

Comparitive Performance Report for
cbt-4thAug-16k-o01-4+2-ecopt2 vs
cbt-31stJul-16k-o01-6+2-ecopt2 vs
cbt-16thAug-16k-o01-4+2-ecopt2-pdwon

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Comparison summary for cbt-4thAug-16k-o01-4+2-ecopt2 vs cbt-31stJul-16k-o01-6+2-ecopt2 vs cbt-16thAug-16k-o01-4+2-ecopt2-pdwon

Sequential Read	cbt_4thAug_16k_o01_4+2-ecopt2	cbt_31stJul_16k_o01_6+2-ecopt2	%change	cbt_16thAug_16k_o01_4+2-ecopt2-pdwon	%change
4.0K	143642@2.7ms	165897@2.3	15%	144251@2.7	0%
8.0K	140289@2.7ms	155175@2.5	11%	139797@2.7	-0%
16.0K	126594@2.3ms	140148@2.0	11%	131862@2.2	4%
32.0K	76709@2.5ms	71375@0.9	-7%	78903@2.4	3%
64.0K	2998@5.6ms	3172@5.3	6%	2994@5.6	-0%
256.0K	5947@2.8ms	5330@3.1	-10%	6203@2.7	4%
512.0K	6420@2.6ms	6067@2.8	-5%	6699@2.5	4%
1024.0K	6346@3.3ms	6186@3.4	-3%	6492@3.2	2%

Sequential Write	cbt_4thAug_16k_o01_4+2-ecopt2	cbt_31stJul_16k_o01_6+2-ecopt2	%change	cbt_16thAug_16k_o01_4+2-ecopt2-pdwon	%change
4.0K	280184@5.5ms	252680@6.1	-10%	227544@6.7	-19%
8.0K	217309@7.1ms	198909@7.7	-8%	161376@9.5	-26%
16.0K	131110@7.8ms	121584@8.4	-7%	93602@10.9	-29%
32.0K	79346@9.7ms	73998@10.4	-7%	55397@13.8	-30%
64.0K	2908@11.5ms	2668@12.5	-8%	3019@11.1	4%
256.0K	3621@18.4ms	3346@19.9	-8%	3794@17.6	5%
512.0K	3809@17.4ms	3453@19.2	-9%	3994@16.5	5%
1024.0K	4645@35.6ms	4218@39.2	-9%	4856@34.0	5%

Random Read	cbt_4thAug_16k_o01_4+2-ecopt2	cbt_31stJul_16k_o01_6+2-ecopt2	%change	cbt_16thAug_16k_o01_4+2-ecopt2-pdwon	%change
4.0K	125142@6.1ms	104960@7.3	-16%	125194@6.1	0%
8.0K	118048@6.5ms	99102@7.7	-16%	113337@6.8	-4%
16.0K	110136@5.3ms	90721@4.2	-18%	109412@5.4	-1%
32.0K	70582@3.6ms	61724@4.1	-13%	69601@5.5	-1%
64.0K	2749@6.1ms	2610@6.4	-5%	2678@9.4	-3%
256.0K	5778@5.8ms	4839@6.9	-16%	6138@5.5	6%
512.0K	7132@4.7ms	6387@5.2	-10%	7350@4.6	3%
1024.0K	7381@4.5ms	7048@4.7	-5%	7614@4.4	3%

