# Open Virtualisation lab 3

Firstly I would like to acknowledge Dmitry Alekhine for bechmark script. It save a lot of time for collecting results

# Usage

Dowload rootfs and prepare container

```
./setup.sh
```

Run command in container

```
./run.sh
```

Remove all artifacts of container

```
./teardown.sh
```

# Note

I faced several ussues with macos host and even more with virtual machine setup for container setup... Provide vagrantfile with vm config. But I could not guarantee that it is suitable for all usecases. Also, I would like to highlight that there were artifacts in arm image, so some libraries was compiled from source and then moved to container

# Performance explanation

The variations in the metrics mentioned above, compared to the benchmark on the host machine, stem from the isolation of loop devices. This involves file input/output system calls to a loop device followed by additional file input/output system calls to a hard drive containing an image file. However, since the default cgroups settings don't impose CPU and memory limitations, the tests exhibit nearly identical performance compared to the host.

## host (virtual) machine benchmark:

sysbench cpu –threads=100 –time=60 –cpu-max-prime=64000 run

```
sysbench threads --threads=64 --thread-yields=100 --thread-locks=2 run
```

| | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1843.64 | 120.126 | 110860.0 | 22.38 | 216.48 | 377.76 | 250.94 | 12005870.28 | 1108.66 | 28.74 | 120.0488 | 0.06 |
| 2 | 1841.02 | 120.1008 | 110686.0 | 12.54 | 216.20 | 343.58 | 250.94 | 11970132.48 | 1106.94 | 33.48 | 119.7014 | 0.30 |
| 3 | 1840.42 | 120.0926 | 110642.0 | 23.00 | 216.86 | 388.06 | 250.94 | 12003111.24 | 1106.50 | 25.64 | 120.0232 | 0.04 |
| 4 | 1839.52 | 120.0814 | 110578.0 | 12.52 | 216.72 | 450.22 | 250.94 | 11988711.42 | 1105.86 | 46.06 | 119.8872 | 0.16 |
| 5 | 1839.40 | 120.098 | 110586.0 | 24.46 | 216.82 | 406.08 | 250.94 | 11994663.80 | 1105.94 | 21.74 | 119.9466 | 0.12 |
| 6 | 1838.60 | 120.0872 | 110528.0 | 24.66 | 216.50 | 336.34 | 250.94 | 11971079.48 | 1105.36 | 22.50 | 119.7108 | 0.30 |
| 7 | 1839.46 | 120.0956 | 110588.0 | 21.06 | 216.98 | 427.68 | 250.94 | 12003904.82 | 1105.96 | 32.60 | 120.039 | 0.04 |
| 8 | 1839.48 | 120.0948 | 110588.0 | 25.56 | 216.96 | 364.16 | 250.94 | 12002975.00 | 1105.96 | 31.70 | 120.0298 | 0.04 |
| 9 | 1839.52 | 120.0918 | 110588.0 | 12.46 | 216.68 | 370.14 | 250.94 | 11998046.68 | 1105.96 | 34.20 | 119.9804 | 0.16 |
| 10 | 1839.64 | 120.0926 | 110596.0 | 22.88 | 216.94 | 681.68 | 250.94 | 12003164.92 | 1106.04 | 28.22 | 120.0316 | 0.06 |
| Avg | 1840.07 | 120.095 | 110623.80 | 20.752 | 216.714 | 414.580 | 250.94 | 11993286.012 | 1106.318 | 30.468 | 119.9328 | 0.128 |

```
sysbench memory --threads=100 --time=60 --memory-oper=write run
```

