

**Comparitive Performance Report for
cbt-19thJan-main-4k-8vol vs
cbt-24thJan-alexsl17-4k-8vol vs
cbt-29thJan-alexsl19-econ-4k-8vol-3min**

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 - results

Comparison summary for cbt-19thJan-main-4k-8vol vs cbt-24thJan-alexsls17-4k-8vol vs cbt-29thJan-alexsls19-econ-4k-8vol-3min

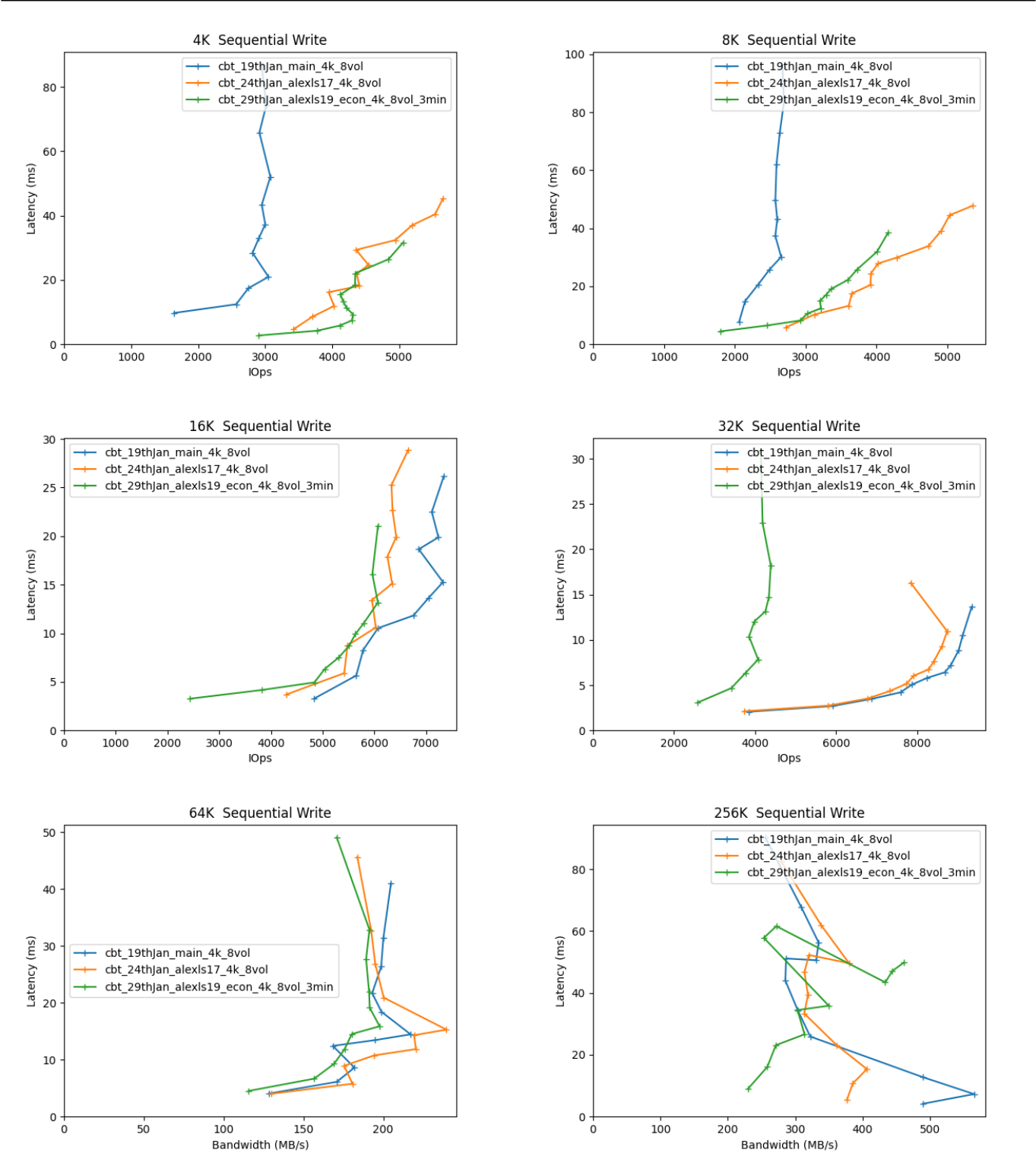
Sequential Write	cbt_19thJan_main_4k_8vol	cbt_24thJan_alexsls17_4k_8vol	%change	cbt_29thJan_alexsls19_econ_4k_8vol_3min	%change
4K	3077@52.1ms	5651@45.3	84%	5056@31.6	64%
8K	2694@83.5ms	5358@47.8	99%	4162@38.4	54%
16K	7338@26.1ms	6651@28.8	-9%	6069@21.1	-17%
32K	9342@13.7ms	8737@11.0	-6%	4384@18.2	-53%
64K	217@14.5ms	240@15.3	11%	198@15.9	-9%
256K	565@7.3ms	406@15.4	-28%	462@49.8	-18%
512K	483@95.4ms	469@98.2	-3%	484@95.0	0%
1024K	513@64.9ms	479@139.8	-7%	501@183.9	-2%

