Comparitive Performance Report for cbt-27thFeb-main-4k-8vol-cacheon-rbdoff vs cbt-26thFeb-ecoptmain-16k-8vol-cacheon-rbdoff

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Comparison summary for cbt-27thFeb-main-4k-8vol-cacheon-rbdoff vs cbt-26thFeb-ecoptmain-16k-8vol-cacheon-rbdoff

Sequential Read	cbt_27thFeb_main_4k	c8vol26tahdFeloneadpdoffain%bbla	ngwall <u>r</u> cardlepnt_rbdoff %	change latency
4K	65463 IOps@2.9ms	66193 IOps@2.9ms	1%	0%
8K	39371 IOps@4.9ms	58876 IOps@3.3ms	50%	-33%
16K	22050 IOps@8.7ms	51835 IOps@3.7ms	135%	-57%
32K	19022 IOps@10.1ms	30681 IOps@6.2ms	61%	-39%
64K	1149 MB/s@14.6 ms	1208 MB/s@13.9 ms	5%	-5%
256K	$1550~\mathrm{MB/s@10.8ms}$	1563 MB/s@10.7ms	1%	-1%
512K	1557 MB/s = 10.8 ms	1563 MB/s@10.7ms	0%	-1%
1024K	1565 MB/s@13.4 ms	1572 MB/s@13.3 ms	0%	-1%

Sequential Write	$cbt_27thFeb_main_4k_c \\ \texttt{St} \underline{o} \underline{126} \underline{t} \underline{d} \underline{d} \underline{d} \underline{e} \underline{o} \underline{n} \underline{e} \underline{o} \underline{d} \underline{p} \underline{d} \underline{o} \underline{f} \underline{a} \underline{n} \underline{g} \underline{e} \underline{o} \underline{d} \underline{h} \underline{r} \underline{c} \underline{e} \underline{d} \underline{p} \underline{d} \underline{e} \underline{o} \underline{n} \underline{e} \underline{d} \underline{h} \underline{r} \underline{e} \underline{o} \underline{d} \underline{h} \underline{r} \underline{e} \underline{d} \underline{e} \underline{o} \underline{n} \underline{e} \underline{d} \underline{e} \underline{o} \underline{n} \underline{e} \underline{d} \underline{e} \underline{o} \underline{d} \underline{e} \underline{o} \underline{e} \underline{d} \underline{e} \underline{o} \underline{e} \underline{d} \underline{e} \underline{o} \underline{e} \underline{e} \underline{e} \underline{e} \underline{e} \underline{e} \underline{e} e$			
4K	3207 IOps@119.8ms	9134 IOps@84.0ms	185%	-30%
8K	1942 IOps@264.7ms	$7884~\mathrm{IOps@129.9ms}$	306%	-51%
16K	5131 IOps@99.7ms	4517 IOps@113.3ms	-12%	14%
32K	9614 IOps@79.8ms	6858 IOps@74.6ms	-29%	-7%
64K	231 MB/s@145.4 ms	180 MB/s@139.6 ms	-22%	-4%
256K	382 MB/s@65.9 ms	457 MB/s@147.2 ms	20%	123%
512K	326 MB/s@206.1 ms	371 MB/s@135.5 ms	14%	-34%
1024K	397 MB/s@253.5 ms	592 MB/s@169.8 ms	49%	-33%

Random Read	$cbt_27thFeb_main_4k$	\underline{c} 8 \underline{v} 0 $\underline{l}2$ 6 \underline{t} 2 \underline{d} 7 \underline{d} 8 \underline{t} 0 \underline{l} 9 \underline{d} 0 \underline{l} 1 \underline{d} 1}1 \underline{d} 1 \underline{d} 1 \underline{d} 1}1 \underline{d} 1 \underline{d} 1 \underline{d} 1}1	ilangedl $\underline{ ext{n}}$ gedl $\underline{ ext{n}}$ rbdoff $\%$	change latency
4K	70946 IOps@5.4ms	81210 IOps@4.7ms	14%	-13%
8K	46872 IOps@8.2ms	76220 IOps@5.0ms	63%	-39%
16K	29411 IOps@13.0ms	69618 IOps@5.5ms	137%	-58%
32K	26497 IOps@9.6ms	43279 IOps@5.9ms	63%	-39%
64K	$1500 \; MB/s@11.2ms$	1632 MB/s@5.1ms	9%	-54%
256K	1715 MB/s@19.6 ms	1738 MB/s@2.4ms	1%	-88%
512K	1777 MB/s@14.2 ms	1778 MB/s@18.9 ms	0%	33%
1024K	$1771~\mathrm{MB/s@16.6ms}$	1775 MB/s@16.5ms	0%	-1%

