

Performance Report for cbt

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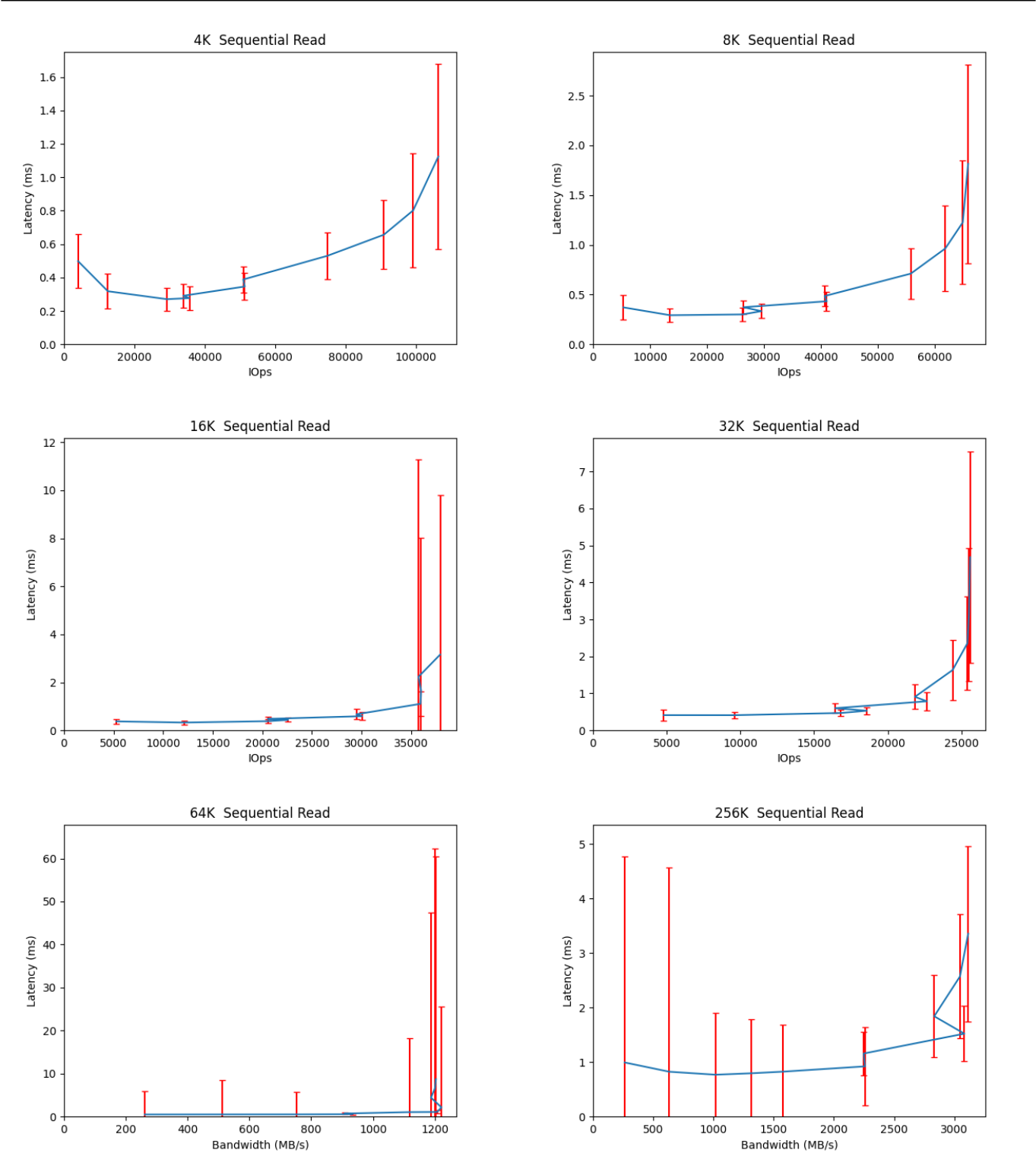
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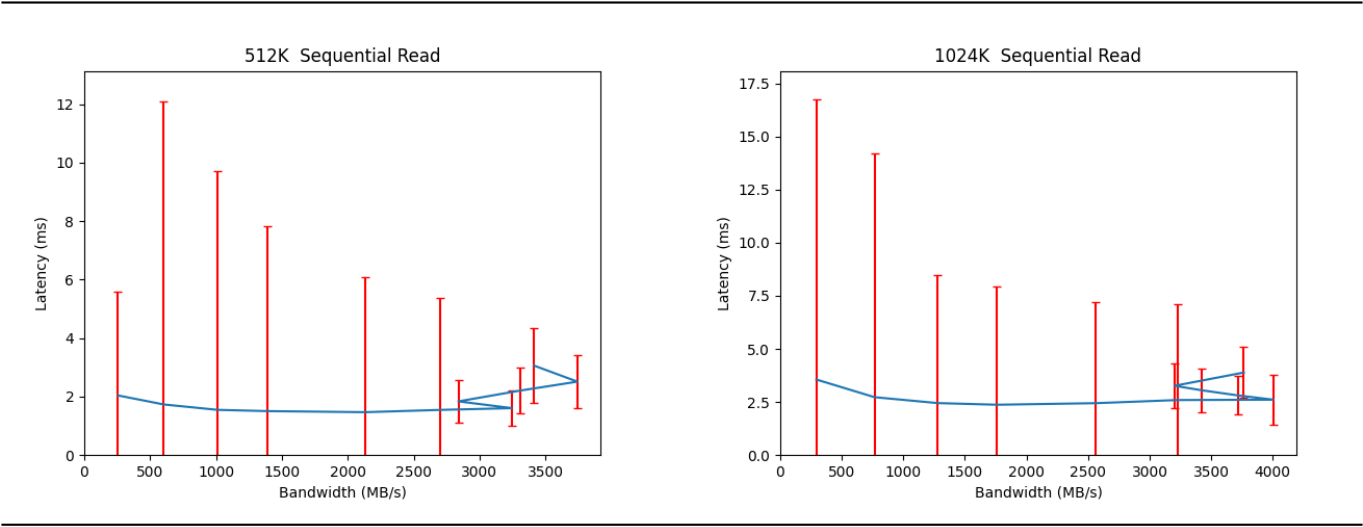
Summary of results for cbt