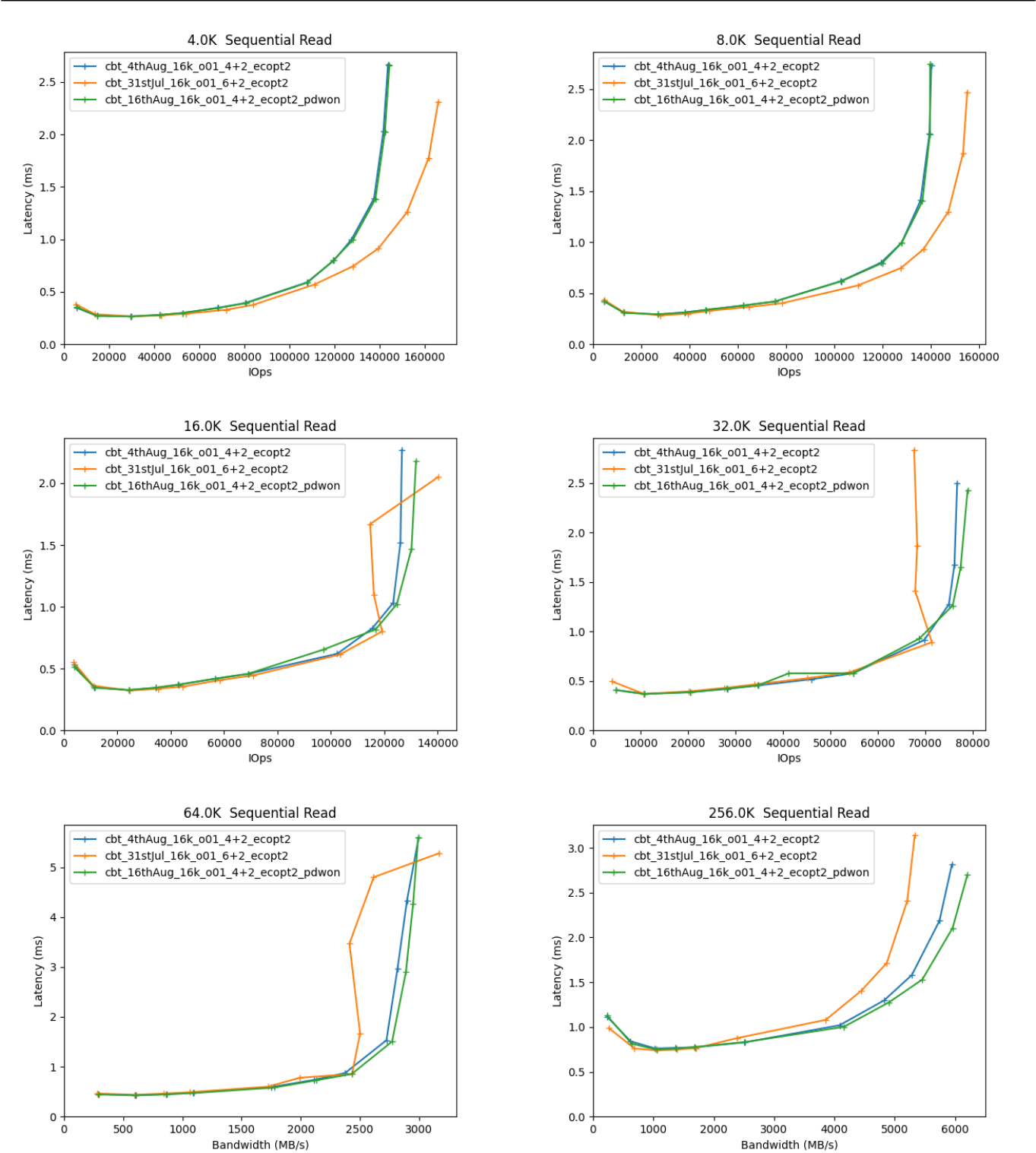
Random Write	cbt_4thAug_16k_o01_4+2-ecopt2	cbt_31stJul_16k_o01_6+2-ecopt2	%change	cbt_16thAug_16k_o01_4+2-ecopt2-pdwon	%change
4.0K	18916@40.6ms	23646@21.6	25%	19987@12.8	6%
8.0K	17888@42.9ms	22343@34.4	25%	19744@38.9	10%
16.0K	17659@14.5ms	20872@24.5	18%	18701@27.4	6%
32.0K	15931@24.1ms	15269@16.7	-4%	15249@25.1	-4%
64.0K	890@9.4ms	827@30.4	-7%	977@25.7	10%
256.0K	2623@25.5ms	2105@31.7	-20%	2939@22.7	12%