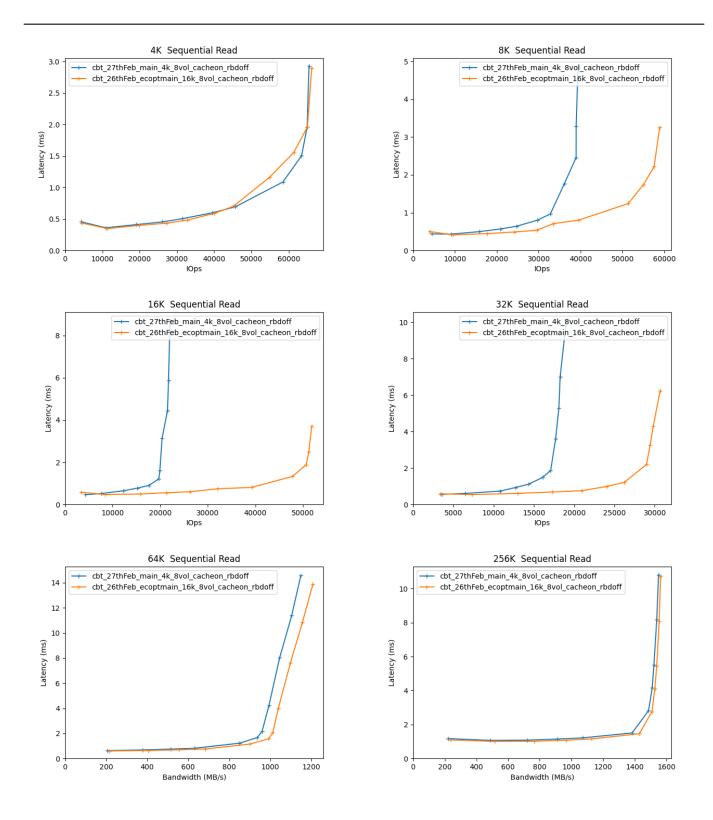
Random Write	cbt_27thFeb_main_4k	<u>c8vol26tadhelone adptlodfain%bl</u>	ila <u>n</u> gwall <u>r</u> carglepnt_rbdoff %	change latency
4K	1908 IOps@201.5ms	4269 IOps@90.0ms	124%	-55%
8K	$1821~\mathrm{IOps@211.0ms}$	3508 IOps@109.3ms	93%	-48%
16K	4016 IOps@95.5ms	$2628 \; \mathrm{IOps@146.0ms}$	-35%	53%
32K	3411 IOps@112.5 ms	$2410~\mathrm{IOps@159.1ms}$	-29%	41%
64K	169 MB/s@99.4 ms	158 MB/s@105.9 ms	-7%	7%
256K	280 MB/s@239.8 ms	302 MB/s@222.6ms	8%	-7%

Random Write	$cbt_27thFeb_main_4k_c8 to \underline{l26} tdrdfredo\underline{ne} \underline{odpdoff} \underline{ain} \underline{\%} \underline{tblan} \underline{\$} \underline{w} \underline{dlhr} \underline{cargleput}\underline{rbdoff} \% \underline{change} \underline{latency}$			
512K	248 MB/s@135.0ms	287 MB/s@116.7ms	$16\% \\ 25\%$	-14%
1024K	314 MB/s@159.9ms	394 MB/s@127.2ms		-20%

