.2ms	2%	-2%

Random Write	cbt_19thAug_o01_squid192-2+2-4k	cbt_18thAug_o01_2+2-16k-ecopt2	%change throughput	%change latency
4.0K	15611 IOps@8.2ms	18757 IOps@40.9ms	20%	399%
8.0K	18101 IOps@42.5ms	18829 IOps@40.8ms	4%	-4%
16.0K	17949 IOps@21.4ms	17731 IOps@28.9ms	-1%	35%
32.0K	17281 IOps@22.2ms	16465 IOps@23.3ms	-5%	5%
64.0K	1116 MB/s@22.5ms	1020 MB/s@24.6ms	-9%	9%
256.0K	3097 MB/s@21.5ms	2961 MB/s@22.5ms	-4%	5%
512.0K	3587 MB/s@9.1ms	3687 MB/s@8.8ms	3%	-3%
1024.0K	3858 MB/s@12.6ms	4124 MB/s@11.7ms	7%	-7%

Comparison summary for cbt-19thAug-o01-squid192-2+2-4k vs cbt-18thAug-o01-2+2-16k-ecopt2

Random Read/Write	cbt_19thAug_o01_squid192_2+2_4k	cbt_18thAug_o01_2+2_16k_ecopt2	%change throughput	%change latency
4.0K_70/30	33145 IOps@11.6ms	40925 IOps@6.2ms	23%	-47%
16.0K_70/30	33470 IOps@3.8ms	38687 IOps@6.6ms	16%	74%
64.0K_70/30	2026 MB/s@4.1ms	1847 MB/s@9.1ms	-9%	122%
64.0K_30/70	1308 MB/s@12.8ms	1252 MB/s@13.4ms	-4%	5%