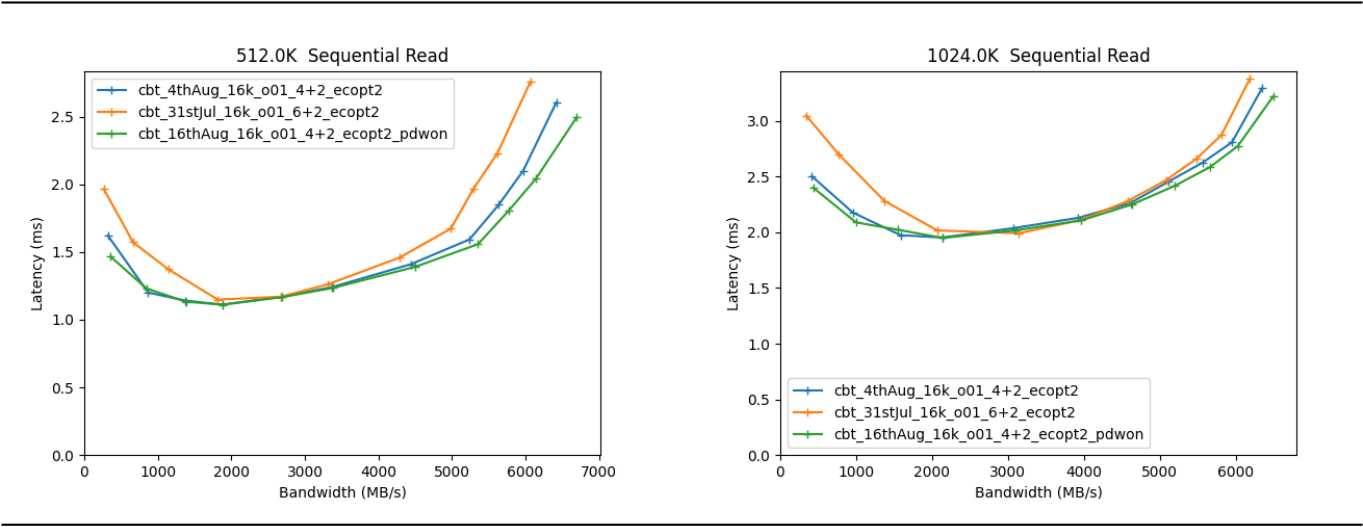
Random Write	cbt_4thAug_16k_o01-4+2-ecopt2	cbt-31stJul-16k_o01_6+2_ecopt2	%change	cbt_16thAug_16k_o01_4+2_ecopt2	cbt-16thAug-16k-o01-4+2-ecopt2-pdwon
512.0K	3507@9.3ms	2910@11.3	-17%	3844@8.5	10%
1024.0K	4309@11.2ms	3905@12.4	-9%	4550@10.5	6%

Random Read/Write	cbt_4thAug_16k_o01-4+2-ecopt2	cbt-31stJul-16k_o01_6+2_ecopt2	%change	cbt_16thAug_16k_o01_4+2_ecopt2	cbt-16thAug-16k-o01-4+2-ecopt2-pdwon
4.0K_70/30	39936@6.4ms	46650@8.2	17%	42889@9.0	7%
16.0K_70/30	36732@7.0ms	41239@6.2	12%	39665@6.4	8%
64.0K_30/70	968@6.5ms	982@17.0	1%	1022@16.4	6%
64.0K_70/30	1415@11.8ms	1438@5.8	2%	1444@5.8	2%