Workload Name	Maximum Throughput	Latency (ms)
4096B_read	106341 IOps	1.1
8192B_read	65926 IOps	1.8
16384B_read	37932 IOps	3.2
32768B_read	25584 IOps	4.7
65536B_read	1222 MB/s	2.1
262144B_read	3116 MB/s	3.4
524288B_read	3743 MB/s	2.5
1048576B_read	4006 MB/s	2.6
4096B_write	60009 IOps	10.7
8192B_write	74238 IOps	10.8
16384B_write	32299 IOps	9.9
32768B_write	35487 IOps	13.5
65536B_write	1320 MB/s	15.9
262144B_write	1812 MB/s	23.0
524288B_write	1838 MB/s	22.6
1048576B_write	2289 MB/s	45.3
4096B_randread	74779 IOps	3.2
8192B_randread	48127 IOps	5.0
16384B_randread	31063 IOps	7.7
32768B_randread	22222 IOps	7.2
65536B_randread	1319 MB/s	7.9
262144B_randread	2864 MB/s	7.3
524288B_randread	4091 MB/s	3.6
1048576B_randread	4349 MB/s	4.8
4096B_randwrite	7292 IOps	65.8
8192B_randwrite	7233 IOps	66.3
16384B_randwrite	6864 IOps	46.6
32768B_randwrite	6543 IOps	48.9
65536B_randwrite	392 MB/s	40.1
262144B_randwrite	1108 MB/s	37.7
524288B_randwrite	1695 MB/s	5.4
1048576B_randwrite	2298 MB/s	7.8
4096B_70_30_randrw	17869 IOps	4.5
16384B_70_30_randrw	15120 IOps	10.6
65536B_30_70_randrw	477 MB/s	21.9
65536B_70_30_randrw	770 MB/s	13.6

