

# Comparitive Performance Report for 3way-reads-osds-6-shardsize-131072 vs 3way-reads-osds-6-shardsize-196608 vs 3way-reads-osds-6-shardsize-262144 vs 3way-reads-osds-6-shardsize-327680 vs 3way-reads-osds-6-shardsize-393216 vs 3way-reads-osds-6-shardsize-458752

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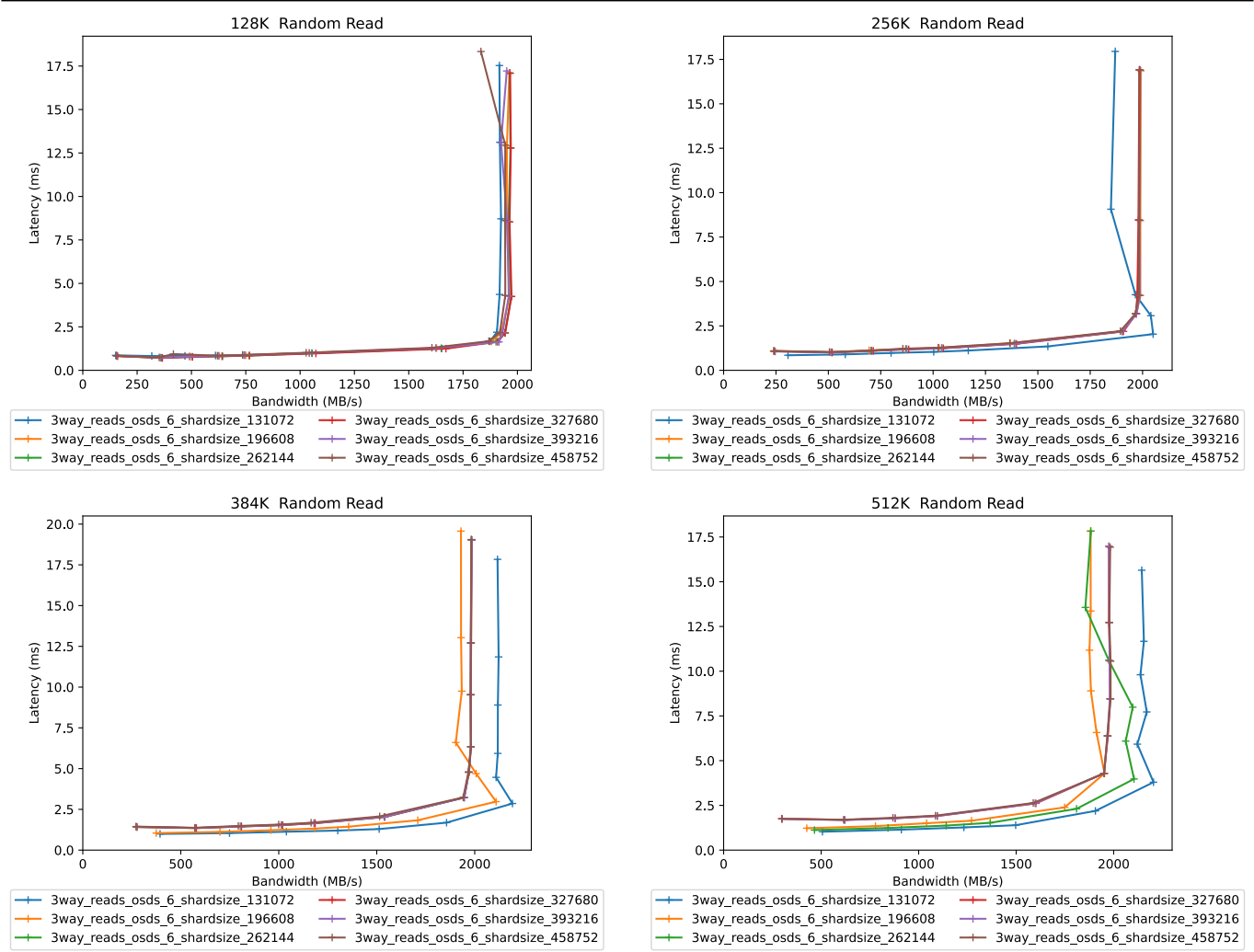
- Comparison summary for 3way-reads-osds-6-shardsize-131072 vs 3way-reads-osds-6-shardsize-196608 vs 3way-reads-osds-6-shardsize-262144 