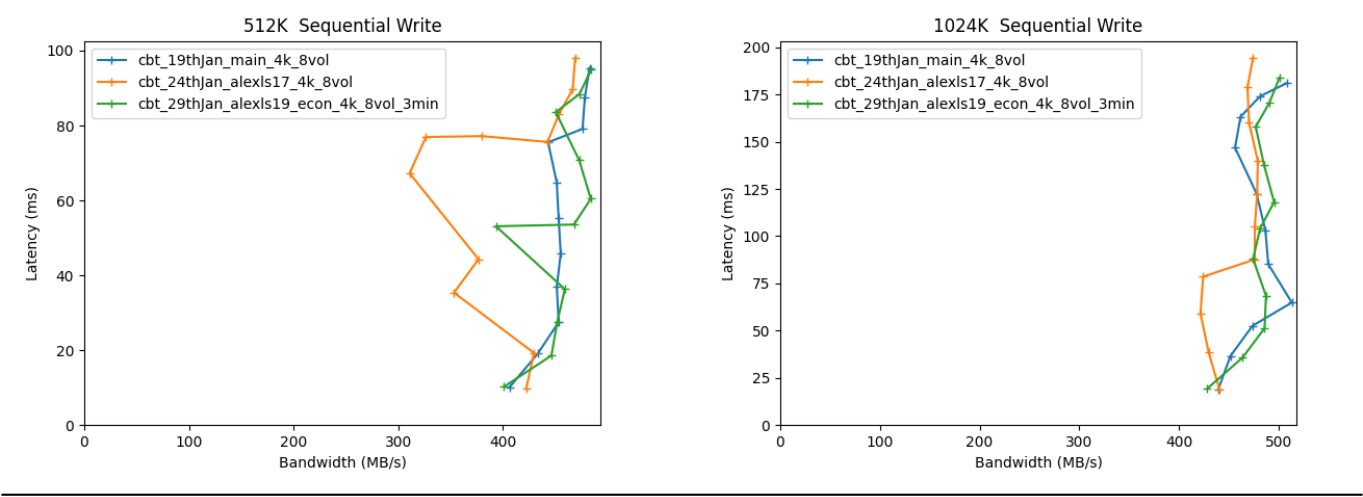
Random Write	cbt_19thJan_main_4k_8vol	cbt_24thJan_alexsls17_4k_8vol	%change	cbt_29thJan_alexsls19_econ_4k_8vol_3min	%change
4K	2708@35.4ms	5748@11.1	112%	3738@34.2	38%
8K	2758@46.4ms	5788@22.1	110%	3618@35.4	31%
16K	5674@22.5ms	5189@24.6	-9%	5008@25.5	-12%
32K	3530@36.3ms	3469@36.9	-2%	3335@38.4	-6%
64K	199@31.5ms	194@43.3	-3%	305@27.4	53%
256K	415@50.4ms	352@59.5	-15%	449@74.6	8%
512K	466@80.7ms	460@54.5	-1%	475@88.1	2%
1024K	478@139.8ms	485@190.3	1%	484@155.7	1%