Response Curves

Sequential Read

512.0K Sequential Read

1024.0K Sequential Read

Sequential Write

4.0K Sequential Write

8.0K Sequential Write

16.0K Sequential Write
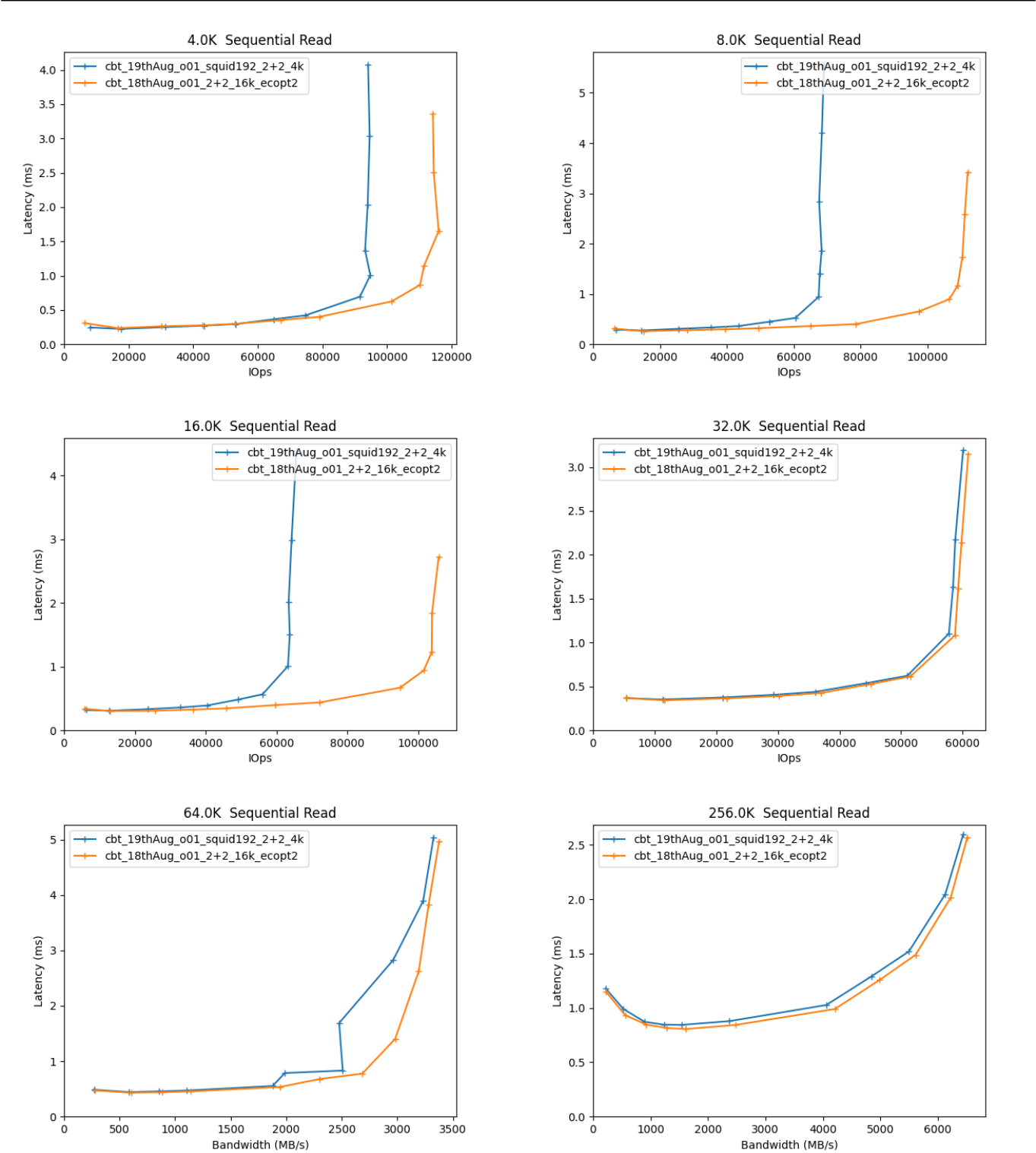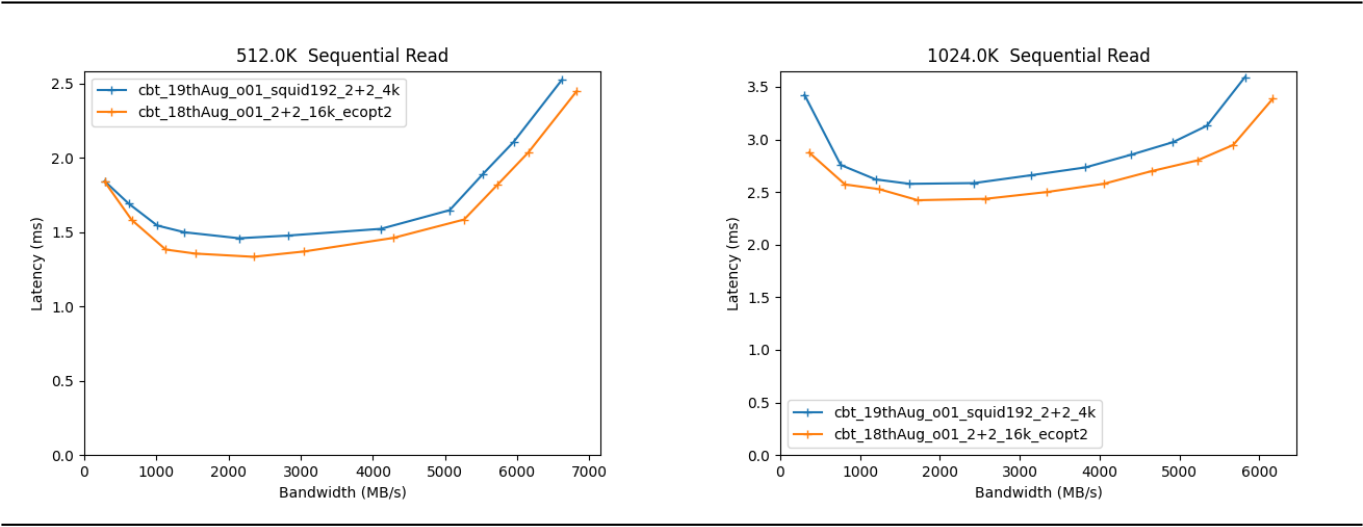
