Comparitive Performance Report for cbt-26thAug-o01-16k-6+2-directreads-balanced-all vs cbt-27thAug-o01-3way-tentacle-balanced vs cbt-22ndAug-o01-3way-tentaclerc vs cbt-28thAug-o01-16k-2+2-directreads-balanced-all vs cbt-29thAug-o01-16k-4+2-directreads-balanced-all

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Sequential								
Read	cbt_26thAug <u>bto0217t</u> h64kug6	<u>FeliDalmelæve</u>	et <u>ebt di22holda.</u> ng	gelah@addg 8w	za y <u>btte</u> 28ablAn g	<u>% ch0alng</u> le61	c <u>c</u> 19# <u>229</u> d1rAct@	Zamilaingla6knc4ed2
4.0K	284943@1.3m2\3243@1.6	-18%	139206@0.7	-51%	168704@2.3	-41%	229904@1.7	-19%
8.0K	279082@1.4m $288186@1.8$	-22%	126086@0.8	-55%	170244@2.3	-39%	239963@1.6	-14%
16.0K	$249329@1.1 \mathrm{ml} 98882@1.4$	-20%	112627@2.6	-55%	157343@1.8	-37%	224461@1.3	-10%
32.0K	$133535@1.4 \mathrm{mls} 49566@1.3$	12%	90377@2.1	-32%	78576@2.4	-41%	116509@1.6	-13%
64.0K	$4651@3.6 \mathrm{ms} 7786@2.1$	67%	4561@3.7	-2%	4172@4.0	-10%	3945@4.2	-15%
256.0K	$8309@2.0 \mathrm{ms} 11159@1.5$	34%	7908@2.1	-5%	8159@2.0	-2%	8826@1.9	6%
512.0K	10794@1.5m 9 $144@1.8$	-15%	7991@2.1	-26%	9777@1.7	-9%	11039@1.5	2%
1024.0K	12045@1.7m $3178@2.9$	-40%	6651@3.1	-45%	9360@2.2	-22%	11654@1.8	-3%

Sequential								
Write	cbt_26thAug <u>bto027t</u> h6Aug	6 cl0almbav e	atyc <u>batels22loddA</u> nti	gelah@addd 3w	va y btte 28ahlAng /	<u>@</u> d0alngb6l	x_c 2+ 229 t lr A atg	Zamilaingla6kndad 2a
4.0K	255638@6.0r 5 \$0965@3.0	100%	500105@3.1	96%	313017@4.9	22%	284351@5.4	11%
8.0K	$199584@7.7$ r $\mathbf{\hat{a}3}4276@4.6$	67%	336933@4.6	69%	231135@6.6	16%	219182@7.0	10%
16.0K	$121202@8.4 \mathrm{mk} 84493@5.5$	52%	185698@5.5	53%	137098@7.5	13%	131394@7.8	8%
32.0K	74550@10.3ml $@3026@7.4$	38%	103300@7.4	39%	80759@9.5	8%	80074@9.6	7%
64.0K	2571@13.0m $3534@9.5$	37%	3436@9.7	34%	2920@11.5	14%	2908@11.5	13%
256.0K	3258@20.5m $$949@16.9$	21%	3874@17.2	19%	3477@19.2	7%	3615@18.4	11%
512.0K	3467@19.1m4087@8.0	18%	3896@4.1	12%	3909@8.4	13%	3801@17.4	10%
$1024.0\mathrm{K}$	$4245@38.9 \mathbf{m} \$ 020@16.2$	-5%	3674@4.2	-13%	4238@31.1	-0%	4566@21.5	8%

Random								
Read	cbt_26thAug <u>bto0217t</u> h6Augf	clo dnetev	etyc <u>batels22</u> lodd <u>A</u> nle	elah@addel 8w	va y btte 28ahlAng	% d0al ng b 6l	x_c B # <u>229</u> d1rAat@	And 1 ± 0 and
4.0K	190240@3.1r2 \$6530@3.5	14%	191467@4.0	1%	185477@1.4	-3%	197791@3.9	$\overline{4\%}$
8.0K	176827@4.3n209775@3.7	19%	183567@4.2	4%	177400@4.3	0%	188006@4.1	6%
16.0K	$166120@2.3 \mathrm{ml} 93403@3.0$	16%	169312@3.5	2%	158175@3.7	-5%	174793@3.4	5%
32.0K	86252@4.4m\$59835@3.2	85%	138987@3.7	61%	79356@3.2	-8%	89890@4.3	4%
64.0K	2971@5.6 ms 8100@3.1	173%	6946@3.6	134%	4211@2.0	42%	2961@8.5	-0%
256.0K	6331@5.3 ms 13168@2.5	108%	12882@2.6	103%	9723@3.4	54%	7935@4.2	25%