Random Read/Write	cbt_19thJan_main_4k_8vol	cbt_24thJan_alexsls17_4k_8vol	%change	cbt_29thJan_alexsls19_econ_4k_8vol_3min	%change
16K_70/30	7664@7.3ms	7578@8.4	-1%	5516@14.5	-28%
64K_70/30	304@27.6ms	301@12.2	-1%	299@15.8	-2%
64K_30/70	246@17.0ms	263@15.9	7%	219@26.3	-11%

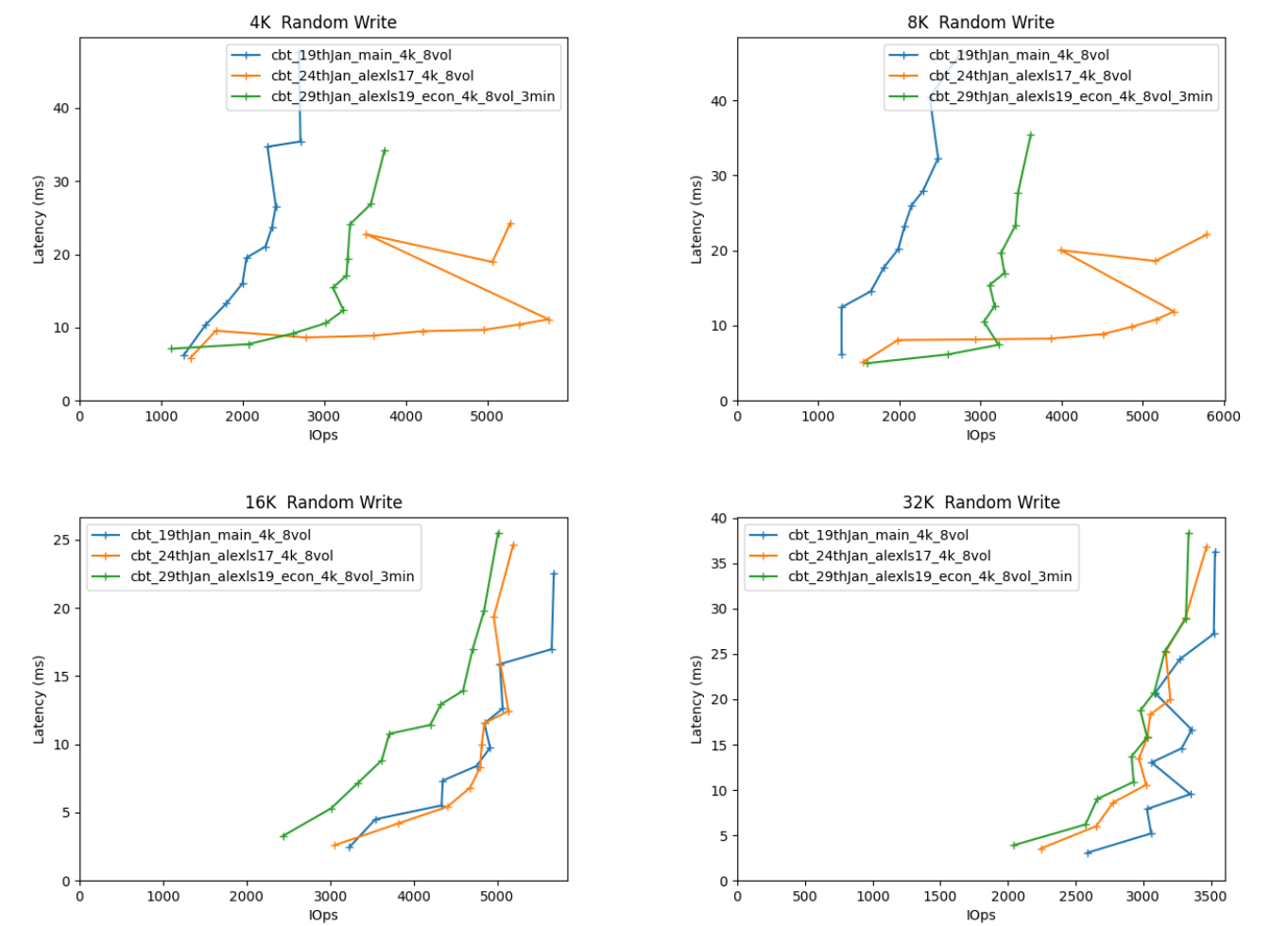
Response Curves

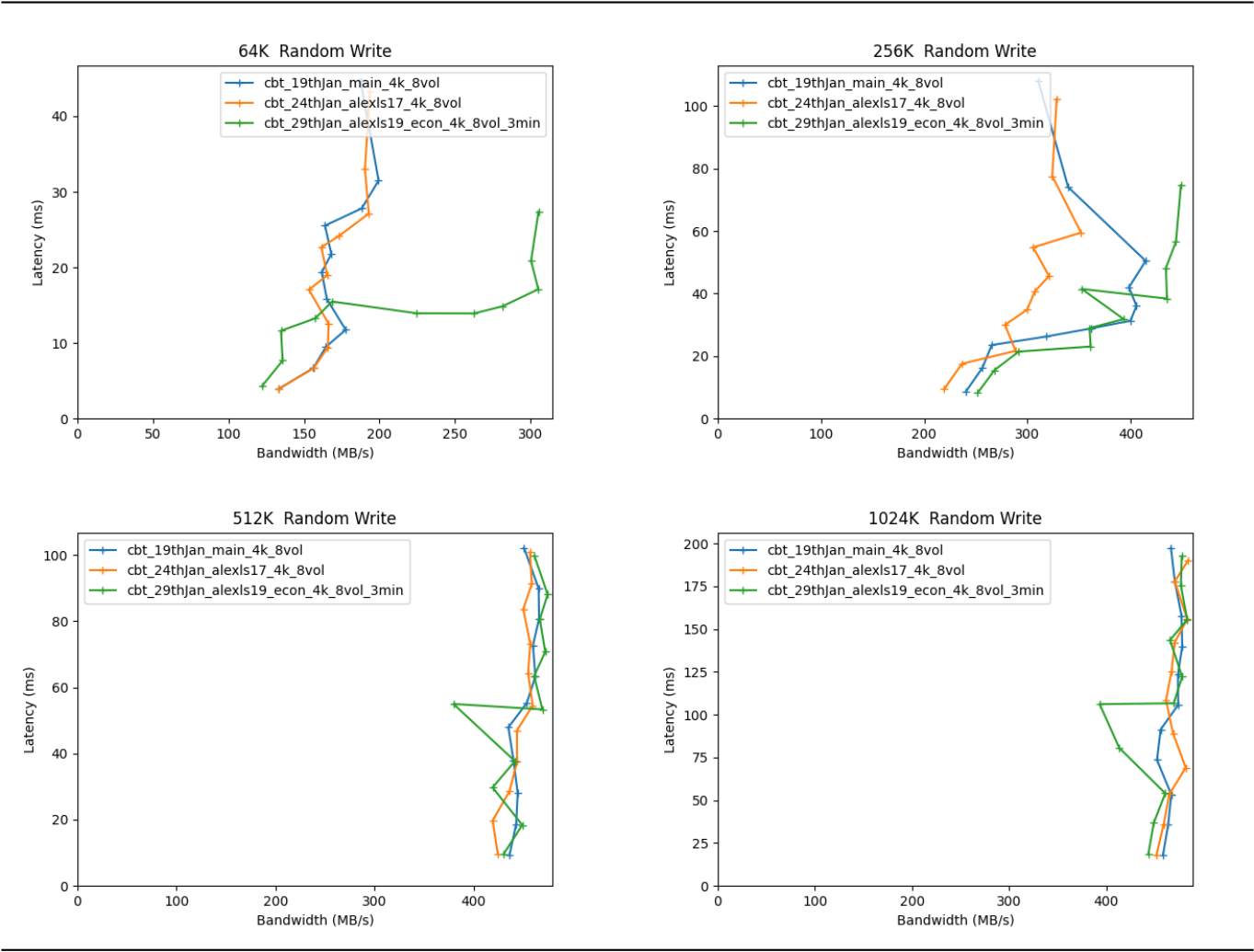
Sequential Write



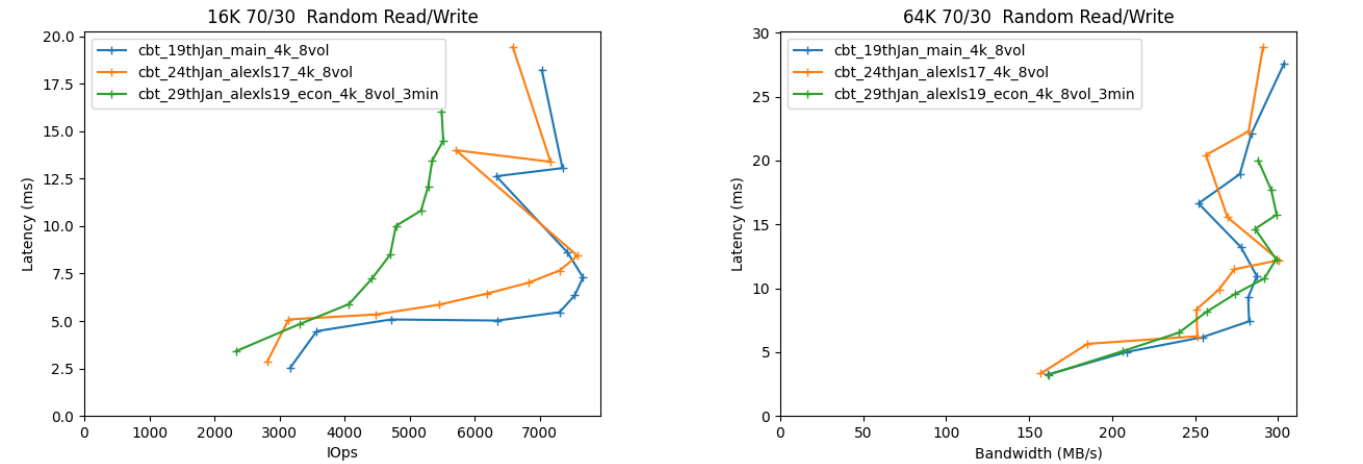


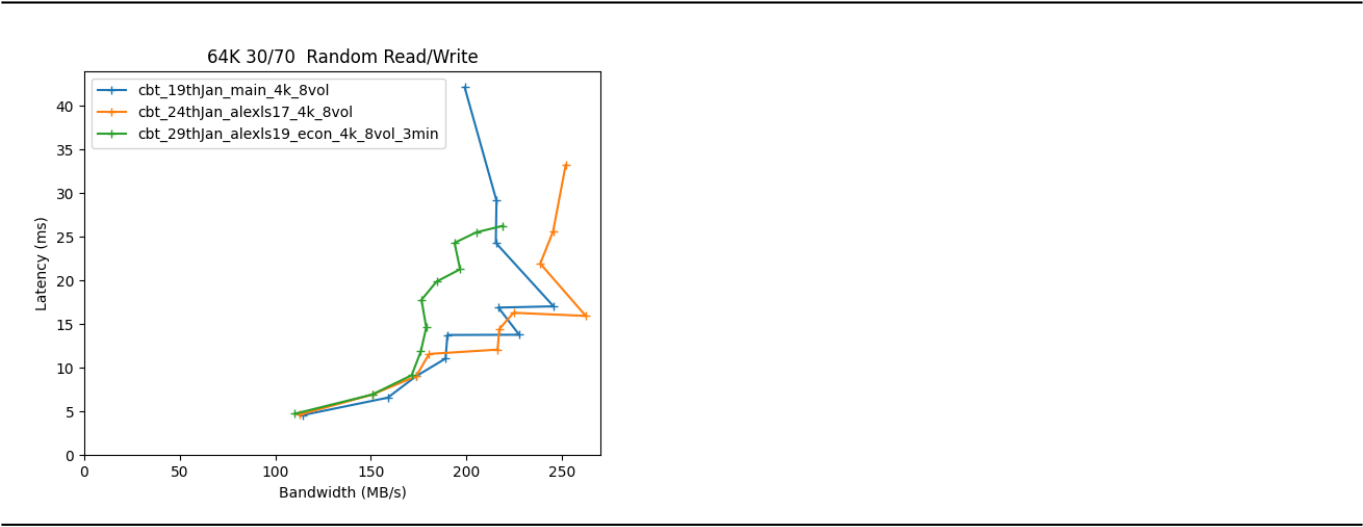
Random Write





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
  precondition_time: 600
  prefill:
    blocksize: 64k
    numjobs: 1
  procs_per_volume:
    - 1
  ramp: 30
  time: 60
  time_based: true
  use_existing_volumes: true
  vol_size: 52500
  volumes_per_client:
    - 8
  workloads:
    16k7030:
      iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 6
        - 7
        - 8
        - 10
        - 12
        - 16
      jobname: randmix
      mode: randrw
      numjobs:
        - 1
        - 1
        - 1
        - 1
        - 1
        - 1
        - 1
        - 1
        - 1
        - 1
        - 1
        - 1
      op_size: 16384
      rwmixread: 70
    16krandomread:
      iodepth:
        - 1
        - 2
        - 3
        - 4
        - 8

```

```

- 12
- 16
- 20
- 24
- 32
- 48
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 16384
16krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 16384
1Mrandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randread

```

```