32.0K Sequential Write
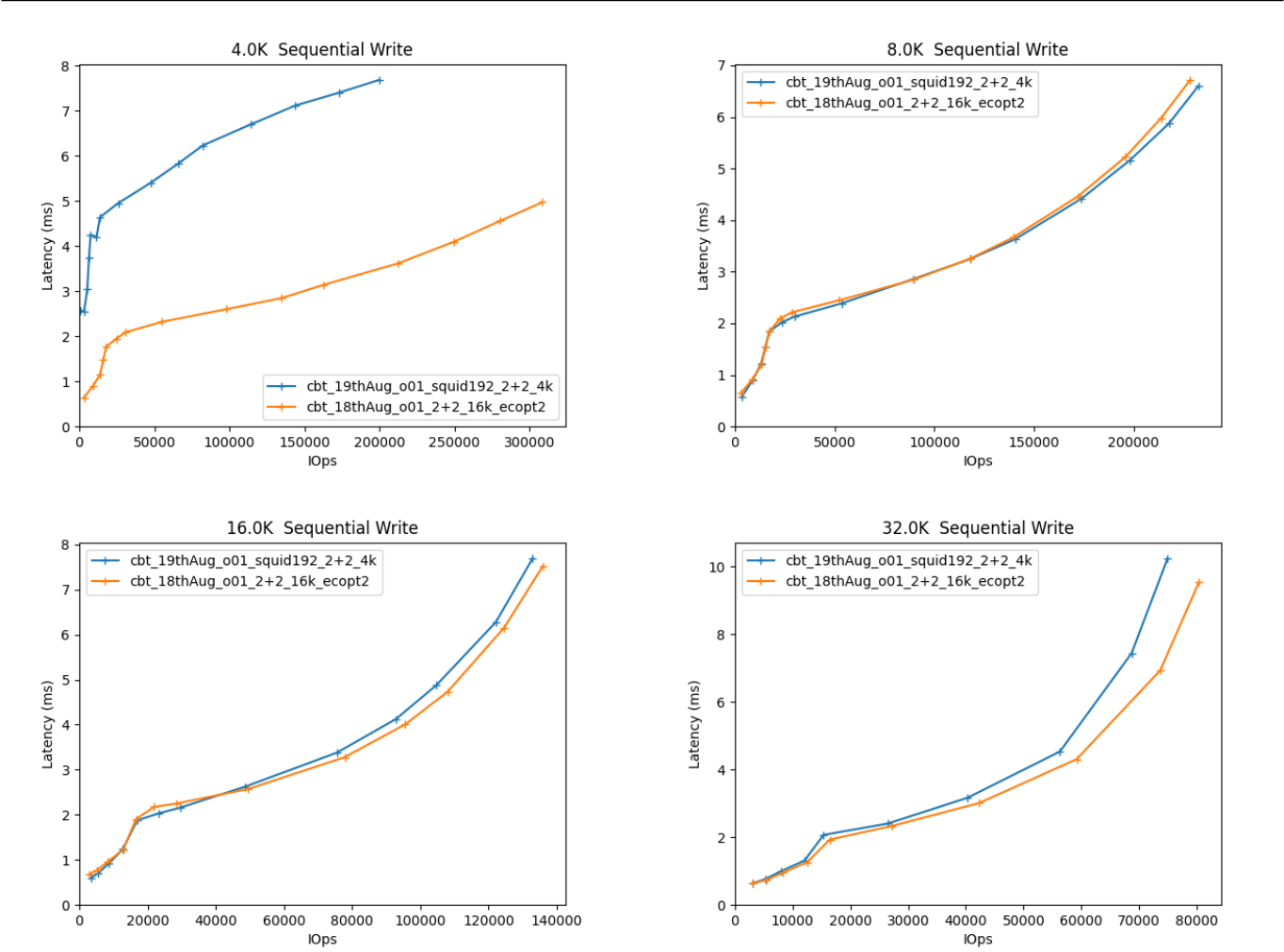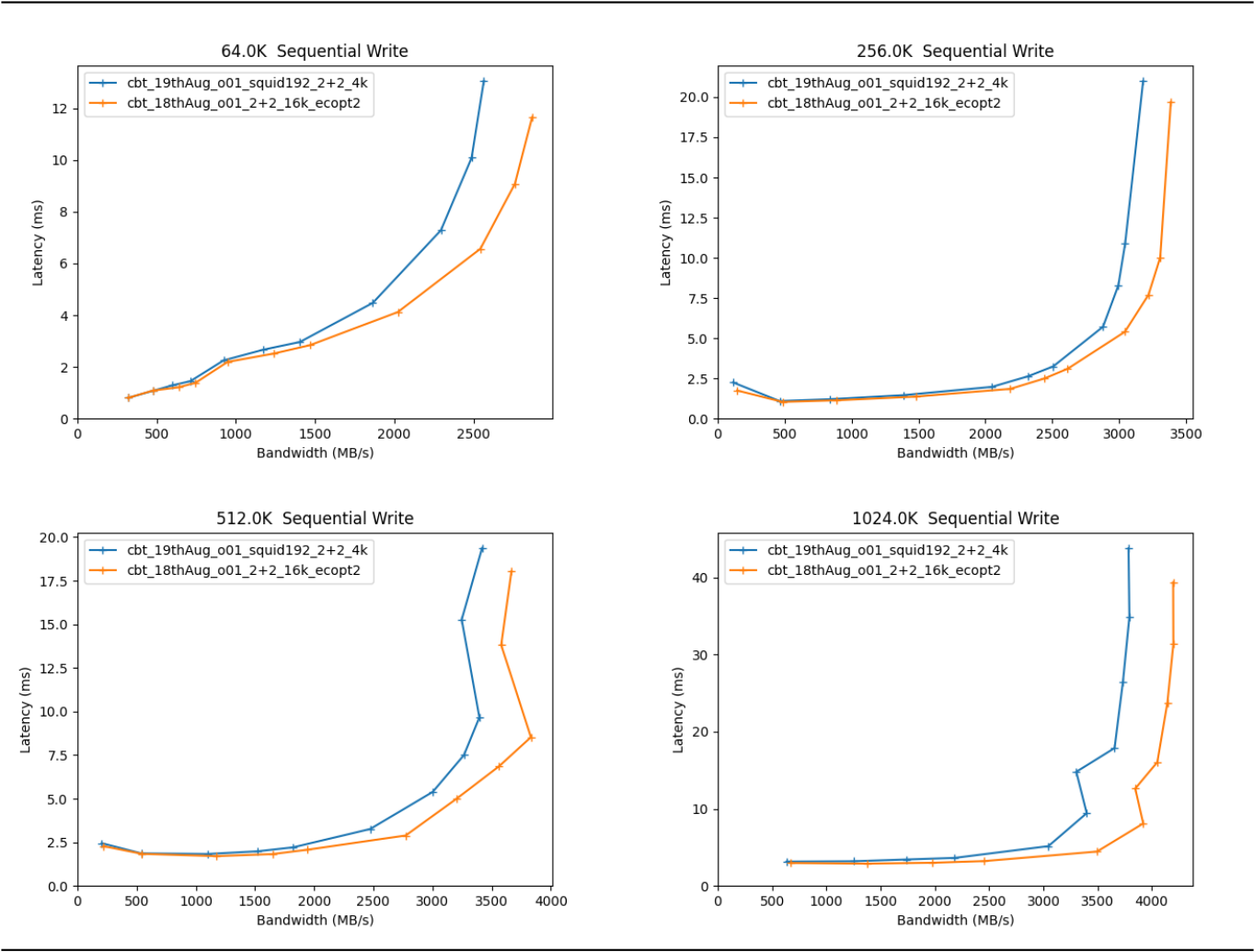
Random Read

