

测试目标配置

8c32g

系统盘

50GiB

FIO

参考文档: https://fio.readthedocs.io/en/latest/fio_doc.html

```
apt install -y fio
```

在纯净无干扰环境测试

16k-IODEPTH1-500M

操作

```
filename="/dev/vdb"
```

```
echo "顺序"
sleep 30
echo "顺序读"
fio --filename=${filename} --direct=1 -thread --rw=read --bs=16k -size=500M --
ioengine=libaio --iodepth=1 --numjobs=1 --time_based --group_reporting --
name=test-job --runtime=100 --eta-newline=30

echo "顺序写"
sleep 30
fio --filename=${filename} --direct=1 -thread --rw=write --bs=16k -size=500M --
ioengine=libaio --iodepth=1 --numjobs=1 --time_based --group_reporting --
name=test-job --runtime=100 --eta-newline=30

echo "顺序读写"
sleep 30
fio --filename=${filename} --direct=1 -thread --rw=rw --bs=16k -size=500M --
ioengine=libaio --iodepth=1 --numjobs=1 --time_based --group_reporting --
name=test-job --runtime=100 --eta-newline=30

echo "随机"
echo "随机读"
sleep 30
fio --filename=${filename} --direct=1 -thread --rw=randread --bs=16k -size=500M -
ioengine=libaio --iodepth=1 --numjobs=1 --time_based --group_reporting --
name=test-job --runtime=100 --eta-newline=30
```

```
echo "随机写"
sleep 30
fio --filename=${filename} --direct=1 -thread --rw=randwrite --bs=16k -size=500M
--ioengine=libaio --iodepth=1 --numjobs=1 --time_based --group_reporting --
name=test-job --runtime=100 --eta-newline=30

echo "随机读写"
sleep 30
fio --filename=${filename} --direct=1 -thread --rw=randrw --bs=16k -size=500M --
ioengine=libaio --iodepth=1 --numjobs=1 --time_based --group_reporting --
name=test-job --runtime=100 --eta-newline=30
```

结论

vdb

```
echo "顺序"
echo "顺序读"
最小0.02ms，最大7ms，平均0.03ms

echo "顺序写"
最小0.6ms，最大14ms，平均0.9ms

echo "顺序读写"
最小0.3ms，最大8ms，平均0.4ms
最小0.6ms，最大10ms，平均0.7ms

echo "随机"
echo "随机读"
最小0.3ms，最大5ms，平均0.5ms

echo "随机写"
最小0.6ms，最大24ms，平均1ms

echo "随机读写"
最小0.3ms，最大5ms，平均0.6ms
最小0.6ms，最大30ms，平均1ms
```

