

Comparitive Performance Report for cbt-22ndAug-o01-3way-tentaclerc vs  
cbt-6thSep-o01-3way-tentacle-nonbalanced-pg256 vs cbt-8thSep-o01-3way-tentacle-nonbalanced-pg512 vs  
cbt-27thAug-o01-3way-tentacle-balanced

# **Comparitive Performance Report for cbt-22ndAug-o01-3way-tentaclerc vs cbt-6thSep-o01-3way-tentacle- nonbalanced-pg256 vs cbt-8thSep-o01-3way-tentacle- nonbalanced-pg512 vs cbt-27thAug-o01-3way-tentacle-balanced**

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# Comparison summary for cbt-22ndAug-o01-3way-tentaclerc vs cbt-6thSep-o01-3way-tentacle- nonbalanced-pg256 vs cbt-8thSep-o01-3way-tentacle- nonbalanced-pg512 vs cbt-27thAug-o01-3way-tentacle-balanced

Sequential Read	cbt_22ndAug_o01_63hSep_tentacle_lacktente	cbt_6thSep_o01_3way_tentacle	cbt_8thSep_o01_3way_tentacle	cbt_27thAug_o01_3way_tentacle	cbt_22ndAug_o01_63hSep_tentacle_pg256	cbt_6thSep_o01_3way_tentacle_pg256	cbt_8thSep_o01_3way_tentacle_pg256	cbt_27thAug_o01_3way_tentacle_pg256	cbt_22ndAug_o01_63hSep_tentacle_pg512	cbt_6thSep_o01_3way_tentacle_pg512	cbt_8thSep_o01_3way_tentacle_pg512	cbt_27thAug_o01_3way_tentacle_pg512
4K	139206@0.7ms	151292@0.4	9%	176023@0.7	26%	233243@1.6	68%					
8K	126086@0.8ms	133982@0.7	6%	148554@0.6	18%	218186@1.8	73%					
16K	112627@2.6ms	118656@2.4	5%	125986@2.3	12%	198882@1.4	77%					
32K	90377@2.1ms	94232@2.0	4%	97958@2.0	8%	149566@1.3	65%					
64K	4561@3.7ms	4734@3.5	4%	4907@3.4	8%	7786@2.1	71%					
256K	7908@2.1ms	8249@2.0	4%	8528@2.0	8%	11159@1.5	41%					
512K	7991@2.1ms	8259@2.0	3%	8472@2.0	6%	9144@1.8	14%					
1024K	6651@3.1ms	6803@3.1	2%	6764@3.1	2%	7178@2.9	8%					

Sequential Write	cbt_22ndAug_o01_63hSep_tentacle_lacktente	cbt_6thSep_o01_3way_tentacle	cbt_8thSep_o01_3way_tentacle	cbt_27thAug_o01_3way_tentacle	cbt_22ndAug_o01_63hSep_tentacle_pg256	cbt_6thSep_o01_3way_tentacle_pg256	cbt_8thSep_o01_3way_tentacle_pg256	cbt_27thAug_o01_3way_tentacle_pg256	cbt_22ndAug_o01_63hSep_tentacle_pg512	cbt_6thSep_o01_3way_tentacle_pg512	cbt_8thSep_o01_3way_tentacle_pg512	cbt_27thAug_o01_3way_tentacle_pg512
4K	500105@3.1ms	502989@3.0	1%	496607@3.1	-1%	510965@3.0	2%					
8K	336933@4.6ms	334216@4.6	-1%	332566@4.6	-1%	334276@4.6	-1%					
16K	185698@5.5ms	185556@5.5	-0%	184387@5.5	-1%	184493@5.5	-1%					
32K	103300@7.4ms	102932@7.4	-0%	102583@7.5	-1%	103026@7.4	-0%					
64K	3436@9.7ms	3548@9.4	3%	3545@9.4	3%	3534@9.5	3%					
256K	3874@17.2ms	3970@16.8	2%	3933@16.9	2%	3949@16.9	2%					
512K	3896@4.1ms	4086@3.9	5%	4077@3.9	5%	4087@8.0	5%					
1024K	3674@4.2ms	4034@41.0	10%	4162@31.6	13%	4020@16.2	9%					

