Comparitive Performance Report for cbt-18thFeb-main-8vol-finegrain-cacheon vs cbt-19thFeb-ecoptmain-8vol-finegrain-cacheon

## Table of contents

- $\bullet \ \ Comparison \ summary \ for \ cbt-18th Feb-main-8vol-fine grain-cache on \ vs \ cbt-19th Feb-ecopt main-8vol-fine grain-cache on \ vs \$
- Response Curves
  - Sequential Read
  - Sequential Write
  - Random Read
  - Random Write
  - Random Read/Write
- Configuration yaml files
  - results

# Comparison summary for cbt-18thFeb-main-8vol-finegrain-cacheon vs cbt-19thFeb-ecoptmain-8vol-finegrain-cacheon

Sequential Read	$cbt\_18thFeb\_main\_8v$	od <u>btfin</u> le <b>9thFi</b> e <u>bc</u> ædopotumain <u>%</u> &	halngfentelgraing hpantheon	%change latency
4K	68197 IOps@2.8ms	66206 IOps@2.9ms	-3%	4%
8K	40440  IOps@4.7ms	39345  IOps@4.9ms	-3%	4%
16K	22824  IOps@8.4ms	22383  IOps@8.6ms	-2%	2%
32K	19329  IOps@9.9ms	19283  IOps@9.9ms	-0%	0%
64K	1151  MB/s@14.6 ms	1151  MB/s@14.6 ms	0%	0%
256K	1630  MB/s@10.3 ms	1634  MB/s = 10.3 ms	0%	0%
512K	1619  MB/s@10.4 ms	1620  MB/s = 10.3 ms	0%	-1%
1024K	1621  MB/s@12.9 ms	1621  MB/s@12.9 ms	0%	0%

Sequential Write	cbt_18thFeb_main_8v	od <u>btfinle<b>gth</b>Frebc</u> ædogotumain <u>%</u>	Shalngfentegraingh pautheon	%change latency
4K	4491 IOps@57.0ms	5363 IOps@47.7ms	19%	-16%
8K	4523  IOps@56.6ms	5275  IOps@48.5ms	17%	-14%
16K	3732  IOps@51.4ms	3987 IOps@48.1ms	7%	-6%
32K	2808  IOps@45.6ms	2946 IOps@43.4ms	5%	-5%
64K	76  MB/s@54.9 ms	92  MB/s@45.6ms	21%	-17%
256K	113  MB/s@32.3 ms	113  MB/s@32.5 ms	0%	1%
512K	128  MB/s = 57.3 ms	124  MB/s = 58.9 ms	-3%	3%
1024K	204  MB/s@51.0 ms	201  MB/s@72.4 ms	-1%	42%

Random Read	$cbt\_18thFeb\_main\_8v$	od <u>btfin</u> te <b>gth.Fe</b> bcaadoquumair	n <u>%</u> chaln_gfentelgra.ingh_pautheon	%change latency
4K	69423 IOps@5.5ms	69049 IOps@5.5ms	-1%	0%
8K	47665  IOps@8.0ms	47254  IOps@8.1ms	-1%	1%
16K	30764  IOps@12.5 ms	$29708 \; \mathrm{IOps@12.9ms}$	-3%	3%
32K	27249  IOps@9.4ms	26444  IOps@9.7ms	-3%	3%
64K	1478  MB/s@11.3 ms	1475  MB/s@11.4ms	-0%	1%
256K	1747  MB/s@19.2 ms	1751  MB/s@2.4ms	0%	-88%
512K	1805  MB/s@13.9 ms	1810  MB/s@13.9 ms	0%	0%
1024K	1804  MB/s@16.3 ms	1807  MB/s@16.2ms	0%	-1%