  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 1048576
1Mrandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 1048576
1Mseqread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1

```

```

- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 1048576
1Mseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 1048576
256krandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 262144

```

```

256krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 262144
32krandomread:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 32768
32krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5

```

```

- 6
- 7
- 8
- 10
- 12
- 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 32768
4krandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 20
    - 24
    - 32
    - 48
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 4096
4krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite

```

```

mode: randwrite
numjobs:
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
op_size: 4096
512krandomread:
iodepth:
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
jobname: randread
mode: randread
numjobs:
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
op_size: 524288
512krandomwrite:
iodepth:
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
jobname: randwrite
mode: randwrite
numjobs:
- 1
- 1
- 1
- 1
- 1

```

```

- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 524288
512kseqread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 524288
512kseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 524288

```



```

64k3070:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 65536
  rwmixread: 30
64k7030:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 65536
  rwmixread: 70
64krandomread:
  iodepth:
    - 2
    - 4
    - 6

```

```

- 8
- 10
- 12
- 16
- 20
- 24
- 28
- 32
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 65536
64krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 65536
64kseqread:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 16
    - 20
    - 24
    - 28

```

```

- 32
  jobname: read
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 65536
64kseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: write
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 65536
8krandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 32
    - 48
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1

```

```

- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 8192
8krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 8192
precondition:
  iodepth:
    - 2
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
    - 1
  op_size: 65536
  precondition: true
seq16kread:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 18
    - 20
    - 24
  jobname: seqread
  mode: read
  numjobs:

```

```

- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 16384
seq16kwrite:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 18
    - 20
    - 24
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 16384
seq256kread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1

```

```

- 1
- 1
- 1
- 1
  op_size: 262144
seq256kwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 262144
seq32kread:
  iodepth:
    - 2
    - 4
    - 8
    - 10
    - 12
    - 14
    - 16
    - 18
    - 20
    - 22
    - 24
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 32768
seq32kwrite:
  iodepth:

```

```

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 10
- 12
- 16
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 32768
seq4kread:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 18
    - 20
    - 24
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 4096
seq4kwrite:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14

```

```

- 16
- 20
- 24
- 28
- 32
jobname: seqwrite
mode: write
numjobs:
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
op_size: 4096
seq8kread:
iodepth:
- 2
- 4
- 6
- 8
- 10
- 12
- 14
- 16
- 18
- 20
- 24
jobname: seqread
mode: read
numjobs:
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
op_size: 8192
seq8kwrite:
iodepth:
- 2
- 4
- 6
- 8
- 10
- 12
- 14
- 16
- 20
- 24
- 28
- 32

```



```

    jobname: seqwrite
    mode: write
    numjobs:
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
    op_size: 8192
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: root
monitoring_profiles:
  collectl:
    args: -c 18 -sCD -i 10 -P -oz -FO --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
    precondition_time: 600

```

