

# Comparitive Performance Report for **3way-reads-osds-4-shardsize-131072 vs** **3way-reads-osds-4-shardsize-196608 vs** **3way-reads-osds-4-shardsize-262144 vs** **3way-reads-osds-4-shardsize-327680**

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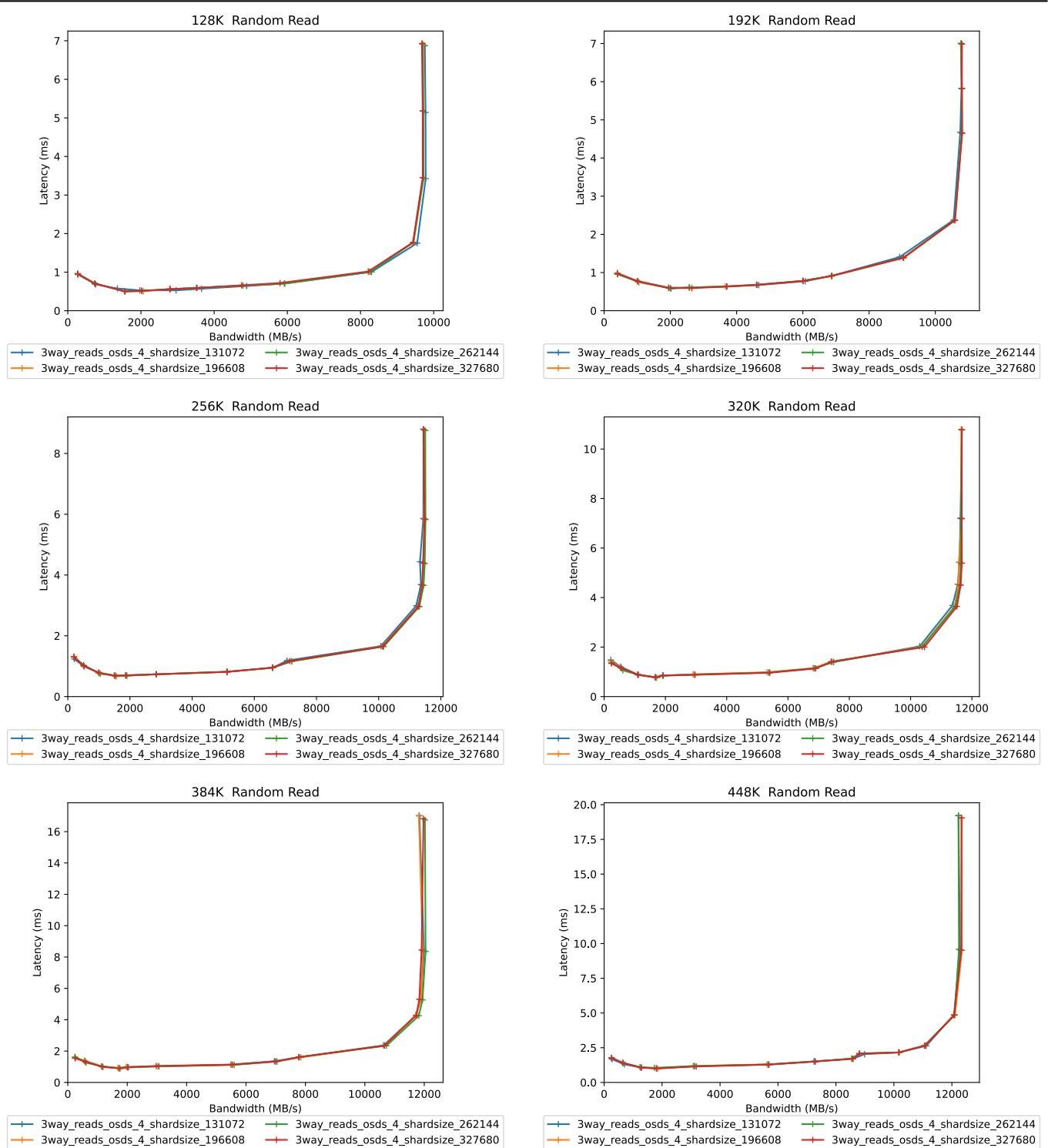
- Comparison summary for 3way-reads-osds-4-shardsize-131072 vs 3way-reads-osds-4-shardsize-196608 vs 3way-reads-osds-4-shardsize-262144 vs 3way-reads-osds-4-shardsize-327680
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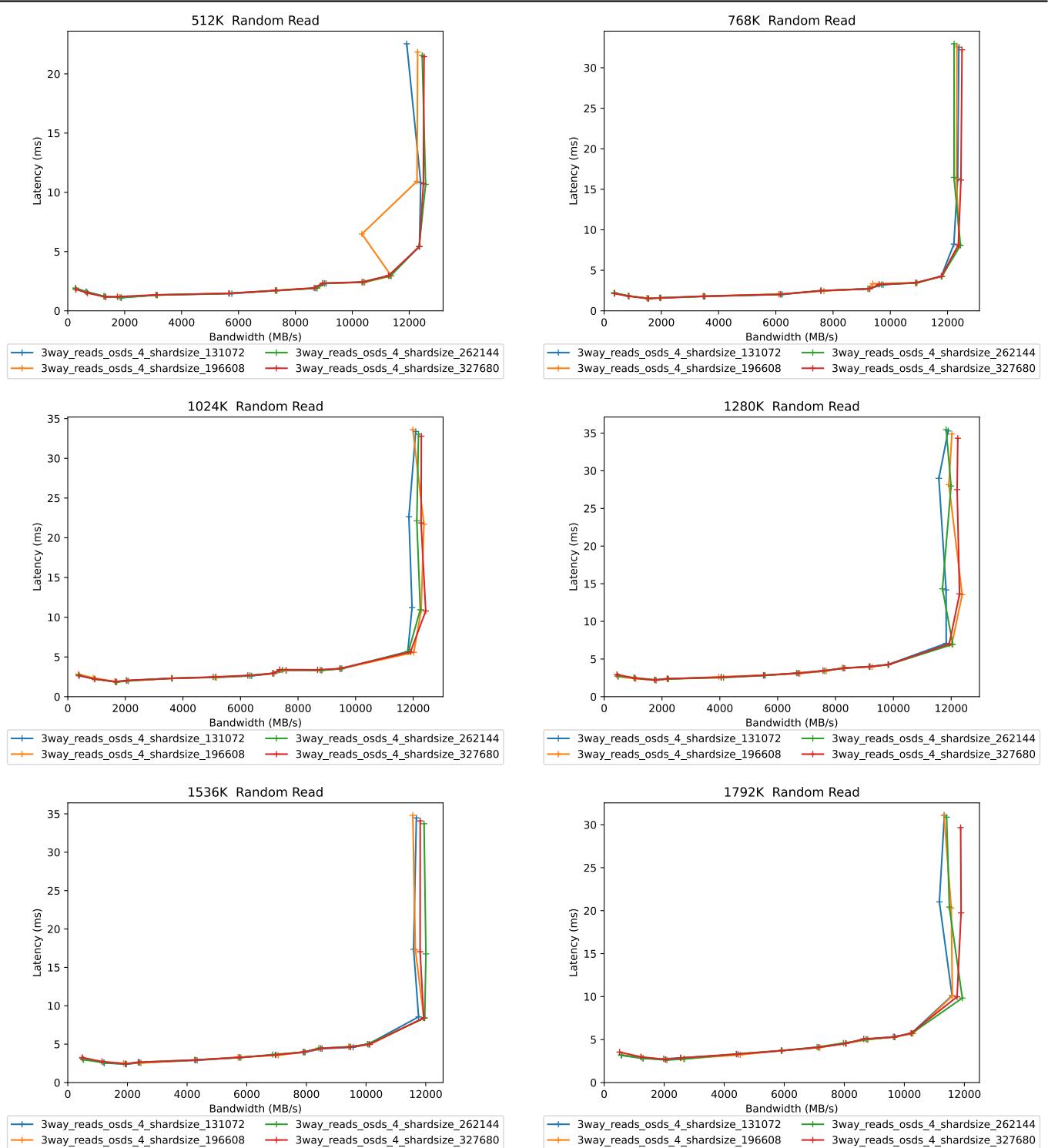
# Comparison summary for 3way-reads-osds-4-shardsize-131072 vs 3way-reads-osds-4-shardsize-196608 vs 3way-reads-osds-4-shardsize-262144 vs 3way-reads-osds-4-shardsize-327680