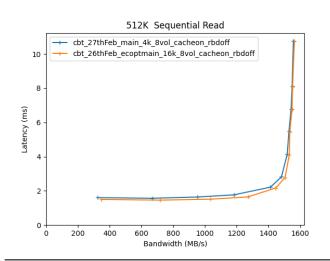
Random Read/Write	cbt_27thFeb_main_4k_	c&t <u>ol26tadhelone</u> odpdodfair	n <u>%t6ilan</u> geotl <u>hr</u> carghepn <u>t</u>	rbdoff %change latency
16K_70/30	$4628 \; \mathrm{IOps}@55.4\mathrm{ms}$	5442 IOps@47.0ms	18%	-15%
$64K_{20}/30$	208 MB/s@80.8 ms	215 MB/s@78.2ms	3%	-3%
$64K_{30}/70$	179 MB/s@93.6 ms	172 MB/s@97.6 ms	-4%	4%

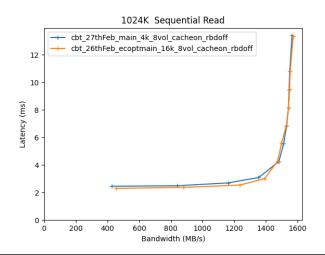
Response Curves

Sequential Read

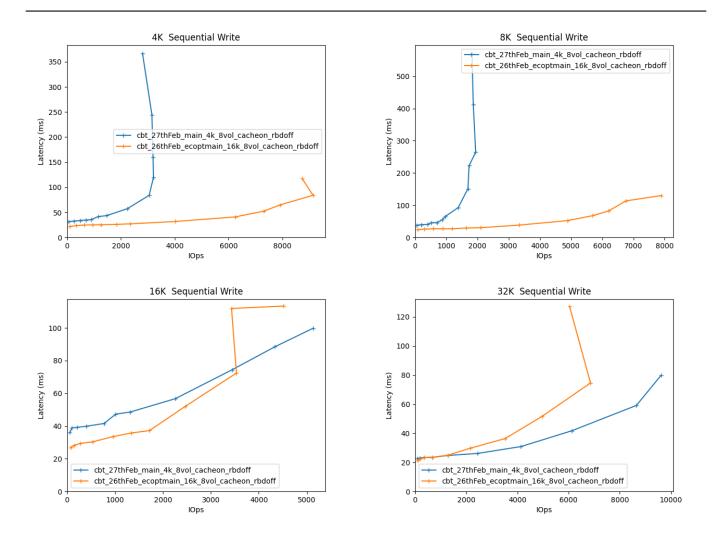


Response Curves Sequential Write

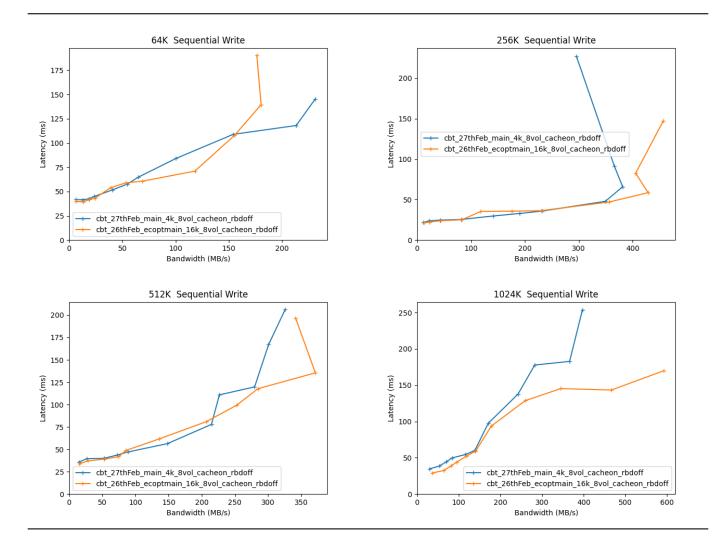




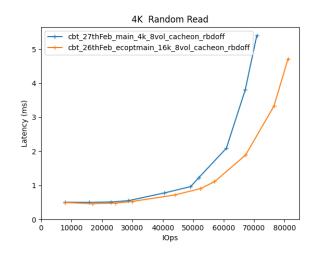
Sequential Write

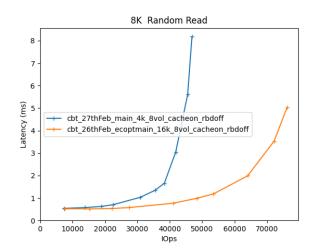


Response Curves Random Read

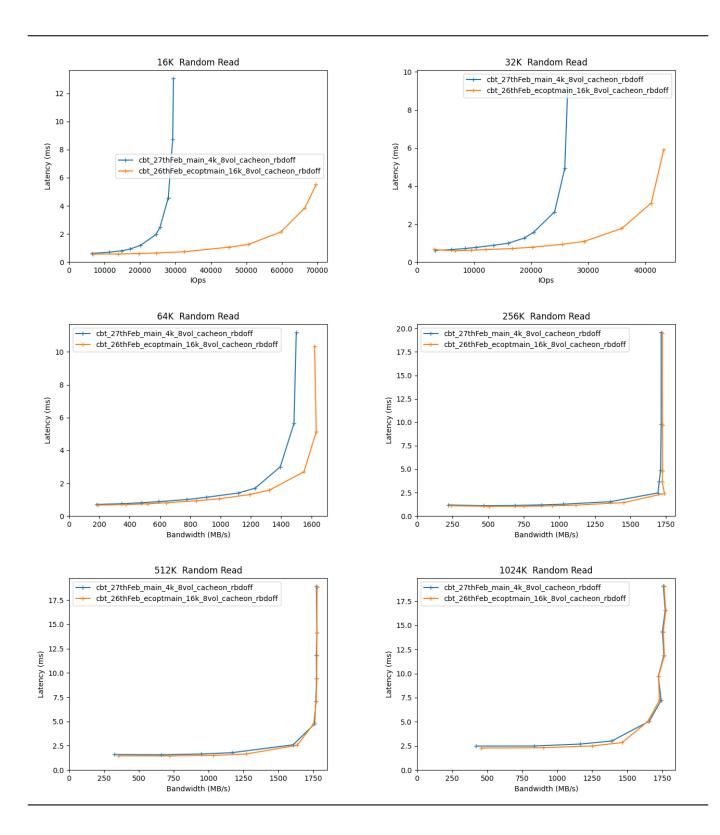


Random Read



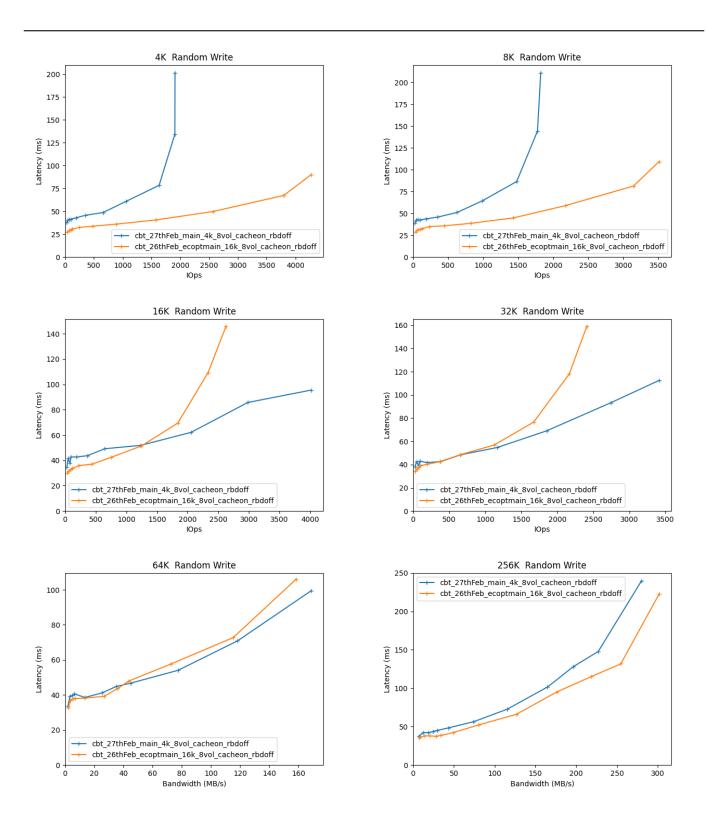


Response Curves Random Write

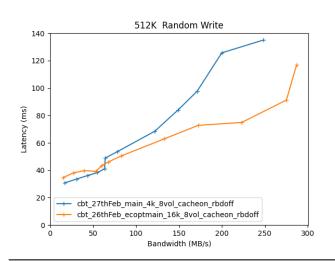


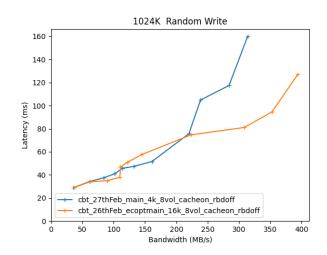
Random Write

Response Curves Random Write

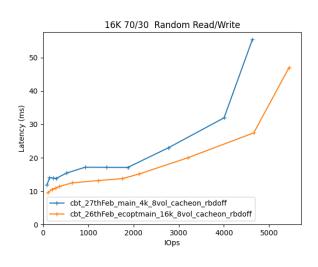


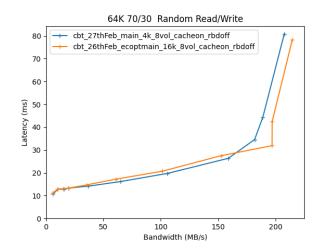
Response Curves Random Read/Write

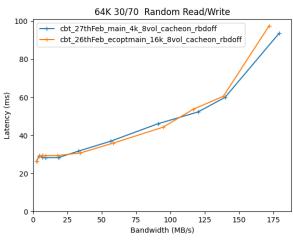




Random Read/Write







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
      - 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
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
  - 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:
  - 1
  - 2
  - 3
  - 4
  - 6
  - 8
  - 16
  - 32
  - 48
  - 64
  - 96
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
```

```
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