结论

过程

/dev/vdb

```
顺序
顺序读
test-job: (g=0): rw=read, bs=(R) 16.0KiB-16.0KiB, (w) 16.0KiB-16.0KiB, (T)
16.0KiB-16.0KiB, ioengine=libaio, iodepth=1
fio-3.33
Starting 1 thread
Jobs: 1 (f=1): [R(1)][32.0%][r=521MiB/s][r=33.4k IOPS][eta 01m:08s]
Jobs: 1 (f=1): [R(1)][63.0%][r=544MiB/s][r=34.8k IOPS][eta 00m:37s]
Jobs: 1 (f=1): [R(1)][94.0%][r=495MiB/s][r=31.7k IOPS][eta 00m:06s]
Jobs: 1 (f=1): [R(1)][100.0%][r=541MiB/s][r=34.6k IOPS][eta 00m:00s]
test-job: (groupid=0, jobs=1): err= 0: pid=60834: Thu Dec 21 02:41:03 2023
read: IOPS=33.6k, BW=525MiB/s (550MB/s)(51.2GiB/100001msec)
  slat (usec): min=6, max=897, avg= 7.21, stdev= 1.35
  clat (nsec): min=470, max=6531.0k, avg=22179.45, stdev=19731.14
    lat (usec): min=18, max=6542, avg=29.39, stdev=19.91
  clat percentiles (usec):
    | 1.00th=[ 15], 5.00th=[ 15], 10.00th=[ 15], 20.00th=[ 15],
    | 30.00th=[ 23], 40.00th=[ 23], 50.00th=[ 23], 60.00th=[ 23],
    | 70.00th=[ 24], 80.00th=[ 24], 90.00th=[ 25], 95.00th=[ 30],
    | 99.00th=[ 33], 99.50th=[ 35], 99.90th=[ 420], 99.95th=[ 445],
    | 99.99th=[ 578]
  bw ( KiB/s): min=371648, max=596928, per=100.00%, avg=537249.29,
stdev=37659.62, samples=199
  iops          : min=23228, max=37308, avg=33578.08, stdev=2353.73, samples=199
  lat (nsec)    : 500=0.01%, 750=0.03%, 1000=0.01%
  lat (usec)    : 2=0.01%, 4=0.01%, 10=0.03%, 20=27.03%, 50=72.68%
  lat (usec)    : 100=0.02%, 250=0.01%, 500=0.19%, 750=0.01%, 1000=0.01%
  lat (msec)    : 2=0.01%, 4=0.01%, 10=0.01%
  cpu           : usr=5.84%, sys=19.33%, ctx=6714344, majf=0, minf=5
  IO depths    : 1=100.0%, 2=0.0%, 4=0.0%, 8=0.0%, 16=0.0%, 32=0.0%, >=64=0.0%
    submit     : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
    complete   : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
    issued rwts: total=3357248,0,0,0 short=0,0,0,0 dropped=0,0,0,0
    latency    : target=0, window=0, percentile=100.00%, depth=1

Run status group 0 (all jobs):
  READ: bw=525MiB/s (550MB/s), 525MiB/s-525MiB/s (550MB/s-550MB/s), io=51.2GiB
(55.0GB), run=100001-100001msec

Disk stats (read/write):
  vdb: ios=3353627/0, merge=0/0, ticks=82316/0, in_queue=82316, util=99.93%
顺序写
test-job: (g=0): rw=write, bs=(R) 16.0KiB-16.0KiB, (w) 16.0KiB-16.0KiB, (T)
16.0KiB-16.0KiB, ioengine=libaio, iodepth=1
fio-3.33
Starting 1 thread
Jobs: 1 (f=1): [W(1)][32.0%][w=11.0MiB/s][w=707 IOPS][eta 01m:08s]
Jobs: 1 (f=1): [W(1)][63.0%][w=21.2MiB/s][w=1360 IOPS][eta 00m:37s]
Jobs: 1 (f=1): [W(1)][94.0%][w=22.0MiB/s][w=1410 IOPS][eta 00m:06s]
Jobs: 1 (f=1): [W(1)][100.0%][w=22.0MiB/s][w=1407 IOPS][eta 00m:00s]
test-job: (groupid=0, jobs=1): err= 0: pid=60935: Thu Dec 21 02:43:13 2023
```

```
write: IOPS=1095, BW=17.1MiB/s (17.9MB/s)(1712MiB/100001msec); 0 zone resets
  slat (usec): min=5, max=151, avg= 7.38, stdev= 1.76
  clat (usec): min=567, max=14330, avg=904.74, stdev=326.78
    lat (usec): min=574, max=14337, avg=912.12, stdev=326.88
  clat percentiles (usec):
    | 1.00th=[ 603], 5.00th=[ 627], 10.00th=[ 644], 20.00th=[ 668],
    | 30.00th=[ 693], 40.00th=[ 709], 50.00th=[ 734], 60.00th=[ 766],
    | 70.00th=[ 955], 80.00th=[ 1336], 90.00th=[ 1385], 95.00th=[ 1434],
    | 99.00th=[ 1614], 99.50th=[ 1729], 99.90th=[ 2008], 99.95th=[ 2376],
    | 99.99th=[ 5014]
  bw ( KiB/s): min=11104, max=23520, per=99.92%, avg=17512.04, stdev=5287.35,
samples=199
  iops      : min= 694, max= 1470, avg=1094.50, stdev=330.46, samples=199
  lat (usec) : 750=55.16%, 1000=15.11%
  lat (msec) : 2=29.63%, 4=0.08%, 10=0.01%, 20=0.01%
  cpu        : usr=0.31%, sys=1.25%, ctx=109654, majf=0, minf=1
  IO depths  : 1=100.0%, 2=0.0%, 4=0.0%, 8=0.0%, 16=0.0%, 32=0.0%, >=64=0.0%
    submit   : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
    complete : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
    issued rwts: total=0,109542,0,0 short=0,0,0,0 dropped=0,0,0,0
    latency   : target=0, window=0, percentile=100.00%, depth=1
```