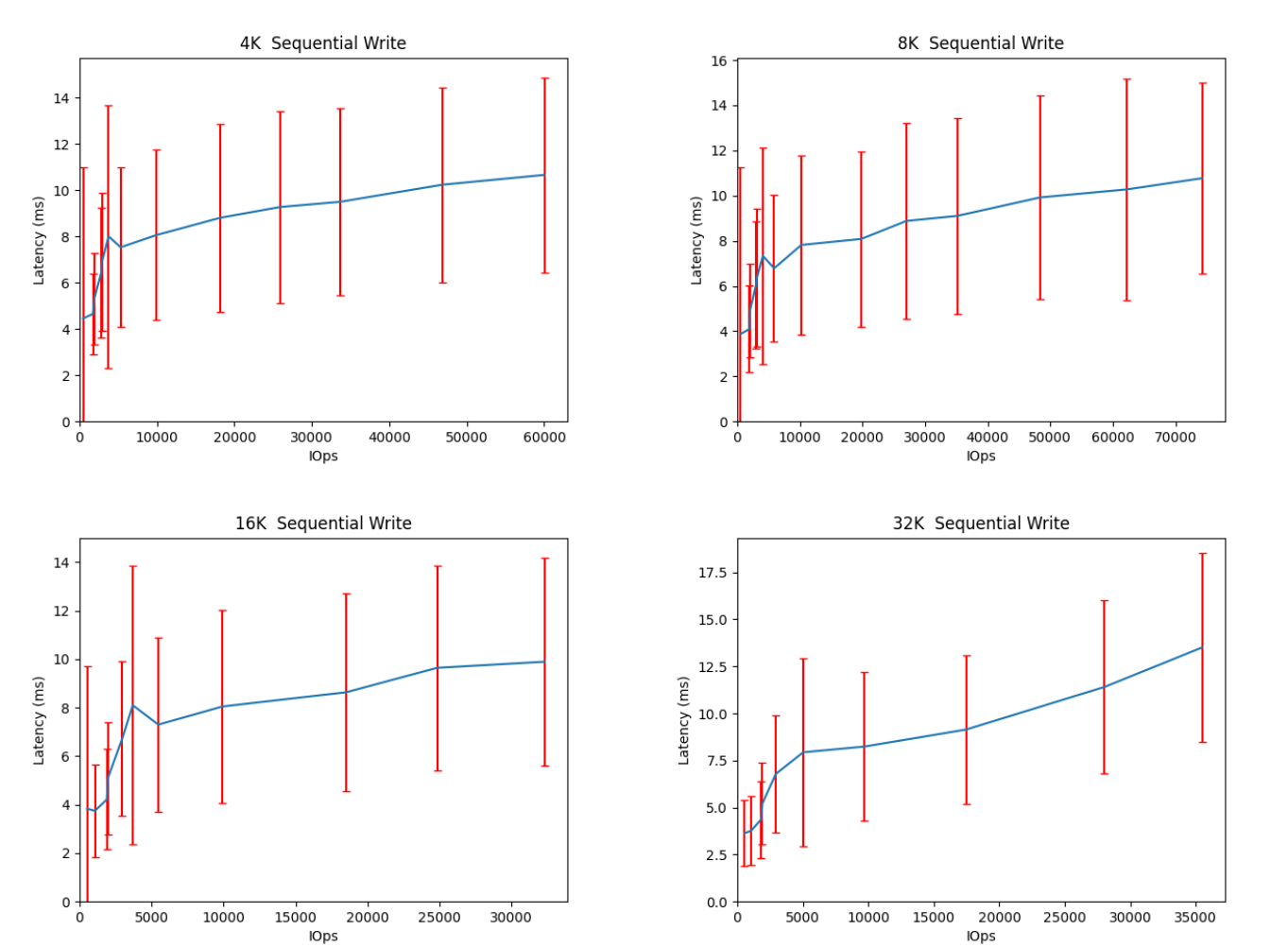
Response Curves

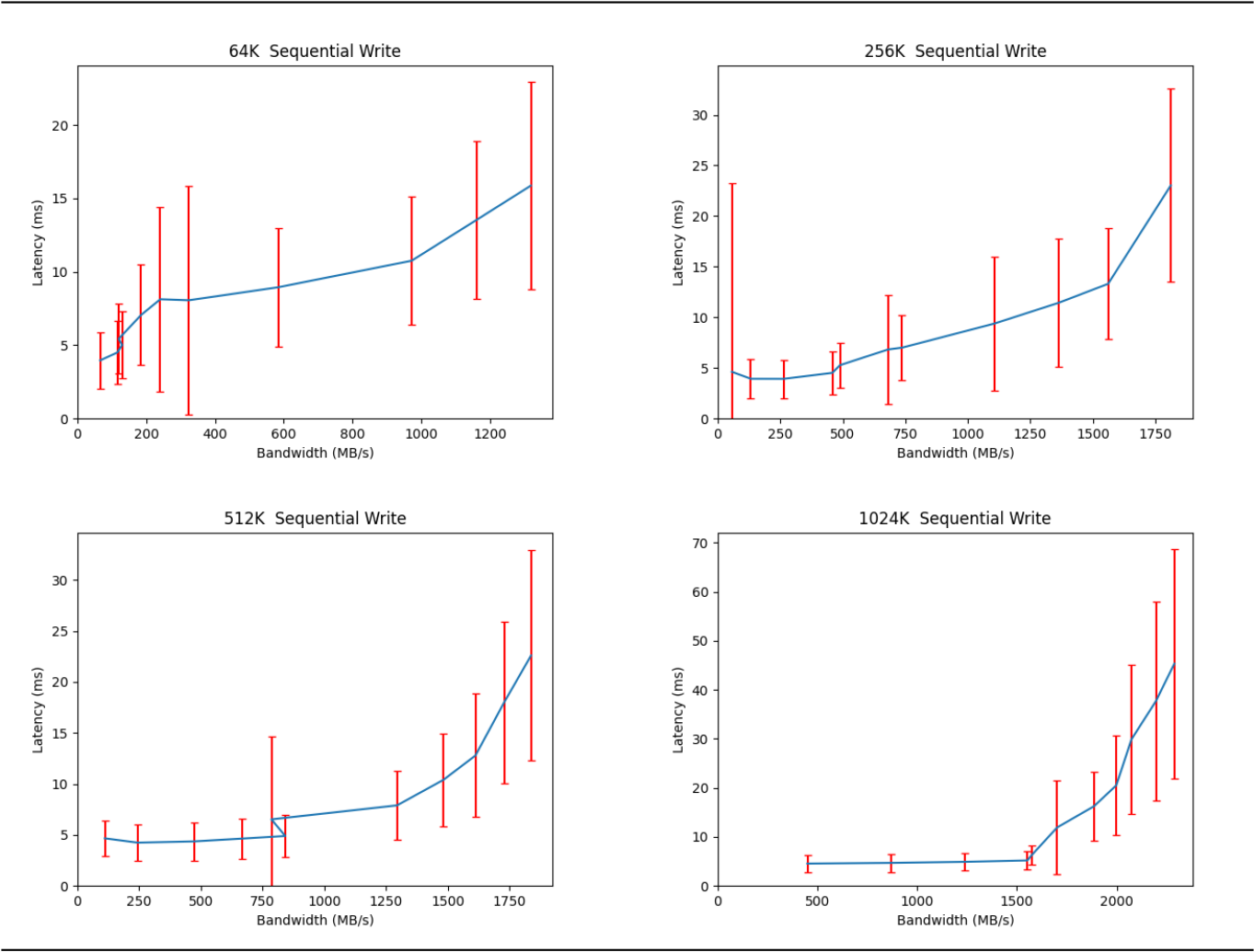
Sequential Read