 $Comparison \ summary \ for \ cbt-26th Aug-o01-16k-6+2-directreads-balanced-all \ vs \ cbt-27th Aug-o01-3way-tentacle-balanced \ vs \ cbt-22nd Aug-o01-3way-tentaclerc \ vs \ cbt-28th Aug-o01-16k-2+2-directreads-balanced-all \ vs \ cbt-29th Aug-o01-16k-4+2-directreads-balanced-all \ vs \ cbt-29th Aug-o01-16k-4+2-directreads-balanced-a$

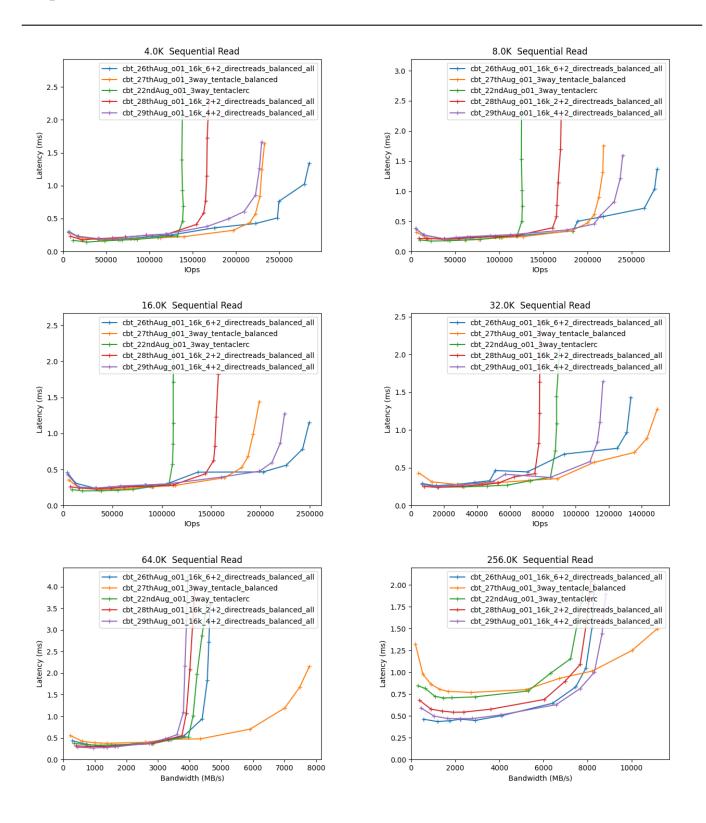
Random Read	cbt_26thAug <u>bto027t</u> h6kug	Z elDinglev e	atychatdr22lvdH <u>A</u> 1	lgelahoat lgew	va y btte 284hlAn g	<u>%</u> cl0a lng b 6k	_c b #_229thr A a	t g&milsing#6k nc#d2al
512.0K 1024.0K	9526@3.5ms12732@2.6 11826@2.5m \$ 0192@3.3	34% -14%	$12426@2.7\\10000@3.3$	30% $-15%$	$12104@2.8\\11755@2.8$	$\begin{array}{c} 27\% \\ \text{-}1\% \end{array}$	$11162@3.0 \\ 12518@2.7$	17% 6%

Random	1	7 104 10	. 1 . 1001 774	1071 N 041110	1 20.1140	7 104 4.01	D 00011 A	(*/ 104 14 A)
Write	cbt_26thAug <u>bto0217t</u> lh@kug@	<u> September a propieta de la constanta de la c</u>	atyc batelisz iz kodda 1	igelahidadge w	/ay <u>btte</u> latablang	<u>∕ochtalng</u> £6k	_c124 <u>+229</u> tt1rAct	geachsingstata
4.0K	$23679@21.6\mathbf{r}5\$182@5.0$	116%	50963@7.5	115%	18953@27.0	-20%	18783@20.4	-21%
8.0K	22616@33.9m $8579@10.5$	115%	50946@5.0	125%	18402@27.8	-19%	18154@28.2	-20%
16.0 K	20764@24.6r $45875@11.1$	121%	48329@5.3	133%	18229@21.0	-12%	17462@22.0	-16%
32.0 K	15280@25.1r $48891@8.7$	187%	44974@8.5	194%	16477@23.3	8%	15904@32.2	4%
64.0K	843@29.8 ms 2428@10.3	188%	2467@10.2	193%	1029@24.4	22%	967@26.0	15%
256.0 K	2160@30.9m4064@4.0	88%	4315@15.4	100%	2940@22.7	36%	2676@24.9	24%
512.0 K	2885@11.4m4501@7.2	56%	3894@4.1	35%	3683@8.8	28%	3542@9.2	23%
1024.0 K	3854@8.3 ms 4174@5.6	8%	4301@7.3	12%	4139@11.6	7%	4354@11.1	13%