Run status group 0 (all jobs):

```
WRITE: bw=17.1MiB/s (17.9MB/s), 17.1MiB/s-17.1MiB/s (17.9MB/s-17.9MB/s),
io=1712MiB (1795MB), run=100001-100001msec
```

Disk stats (read/write):

```
vdb: ios=51/109401, merge=0/0, ticks=12/99076, in_queue=99089, util=99.96%
```

顺序读写

```
test-job: (g=0): rw=rw, bs=(R) 16.0KiB-16.0KiB, (W) 16.0KiB-16.0KiB, (T) 16.0KiB-
16.0KiB, ioengine=libaio, iodepth=1
```

fio-3.33

Starting 1 thread

```
Jobs: 1 (f=1): [M(1)][32.0%][r=13.3MiB/s,w=13.1MiB/s][r=852,w=839 IOPS][eta
01m:08s]
```

```
Jobs: 1 (f=1): [M(1)][63.0%][r=13.3MiB/s,w=13.5MiB/s][r=848,w=862 IOPS][eta
00m:37s]
```

```
Jobs: 1 (f=1): [M(1)][94.0%][r=12.0MiB/s,w=12.5MiB/s][r=766,w=797 IOPS][eta
00m:06s]
```

```
Jobs: 1 (f=1): [M(1)][100.0%][r=12.9MiB/s,w=13.2MiB/s][r=828,w=848 IOPS][eta
00m:00s]
```

```
test-job: (groupid=0, jobs=1): err= 0: pid=61078: Thu Dec 21 02:45:24 2023
```

```
read: IOPS=838, BW=13.1MiB/s (13.7MB/s)(1310MiB/100001msec)
```

```
  slat (usec): min=3, max=321, avg= 9.18, stdev= 1.88
```

```
  clat (usec): min=118, max=7533, avg=440.63, stdev=67.41
```

```
    lat (usec): min=270, max=7543, avg=449.81, stdev=67.46
```

```
  clat percentiles (usec):
```

```
    | 1.00th=[ 322], 5.00th=[ 359], 10.00th=[ 379], 20.00th=[ 400],
    | 30.00th=[ 412], 40.00th=[ 424], 50.00th=[ 437], 60.00th=[ 449],
    | 70.00th=[ 465], 80.00th=[ 482], 90.00th=[ 506], 95.00th=[ 529],
    | 99.00th=[ 578], 99.50th=[ 619], 99.90th=[ 742], 99.95th=[ 873],
    | 99.99th=[ 1926]
```

```
  bw ( KiB/s): min=11264, max=15200, per=100.00%, avg=13417.49, stdev=673.94,
samples=199
```

```
  iops      : min= 704, max= 950, avg=838.59, stdev=42.12, samples=199
```

```
write: IOPS=835, BW=13.0MiB/s (13.7MB/s)(1305MiB/100001msec); 0 zone resets
```

```

slat (usec): min=5, max=323, avg= 7.69, stdev= 1.86
clat (usec): min=567, max=10644, avg=736.94, stdev=94.84
lat (usec): min=579, max=10651, avg=744.62, stdev=94.91
clat percentiles (usec):
| 1.00th=[ 611], 5.00th=[ 635], 10.00th=[ 652], 20.00th=[ 676],
| 30.00th=[ 693], 40.00th=[ 717], 50.00th=[ 734], 60.00th=[ 742],
| 70.00th=[ 758], 80.00th=[ 783], 90.00th=[ 807], 95.00th=[ 848],
| 99.00th=[ 1057], 99.50th=[ 1139], 99.90th=[ 1352], 99.95th=[ 1483],
| 99.99th=[ 3130]
bw ( KiB/s): min=11744, max=15008, per=100.00%, avg=13364.74, stdev=539.13,
samples=199
iops      : min= 734, max= 938, avg=835.30, stdev=33.70, samples=199
lat (usec) : 250=0.01%, 500=44.29%, 750=37.44%, 1000=17.50%
lat (msec) : 2=0.76%, 4=0.01%, 10=0.01%, 20=0.01%
cpu        : usr=0.51%, sys=1.44%, ctx=251283, majf=0, minf=1