vs 3way-reads-osds-6-shardsize-327680 vs 3way-reads-osds-6-shardsize-393216 vs 3way-reads-osds-6-shardsize-458752
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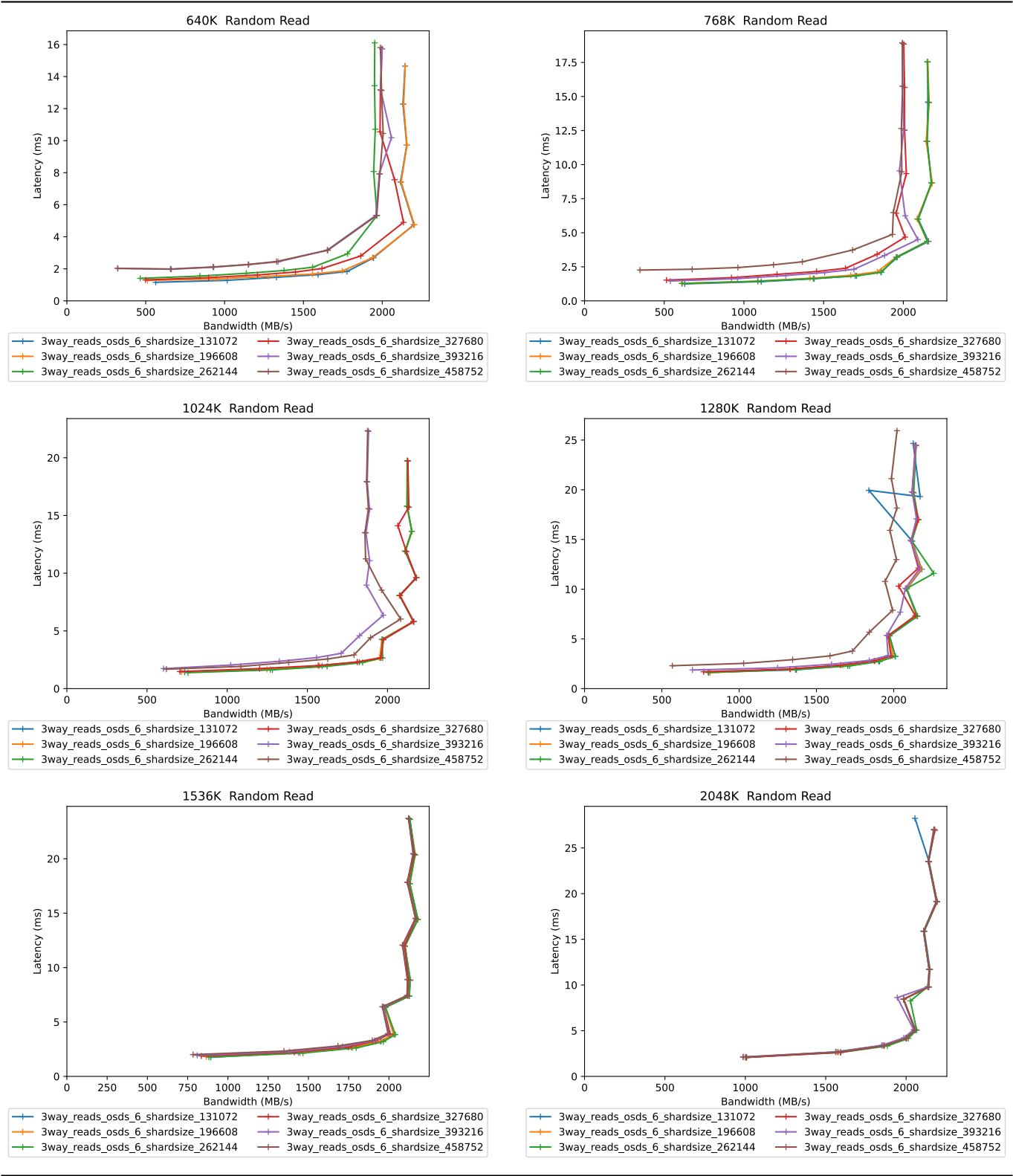
Comparison summary for  
3way-reads-osds-6-shardsize-131072 vs  
3way-reads-osds-6-shardsize-196608 vs  
3way-reads-osds-6-shardsize-262144 vs  
3way-reads-osds-6-shardsize-327680 vs  
3way-reads-osds-6-shardsize-393216 vs  
3way-reads-osds-6-shardsize-458752