Random Write

4.0K Random Write

8.0K Random Write

16.0K Random Write

32.0K Random Write

64.0K Random Write

256.0K Random Write

512.0K Random Write
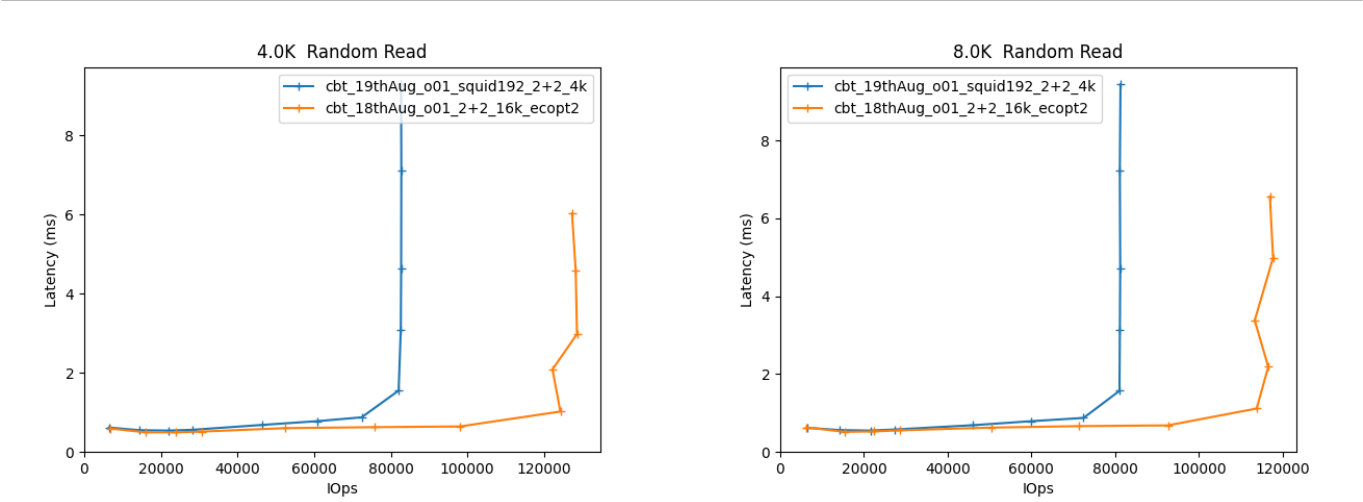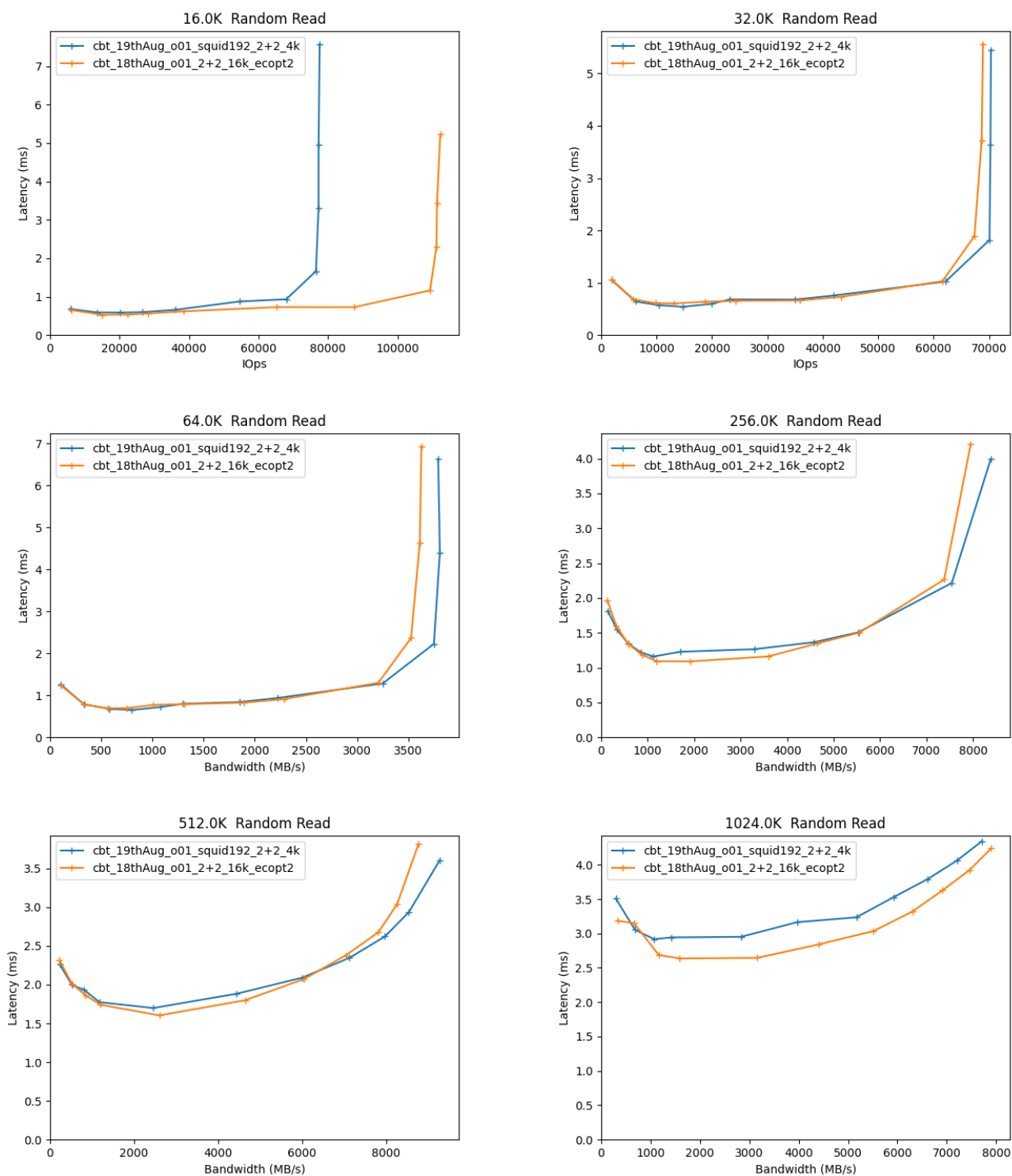
1024.0K Random Write

