

# Comparitive Performance Report for cbt-3rdAug-4k-o01-6+2-squid vs cbt-2ndAug-4k-o01-6+2-ecopt2-optoff vs cbt-31stJul-16k-o01-6+2-ecopt2

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# Comparison summary for cbt-3rdAug-4k-o01-6+2-squid vs cbt-2ndAug-4k-o01-6+2-ecopt2-optoff vs cbt-31stJul-16k-o01-6+2-ecopt2

Sequential Read	cbt_3rdAug_4k_o01-6+2-squid	cbt-2ndAug-4k-o01_6+2_ecopt2-optoff	%change	cbt_31stJul_16k_o01_6+2_ecopt2	%change
4.0K	58638@6.5ms	174037@2.2	197%	165897@2.3	183%
8.0K	53638@5.4ms	108076@2.7	101%	155175@2.5	189%
16.0K	46954@6.1ms	63433@4.5	35%	140148@2.0	198%
32.0K	38463@5.0ms	40230@4.8	5%	71375@0.9	86%
64.0K	2255@7.4ms	2045@2.0	-9%	3172@5.3	41%
256.0K	4536@3.7ms	5269@3.2	16%	5330@3.1	18%
512.0K	5135@3.3ms	5629@3.0	10%	6067@2.8	18%
1024.0K	5217@4.0ms	5510@3.8	6%	6186@3.4	19%

Sequential Write	cbt_3rdAug_4k_o01-6+2-squid	cbt-2ndAug-4k-o01_6+2_ecopt2-optoff	%change	cbt_31stJul_16k_o01_6+2_ecopt2	%change
4.0K	136232@11.3ms	135437@11.3	-1%	252680@6.1	85%
8.0K	130892@11.7ms	133837@11.5	2%	198909@7.7	52%
16.0K	86109@11.9ms	87833@11.6	2%	121584@8.4	41%
32.0K	50412@15.2ms	57179@13.4	13%	73998@10.4	47%
64.0K	2095@16.0ms	2167@15.5	3%	2668@12.5	27%
256.0K	2797@23.9ms	3081@21.7	10%	3346@19.9	20%
512.0K	2870@23.2ms	3153@21.0	10%	3453@19.2	20%
1024.0K	3689@45.0ms	4127@40.1	12%	4218@39.2	14%

Random Read	cbt_3rdAug_4k_o01-6+2-squid	cbt-2ndAug-4k-o01_6+2_ecopt2-optoff	%change	cbt_31stJul_16k_o01_6+2_ecopt2	%change
4.0K	36952@10.4ms	109572@7.0	197%	104960@7.3	184%
8.0K	36424@21.1ms	77106@10.0	112%	99102@7.7	172%
16.0K	35473@16.6ms	47678@12.3	34%	90721@4.2	156%
32.0K	32165@7.9ms	33365@7.7	4%	61724@4.1	92%
64.0K	1897@8.8ms	2116@7.9	12%	2610@6.4	38%
256.0K	4363@3.8ms	5031@6.7	15%	4839@6.9	11%
512.0K	5493@4.6ms	6185@5.4	13%	6387@5.2	16%
1024.0K	5846@5.7ms	6375@5.2	9%	7048@4.7	21%