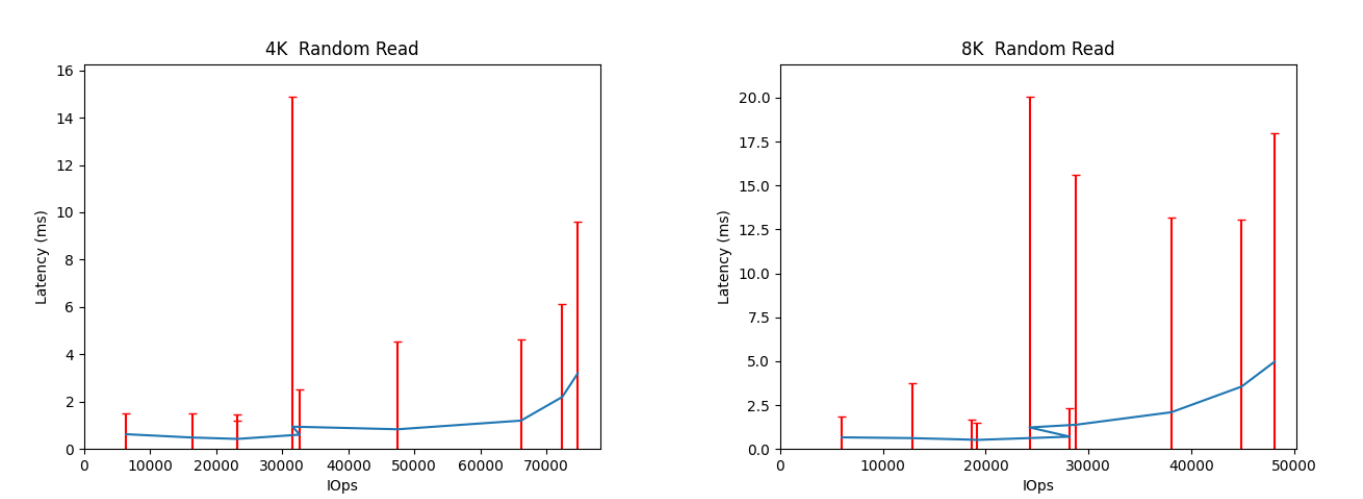


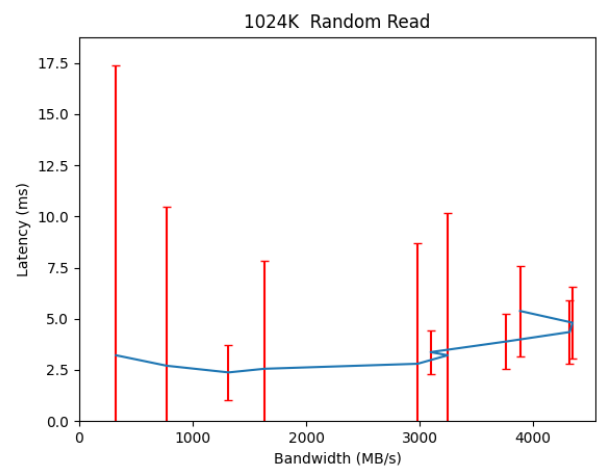
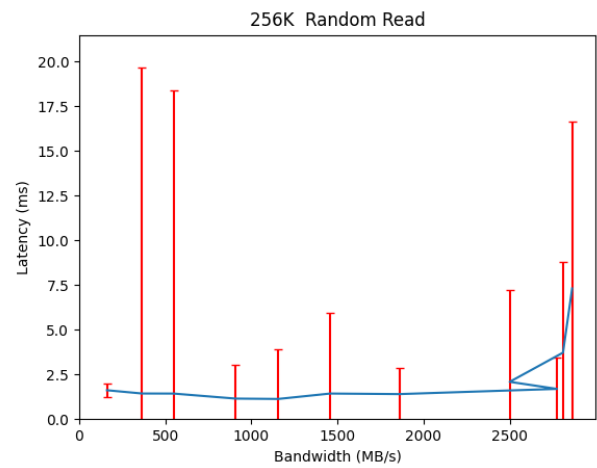