IO depths  : 1=100.0%, 2=0.0%, 4=0.0%, 8=0.0%, 16=0.0%, 32=0.0%, >=64=0.0%
submit     : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
complete   : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
issued rwts: total=83824,83512,0,0 short=0,0,0,0 dropped=0,0,0,0
latency    : target=0, window=0, percentile=100.00%, depth=1

Run status group 0 (all jobs):
  READ: bw=13.1MiB/s (13.7MB/s), 13.1MiB/s-13.1MiB/s (13.7MB/s-13.7MB/s),
io=1310MiB (1373MB), run=100001-100001msec
  WRITE: bw=13.0MiB/s (13.7MB/s), 13.0MiB/s-13.0MiB/s (13.7MB/s-13.7MB/s),
io=1305MiB (1368MB), run=100001-100001msec

Disk stats (read/write):
  vdb: ios=83791/83424, merge=0/0, ticks=37176/61554, in_queue=98730, util=99.96%

随机
随机读
test-job: (g=0): rw=randread, bs=(R) 16.0KiB-16.0KiB, (W) 16.0KiB-16.0KiB, (T)
16.0KiB-16.0KiB, ioengine=libaio, iodepth=1
fio-3.33
Starting 1 thread
Jobs: 1 (f=1): [r(1)][32.0%][r=29.2MiB/s][r=1867 IOPS][eta 01m:08s]
Jobs: 1 (f=1): [r(1)][63.0%][r=29.3MiB/s][r=1875 IOPS][eta 00m:37s]
Jobs: 1 (f=1): [r(1)][94.0%][r=28.9MiB/s][r=1850 IOPS][eta 00m:06s]
Jobs: 1 (f=1): [r(1)][100.0%][r=28.9MiB/s][r=1846 IOPS][eta 00m:00s]
test-job: (groupid=0, jobs=1): err= 0: pid=61179: Thu Dec 21 02:47:34 2023
read: IOPS=1843, BW=28.8MiB/s (30.2MB/s)(2881MiB/100001msec)
slat (usec): min=3, max=180, avg= 9.30, stdev= 1.79
clat (usec): min=302, max=5469, avg=532.43, stdev=82.61
lat (usec): min=325, max=5478, avg=541.73, stdev=82.64
clat percentiles (usec):
| 1.00th=[ 400], 5.00th=[ 433], 10.00th=[ 453], 20.00th=[ 478],
| 30.00th=[ 494], 40.00th=[ 510], 50.00th=[ 529], 60.00th=[ 545],
| 70.00th=[ 562], 80.00th=[ 586], 90.00th=[ 619], 95.00th=[ 644],
| 99.00th=[ 709], 99.50th=[ 742], 99.90th=[ 865], 99.95th=[ 1270],
| 99.99th=[ 3163]
bw ( KiB/s): min=26240, max=32416, per=100.00%, avg=29508.02, stdev=1004.06,
samples=199
iops      : min= 1640, max= 2026, avg=1844.25, stdev=62.75, samples=199
lat (usec) : 500=33.32%, 750=66.27%, 1000=0.34%
lat (msec) : 2=0.03%, 4=0.03%, 10=0.01%
cpu        : usr=0.56%, sys=1.24%, ctx=368794, majf=0, minf=5

```

```
IO depths      : 1=100.0%, 2=0.0%, 4=0.0%, 8=0.0%, 16=0.0%, 32=0.0%, >=64=0.0%
submit        : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
complete      : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
issued rwts: total=184359,0,0,0 short=0,0,0,0 dropped=0,0,0,0
latency       : target=0, window=0, percentile=100.00%, depth=1
```

Run status group 0 (all jobs):

```
READ: bw=28.8MiB/s (30.2MB/s), 28.8MiB/s-28.8MiB/s (30.2MB/s-30.2MB/s),
io=2881MiB (3021MB), run=100001-100001msec
```