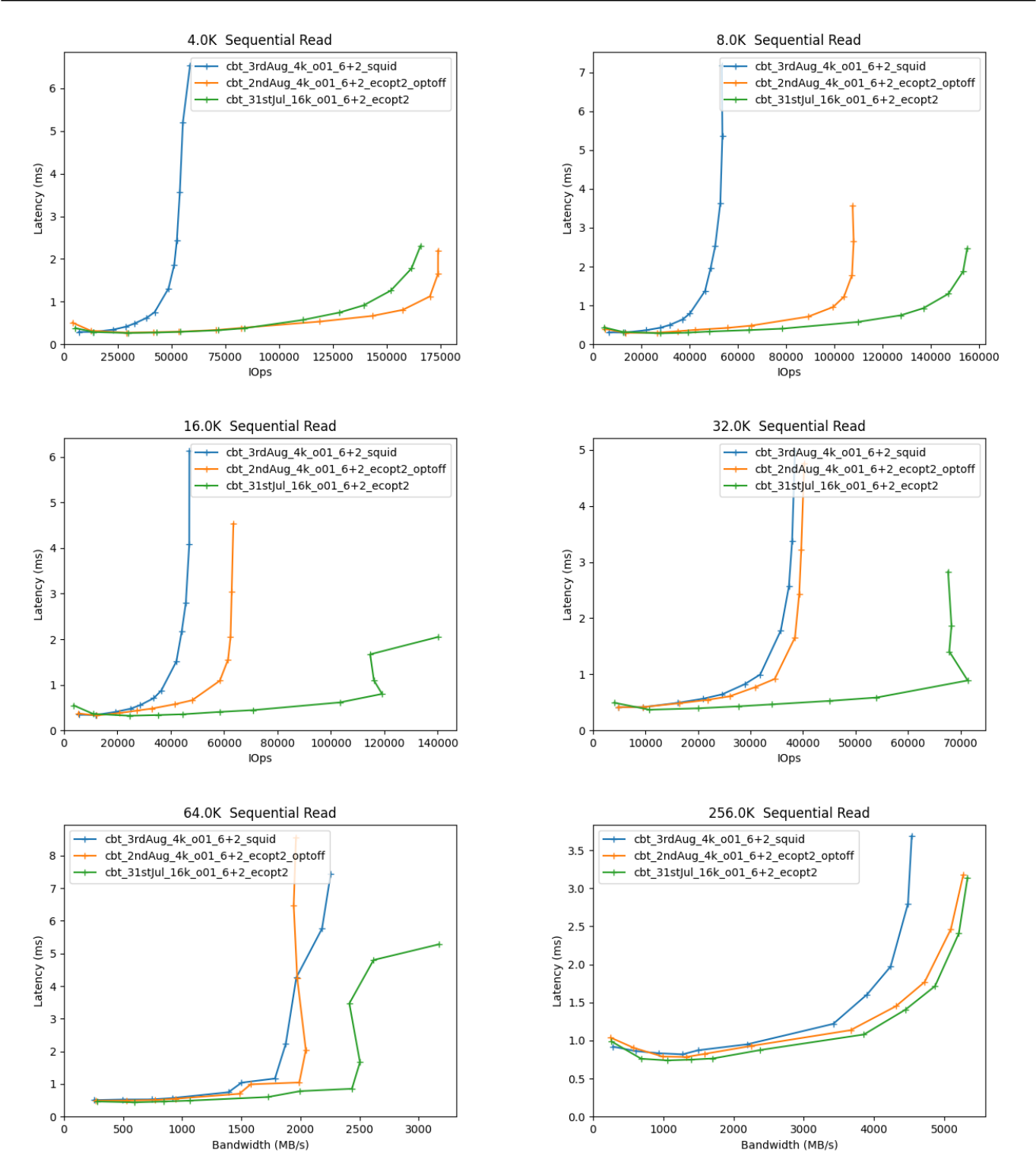
Random Write	cbt_3rdAug_4k_o01-6+2-squid	cbt-2ndAug-4k-o01_6+2_ecopt2-optoff	%change	cbt_31stJul_16k_o01_6+2_ecopt2	%change
4.0K	10725@71.6ms	12633@60.8	18%	23646@21.6	120%
8.0K	10706@71.7ms	12534@61.3	17%	22343@34.4	109%
16.0K	10123@50.5ms	12246@41.8	21%	20872@24.5	106%
32.0K	10117@50.6ms	11819@43.3	17%	15269@16.7	51%
64.0K	596@42.2ms	717@35.0	20%	827@30.4	39%
256.0K	1785@37.5ms	2188@30.5	23%	2105@31.7	18%