Random Read/Write

4.0K 70/30 Random Read/Write

16.0K 70/30 Random Read/Write

64.0K 70/30 Random Read/Write
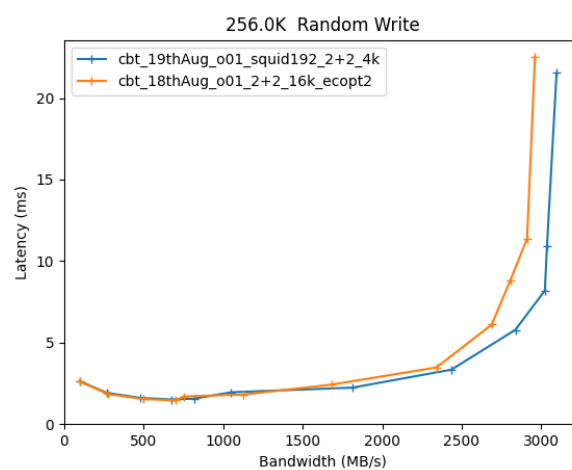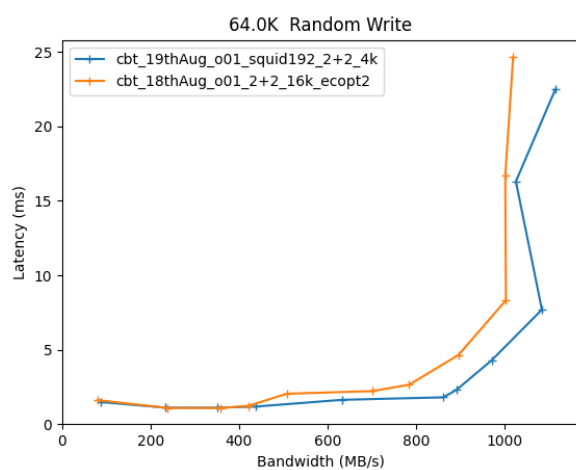