Random Read	cbt_22ndAug_o01_63hSep_tentacle_lacktente	cbt_6thSep_o01_3way_tentacle	cbt_8thSep_o01_3way_tentacle	cbt_27thAug_o01_3way_tentacle	cbt_22ndAug_o01_63hSep_tentacle_pg256	cbt_6thSep_o01_3way_tentacle_pg256	cbt_8thSep_o01_3way_tentacle_pg256	cbt_27thAug_o01_3way_tentacle_pg256	cbt_22ndAug_o01_63hSep_tentacle_pg512	cbt_6thSep_o01_3way_tentacle_pg512	cbt_8thSep_o01_3way_tentacle_pg512	cbt_27thAug_o01_3way_tentacle_pg512
4K	191467@4.0ms	213966@3.6	12%	262728@2.9	37%	216530@3.5	13%					
8K	183567@4.2ms	199663@3.8	9%	245817@3.1	34%	209775@3.7	14%					
16K	169312@3.5ms	184680@3.2	9%	222212@2.6	31%	193403@3.0	14%					
32K	138987@3.7ms	147615@3.5	6%	183992@2.8	32%	159835@3.2	15%					
64K	6946@3.6ms	7454@3.4	7%	9228@2.7	33%	8100@3.1	17%					
256K	12882@2.6ms	13053@2.6	1%	13190@2.5	2%	13168@2.5	2%					
512K	12426@2.7ms	12778@2.6	3%	12868@2.6	4%	12732@2.6	2%					

Comparison summary for cbt-22ndAug-o01-3way-tentaclerc vs cbt-6thSep-o01-3way-tentacle-nonbalanced-pg256 vs cbt-8thSep-o01-3way-tentacle-nonbalanced-pg512 vs cbt-27thAug-o01-3way-tentacle-balanced

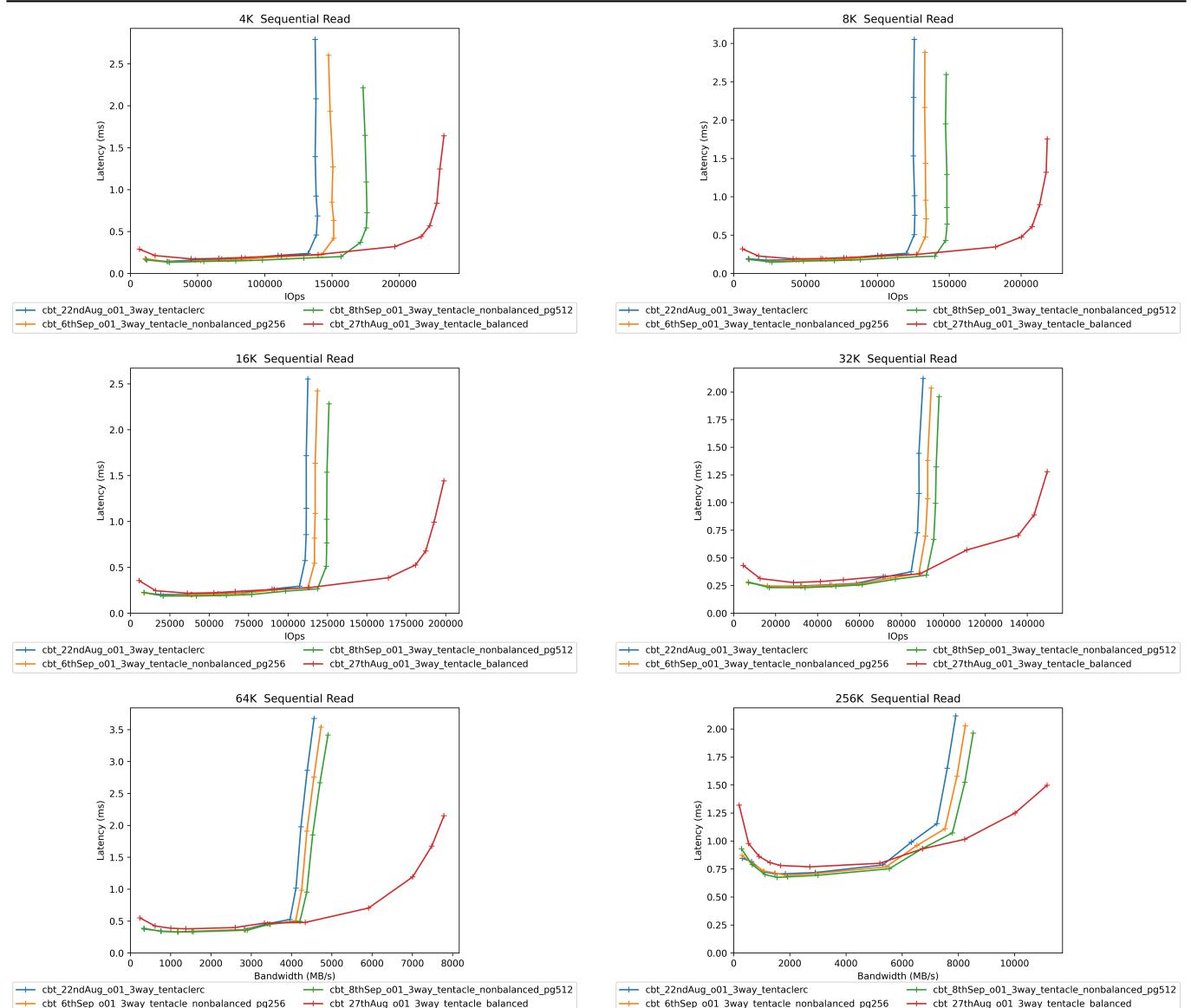
Random Read	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	
1024K	10000@3.3ms	10264@3.3	3%	10374@3.2	4%	10192@3.3	2%