  - 8
  - 16
  - 32
  - 64
  - 128
  - 256
  - 384
4k7030:
  jobname: randmix
 mode: randrw
 numjobs:
  - 1
  op_size: 16384
 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:
```

- 8 - 12 - 16 - 32 - 48 - 64 - 128 - 256 - 384 4krandomwrite: jobname: randwrite mode: randwrite numjobs: - 1 op_size: 4096 total_iodepth: - 1 - 2 - 3 - 4 - 8 - 16 - 32 - 64 - 128 - 256 - 384 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

```
- 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
  {\tt total\_iodepth:}
  - 2
  - 4
  - 6
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 128
  - 256
64 krandom \verb|write|:
  jobname: randwrite
  mode: randwrite
  numjobs:
  - 1
  op_size: 65536
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
  - 256
64kseqread:
  jobname: read
  mode: read
  numjobs:
  - 1
  op_size: 65536
  total_iodepth:
  - 4
  - 6
  - 8
  - 16
  - 24
  - 32
```

- 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 ${\tt 8krandomwrite:}$ jobname: randwrite mode: randwrite numjobs: - 1 op_size: 8192 total_iodepth: - 1 - 2 - 3 - 4 - 8 - 16 - 32 - 64 - 128 - 256 - 384 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:
  - 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
  {\tt 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
```

```
- 128
        - 192
      seq4kwrite:
        jobname: seqwrite
        mode: write
        numjobs:
        - 1
        op_size: 4096
        total_iodepth:
        - 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
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
  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}
  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
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
  - 256
16krandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 16384
  {\tt 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
1Mrandomread:
  jobname: randread
 {\tt 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: - 1 - 2 - 3 - 4 - 6 - 8 - 16 - 32 - 48 - 64 - 96 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 ${\tt 32krandomread:}\\$ 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: - 2 - 3 - 4 - 8 - 16 - 32

```
- 128
  - 256
  - 384
4k7030:
  jobname: randmix
 mode: randrw
 numjobs:
  - 1
 op_size: 16384
  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:
  - 1
  - 2
   3
  - 4
  - 8
  - 16
  - 32
  - 64
  - 128
  - 256
  - 384
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
  {\tt 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
```

- 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 64 krandomread: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
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
  - 256
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: - 1 - 2 - 3 - 4 - 8 - 16 - 32 - 64 - 128 - 256 - 384 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: - 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
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:
    args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep ";" -f {collectl_dir}
```