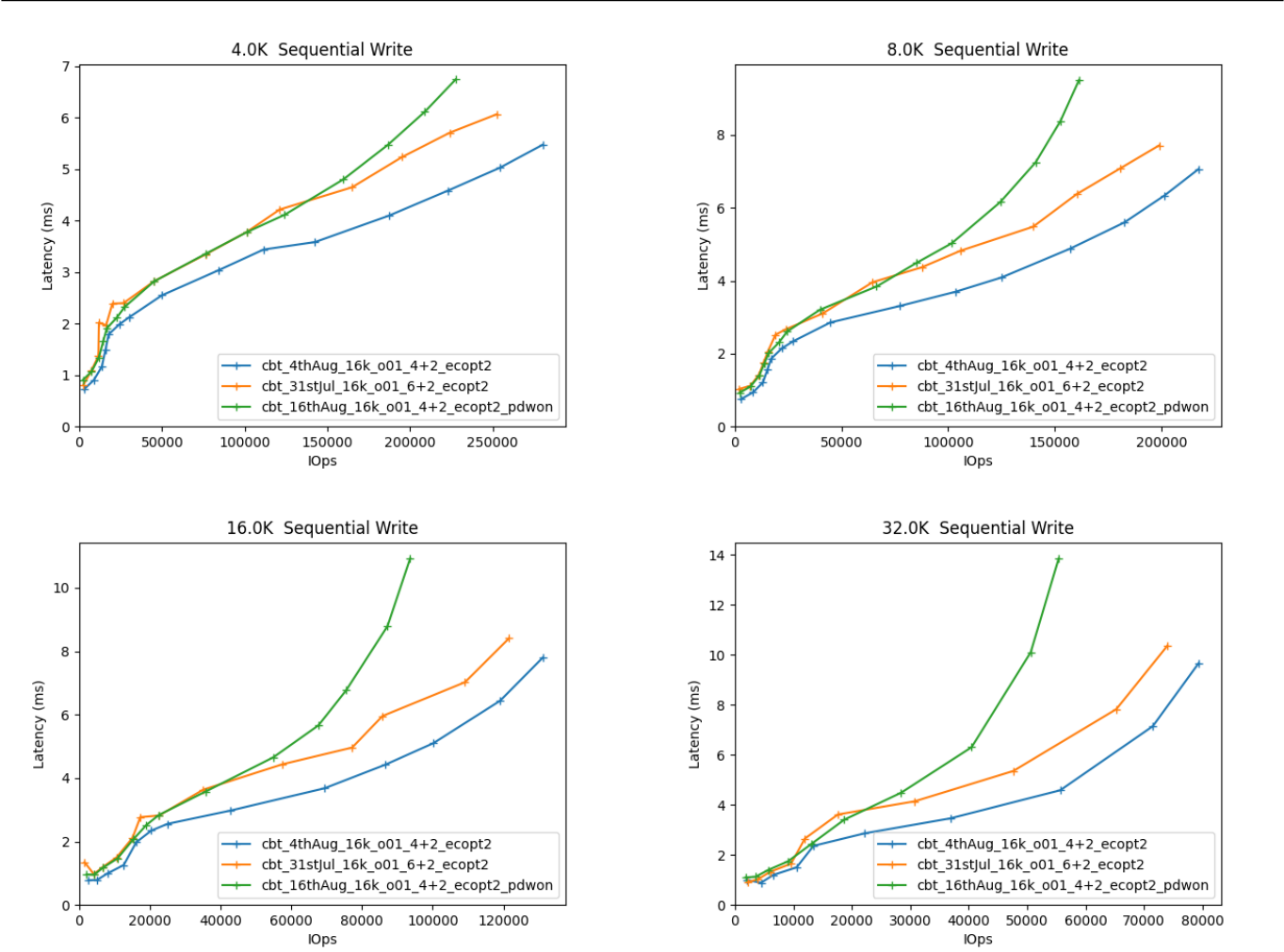
Response Curves

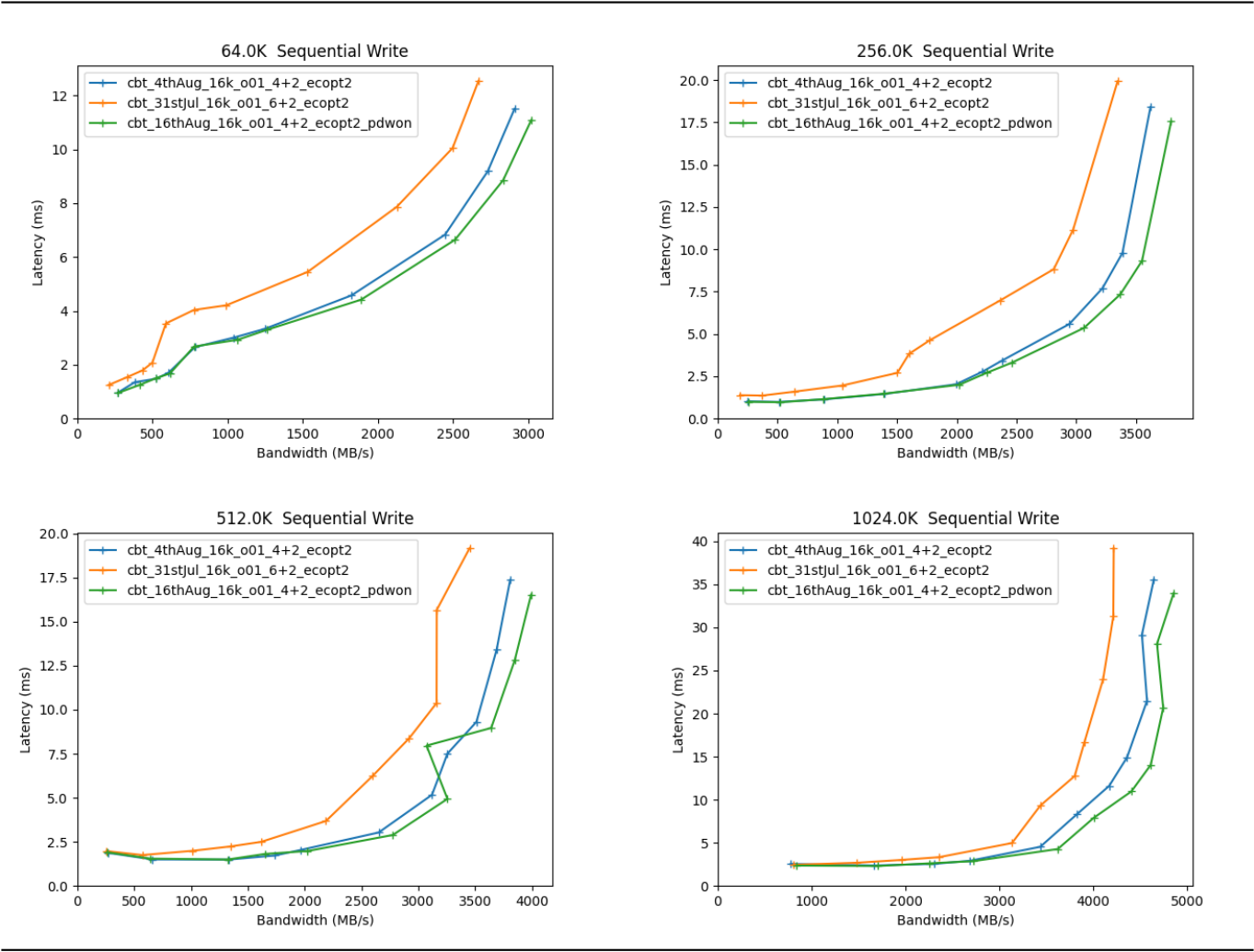
Sequential Read



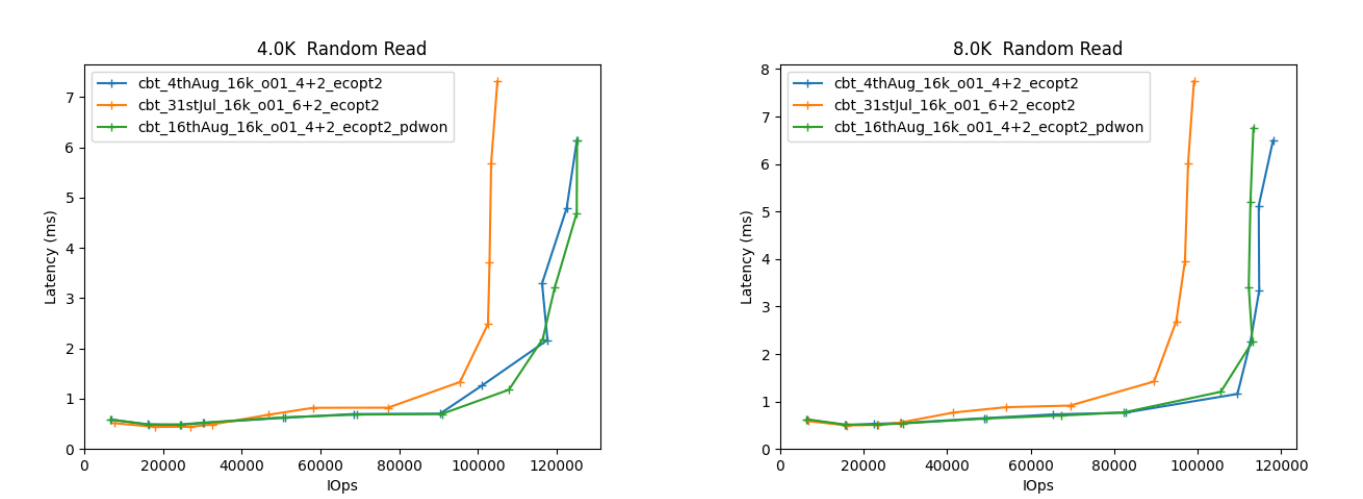


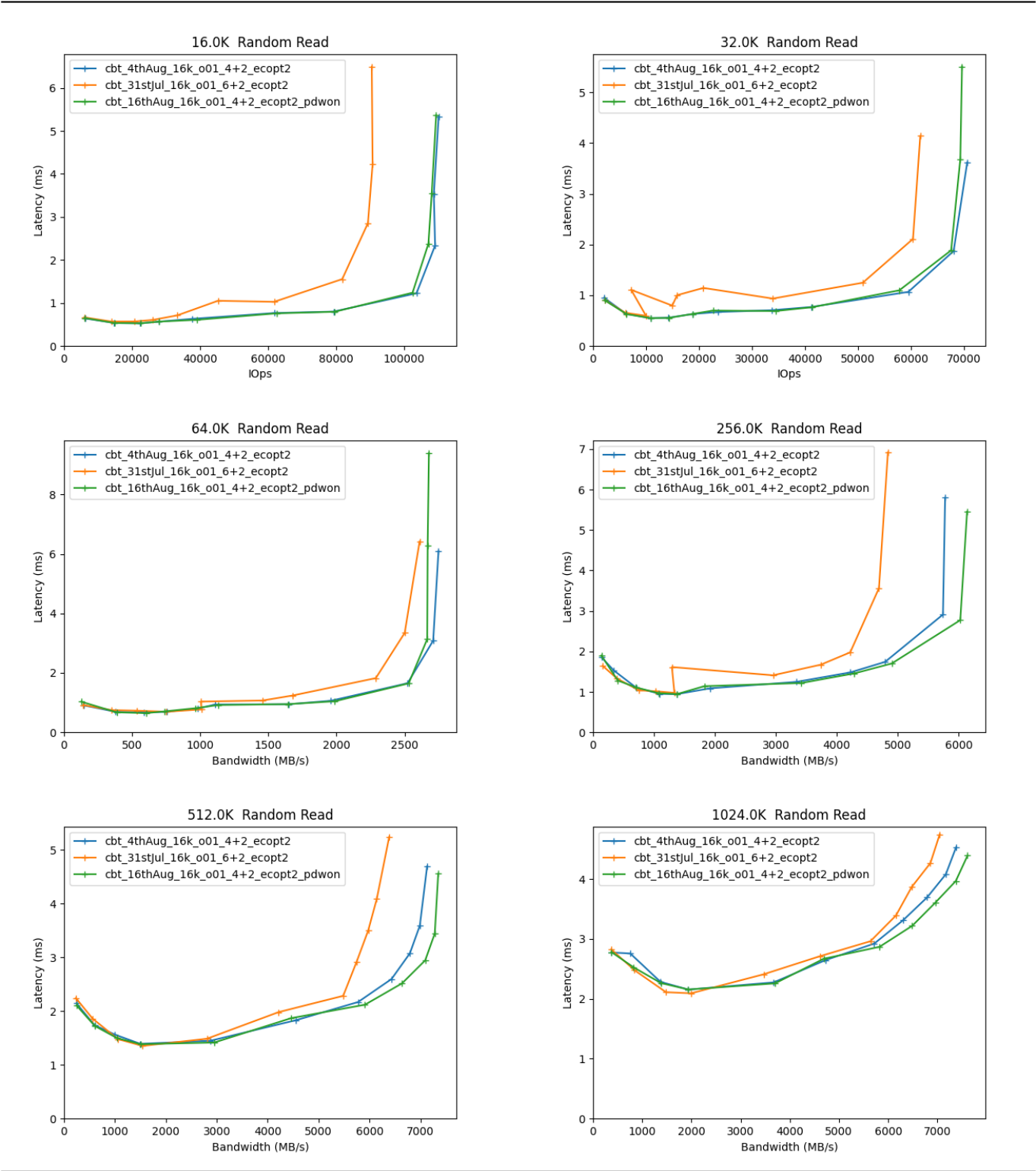
Sequential Write



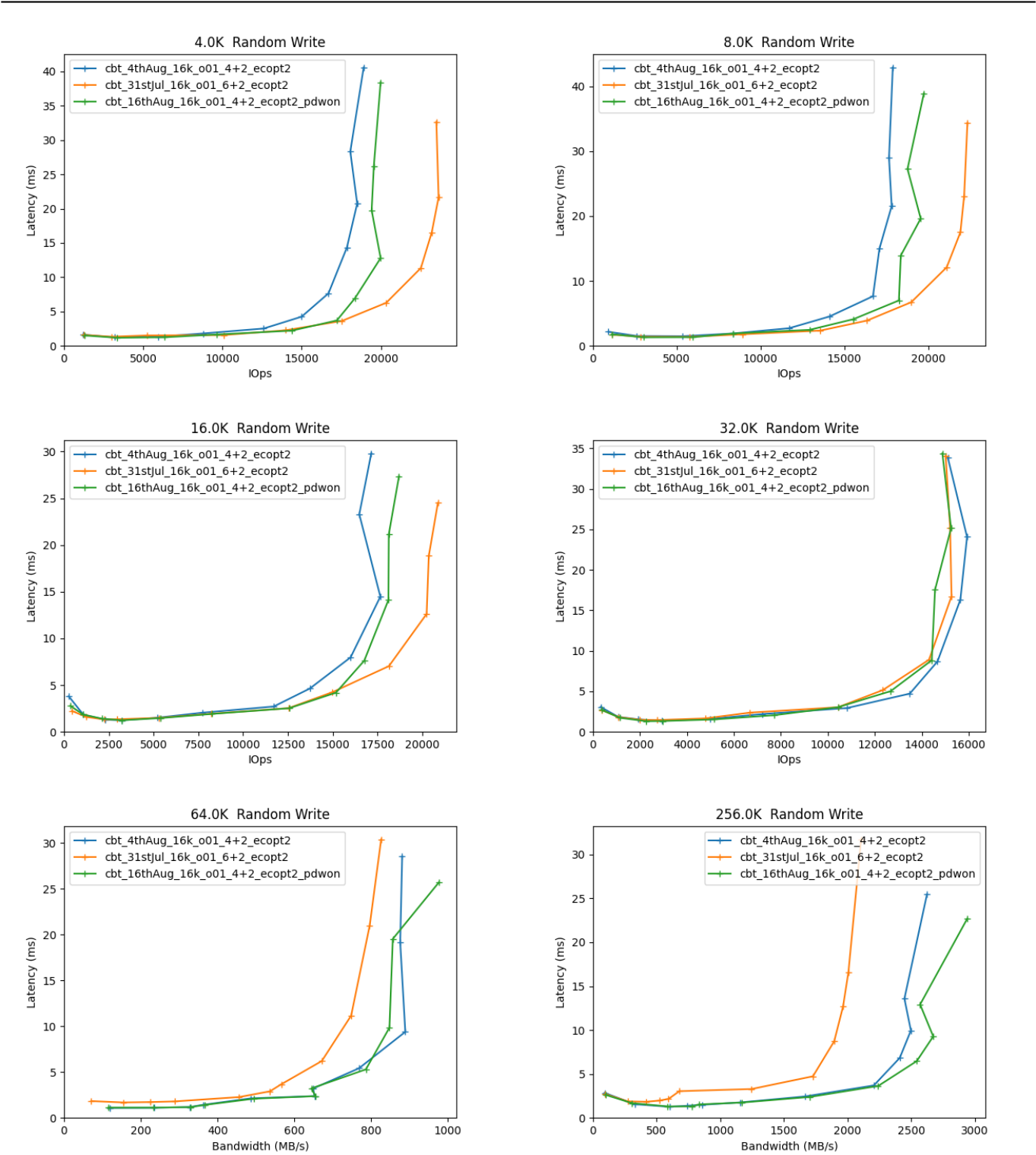


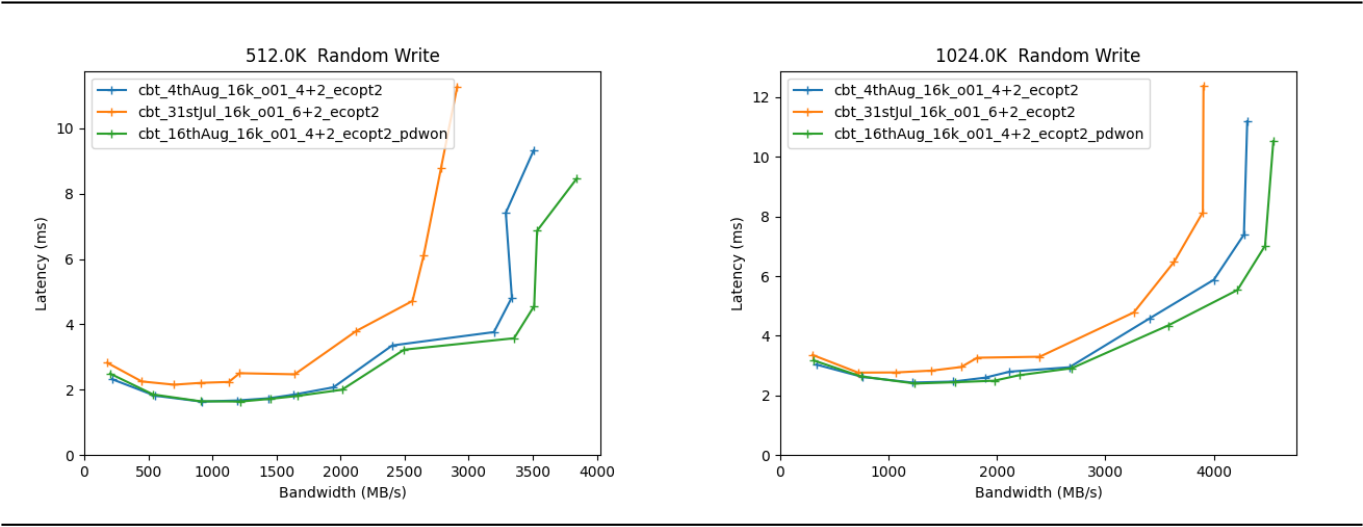
Random Read



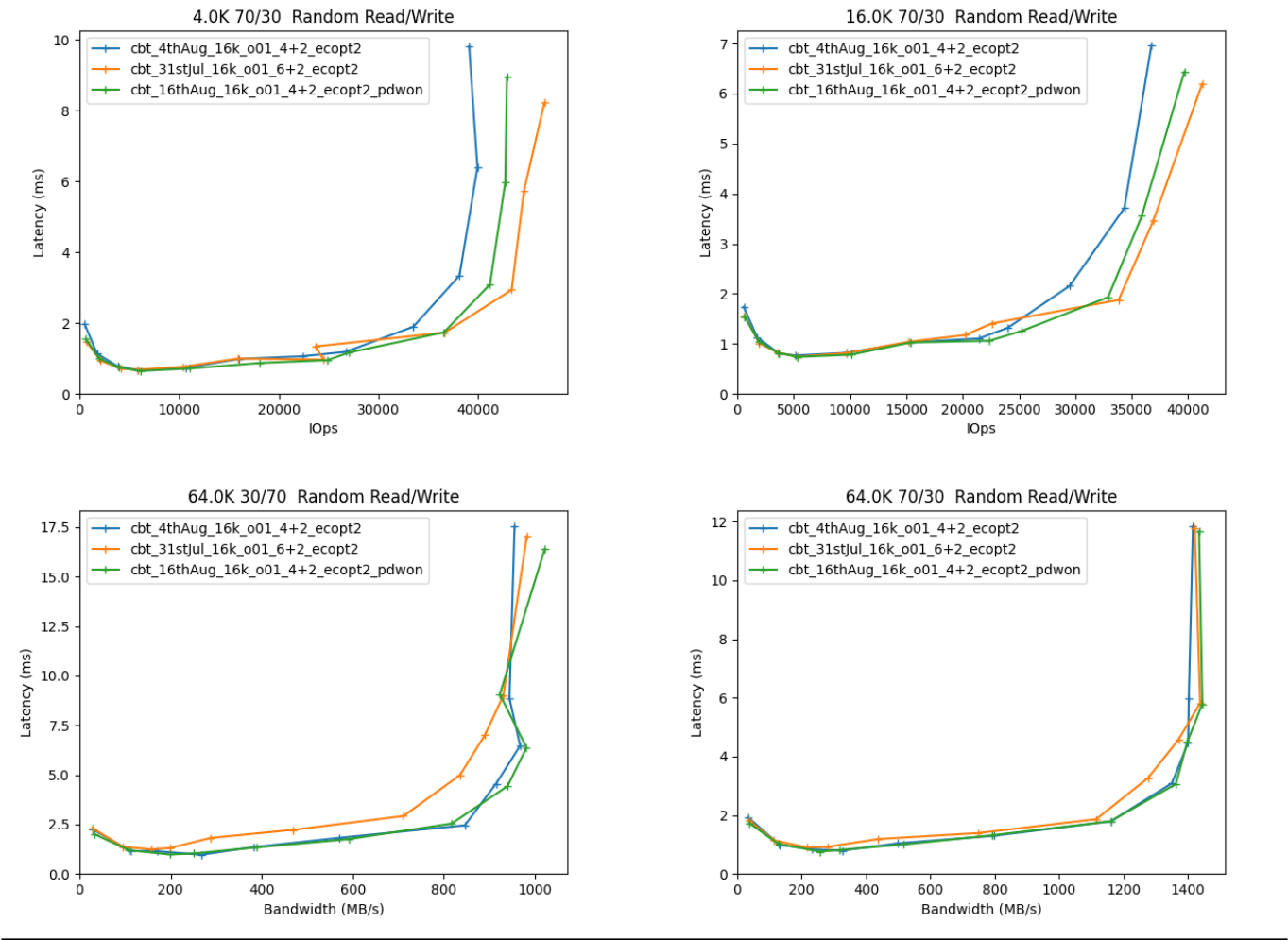


Random Write





Random Read/Write