Random Read	3way_reads_osds	3way4_shardsize_131072	3way4_shardsize_196608	3way4_shardsize_262144	3way4_shardsize_327680		
128K	9782@3.4ms	9721@3.4	-1%	9722@3.4	-1%	9699@3.5	-1%
192K	10787@5.8ms	10803@4.7	0%	10802@5.8	0%	10810@4.7	0%
256K	11442@8.8ms	11479@8.8	0%	11507@5.8	1%	11476@5.8	0%
320K	11673@10.8ms	11655@7.2	-0%	11672@10.8	-0%	11673@5.4	0%
384K	11989@8.4ms	11954@8.4	-0%	12044@8.4	0%	11973@16.8	-0%
448K	12280@9.6ms	12347@9.5	1%	12245@9.6	-0%	12329@19.1	0%
512K	12404@10.8ms	12297@21.8	-1%	12576@10.7	1%	12521@21.5	1%
768K	12396@32.5ms	12410@8.1	0%	12453@8.1	0%	12507@32.2	1%
1024K	12088@33.4ms	12373@21.7	2%	12248@10.9	1%	12437@10.8	3%
1280K	11894@35.3ms	12379@13.5	4%	12054@6.9	1%	12288@13.6	3%
1536K	11760@8.5ms	11938@8.4	2%	12006@16.8	2%	11933@8.4	1%
1792K	11588@10.1ms	11599@10.1	0%	11930@9.8	3%	11890@19.7	3%
2048K	11729@34.3ms	12015@11.2	2%	11560@23.2	-1%	11524@23.3	-2%