Disk stats (read/write):

```
vdb: ios=184170/0, merge=0/0, ticks=98595/0, in_queue=98595, util=99.95%
```

随机写

```
test-job: (g=0): rw=randwrite, bs=(R) 16.0KiB-16.0KiB, (W) 16.0KiB-16.0KiB, (T)
16.0KiB-16.0KiB, ioengine=libaio, iodepth=1
```

fio-3.33

Starting 1 thread

```
Jobs: 1 (f=1): [w(1)][32.0%][w=17.0MiB/s][w=1088 IOPS][eta 01m:08s]
```

```
Jobs: 1 (f=1): [w(1)][63.0%][w=17.2MiB/s][w=1104 IOPS][eta 00m:37s]
```

```
Jobs: 1 (f=1): [w(1)][94.0%][w=16.5MiB/s][w=1058 IOPS][eta 00m:06s]
```

```
Jobs: 1 (f=1): [w(1)][100.0%][w=15.6MiB/s][w=1000 IOPS][eta 00m:00s]
```

```
test-job: (groupid=0, jobs=1): err= 0: pid=61277: Thu Dec 21 02:49:44 2023
```

```
write: IOPS=1018, BW=15.9MiB/s (16.7MB/s)(1592MiB/100001msec); 0 zone resets
```

```
slat (usec): min=5, max=122, avg= 7.30, stdev= 1.66
```

```
clat (usec): min=619, max=23666, avg=973.67, stdev=139.10
```

```
lat (usec): min=627, max=23673, avg=980.97, stdev=139.14
```

```
clat percentiles (usec):
```

```
| 1.00th=[ 775], 5.00th=[ 832], 10.00th=[ 865], 20.00th=[ 898],
| 30.00th=[ 922], 40.00th=[ 947], 50.00th=[ 963], 60.00th=[ 988],
| 70.00th=[ 1012], 80.00th=[ 1037], 90.00th=[ 1090], 95.00th=[ 1123],
| 99.00th=[ 1303], 99.50th=[ 1401], 99.90th=[ 1680], 99.95th=[ 2180],
| 99.99th=[ 3523]
```

```
bw ( KiB/s): min=13408, max=17824, per=100.00%, avg=16305.69, stdev=624.07,
samples=199
```

```
ioops      : min= 838, max= 1114, avg=1019.11, stdev=39.00, samples=199
```

```
lat (usec) : 750=0.50%, 1000=65.26%
```

```
lat (msec) : 2=34.18%, 4=0.05%, 10=0.01%, 20=0.01%, 50=0.01%
```

```
cpu        : usr=0.29%, sys=1.10%, ctx=102011, majf=0, minf=1
```

```
IO depths  : 1=100.0%, 2=0.0%, 4=0.0%, 8=0.0%, 16=0.0%, 32=0.0%, >=64=0.0%
```

```
submit     : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
```

```
complete   : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
```

```
issued rwts: total=0,101866,0,0 short=0,0,0,0 dropped=0,0,0,0
```

```
latency    : target=0, window=0, percentile=100.00%, depth=1
```

Run status group 0 (all jobs):

```
WRITE: bw=15.9MiB/s (16.7MB/s), 15.9MiB/s-15.9MiB/s (16.7MB/s-16.7MB/s),
io=1592MiB (1669MB), run=100001-100001msec
```

Disk stats (read/write):

```
vdb: ios=51/101765, merge=0/0, ticks=13/99186, in_queue=99200, util=99.95%
```

随机读写

```
test-job: (g=0): rw=randrw, bs=(R) 16.0KiB-16.0KiB, (W) 16.0KiB-16.0KiB, (T)
16.0KiB-16.0KiB, ioengine=libaio, iodepth=1
```