```
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: 1204500
  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
```



```

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

```


cbt-4thAug-16k-o01-4+2-ecopt2 vs cbt-31stJul-16k-o01-6+2-ecopt2 vs cbt-16thAug-16k-o01-4+2-ecopt2 Aug 19, 2025

```
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
```



```
- 8
- 16
- 24
- 32
- 48
- 64
seq256kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 4
    - 8
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 256
seq32kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 512
    - 768
seq4kread:
  jobname: seqread
  mode: read
  numjobs:
```

```
- 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-4thAug-16k-o01-4+2-ecopt2 vs cbt-31stJul-16k-o01-6+2-ecopt2 vs cbt-16thAug-16k-o01-4+2-ecopt2 Aug 19, 2025

Aug-16k-o01-4+2-ecopt2 vs cbt-31stJul-16k-o01-6+2-ecopt2 vs cbt-16thAug-16k-o01-4+2-ecopt2 vs cbt-16thAug-16k-o01-4+2-ecopt2 August 19, 2025


```

- 16
- 32
- 64
- 128
- 256
- 384
- 512
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
```

cbt-4thAug-16k-o01-4+2-ecopt2 vs cbt-31stJul-16k-o01-6+2-ecopt2 vs cbt-16thAug-16k-o01-4+2-ecopt2 August 19, 2025


```

- 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

```

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:

```



```
- 1
- 2
- 4
- 8
- 16
- 24
- 32
- 64
- 96
- 128
- 256

seq32kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192

seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 512
    - 768

seq4kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
```