Comparitive Performance Report for 3way-reads-osds-6-shardsize-131072 vs 3way-reads-osds-6-shardsize-458752 vs 3way-reads-osds-6-shardsize-589824 vs 3way-reads-osds-6-shardsize-524288 vs 3way-reads-osds-6-shardsize-589824 vs 3way-reads-osds-6-shardsize-655360

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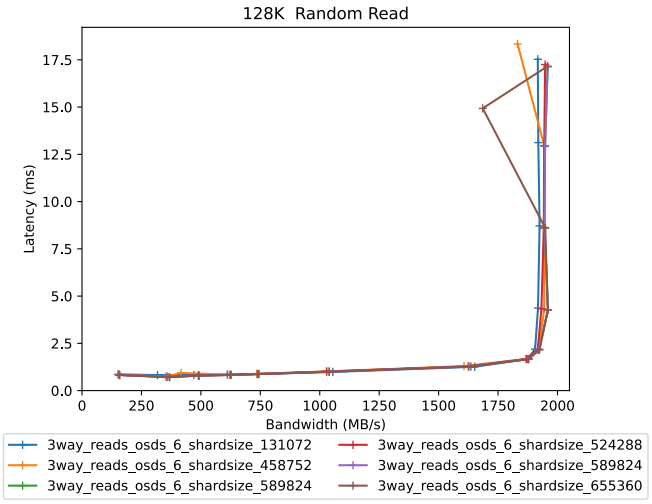
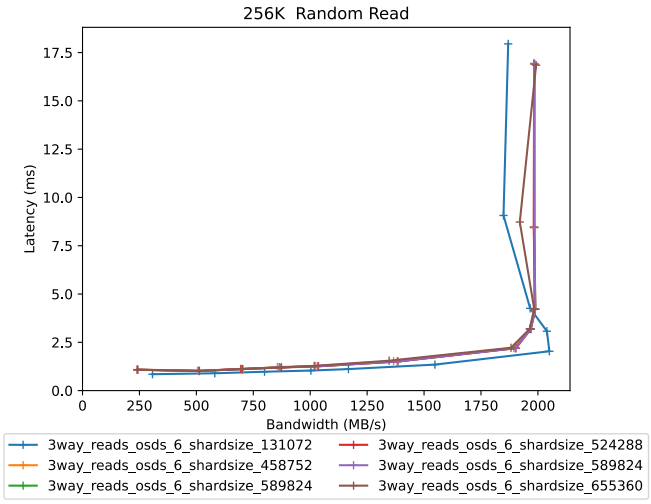
Comparison summary for 3way-reads-osds-6-shardsize-131072 vs 3way-reads-osds-6-shardsize-458752 vs 3way-reads-osds-6-shardsize-589824 vs 3way-reads-osds-6-shardsize-524288 vs 3way-reads-osds-6-shardsize-589824 vs 3way-reads-osds-6-shardsize-655360

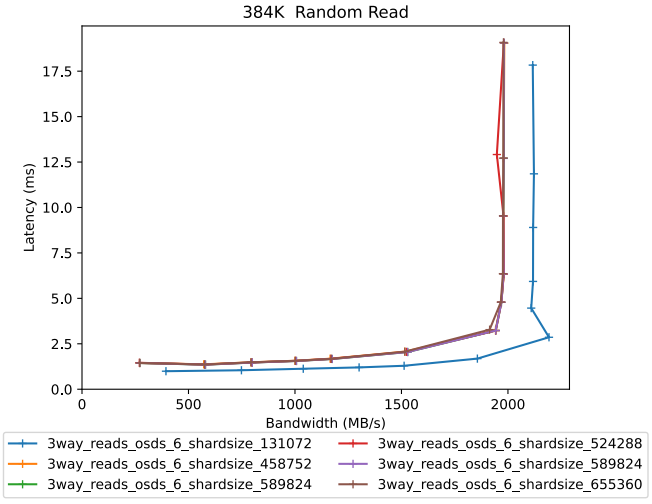
Random Read	3way_reads-osds-6-shardsize-131072	3way_reads-osds-6-shardsize-458752	%	3way_reads-osds-6-shardsize-589824	%	3way_reads-osds-6-shardsize-524288	%	3way_reads-osds-6-shardsize-589824	%	3way_reads-osds-6-shardsize-655360	%
128K	1925@8.7ms	1944@4.3	1%	1960@4.3	2%	1948@17.2	1%	1960@4.3	2%	1959@4.3	2%
256K	2050@2.0ms	1987@16.9	-3%	1988@4.2	-3%	1989@4.2	-3%	1988@4.2	-3%	1992@16.9	-3%
384K	2193@2.9ms	1983@19.0	-10%	1981@19.1	-10%	1981@19.1	-10%	1981@19.1	-10%	1979@19.1	-10%
512K	2204@3.8ms	1984@8.4	-10%	1985@8.4	-10%	1988@10.5	-10%	1985@8.4	-10%	1984@10.6	-10%
640K	2200@4.8ms	2006@10.4	-9%	2005@10.5	-9%	2008@10.4	-9%	2005@10.5	-9%	2003@10.5	-9%
768K	2179@8.7ms	1996@15.8	-8%	1996@9.4	-8%	1999@9.4	-8%	1996@9.4	-8%	1995@9.5	-8%
1024K	2181@9.6ms	2083@6.0	-4%	2021@10.4	-7%	2083@6.0	-4%	2021@10.4	-7%	2022@10.4	-7%
1280K	2181@12.0ms	2021@25.9	-7%	2091@7.5	-4%	2021@18.1	-7%	2091@7.5	-4%	2092@7.5	-4%
1536K	2180@14.4ms	2165@14.5	-1%	2091@15.0	-4%	2164@14.5	-1%	2091@15.0	-4%	2091@15.0	-4%
2048K	2192@19.1ms	2188@19.2	-0%	2192@19.1	0%	2185@19.2	-0%	2192@19.1	0%	2189@19.1	-0%

