Comparitive Performance Report for cbt-15thSep-o01-6+2-16k-ecopt2-appends vs cbt-18thSep-o01-6+2-4k-squid-appends

Table of contents

- $\bullet \quad \text{Comparison summary for cbt-} 15 \text{th} \\ \text{Sep-o01-} 6 + 2 16 \text{k-ecopt2-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 6 + 2 4 \text{k-squid-appends vs cbt-} 18 \text{th} \\ \text{Sep-o01-} 18 \text{th} \\ \text{Sep-o01-} 18 \text{th} \\ \text{Sep-o01-} 18 \text{th} \\ \text{Sep-o$
- Response Curves
- Configuration yaml files
 - results

Comparison summary for cbt-15thSep-o01-6+2-16k-ecopt2-appends vs cbt-18thSep-o01-6+2-4k-squid-appends

Response Curves

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/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-librbdfio
  time: 90
  time_based: true
  use_existing_volumes: true
  vol_size: 1000
  volumes_per_client:
  - 16
  workloads:
    64kseqwriteappend:
      jobname: write
      mode: write
      numjobs:
      - 1
      op_size: 65536
      pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
      total_iodepth:
      - 1
      - 2
      - 4
      - 8
      - 16
      - 32
      - 64
      - 128
      - 192
      - 256
      - 384
      - 512
    seq16kwriteappend:
      jobname: seqwrite
      mode: write
      numjobs:
      - 1
      op_size: 16384
      pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
      total_iodepth:
      - 2
      - 4
      - 8
      - 16
      - 32
      - 48
      - 64
      - 128
```

```
- 256
  - 384
  - 512
  - 768
  - 1024
seq1Mwriteappend:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
 op_size: 1048576
 pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 12
  - 16
  - 24
  - 32
  - 48
  - 64
  - 96
  - 128
  - 160
seq256kwriteappend:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 262144
 pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
  - 96
  - 128
  - 256
seq32kwriteappend:
  jobname: seqwrite
  mode: write
 numjobs:
  - 1
  op_size: 32768
  pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  total_iodepth:
  - 2
  - 4
  - 8
  - 16
  - 32
  - 64
  - 96
```

```
- 128
  - 256
  - 384
  - 512
  - 768
seq4kwriteappend:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
 op_size: 4096
 pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  total_iodepth:
  - 2
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
  - 128
  - 256
 - 384
  - 512
  - 768
  - 1024
  - 1280
  - 1536
seq512kwriteappend:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 524288
 pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
  - 96
  - 128
  - 160
seq8kwriteappend:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
 pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  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: /etc/ceph/ceph.conf
  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
  - --- 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/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-librbdfio
    time: 90
```

```
time_based: true
use_existing_volumes: true
vol_size: 1000
volumes_per_client:
- 16
workloads:
  64kseqwriteappend:
    jobname: write
    mode: write
    numjobs:
    - 1
    op_size: 65536
    pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
    total_iodepth:
    - 1
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 192
    - 256
    - 384
    - 512
  seq16kwriteappend:
    jobname: seqwrite
    mode: write
    numjobs:
    - 1
    op_size: 16384
    pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
    total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768
    - 1024
  seq1Mwriteappend:
    jobname: seqwrite
    mode: write
    numjobs:
    - 1
    op_size: 1048576
    pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
    total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 24
```

```
- 32
  - 48
  - 64
  - 96
  - 128
  - 160
seq256kwriteappend:
  jobname: seqwrite
  mode: write
 numjobs:
  - 1
  op_size: 262144
  pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
  - 96
  - 128
  - 256
seq32kwriteappend:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 32768
 pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  total_iodepth:
  - 2
  - 4
  - 8
  - 16
  - 32
  - 64
  - 96
  - 128
  - 256
  - 384
  - 512
  - 768
seq4kwriteappend:
  jobname: seqwrite
 mode: write
 numjobs:
  - 1
  op_size: 4096
 pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
  total_iodepth:
  - 2
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
  - 128
```

```
- 256
        - 384
        - 512
        - 768
        - 1024
        - 1280
        - 1536
      seq512kwriteappend:
        jobname: seqwrite
        mode: write
        numjobs:
        - 1
        op_size: 524288
        pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
        total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 8
        - 16
        - 24
        - 32
        - 48
        - 64
        - 96
        - 128
        - 160
      seq8kwriteappend:
        jobname: seqwrite
        mode: write
        numjobs:
        - 1
        op_size: 8192
        pre_workload_script: sudo /home/ljsanders/scripts/mkdelvols.cbt
        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: /etc/ceph/ceph.conf
  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}
```