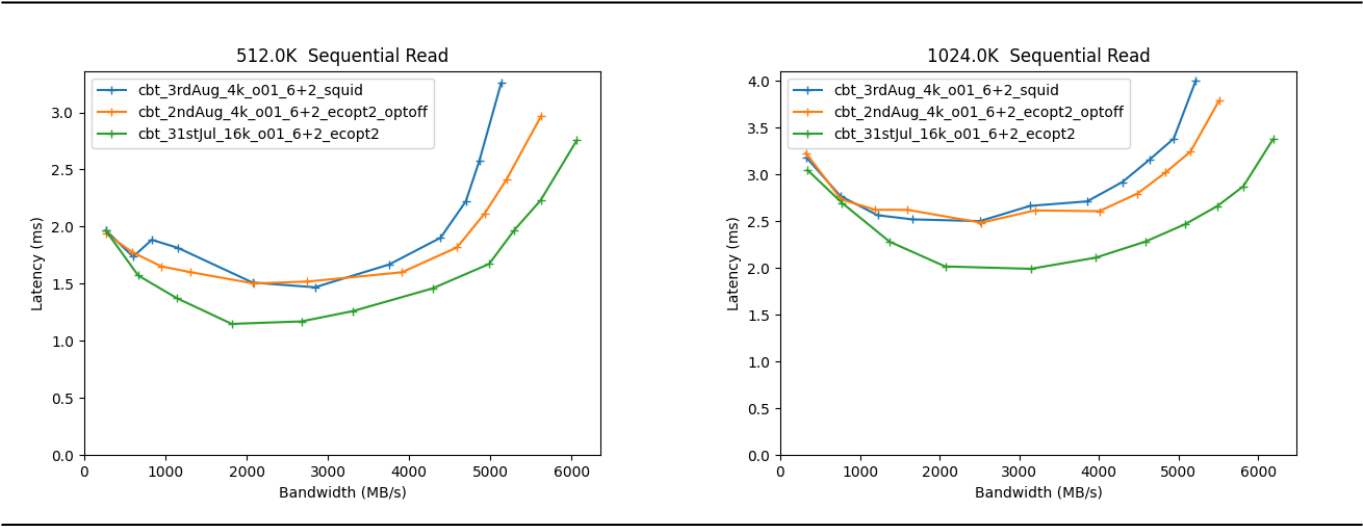
Random Write	cbt_3rdAug_4k_o01-6+2-squid	cbt-2ndAug-4k_o01_6+2_ecopt2-optoff	cbt_31stJul_16k_o01_6+2_ecopt2
512.0K	2534@9.7ms	2850@11.5	12%
1024.0K	3217@15.2ms	3765@12.9	17%

Random Read/Write	cbt_3rdAug_4k_o01-6+2-squid	cbt-2ndAug-4k_o01_6+2_ecopt2-optoff	cbt_31stJul_16k_o01_6+2_ecopt2
4.0K_70/30	21146@18.1ms	31748@12.1	50%
16.0K_70/30	19770@12.9ms	25760@9.9	30%
64.0K_70/30	1147@14.6ms	1261@13.3	10%
64.0K_30/70	739@22.7ms	878@19.1	19%