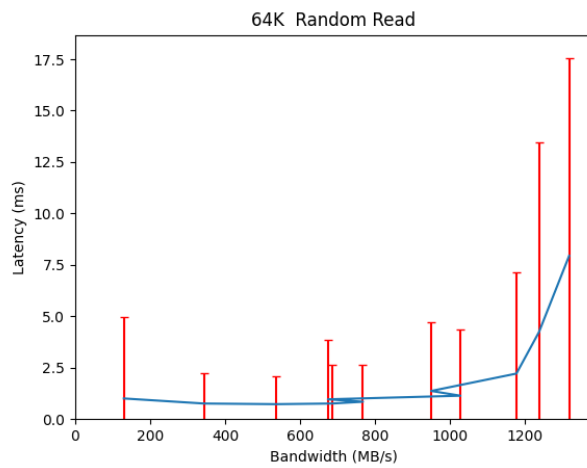
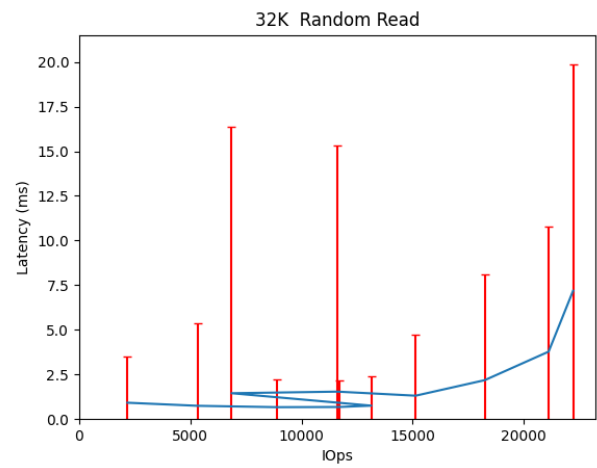
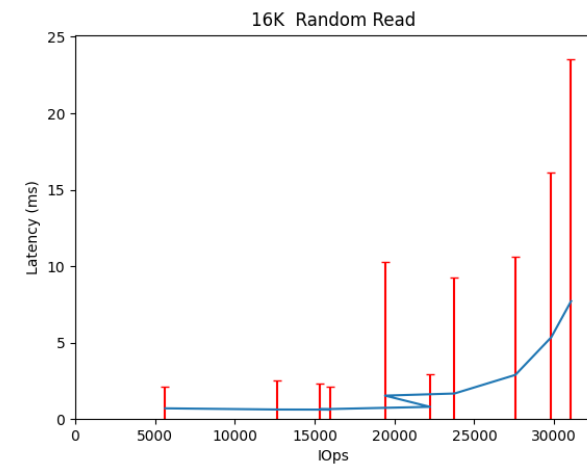
Sequential Write