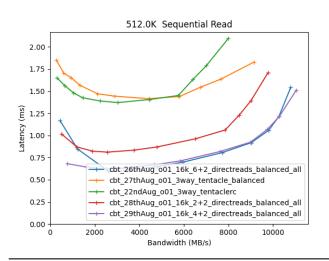
Random							
Read/Writecht_26thAughto0217th6Augh	<u>Eddingsev</u>	etyc <u>batels22todd2.</u> 1t/	Jelahoad ga w	va y btte 28ablAn q	<u>g% ch0alng</u> te6k	<u>c</u> 129t <u>l</u> trAc	utg <u>@addsilnbjb6kmc4ed2 a</u>
4.0K_70/3057882@6.6m94949@4.0	64%	100970@2.5	74%	45433@5.6	-22%	46310@8.3	-20%
16.0K_70/3@8516@5.3m 8 7433@2.9	80%	92234@2.8	90%	41142@3.1	-15%	42702@6.0	-12%
$64.0 \text{K} _ 30 / 70019@16.4 \text{m} 2901@5.7$	185%	3016@5.5	196%	1236@13.5	21%	1016@16.5	-0%
$64.0 K_70/3 0550 @10.8 m 4287 @3.9$	177%	4293@3.9	177%	1944@8.6	25%	1495@5.6	-4%