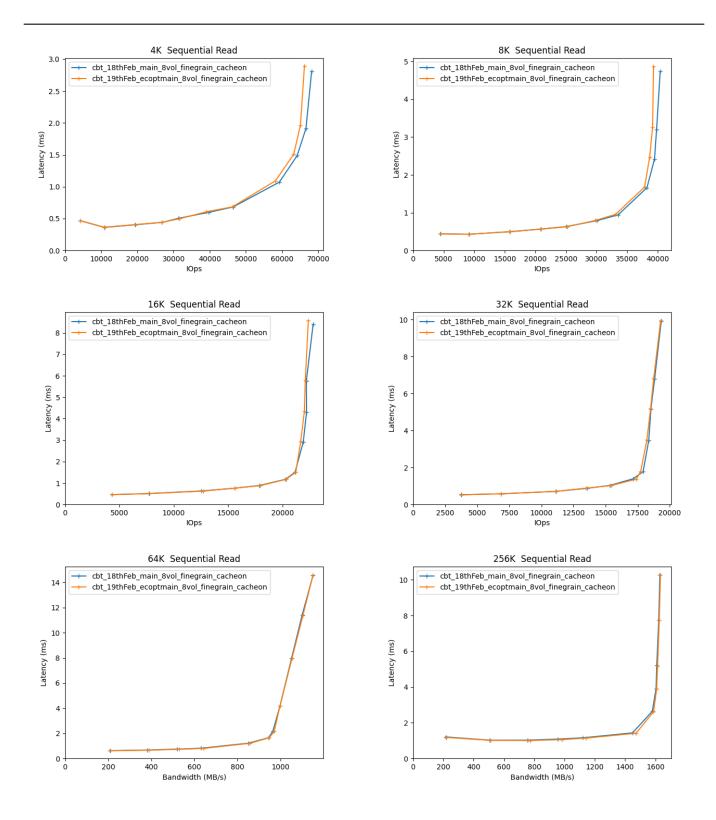
Random Write	cbt_18thFeb_main_8ve	od <u>btfin<b>tegth</b>Frebc</u> ædopotumain <u>%</u> &	halngentegraing hpautheon	%change latency
4K	2997 IOps@42.7ms	3613 IOps@35.4ms	21%	-17%
8K	2991  IOps@42.8ms	3725  IOps@34.3ms	25%	-20%
16K	3289  IOps@38.9ms	3078  IOps@41.6ms	-6%	7%
32K	2990  IOps@42.8ms	$2864 \; \mathrm{IOps@44.7ms}$	-4%	4%
64K	$159 \mathrm{\ MB/s@52.9ms}$	161  MB/s@52.2 ms	1%	-1%
256K	320  MB/s@104.8 ms	319  MB/s@105.2 ms	-0%	0%

Random Write	cbt_18thFeb_main_8vo	d <u>btfin<b>tegth</b>Febc</u> ædopotomain	<u>%&amp;halngentegrainghpaut</u> heon	%change latency
512K	253 MB/s@82.7ms	247 MB/s@84.6ms	-2%	2%
1024K	252  MB/s@82.9 ms	258  MB/s@80.7ms	2%	-3%

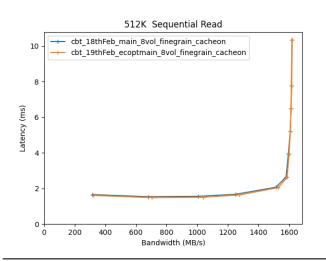
Random Read/Write	cbt_18thFeb_main_8ve	od <u>btfin</u> de <b>gt h.F</b> ie <u>bcæ</u> dogotumain	n <u>% haln g</u> en <b>elgraing hpau</b> theon	%change latency
16K_70/30	$7911~\mathrm{IOps@16.2ms}$	$7577 \; \mathrm{IOps@16.9ms}$	-4%	4%
$64K_{30}/70$	226  MB/s@37.1ms	209  MB/s@40.2ms	-8%	8%
$64 \text{K}_{-}70/30$	346  MB/s@24.3 ms	333  MB/s@25.2 ms	-4%	4%

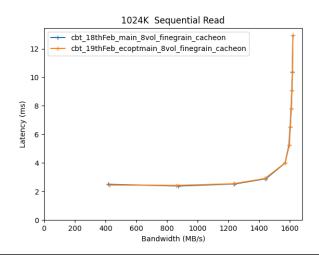
## Response Curves

## Sequential Read



Response Curves Sequential Write





## Sequential Write

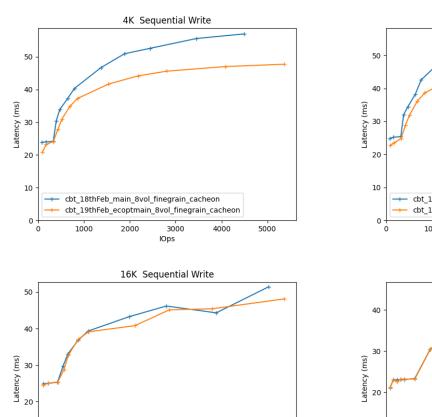
10

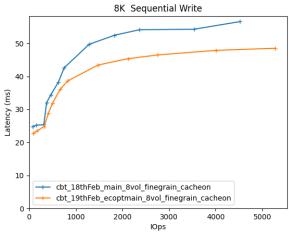
cbt\_18thFeb\_main\_8vol\_finegrain\_cacheon