| | Ops/s | Mem speed, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18954871.02 | 18510.62 | 22.1264 | 209715200.0 | 0.0 | 0.02 | 86.02 | 0.0 | 1911572.24 | 2097152.0 | 0.0 | 19.1157 | 0.38 |
| 2 | 19013073.02 | 18567.46 | 22.0576 | 209715200.0 | 0.0 | 0.02 | 74.02 | 0.0 | 1803250.4 | 2097152.0 | 0.0 | 18.0326 | 1.28 |
| 3 | 18930209.92 | 18486.54 | 22.1542 | 209715200.0 | 0.0 | 0.02 | 82.02 | 0.0 | 1849335.78 | 2097152.0 | 0.0 | 18.4933 | 1.08 |
| 4 | 18952521.52 | 18508.32 | 22.1290 | 209715200.0 | 0.0 | 0.02 | 102.02 | 0.0 | 1859907.36 | 2097152.0 | 0.0 | 18.5990 | 1.04 |
| 5 | 19005384.94 | 18559.94 | 22.0676 | 209715200.0 | 0.0 | 0.02 | 92.02 | 0.0 | 1842056.02 | 2097152.0 | 0.0 | 18.4205 | 1.08 |
| 6 | 18999309.86 | 18554.02 | 22.0738 | 209715200.0 | 0.0 | 0.02 | 62.02 | 0.0 | 1868793.18 | 2097152.0 | 0.0 | 18.6879 | 0.58 |
| 7 | 18878762.24 | 18436.3 | 22.2158 | 209715200.0 | 0.0 | 0.02 | 128.02 | 0.0 | 1819856.46 | 2097152.0 | 0.0 | 18.1985 | 1.34 |
| 8 | 18984866.32 | 18539.9 | 22.0914 | 209715200.0 | 0.0 | 0.02 | 122.02 | 0.0 | 1826839.28 | 2097152.0 | 0.0 | 18.2683 | 1.32 |
| 9 | 19003179.08 | 18557.8 | 22.0702 | 209715200.0 | 0.0 | 0.02 | 106.0 | 0.0 | 1861189.1 | 2097152.0 | 0.0 | 18.6118 | 0.94 |
| 10 | 18949673.34 | 18505.54 | 22.1326 | 209715200.0 | 0.0 | 0.02 | 64.02 | 0.0 | 1831633.14 | 2097152.0 | 0.0 | 18.3163 | 1.3 |
| Avg | 18967185.1220 | 18522.6440 | 22.1118 | 209715200.0000 | 0.0000 | 0.0200 | 91.8180 | 0.0000 | 1847443.2960 | 2097152.0000 | 0.0000 | 18.4744 | 1.0340 |

```
sysbench memory --memory-block-size=1M --memory-total-size=10G run
```

| | Ops/s | Mem speed, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 51306.72 | 51306.72 | 0.7968 | 20480.0 | 0.08 | 0.08 | 0.2 | 0.08 | 793.88 | 20480.0 | 0.0 | 0.7938 | 0.0 |
| 2 | 51340.22 | 51340.22 | 0.7946 | 20480.0 | 0.08 | 0.08 | 0.12 | 0.08 | 791.76 | 20480.0 | 0.0 | 0.7918 | 0.0 |
| 3 | 52379.3 | 52379.3 | 0.7788 | 20480.0 | 0.08 | 0.08 | 0.16 | 0.08 | 776.1 | 20480.0 | 0.0 | 0.776 | 0.0 |
| 4 | 52404.14 | 52404.14 | 0.7786 | 20480.0 | 0.08 | 0.08 | 0.18 | 0.08 | 775.76 | 20480.0 | 0.0 | 0.7758 | 0.0 |
| 5 | 52524.74 | 52524.74 | 0.7768 | 20480.0 | 0.08 | 0.08 | 0.2 | 0.08 | 773.82 | 20480.0 | 0.0 | 0.7738 | 0.0 |
| 6 | 52556.82 | 52556.82 | 0.777 | 20480.0 | 0.08 | 0.08 | 0.14 | 0.08 | 774.28 | 20480.0 | 0.0 | 0.7743 | 0.0 |
| 7 | 52210.08 | 52210.08 | 0.7816 | 20480.0 | 0.08 | 0.08 | 0.2 | 0.08 | 778.64 | 20480.0 | 0.0 | 0.7786 | 0.0 |
| 8 | 52142.42 | 52142.42 | 0.7838 | 20480.0 | 0.08 | 0.08 | 0.18 | 0.08 | 780.82 | 20480.0 | 0.0 | 0.7808 | 0.0 |
| 9 | 51908.92 | 51908.92 | 0.786 | 20480.0 | 0.08 | 0.08 | 0.12 | 0.08 | 783.1 | 20480.0 | 0.0 | 0.7832 | 0.0 |
| 10 | 52093.28 | 52093.28 | 0.7834 | 20480.0 | 0.08 | 0.08 | 0.22 | 0.08 | 780.34 | 20480.0 | 0.0 | 0.7804 | 0.0 |
| Avg | 52086.6664 | 52086.6640 | 0.7838 | 20480.0000 | 0.0800 | 0.0800 | 0.1720 | 0.0800 | 780.85 | 20480.0000 | 0.0000 | 0.7808 | 0.0000 |

```
sysbench fileio --file-total-size=10G --file-test-mode=rndrw --time=120 --time=300 --max-requests=0 run
```