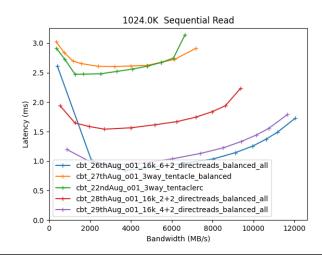
Response Curves

Sequential Read

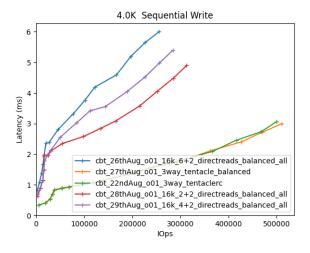


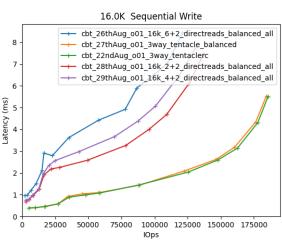
Response Curves Sequential Write

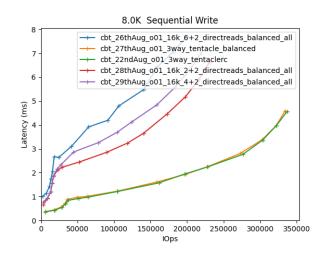


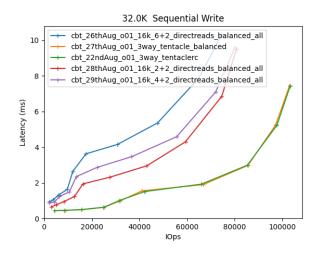


Sequential Write

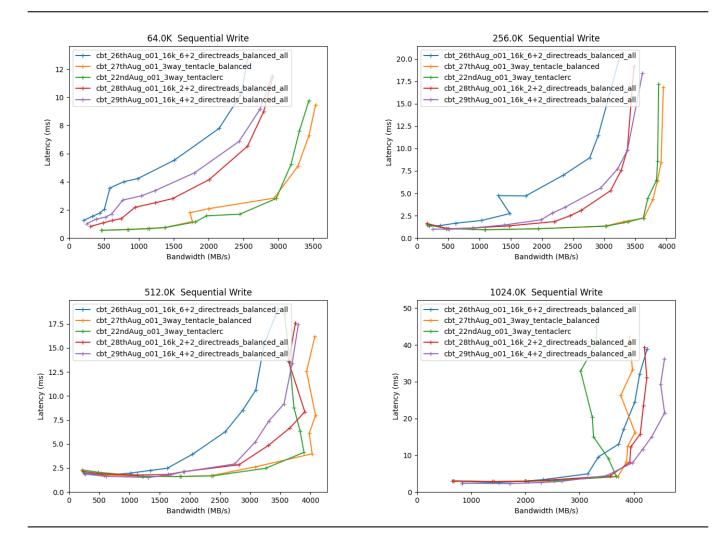




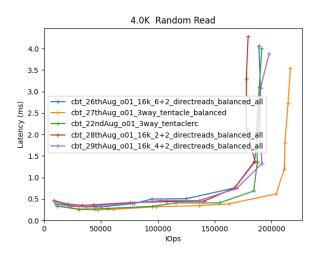


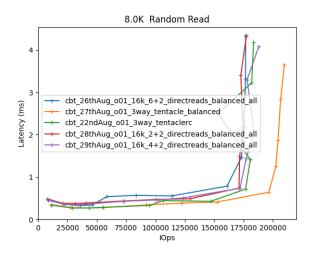


Response Curves Random Read

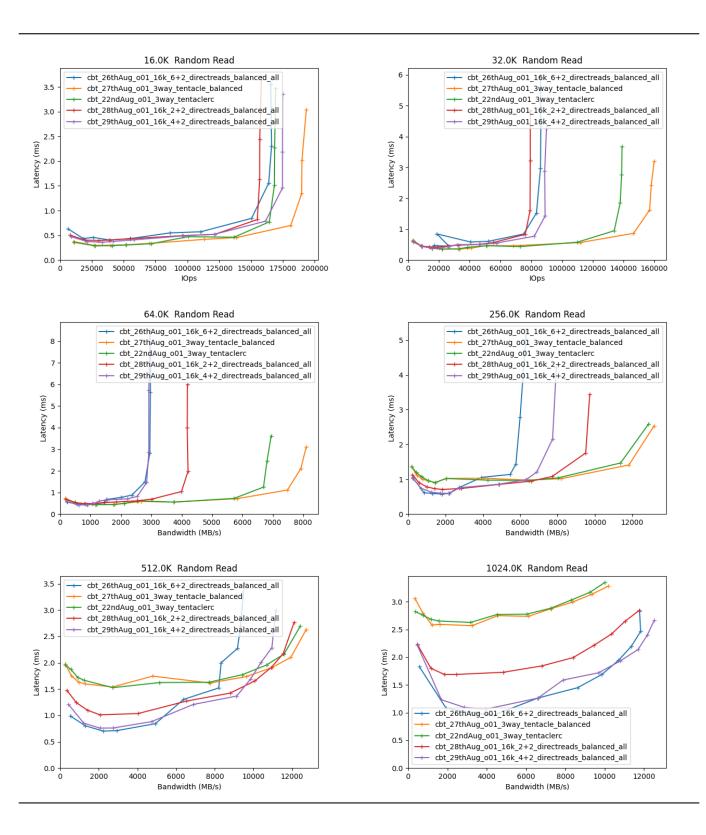


Random Read



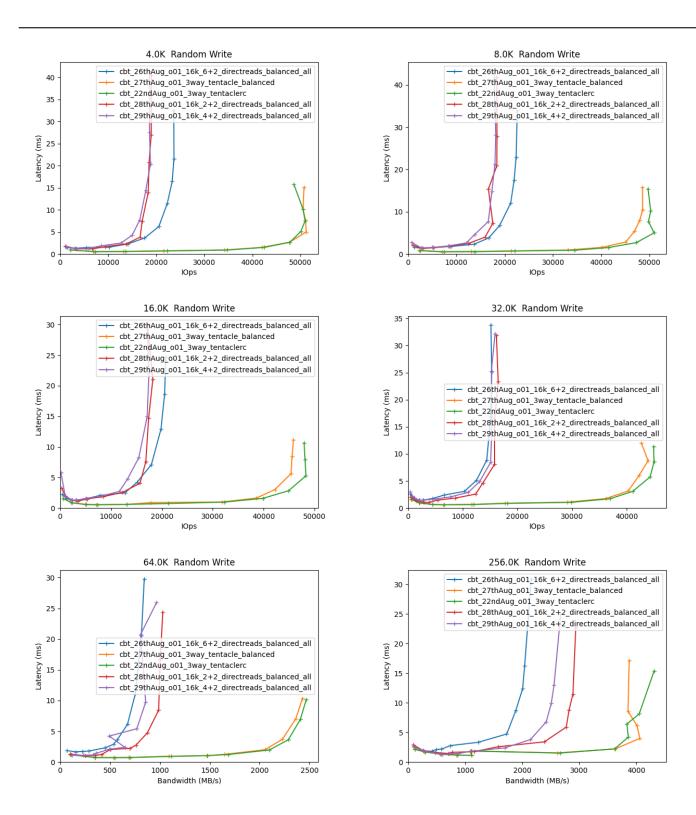


Response Curves Random Write

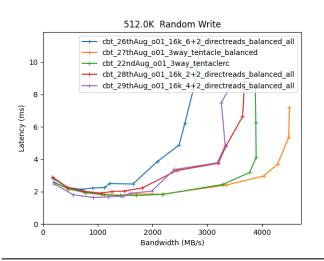


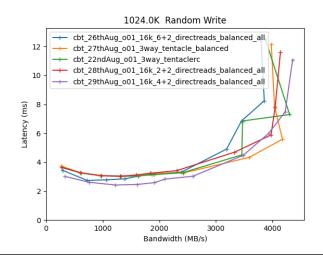
Random Write

Response Curves Random Write

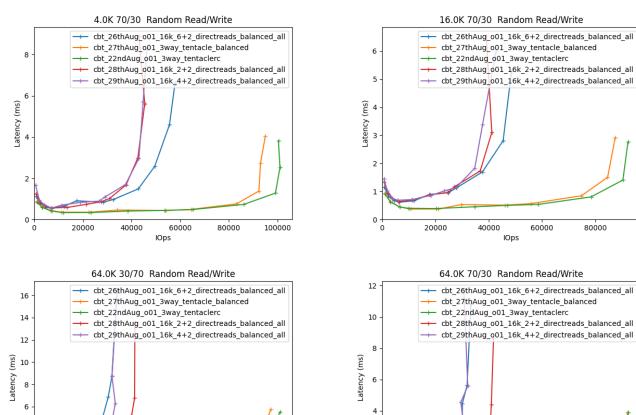


Response Curves Random Read/Write





Random Read/Write



2500

3000

1500

Bandwidth (MB/s)

2000

Bandwidth (MB/s)

4000

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/fio2
  fio_out_format: json
  log_avg_msec: 100
  log_bw: true
  log_iops: true
  log_lat: true
  norandommap: true
  osd_ra:
  - 4096
 poolname: rbd_replicated
 prefill:
    blocksize: 64k
    numjobs: 1
 procs_per_volume:
  - 1
  ramp: 30
  rbdname: cbt-librbdfio
  time: 90
  time_based: true
  use_existing_volumes: true
  vol_size: 1368750
  volumes_per_client:
  - 16
  workloads:
    16k7030:
      jobname: randmix
      mode: randrw
      numjobs:
      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:
      - 8
      - 12
      - 16
      - 24
      - 48
      - 64
      - 128
      - 256
      - 384
```

```
- 588
16krandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
  op_size: 16384
  total_iodepth:
  - 3
  - 4
  - 8
  - 16
  - 32
  - 64
  - 128
  - 256
  - 384
  - 512
1Mrandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 1048576
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 12
  - 16
  - 20
  - 24
  - 28
  - 32
1Mrandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
  op_size: 1048576
  total_iodepth:
  - 1
  - 2
  - 3
   4
  - 5
  - 6
  - 8
  - 16
  - 24
  - 32
  - 48
1Mseqread:
  jobname: seqread
 mode: read
 numjobs:
  - 1
  op_size: 1048576
  total_iodepth:
```

- 1 - 2 - 3 - 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: - 2 - 3 - 4 - 5 - 8 - 16 - 24 - 32 - 64 - 128 256krandomwrite: jobname: randwrite mode: randwrite numjobs: - 1 op_size: 262144 total_iodepth: - 1 - 2 - 3 - 4 - 5 - 8 - 16 - 32 - 64

- 96 - 128 - 256 32krandomread: jobname: randread mode: randread numjobs: - 1 op_size: 32768 total_iodepth: - 2 - 4 - 6 - 8 - 12 - 16 - 24 - 32 - 64 - 128 - 256 - 384 - 512 32krandomwrite: jobname: randwrite mode: randwrite numjobs: - 1 op_size: 32768 total_iodepth: - 1 - 2 - 3 - 4 - 8 - 16 - 32 - 64 - 128 - 256 - 384 - 512 4k7030: jobname: randmix mode: randrw numjobs: - 1 op_size: 4096 rwmixread: 70 total_iodepth: - 1 - 2 - 3 - 4 - 8 - 16 - 24 - 32 - 64 - 128 - 256 - 384 4krandomread:

```
jobname: randread
  mode: randread
 numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 4
  - 8
  - 12
  - 16
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
  - 588
  - 768
4krandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 4
  - 8
  - 16
  - 32
  - 64
  - 128
  - 256
  - 384
  - 512
  - 768
512krandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 524288
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 24
  - 32
  - 40
  - 48
  - 64
512krandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
  op_size: 524288
 total_iodepth:
  - 1
  - 2
```

- 3 - 4 - 5 - 6 - 8 - 16 - 24 - 32 - 48 - 64 512kseqread: jobname: seqread mode: read numjobs: - 1 op_size: 524288 total_iodepth: - 1 - 2 - 3 - 4 - 6 - 8 - 12 - 16 - 20 - 24 - 32 512kseqwrite: jobname: seqwrite mode: write numjobs: - 1 op_size: 524288 total_iodepth: - 1 - 2 - 4 - 6 - 8 - 16 - 32 - 48 - 64 - 96 - 128 64k3070: jobname: randmix mode: randrw numjobs: - 1 op_size: 65536 rwmixread: 30 total_iodepth: - 1 - 2 - 3 - 4 - 8 - 16 - 32 - 64

- 96

```
- 128
  - 256
64k7030:
  jobname: randmix
 mode: randrw
 numjobs:
  - 1
  op_size: 65536
  rwmixread: 70
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 32
  - 64
  - 96
  - 128
  - 256
64krandomread:
  jobname: randread
  mode: randread
 numjobs:
  - 1
  op_size: 65536
  total_iodepth:
  - 2
  - 4
  - 6
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 128
  - 256
  - 384
64krandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
  op_size: 65536
  total_iodepth:
  - 2
  - 4
  - 6
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
  - 256
  - 384
64kseqread:
  jobname: read
 mode: read
 numjobs:
  - 1
```

```
op_size: 65536
  total_iodepth:
  - 2
  - 4
  - 6
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
  - 192
  - 256
64kseqwrite:
  jobname: write
 mode: write
  numjobs:
  - 1
  op_size: 65536
  total_iodepth:
  - 4
  - 8
  - 12
  - 16
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
  - 512
8krandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 8192
  total_iodepth:
  - 8
  - 12
  - 16
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
  - 588
  - 768
8krandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
  op_size: 8192
  total_iodepth:
  - 2
  - 4
  - 8
  - 16
  - 32
  - 64
```

```
- 128
  - 256
  - 384
  - 512
  - 768
precondition:
  jobname: precond1rw
 mode: randwrite
  monitor: false
 numjobs:
  - 1
  op_size: 65536
  time: 600
  total_iodepth:
  - 16
seq16kread:
  jobname: seqread
 mode: read
 numjobs:
  - 1
  op_size: 16384
  total_iodepth:
  - 2
  - 4
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 192
  - 288
seq16kwrite:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 16384
  total_iodepth:
  - 2
  - 4
  - 8
  - 16
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
  - 512
 - 768
  - 1024
seq256kread:
  jobname: seqread
 mode: read
 numjobs:
  - 1
  op_size: 262144
 total_iodepth:
  - 1
  - 2
```

```
- 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
seq256kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 4
  - 8
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 256
seq32kread:
  jobname: seqread
  mode: read
  numjobs:
  - 1
  op_size: 32768
  total_iodepth:
  - 2
  - 4
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 192
seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 32768
  total_iodepth:
  - 2
  - 4
  - 8
  - 16
  - 32
  - 64
  - 128
  - 256
  - 512
  - 768
seq4kread:
```

```
jobname: seqread
  mode: read
  numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 2
  - 4
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 192
  - 288
  - 384
seq4kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 2
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
  - 512
  - 768
  - 1024
  - 1280
  - 1536
{\tt seq8kread:}
  jobname: seqread
  mode: read
  numjobs:
  - 1
  op_size: 8192
  total_iodepth:
  - 2
  - 4
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 192
  - 288
  - 384
seq8kwrite:
  jobname: seqwrite
```