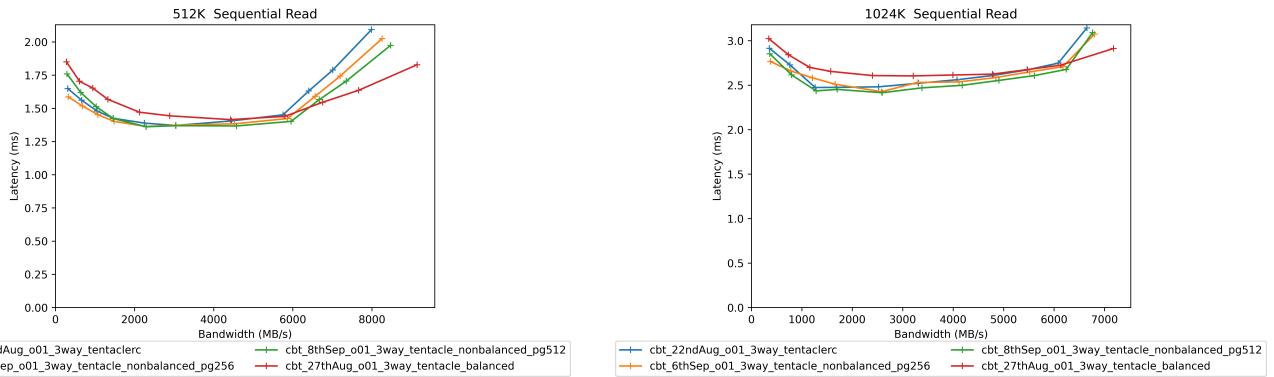
Random Write	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	
4K	50963@7.5ms	57926@13.2	14%	62480@12.3	23%	51182@5.0	0%
8K	50946@5.0ms	54120@14.2	6%	55843@13.7	10%	48579@10.5	-5%
16K	48329@5.3ms	50904@10.0	5%	52228@9.8	8%	45875@11.1	-5%
32K	44974@8.5ms	46464@11.0	3%	47808@10.7	6%	43891@8.7	-2%
64K	2467@10.2ms	2414@10.4	-2%	2499@10.0	1%	2428@10.3	-2%
256K	4315@15.4ms	4076@4.0	-6%	4197@5.9	-3%	4064@4.0	-6%
512K	3894@4.1ms	4548@7.1	17%	4561@7.1	17%	4501@7.2	16%
1024K	4301@7.3ms	4118@5.7	-4%	4260@7.4	-1%	4174@5.6	-3%

Random Read/Write	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	cbt_22ndAug_cbt01_63hSep_tentacle_7thAug_tentacle_8thSep_pg01_1%125_tentacle_27thAug_pg01_1%1512_tentacle_ba	
4K_70/30	100970@2.5ms	115299@3.3	14%	117572@3.3	16%	94949@4.0	-6%
16K_70/30	92234@2.8ms	101349@2.5	10%	102352@2.5	11%	87433@2.9	-5%
64K_70/30	4293@3.9ms	4705@3.5	10%	4790@3.5	12%	4287@3.9	-0%
64K_30/70	3016@5.5ms	3072@5.4	2%	3074@5.4	2%	2901@5.7	-4%