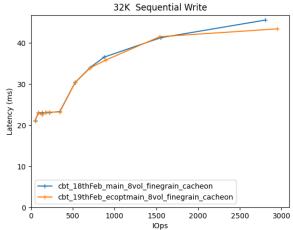
cbt\_19thFeb\_ecoptmain\_8vol\_finegrain\_cacheon

2000

lOps



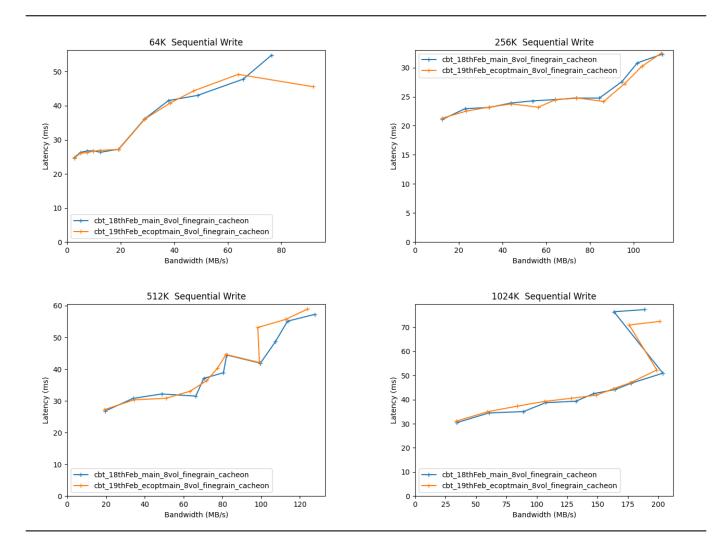




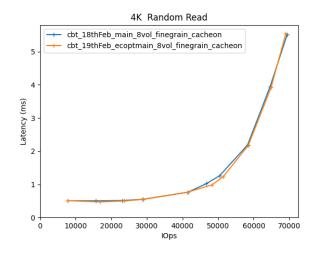
3500

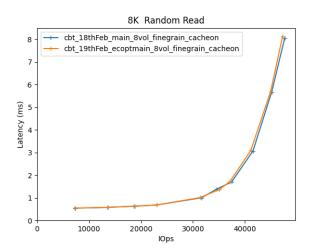
4000

Response Curves Random Read

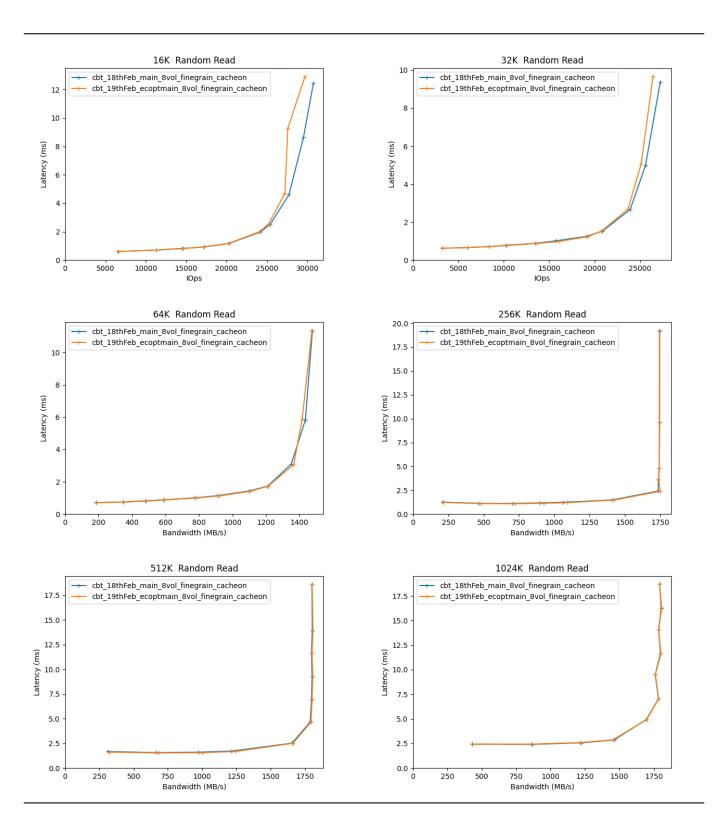


#### Random Read



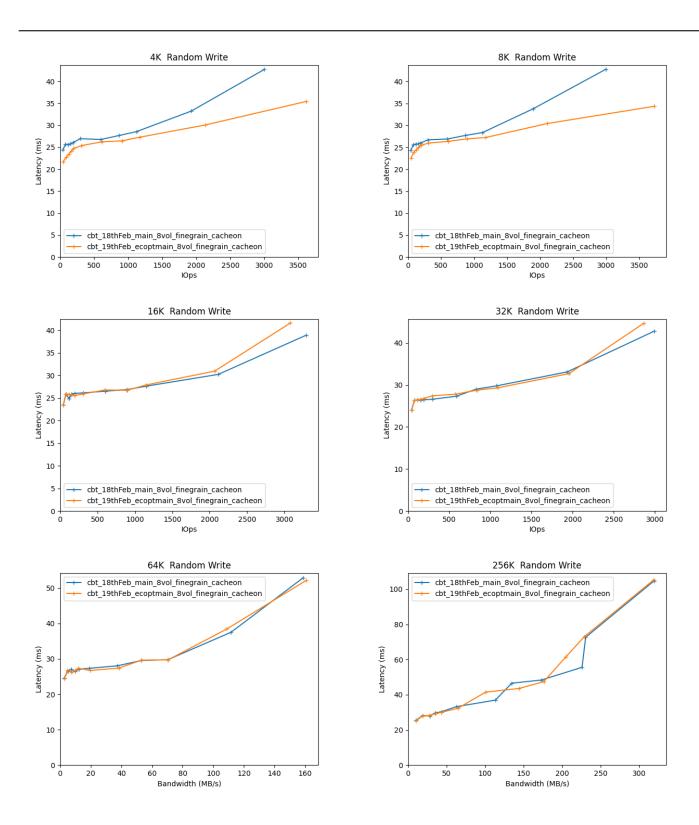


Response Curves Random Write

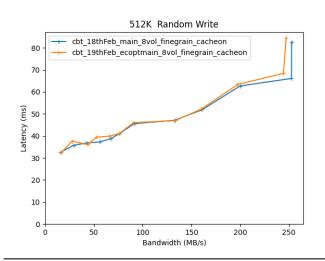


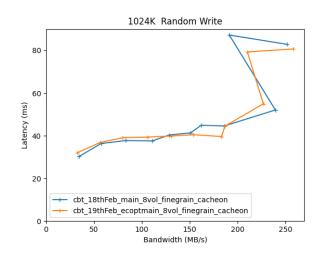
#### Random Write

Response Curves Random Write

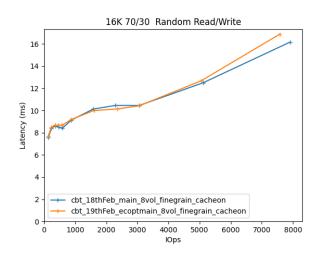


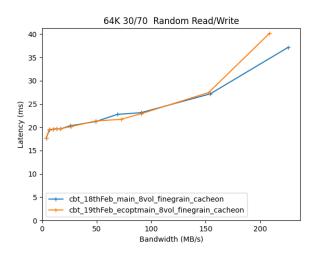
Response Curves Random Read/Write

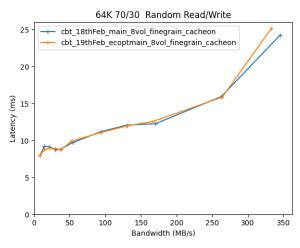




## Random Read/Write







# 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
  time: 90
  time_based: true
  use_existing_volumes: true
  vol_size: 52500
  volumes_per_client:
  workloads:
    16k7030:
      jobname: randmix
      mode: randrw
      numjobs:
      - 1
      op_size: 16384
      rwmixread: 70
      total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8
      - 16
      - 24
      - 32
      - 64
      - 128
    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
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
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
  {\tt total\_iodepth:}
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 12
  - 16
  - 20
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: - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 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 - 24 - 32 - 48 - 64

- 128

 $\verb|cbt-18thFeb-main-8vol-finegrain-cacheon| vs. \verb|cbt-19thFeb-ex-ptmain-8vol-finegrain-cacheon| |$ 