fio-3.33

Starting 1 thread

```

Jobs: 1 (f=1): [m(1)][32.0%][r=9536KiB/s,w=9.88MiB/s][r=596,w=632 IOPS][eta
01m:08s]
Jobs: 1 (f=1): [m(1)][63.0%][r=9529KiB/s,w=9753KiB/s][r=595,w=609 IOPS][eta
00m:37s]
Jobs: 1 (f=1): [m(1)][94.0%][r=9.88MiB/s,w=9.88MiB/s][r=632,w=632 IOPS][eta
00m:06s]
Jobs: 1 (f=1): [m(1)][100.0%][r=9.77MiB/s,w=9936KiB/s][r=625,w=621 IOPS][eta
00m:00s]
test-job: (groupid=0, jobs=1): err= 0: pid=61379: Thu Dec 21 02:51:54 2023
read: IOPS=627, BW=9.80MiB/s (10.3MB/s)(980MiB/100001msec)
    slat (usec): min=2, max=290, avg= 9.64, stdev= 2.48
    clat (usec): min=340, max=4548, avg=567.90, stdev=80.02
        lat (usec): min=349, max=4560, avg=577.55, stdev=80.12
    clat percentiles (usec):
        | 1.00th=[ 437], 5.00th=[ 469], 10.00th=[ 490], 20.00th=[ 515],
        | 30.00th=[ 529], 40.00th=[ 545], 50.00th=[ 562], 60.00th=[ 578],
        | 70.00th=[ 594], 80.00th=[ 619], 90.00th=[ 644], 95.00th=[ 676],
        | 99.00th=[ 734], 99.50th=[ 766], 99.90th=[ 922], 99.95th=[ 1434],
        | 99.99th=[ 2966]
    bw ( KiB/s): min= 8416, max=11584, per=100.00%, avg=10042.69, stdev=622.02,
samples=199
    iops      : min= 526, max= 724, avg=627.67, stdev=38.88, samples=199
write: IOPS=624, BW=9997KiB/s (10.2MB/s)(976MiB/100001msec); 0 zone resets
    slat (nsec): min=5790, max=97627, avg=8024.80, stdev=1676.70
    clat (usec): min=642, max=30800, avg=1011.02, stdev=169.42
        lat (usec): min=649, max=30807, avg=1019.04, stdev=169.45
    clat percentiles (usec):
        | 1.00th=[ 799], 5.00th=[ 865], 10.00th=[ 889], 20.00th=[ 930],
        | 30.00th=[ 955], 40.00th=[ 979], 50.00th=[ 1004], 60.00th=[ 1029],
        | 70.00th=[ 1057], 80.00th=[ 1074], 90.00th=[ 1123], 95.00th=[ 1172],
        | 99.00th=[ 1336], 99.50th=[ 1418], 99.90th=[ 1745], 99.95th=[ 2245],
        | 99.99th=[ 3884]
    bw ( KiB/s): min= 8224, max=11200, per=100.00%, avg=10001.05, stdev=496.03,
samples=199
    iops      : min= 514, max= 700, avg=625.07, stdev=31.00, samples=199
    lat (usec) : 500=6.88%, 750=42.94%, 1000=24.74%
    lat (msec) : 2=25.38%, 4=0.05%, 10=0.01%, 50=0.01%
    cpu        : usr=0.44%, sys=1.11%, ctx=187985, majf=0, minf=1
    IO depths  : 1=100.0%, 2=0.0%, 4=0.0%, 8=0.0%, 16=0.0%, 32=0.0%, >=64=0.0%
        submit   : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
        complete  : 0=0.0%, 4=100.0%, 8=0.0%, 16=0.0%, 32=0.0%, 64=0.0%, >=64=0.0%
        issued rwts: total=62734,62483,0,0 short=0,0,0,0 dropped=0,0,0,0
        latency   : target=0, window=0, percentile=100.00%, depth=1

Run status group 0 (all jobs):
    READ: bw=9.80MiB/s (10.3MB/s), 9.80MiB/s-9.80MiB/s (10.3MB/s-10.3MB/s),
io=980MiB (1028MB), run=100001-100001msec
    WRITE: bw=9997KiB/s (10.2MB/s), 9997KiB/s-9997KiB/s (10.2MB/s-10.2MB/s),
io=976MiB (1024MB), run=100001-100001msec

Disk stats (read/write):
    vdb: ios=62721/62417, merge=0/0, ticks=35803/63157, in_queue=98959, util=99.96%

```

最小0.2ms，最大9ms，平均0.5ms

最小0.3ms，最大8ms，平均0.4ms