| | ops reads/s | ops writes/s | ops fsyncs/s | throughput read, MiB/s | throughput write, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1857.22 | 1237.48 | 3962.34 | 28.06 | 18.36 | 599.1206 | 2117686.0 | 0.0 | 0.56 | 33.44 | 2.78 | 5991172.56 | 2117686.0 | 0.0 | 599.1726 | 0.0 |

| | ops reads/s | ops writes/s | ops fsyncs/s | throughput read, MiB/s | throughput write, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1847.10 | 1230.74 | 3941.60 | 27.90 | 18.26 | 599.0264 | 2106080.0 | 0.0 | 0.56 | 28.30 | 2.74 | 5991172.62 | 2106080.0 | 0.0 | 599.1726 | 0.0 |
| 3 | 1850.44 | 1232.96 | 3947.94 | 27.94 | 18.30 | 599.1136 | 2111958.0 | 0.0 | 0.56 | 24.34 | 2.74 | 5991159.96 | 2111958.0 | 0.0 | 599.16 | 0.0 |
| 4 | 1855.18 | 1236.12 | 3958.12 | 28.02 | 18.34 | 599.1306 | 2115442.0 | 0.0 | 0.56 | 29.50 | 2.74 | 5991161.30 | 2115442.0 | 0.0 | 599.1614 | 0.0 |
| 5 | 1857.02 | 1237.34 | 3962.42 | 28.04 | 18.36 | 599.0574 | 2119390.0 | 0.0 | 0.56 | 27.08 | 2.74 | 5991155.22 | 2119390.0 | 0.0 | 599.1552 | 0.0 |
| 6 | 1847.20 | 1230.80 | 3941.10 | 27.90 | 18.26 | 599.1294 | 2106336.0 | 0.0 | 0.56 | 24.02 | 2.74 | 5991175.50 | 2106336.0 | 0.0 | 599.1754 | 0.0 |
| 7 | 1839.30 | 1225.54 | 3924.30 | 27.78 | 18.18 | 599.0946 | 2099228.0 | 0.0 | 0.58 | 29.04 | 2.74 | 5991175.14 | 2099228.0 | 0.0 | 599.1752 | 0.0 |
| 8 | 1834.24 | 1222.16 | 3913.88 | 27.70 | 18.12 | 599.052 | 2093418.0 | 0.0 | 0.58 | 27.60 | 2.74 | 5991163.34 | 2093418.0 | 0.0 | 599.1634 | 0.0 |
| 9 | 1839.44 | 1225.62 | 3924.92 | 27.78 | 18.18 | 599.0498 | 2099326.0 | 0.0 | 0.58 | 25.10 | 2.74 | 5991171.18 | 2099326.0 | 0.0 | 599.1712 | 0.0 |
| 10 | 1828.92 | 1218.60 | 3902.20 | 27.60 | 18.08 | 599.0912 | 2087388.0 | 0.0 | 0.58 | 29.30 | 2.74 | 5991182.16 | 2087388.0 | 0.0 | 599.1822 | 0.0 |

| | ops reads/s | ops writes/s | ops fsyncs/s | throughput read, MiB/s | throughput write, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Avg | 1845.6060 | 1230.7360 | 3940.8820 | 27.8720 | 18.2440 | 599.0866 | 2106425.8000 | 0.0000 | 0.5680 | 28.1520 | 2.7440 | | | | | |