#### 32krandomread: jobname: randread mode: randread numjobs: - 1 op\_size: 32768 total\_iodepth: - 2 - 4 - 6 - 8 - 12 - 16 - 24 - 32 - 64 - 128 - 256 32 krandom write:jobname: randwrite mode: randwrite numjobs: - 1 op\_size: 32768 total\_iodepth: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128 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 ${\tt total\_iodepth:}$ - 1 - 2 - 3

- 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128 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 - 12 - 16 - 24 - 32 - 40 512kseqread: jobname: seqread mode: read numjobs: - 1 op\_size: 524288 total\_iodepth: - 1 - 2 - 3 - 4 - 6 - 8 - 12 - 16 - 20 - 24

```
512kseqwrite:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 524288
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 10
  - 12
  - 14
64k3070:
  jobname: randmix
 mode: randrw
 numjobs:
  - 1
 op_size: 65536
  rwmixread: 30
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
64k7030:
  jobname: randmix
 mode: randrw
 numjobs:
  - 1
 op_size: 65536
 rwmixread: 70
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
 - 32
 - 64
  - 128
64krandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 65536
  total_iodepth:
```

- 2 - 4 - 6 - 8 - 12 - 16 - 24 - 32 - 64 - 128 - 256 64 krandom write:jobname: randwrite mode: randwrite numjobs: - 1 op\_size: 65536 total\_iodepth: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128 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: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 24

- 48 - 64 8krandomread: jobname: randread mode: randread numjobs: - 1 op\_size: 8192 total\_iodepth: - 8 - 12 - 16 - 32 - 48 - 64 - 128 - 256 - 384  ${\tt 8krandomwrite:}$ jobname: randwrite mode: randwrite numjobs: - 1 op\_size: 8192 total\_iodepth: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128 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
seq16kwrite:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 16384
  total_iodepth:
  - 4
  - 8
  - 12
  - 16
 - 24
  - 32
  - 64
  - 96
  - 128
  - 192
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
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 10
  - 12
  - 14
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: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128  ${\tt seq4kread}$ : 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 - 4 - 8 - 12 - 16 - 24 - 32 - 64

```
- 128
        - 192
        - 256
      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
        - 4
        - 8
        - 12
        - 16
        - 24
        - 32
        - 64
        - 96
        - 128
        - 192
        - 256
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 -1%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}
  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
    time: 90
    time_based: true
    use_existing_volumes: true
    vol_size: 52500
    volumes_per_client:
    - 8
    workloads:
      16k7030:
        jobname: randmix
        mode: randrw
        numjobs:
        - 1
        op_size: 16384
        rwmixread: 70
        total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 8
        - 16
        - 24
        - 32
        - 64
        - 128
      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 - 5 - 8 - 16 - 24 - 32 - 64 - 128 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 - 7 - 8 - 12 - 16

```
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:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 10
  - 12
  - 14
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 - 24 - 32 - 48 - 64 - 128 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 - 5 - 8 - 16 - 24 - 32 - 64 - 128 4krandomread: jobname: randread mode: randread numjobs: - 1 op\_size: 4096 total\_iodepth: - 4 - 8 - 12 - 16 - 32 - 48 - 64 - 128 - 256

```
4krandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
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
  - 12
  - 16
  - 24
 - 32
  - 40
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 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 64k3070: jobname: randmix mode: randrw numjobs: - 1 op\_size: 65536 rwmixread: 30 total\_iodepth: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128 64k7030: jobname: randmix mode: randrw numjobs: - 1 op\_size: 65536 rwmixread: 70 total\_iodepth: - 1 - 2 - 3 - 4 - 5 - 8 - 16

- 32 - 64 - 128 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: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128 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:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
8krandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 8192
  {\tt total\_iodepth:}
  - 4
  - 8
  - 12
  - 16
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
8krandomwrite:
  jobname: randwrite
  mode: randwrite
 numjobs:
  - 1
  op_size: 8192
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
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
seq16kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 16384
  {\tt total\_iodepth:}
  - 2
  - 4
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 192
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
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
```

- 10 - 12 - 14 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: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128 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
        - 4
        - 8
        - 12
        - 16
        - 24
        - 32
        - 64
        - 96
        - 128
        - 192
        - 256
      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
        - 4
        - 8
        - 12
        - 16
        - 24
        - 32
        - 64
        - 96
        - 128
        - 192
        - 256
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}
```