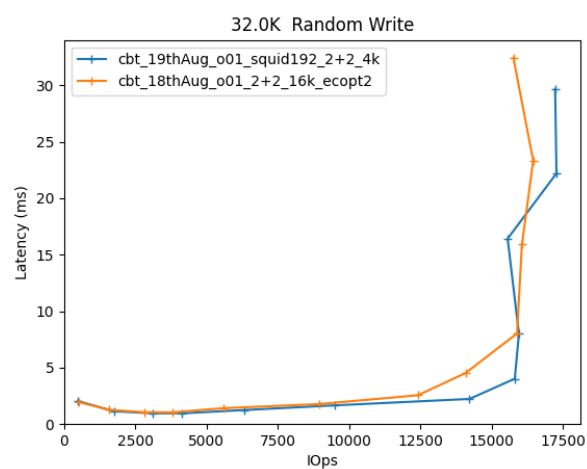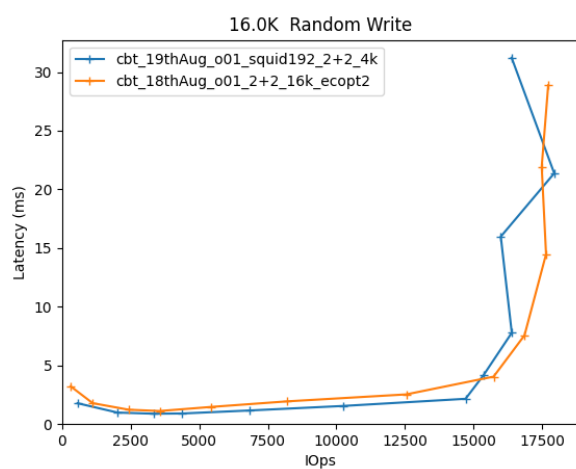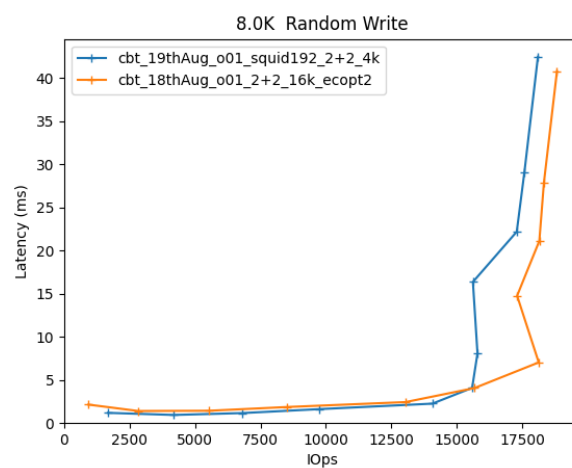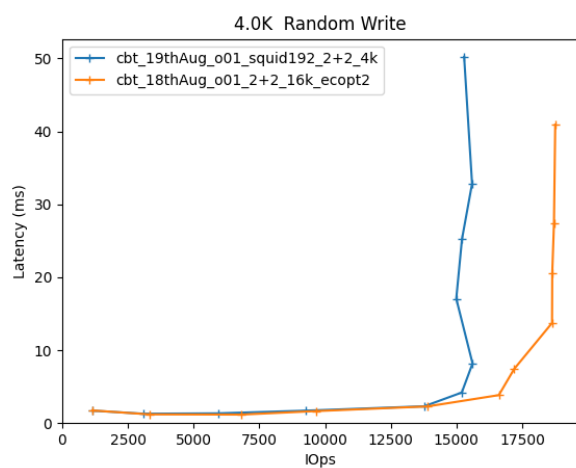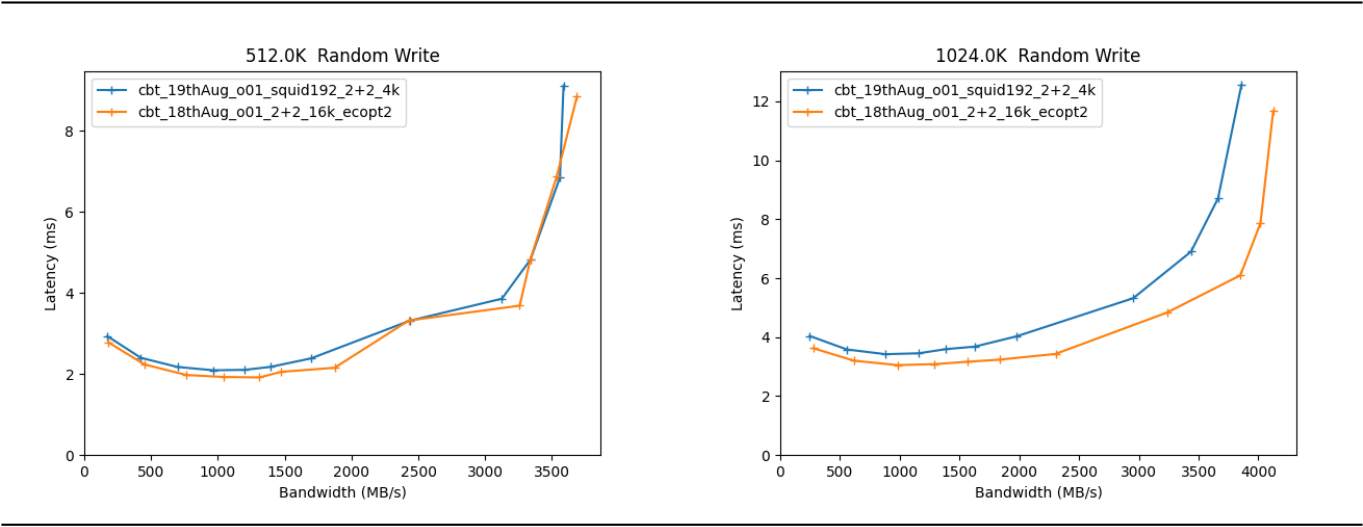
64.0K 30/70 Random Read/Write