```
mode: write
        numjobs:
        - 1
        op_size: 8192
        total_iodepth:
        - 2
        - 8
        - 16
        - 24
        - 32
        - 48
        - 64
        - 128
        - 256
        - 384
        - 512
        - 768
        - 1024
        - 1280
        - 1536
cluster:
  archive_dir: /tmp/cbt
  ceph-mgr_cmd: /usr/bin/ceph-mgr
  ceph-mon_cmd: /usr/bin/ceph-mon
  ceph-osd_cmd: /usr/bin/ceph-osd
  ceph-run_cmd: /usr/bin/ceph-run
  ceph_cmd: /usr/bin/ceph
  clients:
  - --- server1 ---
  clusterid: ceph
  conf_file: /cbt/ceph.conf.4x1x1.fs
  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
  - --- server1 ---
  osds_per_node: 8
  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: ljsanders
monitoring_profiles:
  collectl:
    args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep ";" -f {collectl_dir}
  librbdfio:
    cmd_path: /usr/local/bin/fio2
    fio_out_format: json
    log_avg_msec: 100
    log_bw: true
    log_iops: true
    log_lat: true
    norandommap: true
```

```
osd_ra:
- 4096
poolname: rbd_replicated
prefill:
 blocksize: 64k
  numjobs: 1
procs_per_volume:
- 1
ramp: 30
rbdname: cbt-librbdfio
time: 90
time_based: true
use_existing_volumes: true
vol_size: 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
    - 588
  16krandomwrite:
    jobname: randwrite
    mode: randwrite
    numjobs:
    - 1
    op_size: 16384
    total_iodepth:
    - 1
    - 2
```

- 3 - 4 - 8 - 16 - 32 - 64 - 128 - 256 - 384 - 512 1Mrandomread: jobname: randread mode: randread numjobs: - 1 op_size: 1048576 total_iodepth: - 1 - 2 - 3 - 4 - 8 - 12 - 16 - 20 - 24 - 28 - 32 1Mrandomwrite: jobname: randwrite mode: randwrite numjobs: - 1 op_size: 1048576 total_iodepth: - 1 - 2 - 3 - 4 - 5 - 6 - 8 - 16 - 24 - 32 - 48 1Mseqread: jobname: seqread mode: read numjobs: - 1 op_size: 1048576 total_iodepth: - 1 - 2 - 3 - 4 - 6 - 8 - 10 - 12 - 14 - 16

```
- 20
1Mseqwrite:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 1048576
  total_iodepth:
  - 6
  - 8
  - 16
  - 32
  - 48
  - 64
  - 96
  - 128
  - 160
256krandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
256krandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 32
  - 64
 - 96
  - 128
  - 256
32krandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 32768
  total_iodepth:
```

```
- 2
  - 4
   6
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 128
  - 256
  - 384
  - 512
32krandomwrite:
  jobname: randwrite
 mode: randwrite
 numjobs:
  - 1
 op_size: 32768
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 32
  - 64
  - 128
  - 256
  - 384
  - 512
4k7030:
  jobname: randmix
 mode: randrw
 numjobs:
  - 1
 op_size: 4096
 rwmixread: 70
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
  - 256
  - 384
4krandomread:
  jobname: randread
 mode: randread
 numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 8
  - 12
  - 16
```

- 32 - 48 - 64 - 128 - 256 - 384 - 588 - 768 4krandomwrite: jobname: randwrite mode: randwrite numjobs: - 1 op_size: 4096 total_iodepth: - 2 - 4 - 8 - 16 - 32 - 64 - 128 - 256 - 384 - 512 - 768 512krandomread: jobname: randread mode: randread numjobs: - 1 op_size: 524288 total_iodepth: - 1 - 2 - 3 - 4 - 8 - 16 - 24 - 32 - 40 - 48 - 64 512krandomwrite: jobname: randwrite mode: randwrite numjobs: - 1 op_size: 524288 total_iodepth: - 1 - 2 - 3 - 4 - 5 - 6 - 8 - 16 - 24 - 32 - 48

- 64