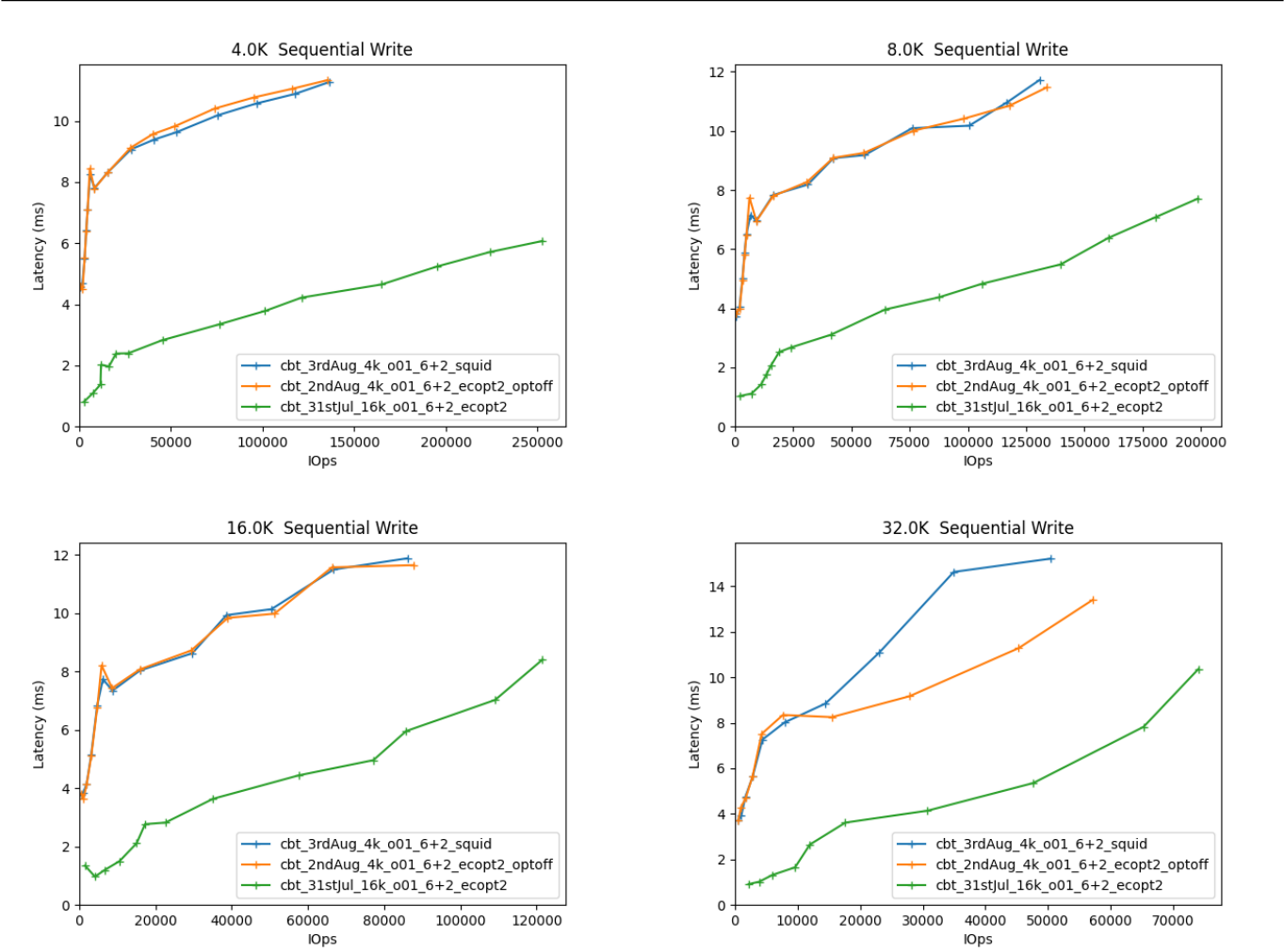
# Response Curves

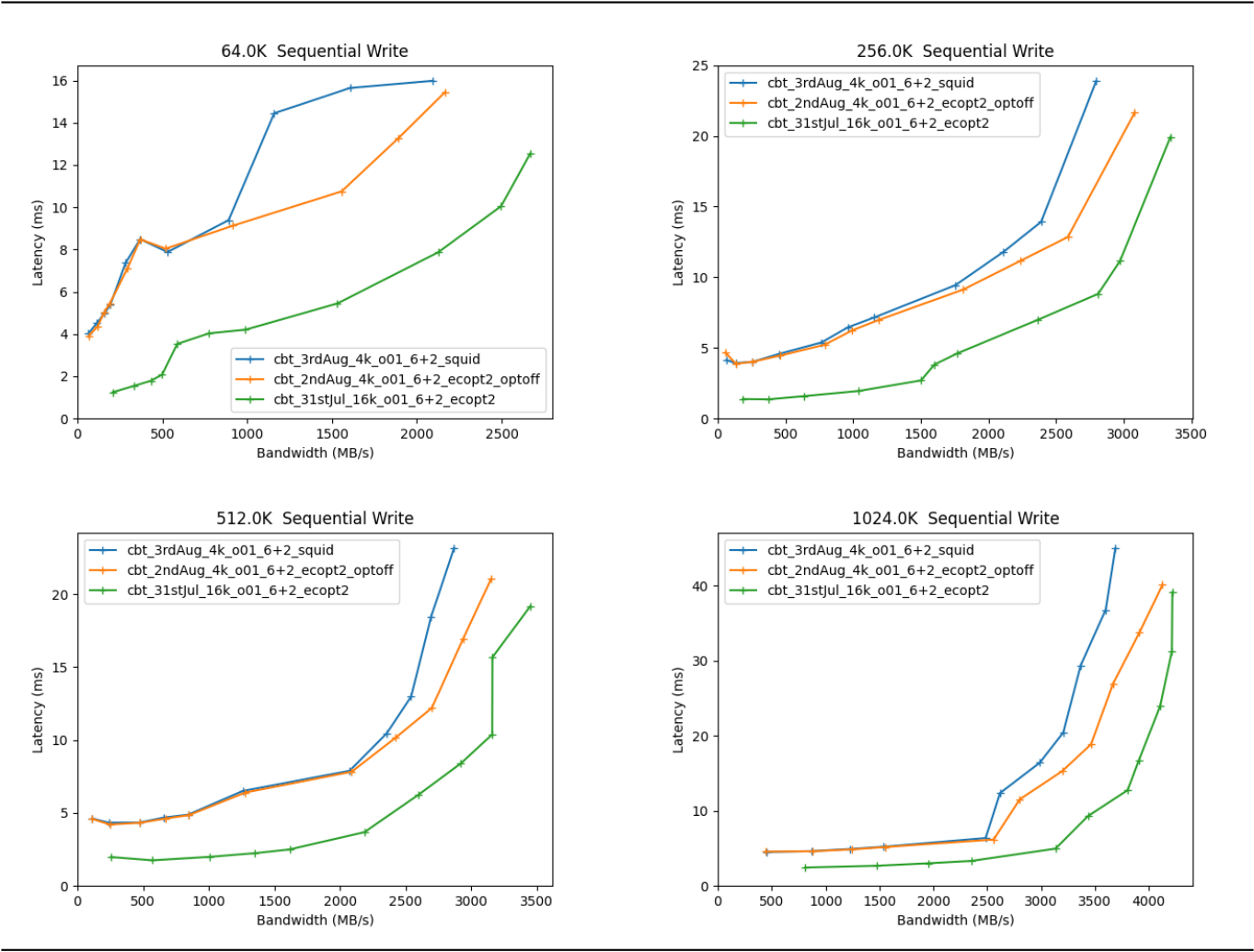
## Sequential Read



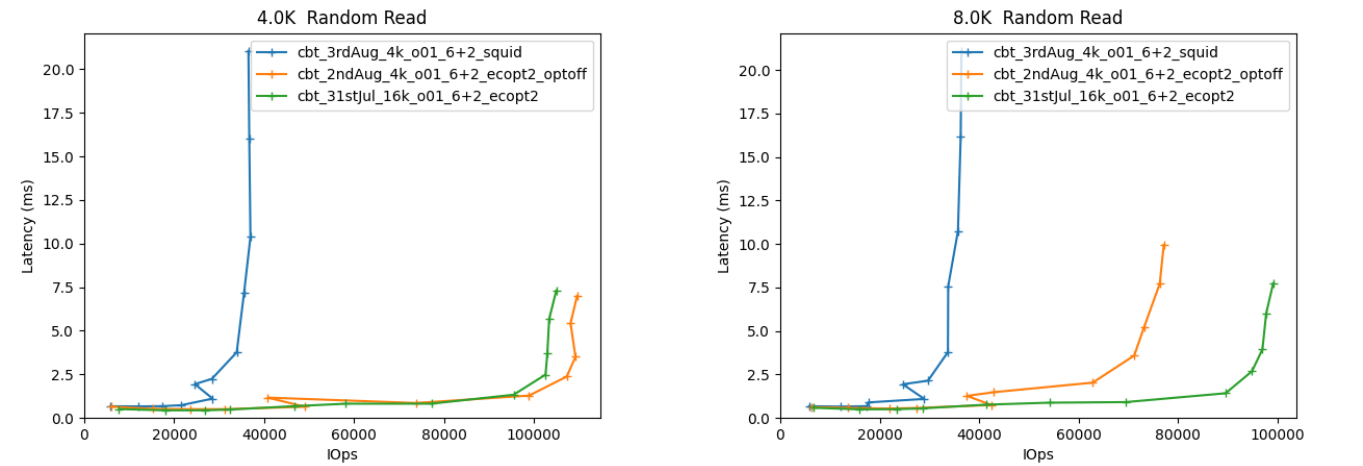


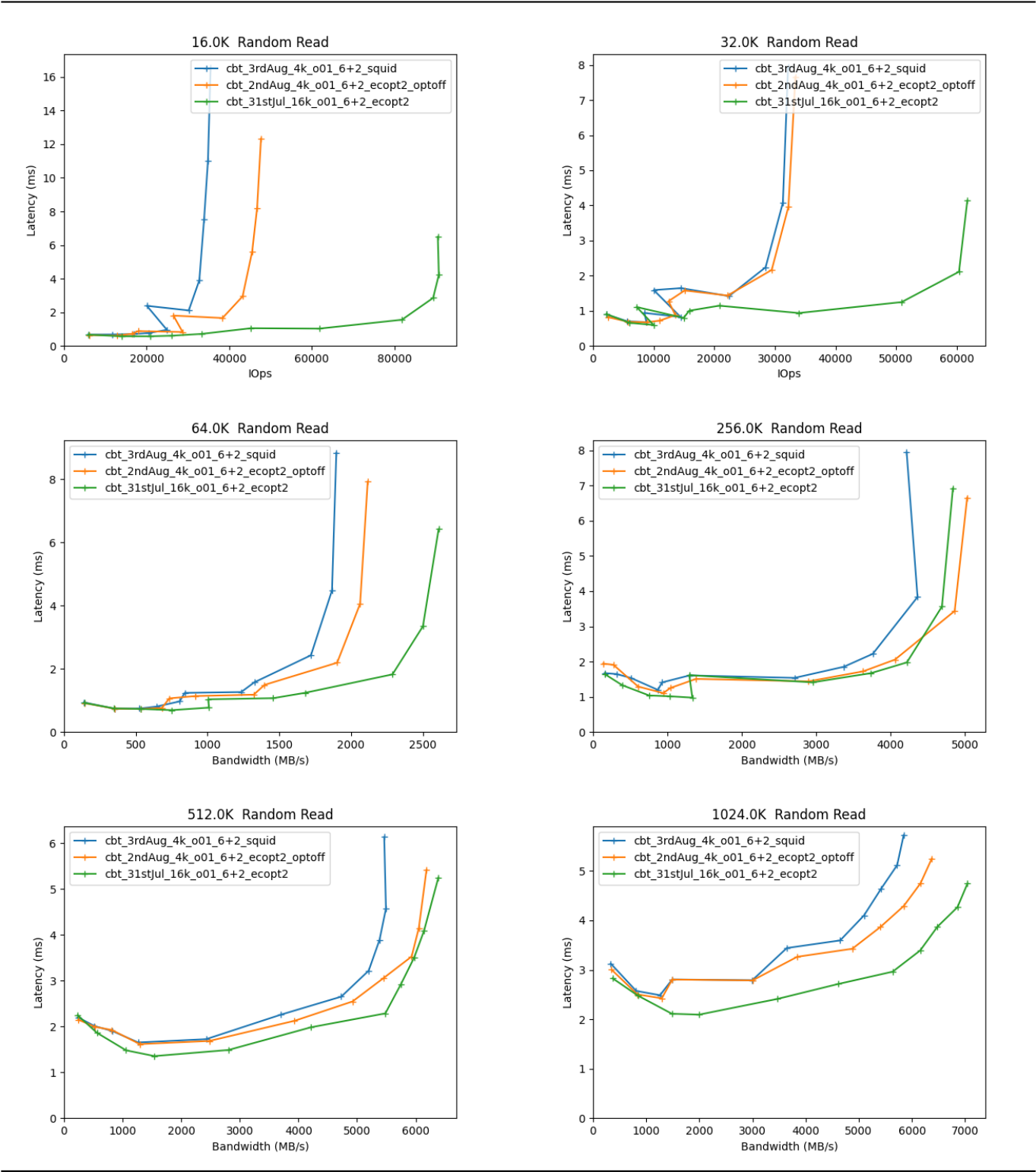
Sequential Write





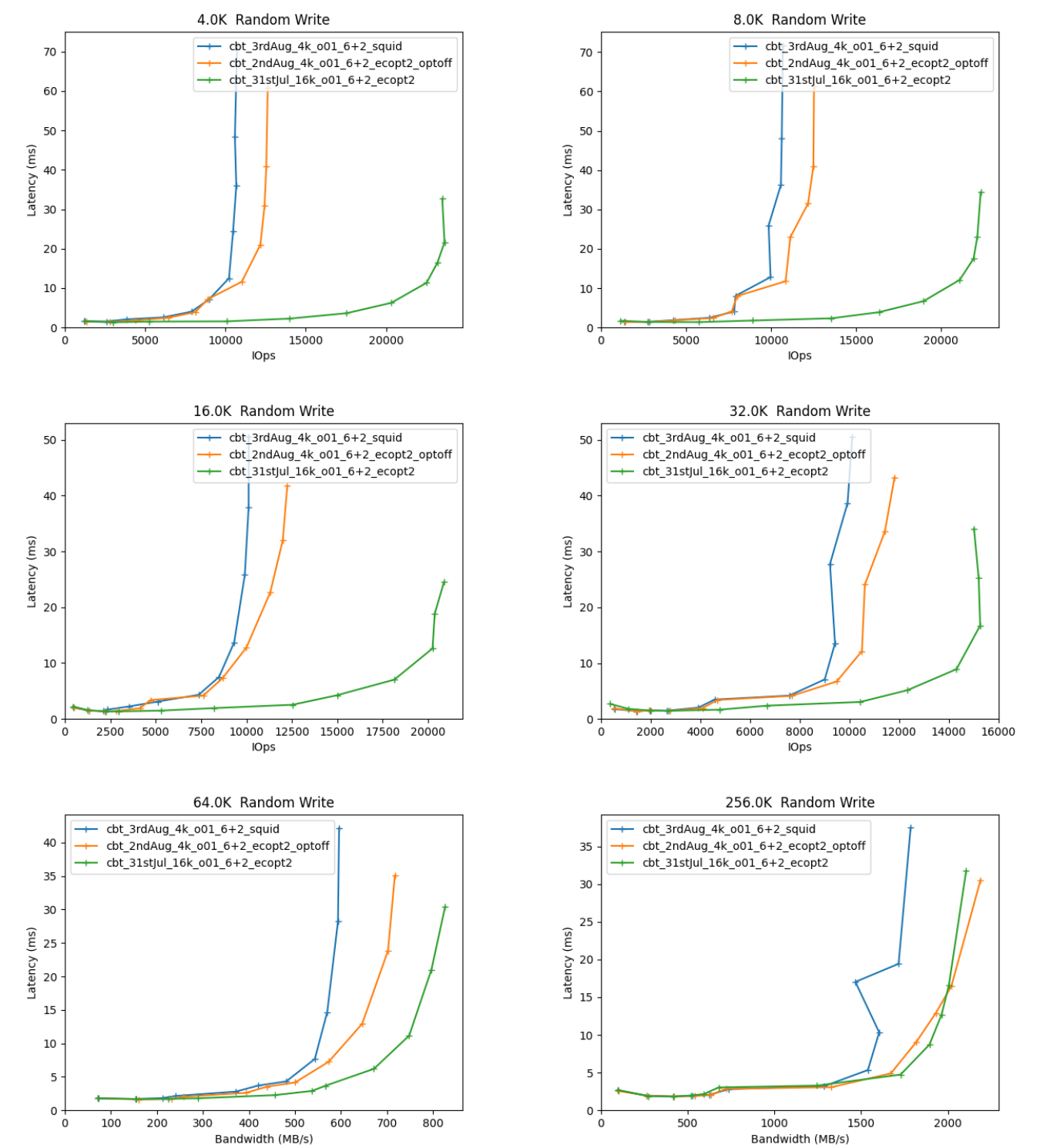
Random Read