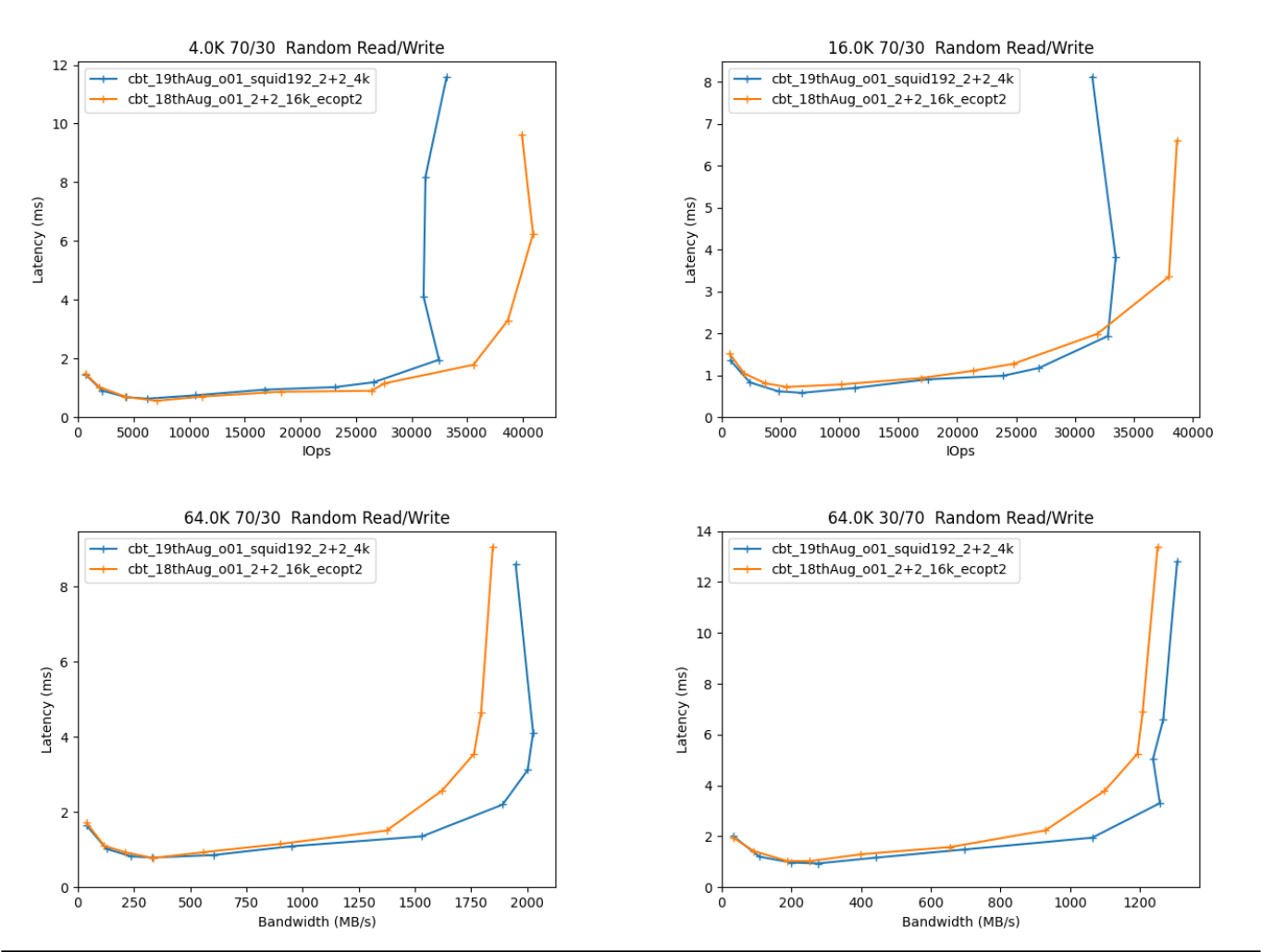
Configuration yaml files

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
```

```
        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}
```