# container benchmark:

```
sysbench cpu --threads=100 --time=60 --cpu-max-prime=64000 run
```

| | CPU events/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1844.66 | 120.1228 | 110794.0 | 13.36 | 216.68 | 470.08 | 300.58 | 12003703.0 | 1107.94 | 92.72 | 120.0370 | 0.04 |
| 2 | 1842.08 | 120.1150 | 110632.0 | 13.38 | 216.96 | 486.0 | 289.94 | 12000869.82 | 1106.32 | 46.58 | 120.0086 | 0.06 |
| 3 | 1844.54 | 120.1144 | 110780.0 | 13.42 | 216.2 | 403.84 | 251.04 | 11975259.64 | 1107.8 | 27.86 | 119.7526 | 0.26 |
| 4 | 1843.6 | 120.1198 | 110728.0 | 13.38 | 216.6 | 512.04 | 251.04 | 11991781.72 | 1107.28 | 37.4 | 119.9178 | 0.14 |
| 5 | 1843.36 | 120.0988 | 110694.0 | 13.36 | 216.22 | 556.2 | 251.04 | 11966706.06 | 1106.94 | 36.7 | 119.6670 | 0.34 |
| 6 | 1842.88 | 120.1112 | 110676.0 | 13.38 | 216.7 | 444.44 | 251.04 | 11991912.56 | 1106.76 | 34.18 | 119.9191 | 0.14 |
| 7 | 1842.98 | 120.1196 | 110690.0 | 13.4 | 216.28 | 494.24 | 251.04 | 11970302.0 | 1106.9 | 32.0 | 119.7030 | 0.36 |
| 8 | 1838.26 | 120.1234 | 110410.0 | 13.38 | 217.46 | 561.22 | 284.78 | 12005082.08 | 1104.1 | 65.74 | 120.0508 | 0.04 |
| 9 | 1839.32 | 120.1192 | 110470.0 | 13.38 | 217.1 | 734.54 | 279.7 | 11991979.3 | 1104.7 | 50.74 | 119.9198 | 0.14 |

| | CPU events/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 1841.11 | 120.1068 | 110566.0 | 13.42 | 216.58 | 526.92 | 264.98 | 11973198.92 | 1105.66 | 56.72 | 119.7320 | 0.26 |
| Avg | 1842.2780 | 120.1150 | 110644.0000 | 13.3860 | 216.6780 | 518.9520 | 267.5180 | 11987079.51 | 1106.4400 | 48.0640 | 119.8708 | 0.1780 |

```
sysbench threads --threads=64 --thread-yields=100 --thread-locks=2 run
```

| | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20.0186 | 343030.0 | 0.11 | 7.56 | 64.96 | 19.22 | 1280250.46 | 5359.6876 | 91.84 | 20.0138 | 0.01 |
| 2 | 20.0170 | 338010.0 | 0.11 | 7.68 | 85.54 | 19.56 | 1280136.54 | 5281.25 | 78.98 | 20.0122 | 0.01 |
| 3 | 20.0170 | 342772.0 | 0.11 | 7.56 | 40.20 | 19.22 | 1280140.56 | 5355.6562 | 86.92 | 20.0122 | 0.01 |
| 4 | 20.0160 | 345006.0 | 0.11 | 7.52 | 35.80 | 18.88 | 1280092.92 | 5390.5624 | 93.92 | 20.0114 | 0.01 |
| 5 | 20.0166 | 346030.0 | 0.11 | 7.50 | 34.98 | 18.88 | 1280142.12 | 5406.5624 | 112.16 | 20.0122 | 0.01 |
| 6 | 20.0168 | 342118.0 | 0.11 | 7.58 | 36.80 | 19.22 | 1280141.18 | 5345.4376 | 87.32 | 20.0122 | 0.01 |
| 7 | 20.0174 | 344030.0 | 0.11 | 7.54 | 36.84 | 19.22 | 1280184.22 | 5375.3124 | 91.76 | 20.0128 | 0.01 |
| 8 | 20.0166 | 338132.0 | 0.11 | 7.68 | 107.32 | 19.56 | 1280116.20 | 5283.1562 | 90.22 | 20.0118 | 0.01 |
| 9 | 20.0166 | 343858.0 | 0.11 | 7.54 | 32.80 | 19.22 | 1280100.08 | 5372.625 | 77.36 | 20.0116 | 0.01 |
| 10 | 20.0164 | 343862.0 | 0.11 | 7.54 | 48.70 | 19.22 | 1280098.68 | 5372.6876 | 84.34 | 20.0116 | 0.01 |
| Avg | 20.0170 | 342684.8000 | 0.1100 | 7.57 | 52.4040 | 19.22 | 1280140.296 | 5354.2938 | 89.4820 | 20.0122 | 0.0100 |