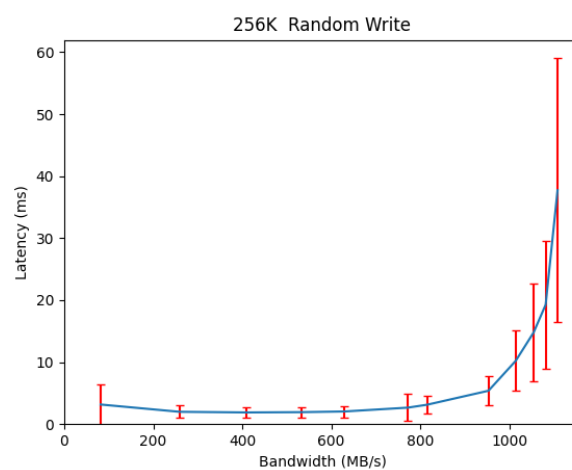
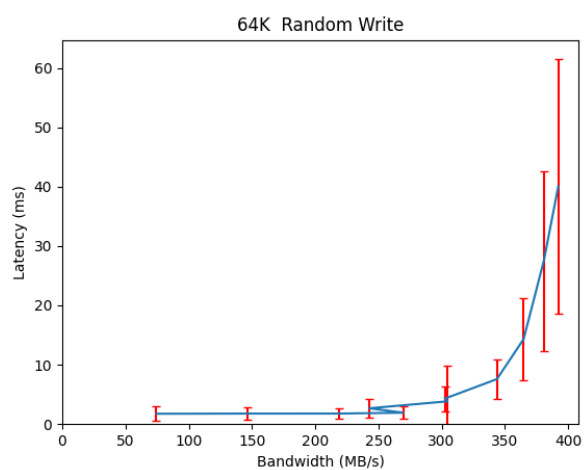
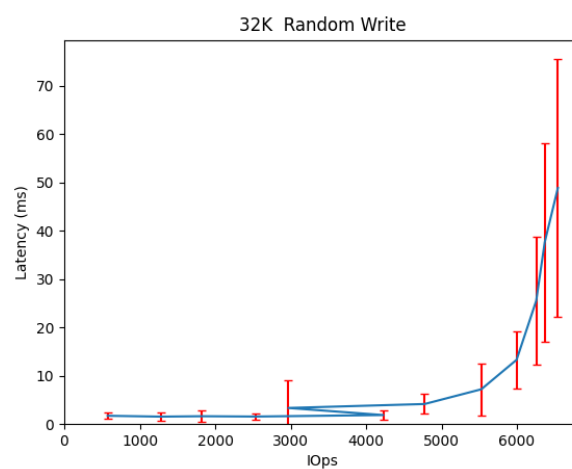
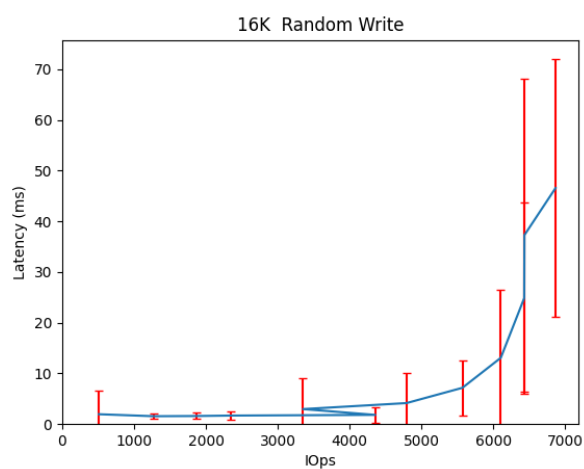
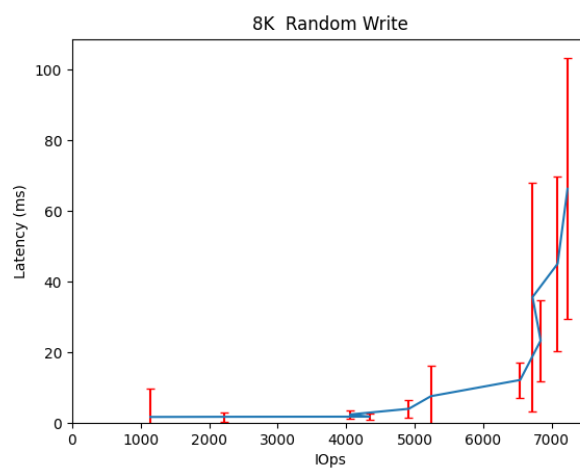
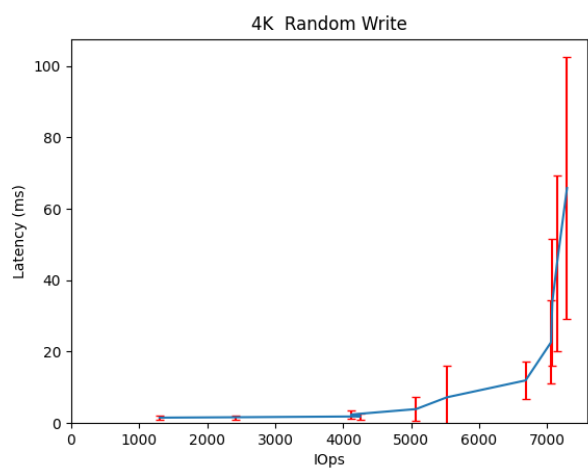