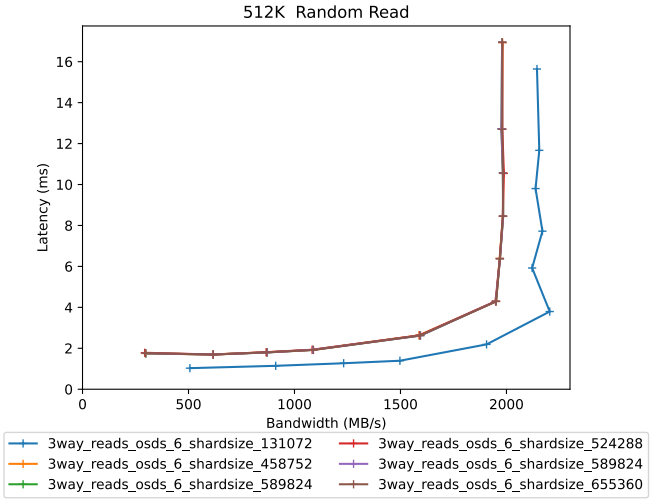
Response Curves

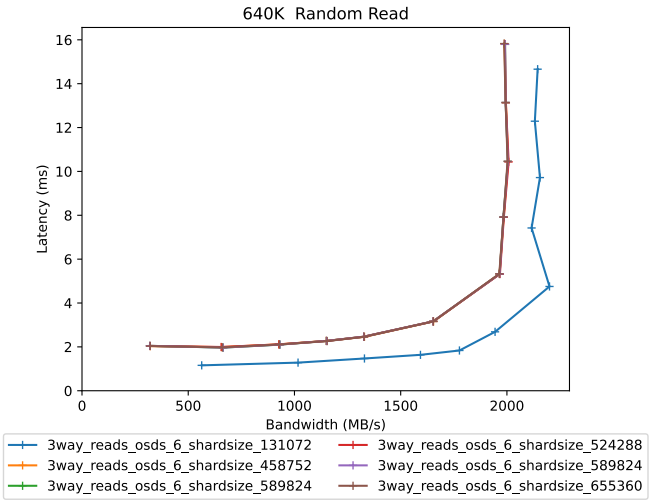
Random Read

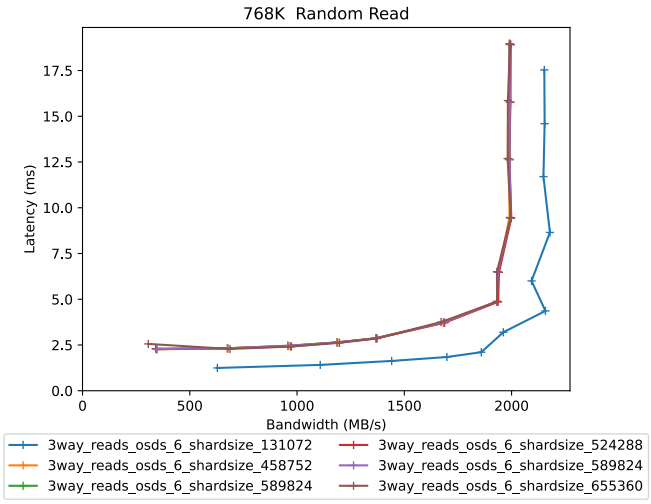


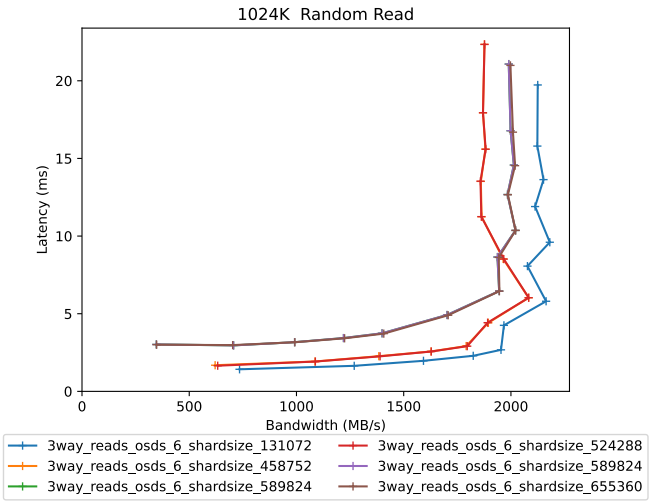


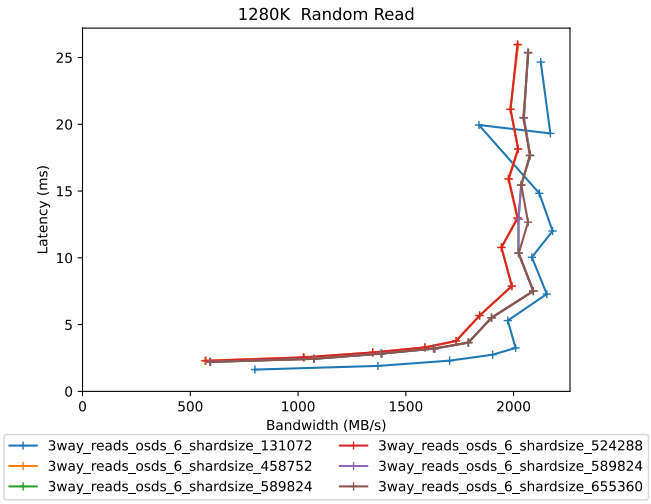


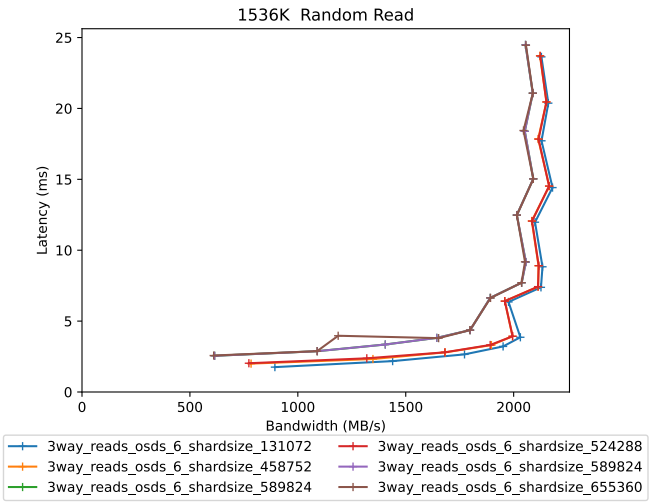


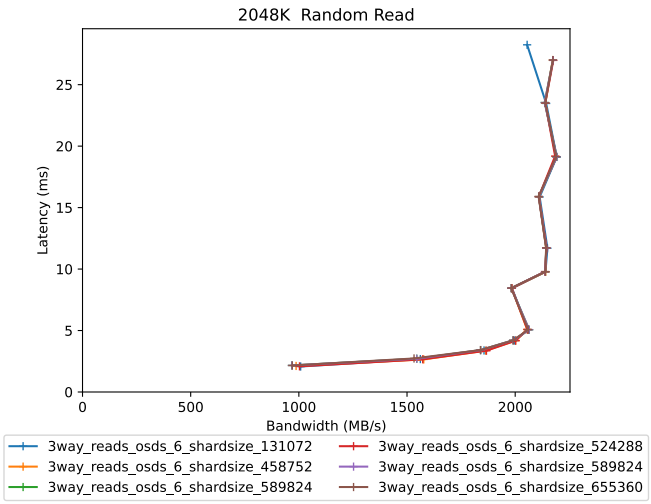

640K Random Read
Latency (ms)
Bandwidth (MB/s)
3way_reads_osds_6_shardsize_131072
3way_reads_osds_6_shardsize_458752
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_524288
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_655360