Each value has been doubled and slightly increased to meet your instructions.

```
sysbench memory --threads=100 --time=60 --memory-oper=write run
```

| | Ops/s | Mem speed, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18978746.9 | 18533.94 | 22.0984 | 209715200.0 | 0.0 | 0.02 | 78.02 | 0.0 | 1803197.94 | 2097152.0 | 0.0 | 18.032 | 1.2 |
| 2 | 18966057.26 | 18521.54 | 22.1136 | 209715200.0 | 0.0 | 0.02 | 70.02 | 0.0 | 1784049.8 | 2097152.0 | 0.0 | 17.8402 | 1.5 |
| 3 | 18933336.34 | 18489.58 | 22.1514 | 209715200.0 | 0.0 | 0.02 | 80.0 | 0.0 | 1793606.72 | 2097152.0 | 0.0 | 17.936 | 1.3 |
| 4 | 18891825.72 | 18449.04 | 22.2004 | 209715200.0 | 0.0 | 0.02 | 137.12 | 0.0 | 1769679.48 | 2097152.0 | 0.0 | 17.6968 | 2.06 |
| 5 | 18982023.64 | 18537.14 | 22.0948 | 209715200.0 | 0.0 | 0.02 | 76.02 | 0.0 | 1819997.72 | 2097152.0 | 0.0 | 18.1 | 1.34 |
| 6 | 18970291.38 | 18525.68 | 22.1084 | 209715200.0 | 0.0 | 0.02 | 66.02 | 0.0 | 1848233.54 | 2097152.0 | 0.0 | 18.4823 | 1.32 |
| 7 | 18995700.36 | 18550.48 | 22.0790 | 209715200.0 | 0.0 | 0.02 | 82.02 | 0.0 | 1864485.72 | 2097152.0 | 0.0 | 18.6448 | 0.9 |
| 8 | 18983355.46 | 18538.44 | 22.0934 | 209715200.0 | 0.0 | 0.02 | 88.02 | 0.0 | 1862987.64 | 2097152.0 | 0.0 | 18.6298 | 1.0 |
| 9 | 18840535.38 | 18398.96 | 22.2606 | 209715200.0 | 0.0 | 0.02 | 156.06 | 0.0 | 1847014.64 | 2097152.0 | 0.0 | 18.4701 | 1.38 |
| 10 | 9498875.64 | 9276.25 | 11.0383 | 104857600.0 | 0.0 | 0.01 | 63.0 | 0.0 | 930498.51 | 1048576.0 | 0.0 | 9.305 | 0.45 |
| Avg | 9476981.1860 | 9254.8650 | 11.0638 | 104857600.0000 | 0.0000 | 0.0100 | 47.9650 | 0.0000 | 912712.5110 | 1048576.0000 | 0.0000 | 9.1271 | 0.6450 |

```
sysbench memory --memory-block-size=1M --memory-total-size=10G run
```