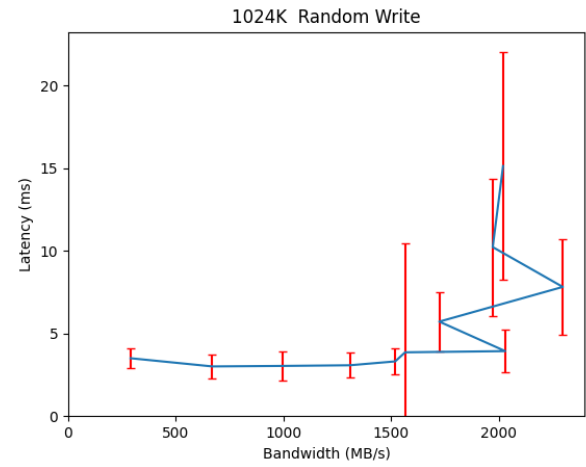
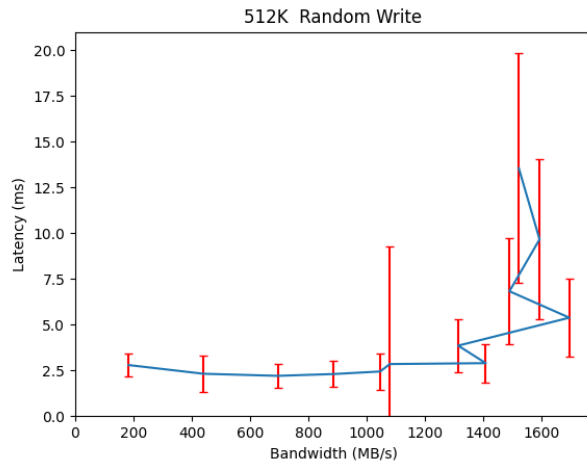
Random Read