```
512kseqread:
  jobname: seqread
 mode: read
 numjobs:
  - 1
  op_size: 524288
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 6
  - 8
  - 12
  - 16
  - 20
  - 24
  - 32
512kseqwrite:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 524288
  total_iodepth:
  - 1
  - 2
  - 4
  - 6
  - 8
  - 16
  - 32
  - 48
  - 64
  - 96
  - 128
64k3070:
  jobname: randmix
 mode: randrw
 numjobs:
  - 1
  op_size: 65536
 rwmixread: 30
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 32
  - 64
  - 96
  - 128
  - 256
64k7030:
  jobname: randmix
 mode: randrw
 numjobs:
  op_size: 65536
 rwmixread: 70
  total_iodepth:
```

- 1 - 2 3 - 8 - 16 - 32 - 64 - 96 - 128 - 256 64krandomread: jobname: randread mode: randread numjobs: - 1 op_size: 65536 total_iodepth: - 2 - 4 - 6 - 8 - 12 - 16 - 24 - 32 - 64 - 128 - 256 - 384 64 krandom write: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: - 4 - 6 - 8 - 16 - 24 - 32 - 64

- 128 - 192 - 256 64kseqwrite: jobname: write mode: write numjobs: - 1 op_size: 65536 total_iodepth: - 4 - 8 - 12 - 16 - 32 - 48 - 64 - 128 - 256 - 384 - 512 8krandomread: jobname: randread mode: randread numjobs: - 1 op_size: 8192 total_iodepth: - 4 - 8 - 12 - 16 - 32 - 48 - 64 - 128 - 256 - 384 - 588 - 768 8krandomwrite: jobname: randwrite mode: randwrite numjobs: - 1 op_size: 8192 total_iodepth: - 2 - 4 - 8 - 16 - 32 - 64 - 128 - 256 - 384 - 512 - 768 precondition: jobname: precond1rw mode: randwrite monitor: false numjobs:

```
- 1
  op_size: 65536
  time: 600
 total_iodepth:
  - 16
seq16kread:
  jobname: seqread
 mode: read
 numjobs:
  op_size: 16384
  total_iodepth:
  - 2
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 192
  - 288
seq16kwrite:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 16384
  total_iodepth:
  - 2
  - 4
  - 8
  - 16
  - 32
  - 48
  - 64
  - 128
  - 256
  - 384
  - 512
  - 768
  - 1024
seq256kread:
  jobname: seqread
  mode: read
 numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
```

seq256kwrite:

```
jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 4
  - 8
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 256
seq32kread:
  jobname: seqread
  mode: read
  numjobs:
  - 1
  op_size: 32768
  total_iodepth:
  - 2
  - 4
  - 8
  - 12
  - 16
  - 24
  - 32
  - 64
  - 96
  - 128
  - 192
seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 32768
  {\tt total\_iodepth:}
  - 2
  - 4
  - 8
  - 16
  - 32
  - 64
  - 128
  - 256
  - 512
  - 768
seq4kread:
  jobname: seqread
  mode: read
  numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 2
  - 4
  - 8
  - 12
```

- 16 - 24 - 32 - 64 - 96 - 128 - 192 - 288 - 384 seq4kwrite: jobname: seqwrite mode: write numjobs: - 1 op_size: 4096 total_iodepth: - 2 - 8 - 16 - 24 - 32 - 48 - 64 - 128 - 256 - 384 - 512 - 768 - 1024 - 1280 - 1536 seq8kread: jobname: seqread mode: read numjobs: - 1 op_size: 8192 total_iodepth: - 4 - 8 - 12 - 16 - 24 - 32 - 64 - 96 - 128 - 192 - 288 - 384 seq8kwrite: jobname: seqwrite mode: write numjobs: - 1 op_size: 8192 total_iodepth: - 2 - 8 - 16 - 24 - 32

Configuration yaml files results

```
- 48
        - 64
        - 128
        - 256
        - 384
        - 512
        - 768
        - 1024
        - 1280
        - 1536
cluster:
  archive_dir: /tmp/cbt
  ceph-mgr_cmd: /usr/bin/ceph-mgr
  ceph-mon_cmd: /usr/bin/ceph-mon
  ceph-osd_cmd: /usr/bin/ceph-osd
  ceph-run_cmd: /usr/bin/ceph-run
  ceph_cmd: /usr/bin/ceph
  clients:
  - --- server1 ---
  clusterid: ceph
  conf_file: /cbt/ceph.conf.4x1x1.fs
  fs: xfs
  head: --- server1 ---
  iterations: 1
  mgrs:
    --- server1 ---:
     a: null
  mkfs_opts: -f -i size=2048
  mons:
    --- server1 ---:
      a: --- IP Address --:6789
  mount_opts: -o inode64,noatime,logbsize=256k
  osds:
  - --- server1 ---
  osds_per_node: 8
  pdsh_ssh_args: -a -x -l%u %h
  rados_cmd: /usr/bin/rados
  rbd_cmd: /usr/bin/rbd
  tmp_dir: /tmp/cbt
  use_existing: true
  user: ljsanders
monitoring_profiles:
  collectl:
    args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep ";" -f {collectl_dir}
```