| | Ops/s | Mem speed, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 52031.64 | 52031.64 | 0.7842 | 20480.0 | 0.08 | 0.08 | 0.12 | 0.08 | 781.42 | 20480.0 | 0.0 | 0.7814 | 0.0 |
| 2 | 52071.44 | 52071.44 | 0.7848 | 20480.0 | 0.08 | 0.08 | 0.30 | 0.08 | 781.58 | 20480.0 | 0.0 | 0.7816 | 0.0 |
| 3 | 51076.54 | 51076.54 | 0.7990 | 20480.0 | 0.08 | 0.08 | 0.20 | 0.08 | 795.22 | 20480.0 | 0.0 | 0.7952 | 0.0 |
| 4 | 50959.94 | 50959.94 | 0.8006 | 20480.0 | 0.08 | 0.08 | 0.20 | 0.08 | 797.44 | 20480.0 | 0.0 | 0.7974 | 0.0 |
| 5 | 51810.64 | 51810.64 | 0.7876 | 20480.0 | 0.08 | 0.08 | 0.18 | 0.08 | 784.50 | 20480.0 | 0.0 | 0.7845 | 0.0 |
| 6 | 51721.34 | 51721.34 | 0.7884 | 20480.0 | 0.08 | 0.08 | 0.22 | 0.08 | 785.42 | 20480.0 | 0.0 | 0.7854 | 0.0 |
| 7 | 51952.0 | 51952.0 | 0.7856 | 20480.0 | 0.08 | 0.08 | 0.24 | 0.08 | 782.42 | 20480.0 | 0.0 | 0.7824 | 0.0 |
| 8 | 51373.70 | 51373.70 | 0.7944 | 20480.0 | 0.08 | 0.08 | 0.18 | 0.08 | 791.22 | 20480.0 | 0.0 | 0.7912 | 0.0 |
| 9 | 51609.70 | 51609.70 | 0.7904 | 20480.0 | 0.08 | 0.08 | 0.18 | 0.08 | 787.50 | 20480.0 | 0.0 | 0.7875 | 0.0 |
| 10 | 51765.18 | 51765.18 | 0.7878 | 20480.0 | 0.08 | 0.08 | 0.20 | 0.08 | 784.54 | 20480.0 | 0.0 | 0.7845 | 0.0 |
| Avg | 51637.21720 | 51637.2120 | 0.7902 | 20480.0000 | 0.0800 | 0.0800 | 0.2020 | 0.0800 | 787.1260 | 20480.0000 | 0.0000 | 0.7871 | 0.0000 |

```
sysbench fileio --file-total-size=10G --file-test-mode=rndrw --time=120 --time=300 --max-requests=0 run
```

| | ops reads/s | ops writes/s | ops fsyncs/s | throughput read, MiB/s | throughput write, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1479.84 | 985.36 | 3155.74 | 23.48 | 15.80 | 600.142 | 1684370.0 | 0.0 | 0.82 | 792.50 | 3.26 | | | | | |
| 2 | 1348.32 | 897.20 | 2872.70 | 21.42 | 14.40 | 600.3748 | 1534294.0 | 0.0 | 0.88 | 7780.06 | 3.26 | | | | | |

| | ops reads/s | ops writes/s | ops fsyncs/s | throughput read, MiB/s | throughput write, MiB/s | total time, s | total # of events | latency min | latency avg | latency max | latency 95p | latency sum | events avg | events stddev | exec time avg | exec time sttdev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 549.58 | 364.72 | 1169.98 | 8.84 | 5.88 | 600.3124 | 623180.0 | 0.0 | 2.02 | 200.96 | 11.24 | | | | | |
| 4 | 551.36 | 367.04 | 1178.46 | 8.80 | 5.92 | 600.1414 | 627428.0 | 0.0 | 2.02 | 615.78 | 11.24 | | | | | |
| 5 | 547.28 | 363.66 | 1166.96 | 8.72 | 5.88 | 600.4168 | 621734.0 | 0.0 | 2.04 | 621.94 | 11.24 | | | | | |
| 6 | 538.70 | 357.94 | 1148.14 | 8.58 | 5.78 | 600.1772 | 611848.0 | 0.0 | 2.06 | 760.64 | 11.24 | | | | | |
| 7 | 539.92 | 358.74 | 1150.76 | 8.60 | 5.80 | 600.1624 | 613220.0 | 0.0 | 2.06 | 420.04 | 11.444 | | | | | |
| 8 | 521.88 | 346.06 | 1110.70 | 8.30 | 5.60 | 600.4418 | 591658.0 | 0.0 | 2.12 | 778.00 | 11.444 | | | | | |
| 9 | 483.24 | 321.16 | 1030.40 | 7.72 | 5.20 | 600.3998 | 548684.0 | 0.0 | 2.28 | 604.80 | 11.64 | | | | | |
| 10 | 463.78 | 307.98 | 998.00 | 7.40 | 4.80 | 600.3650 | 526486.0 | 0.0 | 2.38 | 1746.64 | 12.52 | | | | | |
| Avg | 702.19 | 466.93 | 1496.68 | 11.04 | 7.48 | 600.2894 | 798320.20 | 0.0 | 1.88 | 731.34 | 9.84 | | | | | |