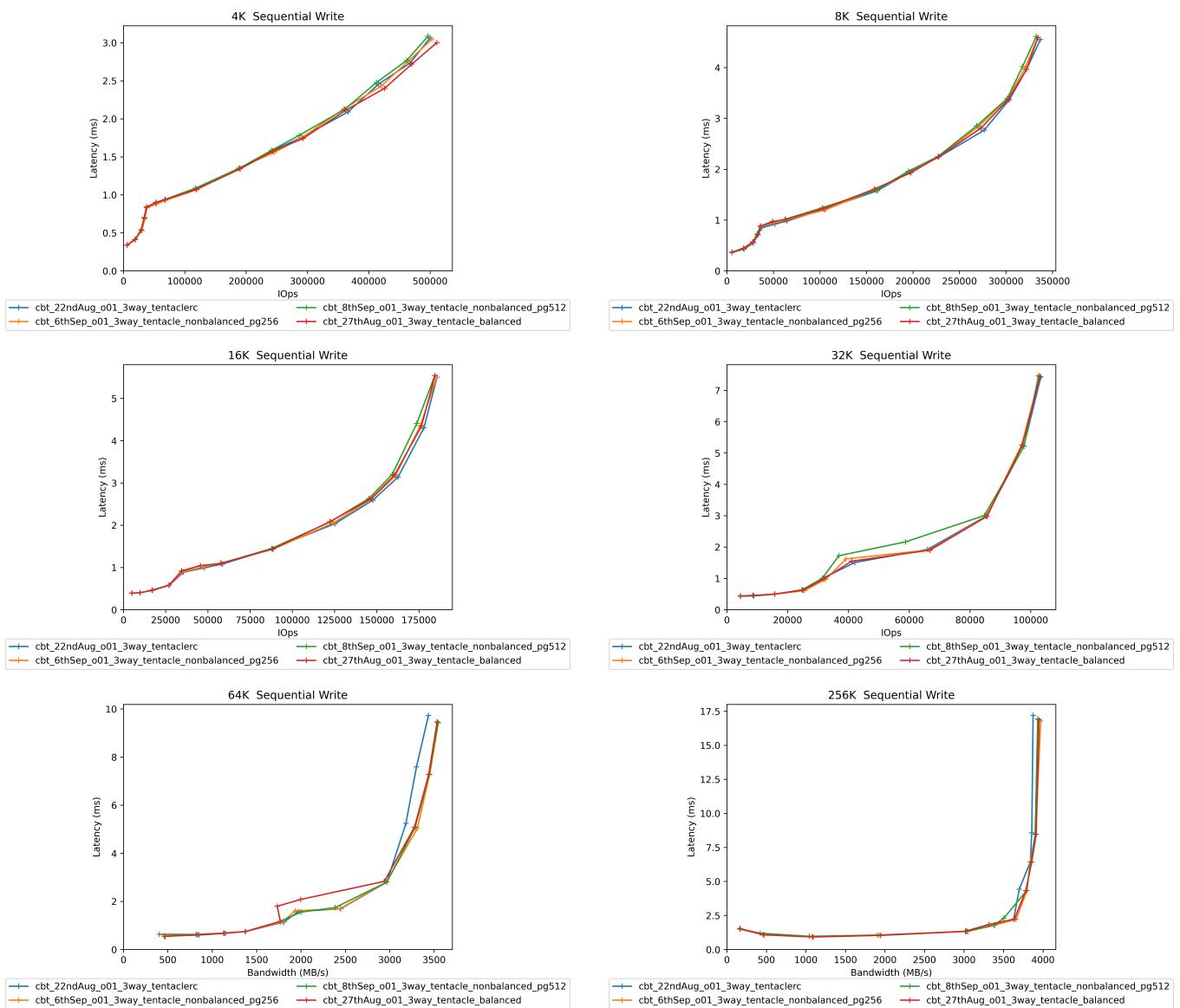
# Response Curves

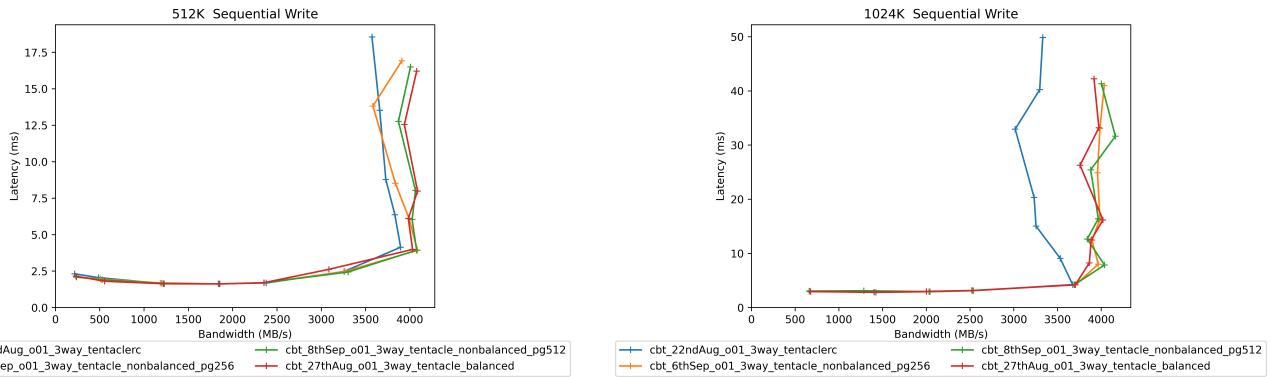
## Sequential Read



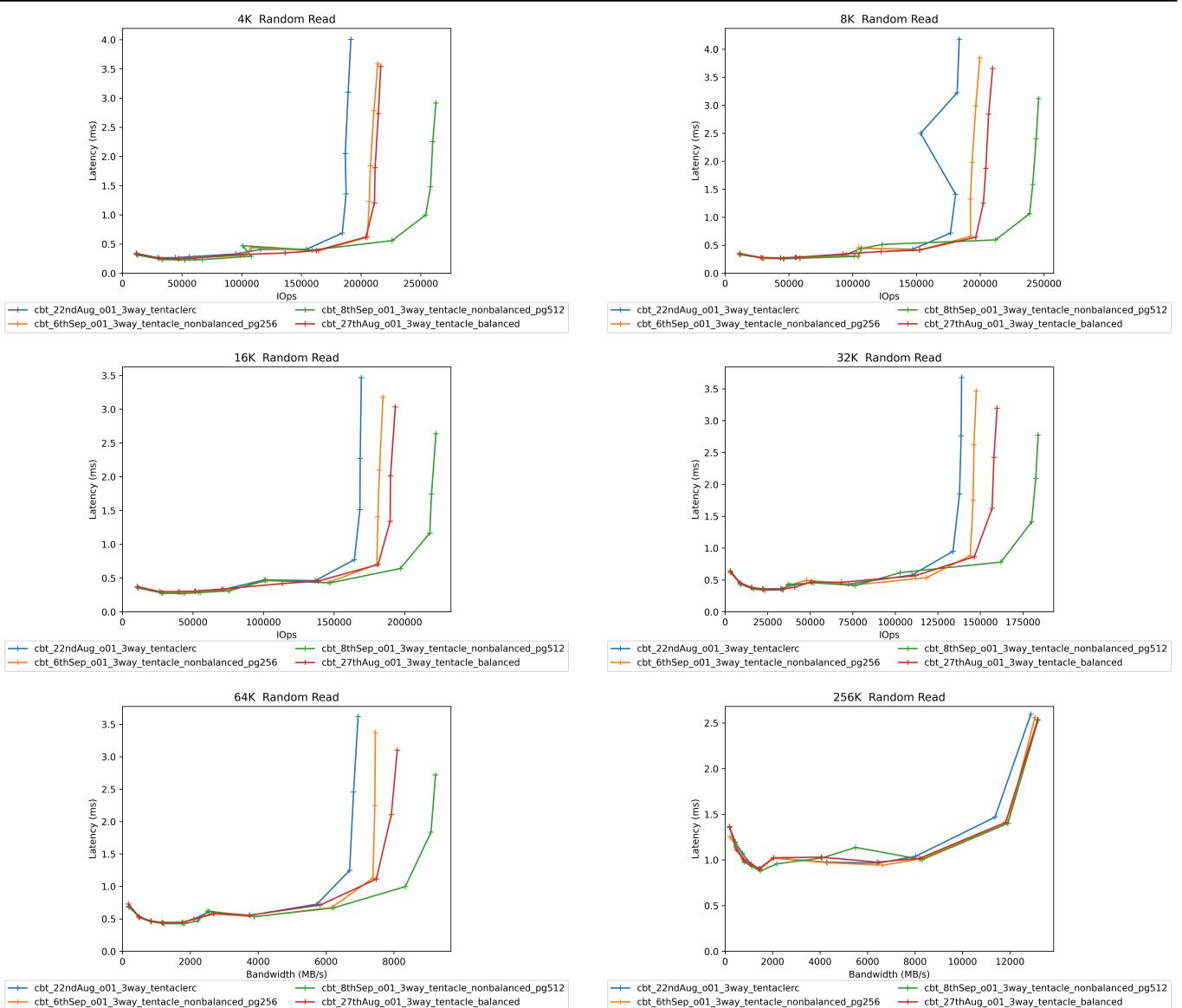


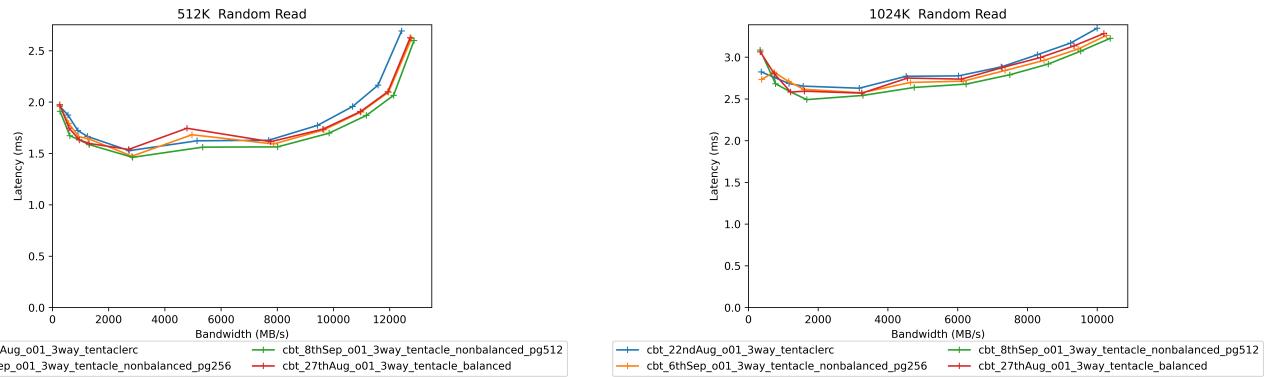
## Sequential Write



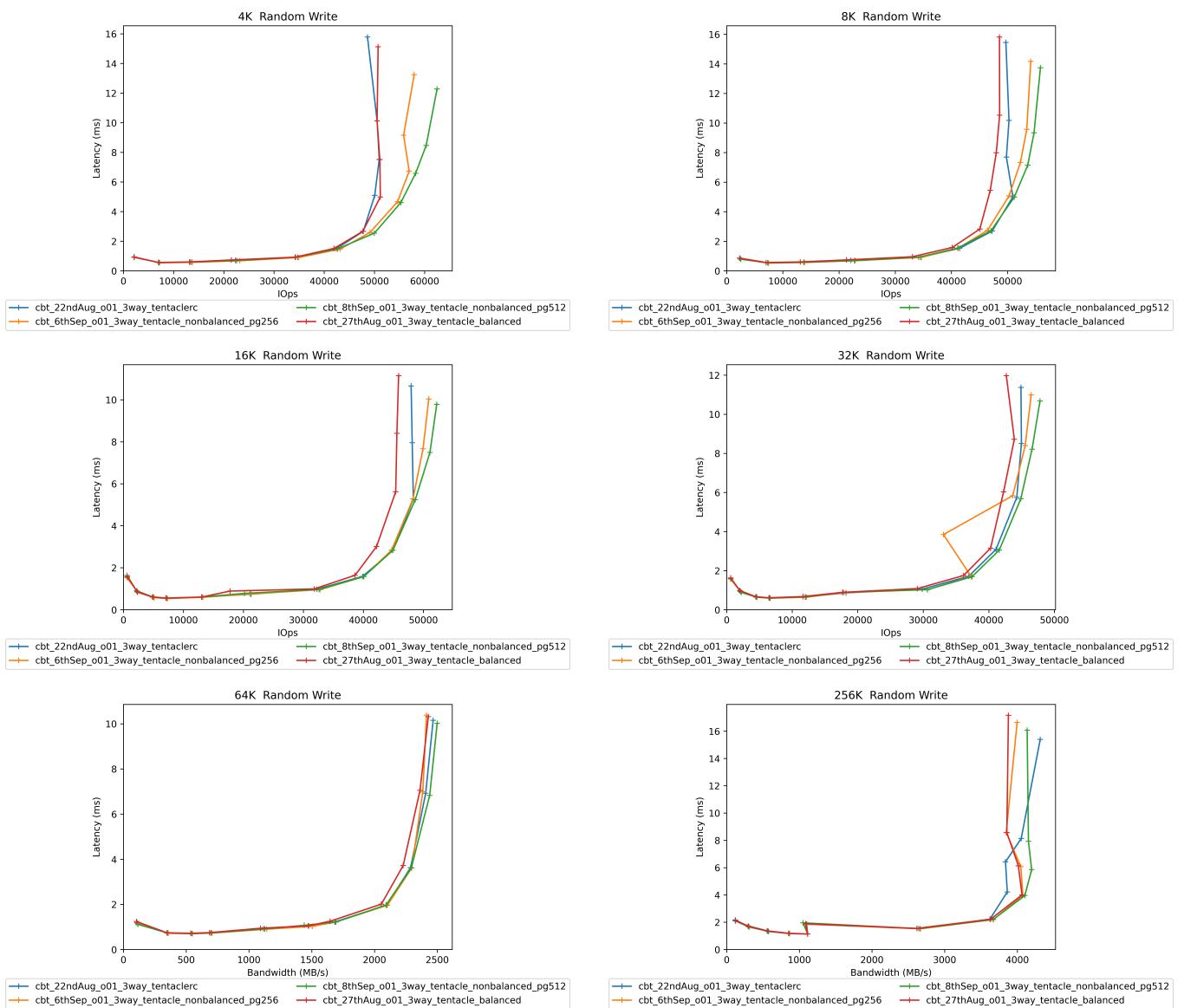


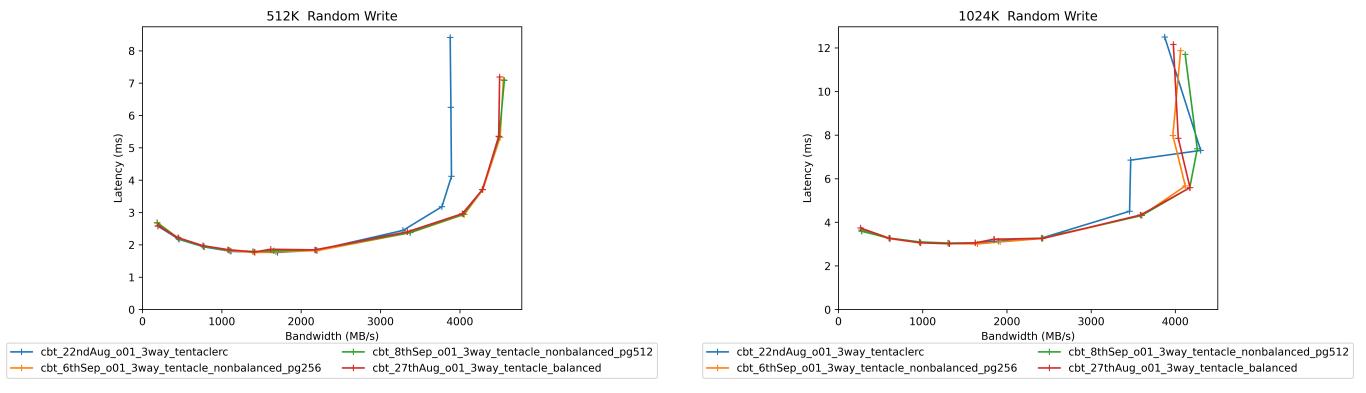
## Random Read



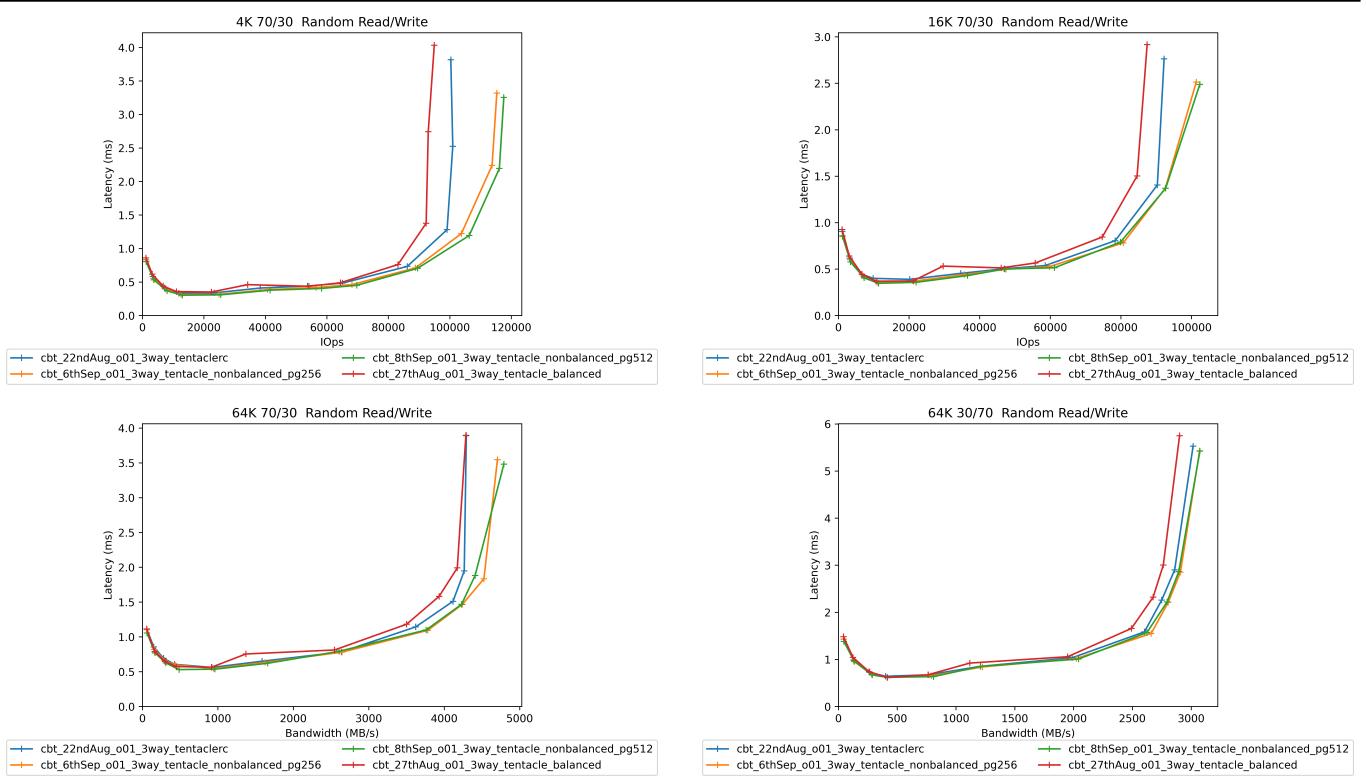


## Random Write





## 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

```
librbd_fio:  
  cmd_path: /usr/local/bin/fio  
  fio_out_format: json  
  log_avg_msec: 100  
  log_bw: true  
  log_iops: true  
  log_lat: true  
  norandommap: true  
  osd_ra:  
    - 4096  
  poolname: rbd_replicated  
  prefill:  
    blocksize: 64k  
    numjobs: 1  