```

prefill:
  blocksize: 64k
  numjobs: 1
procs_per_volume:
- 1
ramp: 30
time: 60
time_based: true
use_existing_volumes: true
vol_size: 52500
volumes_per_client:
- 8
workloads:
  16k7030:
    iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 6
      - 7
      - 8
      - 10
      - 12
      - 16
    jobname: randmix
    mode: randrw
    numjobs:
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
    op_size: 16384
    rwmixread: 70
  16krandomread:
    iodepth:
      - 1
      - 2
      - 3
      - 4
      - 8
      - 12
      - 16
      - 20
      - 24
      - 32
      - 48
    jobname: randread
    mode: randread
    numjobs:
      - 1
      - 1
      - 1
      - 1
      - 1

```

```

- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 16384
16krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 16384
1Mrandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 1048576

```

```

1Mrandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 1048576
1Mseqread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 1048576
1Mseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5

```

```

- 6
- 7
- 8
- 9
- 10
- 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 1048576
256krandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 262144
256krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite

```

```

mode: randwrite
numjobs:
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
op_size: 262144
32krandomread:
iodepth:
- 2
- 4
- 6
- 8
- 10
- 12
- 16
- 20
- 24
- 28
- 32
jobname: randread
mode: randread
numjobs:
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
op_size: 32768
32krandomwrite:
iodepth:
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 10
- 12
- 16
jobname: randwrite
mode: randwrite
numjobs:
- 1
- 1
- 1
- 1
- 1

```

```

- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 32768
4krandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 20
    - 24
    - 32
    - 48
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 4096
4krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 4096

```

```

512krandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 524288
512krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 524288
512kseqread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5

```



```

- 6
- 7
- 8
- 9
- 10
- 11
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 524288
512kseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 524288
64k3070:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randmix

```

```

mode: randrw
numjobs:
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
op_size: 65536
rwmixread: 30
64k7030:
iodepth:
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 10
- 12
- 16
jobname: randmix
mode: randrw
numjobs:
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
op_size: 65536
rwmixread: 70
64krandomread:
iodepth:
- 2
- 4
- 6
- 8
- 10
- 12
- 16
- 20
- 24
- 28
- 32
jobname: randread
mode: randread
numjobs:
- 1
- 1
- 1

```

```

- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 65536
64krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 65536
64kseqread:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
  jobname: read
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1

```

```

- 1
  op_size: 65536
64kseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: write
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 65536
8krandomread:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 32
    - 48
  jobname: randread
  mode: randread
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 8192
8krandomwrite:
  iodepth:
    - 1
    - 2
    - 3

```

```

- 4
- 5
- 6
- 7
- 8
- 10
- 12
- 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 8192
precondition:
  iodepth:
    - 2
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
    - 1
  op_size: 65536
  precondition: true
seq16kread:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 18
    - 20
    - 24
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 16384
seq16kwrite:
  iodepth:

```

```

- 2
- 4
- 6
- 8
- 10
- 12
- 14
- 16
- 18
- 20
- 24
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 16384
  seq256kread:
    iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 6
      - 7
      - 8
      - 9
      - 10
      - 11
    jobname: seqread
    mode: read
    numjobs:
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
      - 1
    op_size: 262144
  seq256kwrite:
    iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 6
      - 7

```

```

- 8
- 9
- 10
- 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 262144
seq32kread:
  iodepth:
    - 2
    - 4
    - 8
    - 10
    - 12
    - 14
    - 16
    - 18
    - 20
    - 22
    - 24
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 32768
seq32kwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: seqwrite
  mode: write
  numjobs:

```

```

- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 32768
seq4kread:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 18
    - 20
    - 24
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 4096
seq4kwrite:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 20
    - 24
    - 28
    - 32
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1

```



```

- 1
- 1
- 1
- 1
- 1
- 1
  op_size: 4096
seq8kread:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 18
    - 20
    - 24
  jobname: seqread
  mode: read
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
  op_size: 8192
seq8kwrite:
  iodepth:
    - 2
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 20
    - 24
    - 28
    - 32
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1
    - 1

```