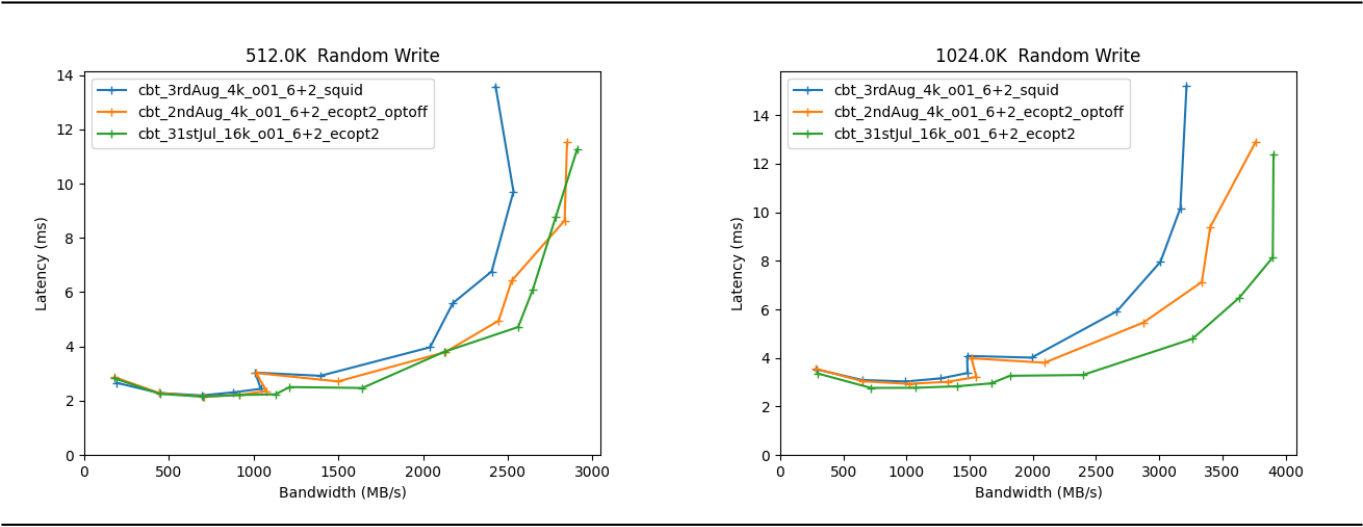




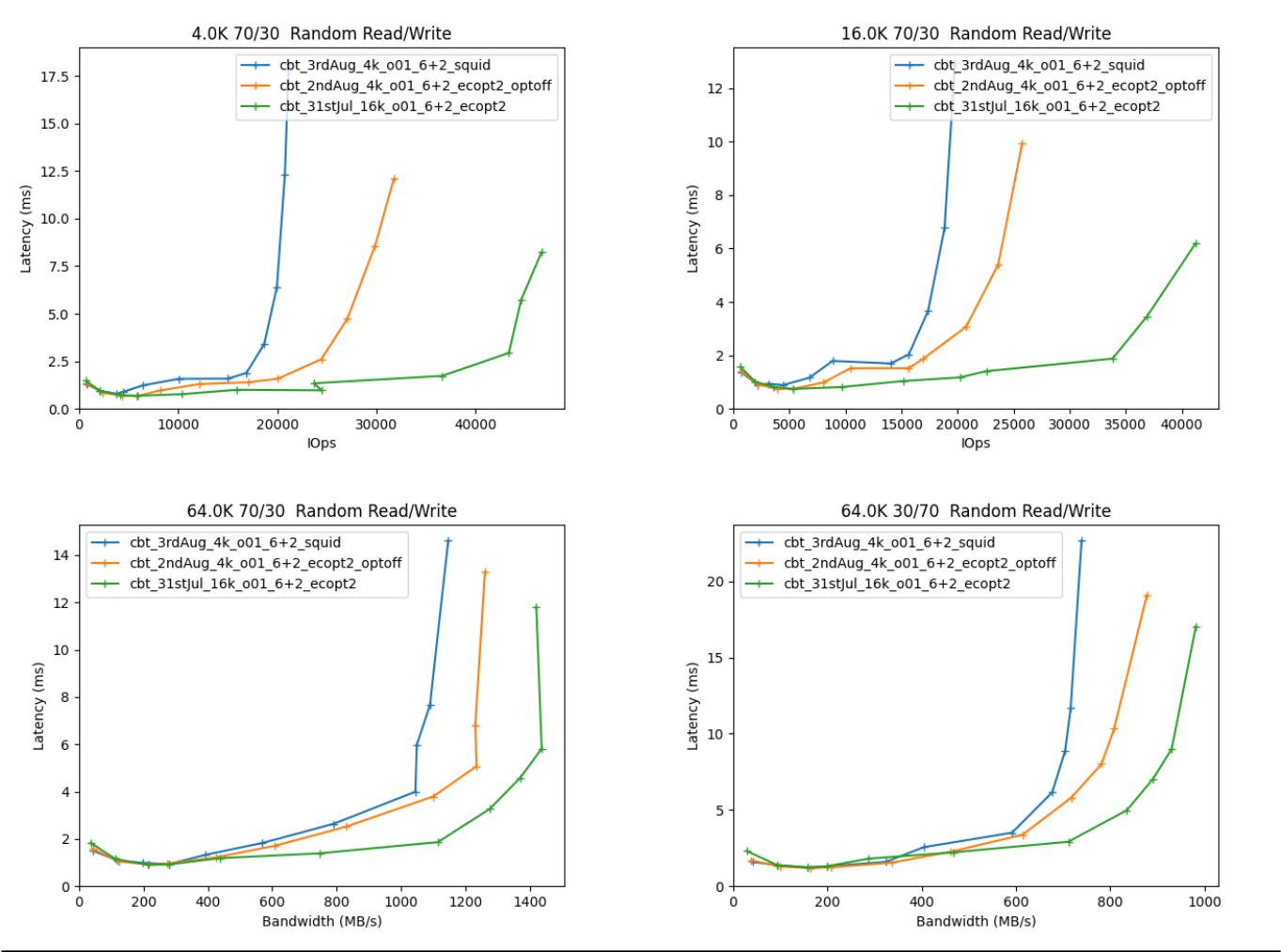
Random Write







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

```
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: 1368750
  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
```



```
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
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

```





```

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
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

```

```
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

```



```
- 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
```

cbt-3rdAug-4k-o01-6+2-squid vs cbt-2ndAug-4k-o01-6+2-23opt2-optoff vs cbt-31stJul-16k-o01-6+2-ecoAug 4, 2025

cbt-3rdAug-4k-o01-6+2-squid vs cbt-2ndAug-4k-o01-6+2-24cbrpt2-optoff vs cbt-31stJul-16k-o01-6+2-ecoAug 4, 2025



```
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
```



```
- 8
- 12
- 16
- 24
- 32
- 64
- 128
- 256
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
```



```

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
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:

```