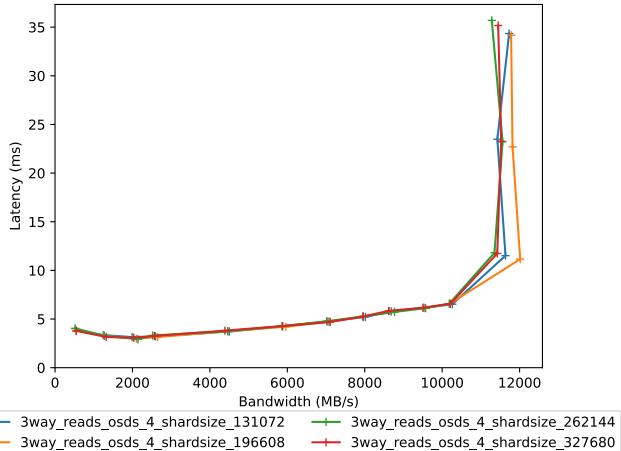
# Response Curves

## Random Read





2048K Random Read



# 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/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: 20  
  rbdname: cbt-librbd_fio  
  time: 60  
  time_based: true  
  use_existing_volumes: true  
  vol_size: 1000  
  volumes_per_client:  
    - 16  
  wait_pgautoscaler_timeout: 10  
workloads:  
  1280krandomread:  
    jobname: randread  
    mode: randread  
    numjobs:  
      - 1  
    op_size: 1310720  
    total_iodepth:  
      - 1  
      - 2  
      - 3  
      - 4  
      - 8  
      - 12  
      - 16  
      - 20  
      - 24  
      - 28  
      - 32  
      - 64  
      - 128  
      - 256  
      - 320  
  128krandomread:  
    jobname: randread  
    mode: randread  
    numjobs:  
      - 1  
    op_size: 131072  
    total_iodepth:  
      - 2  
      - 4  
      - 6  
      - 8  
      - 12  
      - 16
```

```
- 24
- 32
- 64
- 128
- 256
- 384
- 512
1536krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1572864
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
    - 64
    - 128
    - 256
1792krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1835008
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
    - 64
    - 128
    - 192
192krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 196608
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
```

```
- 32
- 64
- 128
- 256
- 320
- 384
1Mrandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
    - 64
    - 128
    - 256
    - 384
2048krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 2097152
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
    - 64
    - 128
    - 192
256krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
```

```
- 24
- 32
- 64
- 128
- 160
- 192
- 256
- 384
320krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 327680
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 160
    - 192
    - 256
    - 384
384krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 393216
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 160
    - 256
    - 512
448krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 458752
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
```

```
- 16
- 24
- 32
- 40
- 48
- 64
- 128
- 256
- 512
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
    - 128
    - 256
    - 512
768krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 786432
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
    - 128
    - 256
    - 512
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/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: 20
  rbdname: cbt-librbd_fio
  time: 60
  time_based: true
  use_existing_volumes: true
  vol_size: 1000
  volumes_per_client:
  - 16
  wait_pgautoscaler_timeout: 10
workloads:
  1280krandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
    op_size: 1310720
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
```

```
- 20
- 24
- 28
- 32
- 64
- 128
- 256
- 320
128krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 131072
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
1536krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1572864
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
    - 64
    - 128
    - 256
1792krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1835008
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
```

```
- 20
- 24
- 28
- 32
- 64
- 128
- 192
192krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 196608
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 320
    - 384
1Mrandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
    - 64
    - 128
    - 256
    - 384
2048krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 2097152
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
```

```
- 20
- 24
- 28
- 32
- 64
- 128
- 192
256krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 160
    - 192
    - 256
    - 384
320krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 327680
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 160
    - 192
    - 256
    - 384
384krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 393216
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
```

```
- 8
- 16
- 24
- 32
- 64
- 128
- 160
- 256
- 512
448krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 458752
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
    - 128
    - 256
    - 512
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
    - 128
    - 256
    - 512
768krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 786432
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
```

```
- 16
- 24
- 32
- 40
- 48
- 64
- 128
- 256
- 512
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}
```