768K Random Read
Latency (ms)
Bandwidth (MB/s)
3way_reads_osds_6_shardsize_131072
3way_reads_osds_6_shardsize_458752
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_524288
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_655360


1024K Random Read
Latency (ms)
Bandwidth (MB/s)
3way_reads_osds_6_shardsize_131072
3way_reads_osds_6_shardsize_458752
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_524288
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_655360


1280K Random Read
Latency (ms)
Bandwidth (MB/s)
3way_reads_osds_6_shardsize_131072
3way_reads_osds_6_shardsize_458752
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_524288
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_655360


1536K Random Read
Latency (ms)
Bandwidth (MB/s)
3way_reads_osds_6_shardsize_131072
3way_reads_osds_6_shardsize_458752
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_524288
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_655360


2048K Random Read
Latency (ms)
Bandwidth (MB/s)
3way_reads_osds_6_shardsize_131072
3way_reads_osds_6_shardsize_458752
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_524288
3way_reads_osds_6_shardsize_589824
3way_reads_osds_6_shardsize_655360

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
  create_report: true
  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-librbdfio
  time: 60
  time_based: true
  use_existing_volumes: true
  vol_size: 1000
  volumes_per_client:
  - 8
  wait_pgautoscaler_timeout: 10
  workloads:
    1280krandomread:
      jobname: randread
      mode: randread
      numjobs:
      - 1
      op_size: 1310720
      total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8
      - 12
      - 16
      - 20
      - 24
      - 28
      - 32
      - 40
    128krandomread:
      jobname: randread
      mode: randread
      numjobs:
      - 1
      op_size: 131072
      total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8
      - 16
```

```
  - 24
  - 32
  - 64
  - 128
  - 192
  - 256
1536krandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 1572864
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 10
  - 12
  - 16
  - 20
  - 24
  - 28
  - 32
1Mrandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 1048576
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 12
  - 16
  - 20
  - 24
  - 28
  - 32
  - 40
256krandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
```

```
  - 128
2Mrandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 2097152
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 10
  - 12
  - 16
  - 20
  - 24
  - 28
384krandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 393216
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
  - 96
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 524288
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 24
  - 32
  - 40
  - 48
  - 64
640krandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 655360
```

```
        total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 8
        - 16
        - 24
        - 32
        - 40
        - 48
      768krandomread:
        jobname: randread
        mode: randread
        numjobs:
        - 1
        op_size: 786432
        total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 8
        - 12
        - 16
        - 24
        - 32
        - 40
        - 48
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:
```

```yaml
collectl:
  args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep ";" -f {collectl_dir}
librbdfio:
  cmd_path: /usr/local/bin/fio2
  create_report: true
  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-librbdfio
  time: 60
  time_based: true
  use_existing_volumes: true
  vol_size: 1000
  volumes_per_client:
  - 8
  wait_pgautoscaler_timeout: 10
  workloads:
    1280krandomread:
      jobname: randread
      mode: randread
      numjobs:
      - 1
      op_size: 1310720
      total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8
      - 12
      - 16
      - 20
      - 24
      - 28
      - 32
      - 40
    128krandomread:
      jobname: randread
      mode: randread
      numjobs:
      - 1
      op_size: 131072
      total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8
```

```
    - 16
    - 24
    - 32
    - 64
    - 128
    - 192
    - 256
  1536krandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
    op_size: 1572864
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 10
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
  1Mrandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
    op_size: 1048576
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
    - 40
  256krandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
    op_size: 262144
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
```

```
    - 64
    - 128
  2Mrandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
    op_size: 2097152
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 10
    - 12
    - 16
    - 20
    - 24
    - 28
  384krandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
    op_size: 393216
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 48
    - 64
    - 96
  512krandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
    op_size: 524288
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
  640krandomread:
    jobname: randread
    mode: randread
    numjobs:
    - 1
```

```
        op_size: 655360
        total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 8
        - 16
        - 24
        - 32
        - 40
        - 48
      768krandomread:
        jobname: randread
        mode: randread
        numjobs:
        - 1
        op_size: 786432
        total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 8
        - 12
        - 16
        - 24
        - 32
        - 40
        - 48
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}
```