| Random |                                    |                                    |                                    |                                    |                                    |                                    |                                    |                                    |                                    |                                    |                                    |
|--------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Read   | 3way_reads-osds-6-shardsize-131072 | 3way_reads-osds-6-shardsize-131072 | 3way_reads-osds-6-shardsize-131072 | 3way_reads-osds-6-shardsize-196608 | 3way_reads-osds-6-shardsize-196608 | 3way_reads-osds-6-shardsize-196608 | 3way_reads-osds-6-shardsize-262144 | 3way_reads-osds-6-shardsize-262144 | 3way_reads-osds-6-shardsize-262144 | 3way_reads-osds-6-shardsize-327680 | 3way_reads-osds-6-shardsize-327680 |
| 128K   | 1925@8.7m                          | 1964@4.3                           | 2%                                 | 1971@4.2                           | 2%                                 | 1973@4.2                           | 2%                                 | 1960@4.3                           | 2%                                 | 1944@4.3                           | 1%                                 |
| 256K   | 2050@2.0m                          | 1992@16.9                          | -3%                                | 1985@16.9                          | -3%                                | 1984@16.9                          | -3%                                | 1989@16.9                          | -3%                                | 1987@16.9                          | -3%                                |
| 384K   | 2193@2.9m                          | 2109@3.0                           | -4%                                | 1982@19.1                          | -10%                               | 1985@19.0                          | -9%                                | 1985@19.0                          | -9%                                | 1983@19.0                          | -10%                               |
| 512K   | 2204@3.8m                          | 1953@4.3                           | -11%                               | 2104@4.0                           | -5%                                | 1982@8.5                           | -10%                               | 1981@8.5                           | -10%                               | 1984@8.4                           | -10%                               |
| 640K   | 2200@4.8m                          | 2203@4.7                           | 0%                                 | 1966@5.3                           | -11%                               | 2135@4.9                           | -3%                                | 2058@10.2                          | -6%                                | 2006@10.4                          | -9%                                |
| 768K   | 2179@8.7m                          | 2181@8.6                           | 0%                                 | 2176@8.7                           | -0%                                | 2019@9.3                           | -7%                                | 2091@4.5                           | -4%                                | 1996@15.8                          | -8%                                |
| 1024K  | 2181@9.6m                          | 2180@9.6                           | -0%                                | 2180@9.6                           | -0%                                | 2178@9.6                           | -0%                                | 1974@6.4                           | -9%                                | 2083@6.0                           | -4%                                |
| 1280K  | 2181@12.0m                         | 2177@12.0                          | -0%                                | 2259@11.6                          | 4%                                 | 2160@12.1                          | -1%                                | 2167@12.1                          | -1%                                | 2021@25.9                          | -7%                                |
| 1536K  | 2180@14.4m                         | 2178@14.4                          | -0%                                | 2179@14.4                          | -0%                                | 2168@14.5                          | -1%                                | 2165@14.5                          | -1%                                | 2165@14.5                          | -1%                                |
| 2048K  | 2192@19.1m                         | 2191@19.1                          | -0%                                | 2193@19.1                          | 0%                                 | 2192@19.1                          | 0%                                 | 2189@19.1                          | -0%                                | 2188@19.2                          | -0%                                |

# Response Curves

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

```

3way-reads-osds-6-shardsize-131072 vs 3way-reads-osds-6-shardsize-196608 vs 3way-reads-osds-6-shardsize-262144 vs 3way-reads-osds-6-shardsize-327680 vs 3way-reads-osds-6-shardsize-393216 vs 3way-reads-osds-6-shardsize-458752

```

- 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}

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}
```