```

    - 1
    op_size: 8192
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: root
  monitoring_profiles:
    collectl:
      args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep ";" -f {collectl_dir}

```

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
  precondition_time: 600
  prefill:
    blocksize: 64k
    numjobs: 1
  procs_per_volume:
    - 1
  ramp: 30
  time: 180
  time_based: true
  use_existing_volumes: true
  vol_size: 52500
  volumes_per_client:
    - 8
  workloads:
    16k7030:
      iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 6
        - 7
        - 8
        - 9
        - 10
        - 11
      jobname: randmix
      mode: randrw
      numjobs:
        - 1
      op_size: 16384
      rwmixread: 70
    16krandomwrite:
      iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 6
        - 7
        - 8
        - 10
        - 12
        - 16
      jobname: randwrite
      mode: randwrite
      numjobs:
        - 1

```

```

    op_size: 16384
1Mrandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 1048576
1Mseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 1048576
256krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 262144
32krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6

```

```

- 7
- 8
- 10
- 12
- 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 32768
4krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 4096
512krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
512kseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1

```

```

    op_size: 524288
64k3070:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 65536
  rwmixread: 30
64k7030:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 65536
  rwmixread: 70
64krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 65536
64kseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4

```

```

- 5
- 6
- 7
- 8
- 10
- 12
- 16
  jobname: write
  mode: write
  numjobs:
    - 1
  op_size: 65536
8krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 8192
precondition:
  iodepth:
    - 2
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
    - 1
  op_size: 65536
  precondition: true
seq16kwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 16384
seq256kwrite:
  iodepth:
    - 1
    - 2
    - 3

```

```

- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 262144
seq32kwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 32768
seq4kwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
    - 20
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 4096
seq8kwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16

```



```

    - 20
    jobname: seqwrite
    mode: write
    numjobs:
    - 1
    op_size: 8192
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: root
monitoring_profiles:
  collectl:
    args: -c 18 -sCD -i 10 -P -oz -FO --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
    precondition_time: 600
    prefill:
      blocksize: 64k
      numjobs: 1
    procs_per_volume:
    - 1
    ramp: 30
    time: 180
    time_based: true
    use_existing_volumes: true
    vol_size: 52500

```

```

volumes_per_client:
- 8
workloads:
  16k7030:
    iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 6
      - 7
      - 8
      - 9
      - 10
      - 11
    jobname: randmix
    mode: randrw
    numjobs:
      - 1
    op_size: 16384
    rwmixread: 70
  16krandomwrite:
    iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 6
      - 7
      - 8
      - 10
      - 12
      - 16
    jobname: randwrite
    mode: randwrite
    numjobs:
      - 1
    op_size: 16384
  1Mrandomwrite:
    iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 6
      - 7
      - 8
      - 9
      - 10
      - 11
    jobname: randwrite
    mode: randwrite
    numjobs:
      - 1
    op_size: 1048576
  1Mseqwrite:
    iodepth:
      - 1
      - 2
      - 3

```

```

- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 1048576
256krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 262144
32krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 32768
4krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite

```

```

    mode: randwrite
    numjobs:
      - 1
    op_size: 4096
512krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
512kseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 524288
64k3070:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 65536
  rwmixread: 30
64k7030:
  iodepth:
    - 1
    - 2

```

```

- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
    op_size: 65536
    rwmixread: 70
64krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
    op_size: 65536
64kseqwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
  jobname: write
  mode: write
  numjobs:
    - 1
    op_size: 65536
8krandomwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12

```

```

- 16
  jobname: randwrite
  mode: randwrite
  numjobs:
  - 1
    op_size: 8192
precondition:
  iodepth:
  - 2
    jobname: precond1rw
    mode: randwrite
    monitor: false
    numjobs:
    - 1
      op_size: 65536
      precondition: true
seq16kwrite:
  iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 10
  - 12
  - 16
    jobname: seqwrite
    mode: write
    numjobs:
    - 1
      op_size: 16384
seq256kwrite:
  iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - 11
    jobname: seqwrite
    mode: write
    numjobs:
    - 1
      op_size: 262144
seq32kwrite:
  iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 10

```

```

- 12
- 16
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 32768
seq4kwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
    - 20
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 4096
seq8kwrite:
  iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 16
    - 20
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 8192
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
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osds_per_node: 6
pdsh_ssh_args: -a -x -l%u %h
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tmp_dir: /tmp/cbt
use_existing: true
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monitoring_profiles:
  collectl:
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```