  procs_per_volume:  
    - 1  
  ramp: 30  
  rbdname: cbt-librbd_fio  
  time: 90  
  time_based: true  
  use_existing_volumes: true  
  vol_size: 608333  
  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:
    - 2
    - 4
    - 6
    - 8
    - 16
    - 32
    - 48
    - 64
    - 96
    - 128
    - 160
256krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
256krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 32
    - 64
```

```
- 96
- 128
- 256
32krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 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:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
512krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
```

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

```
- 128
- 256
64k7030:
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 65536
  rwmixread: 70
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 32
    - 64
    - 96
    - 128
    - 256
64krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 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:
- 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:
    - 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
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
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}
librbd_fio:
cmd_path: /usr/local/bin/fio
fio_out_format: json
log_avg_msec: 100
log_bw: true
log_iops: true
log_lat: true
norandommap: true

```

```
osd_ra:  
- 4096  
poolname: rbd_replicated  
prefill:  
  blocksize: 64k  
  numjobs: 1  
procs_per_volume:  
- 1  
ramp: 30  
rbdname: cbt-librbdgio  
time: 90  
time_based: true  
use_existing_volumes: true  
vol_size: 608333  
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:
    - 2
    - 4
    - 6
    - 8
    - 16
    - 32
    - 48
    - 64
    - 96
    - 128
    - 160
256krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
256krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 32
    - 64
    - 96
    - 128
    - 256
32krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
```

```
- 2
- 4
- 6
- 8
- 12
- 16
- 24
- 32
- 64
- 128
- 256
- 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:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
512krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 8
    - 16
    - 24
    - 32
    - 48
    - 64
```

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

```
- 1
- 2
- 3
- 4
- 8
- 16
- 32
- 64
- 96
- 128
- 256
64krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 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:
    - 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:
- 1
  op_size: 16384
  total_iodepth:
- 2
- 4
- 8
- 12
- 16
- 24
- 32
- 64
- 96
- 128
- 192
- 288
seq16kwrtie:
  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
seq256kwrtie:
```

```
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
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
  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}
```