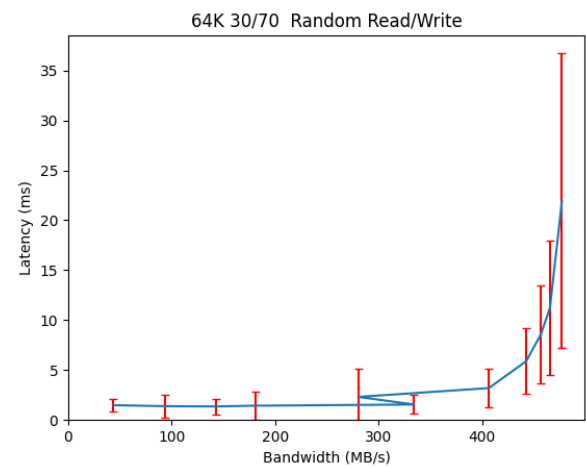
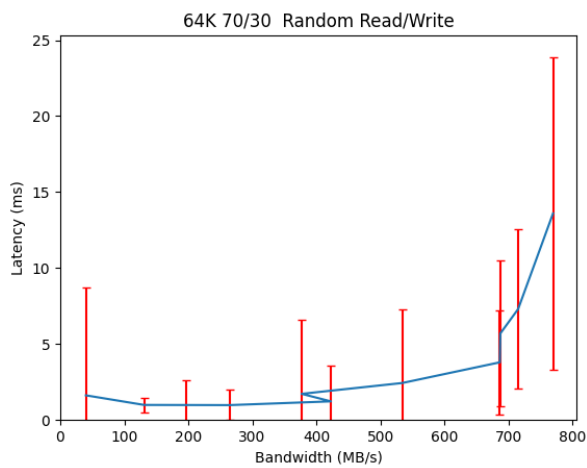
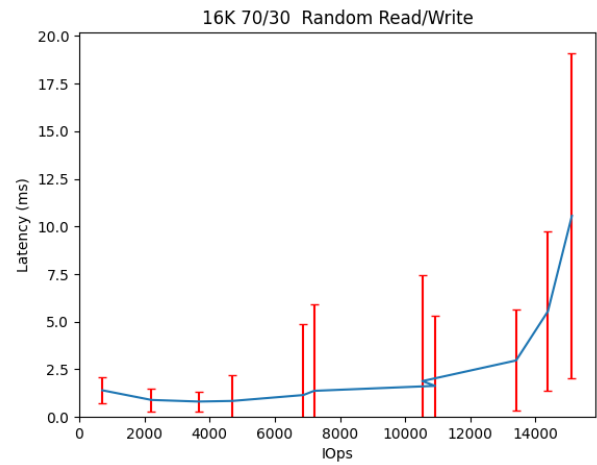
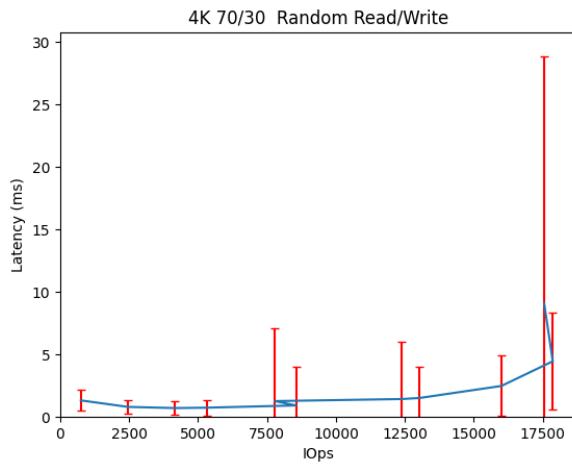


Random Write





Random Read/Write



Configuration yaml

```

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
  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
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

```

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- 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
4krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 4
    - 8
    - 12
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
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
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: preconditionrw
  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
seq16kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 16384
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 512
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
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
seq8kread:
  jobname: seqread
  mode: read
  numjobs:
  - 1
  op_size: 8192
  total_iodepth:
  - 2
  - 4
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 192
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
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: 6
  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}

```