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disk-iozone

KVM testing on CentOS Linux 8 via the Phoronix Test Suite.

Automated Executive Summary

iozone-test5 had the most wins, coming in first place for 66% of the tests.

Test Systems:

disk-iozone-test

iozone-test1

iozone-test2

iozone-test3

iozone-test4

iozone-test5

iozone-test6

Processor: Intel Xeon (1 Core / 2 Threads), Motherboard: Google Compute Engine n2-standard-2, Memory: 8GB, Disk: 38GB PersistentDisk

OS: CentOS Linux 8, Kernel: 4.18.0-193.28.1.el8_2.x86_64 (x86_64), Compiler: GCC 8.3.1 20191121, File-System: xfs, System Layer: KVM

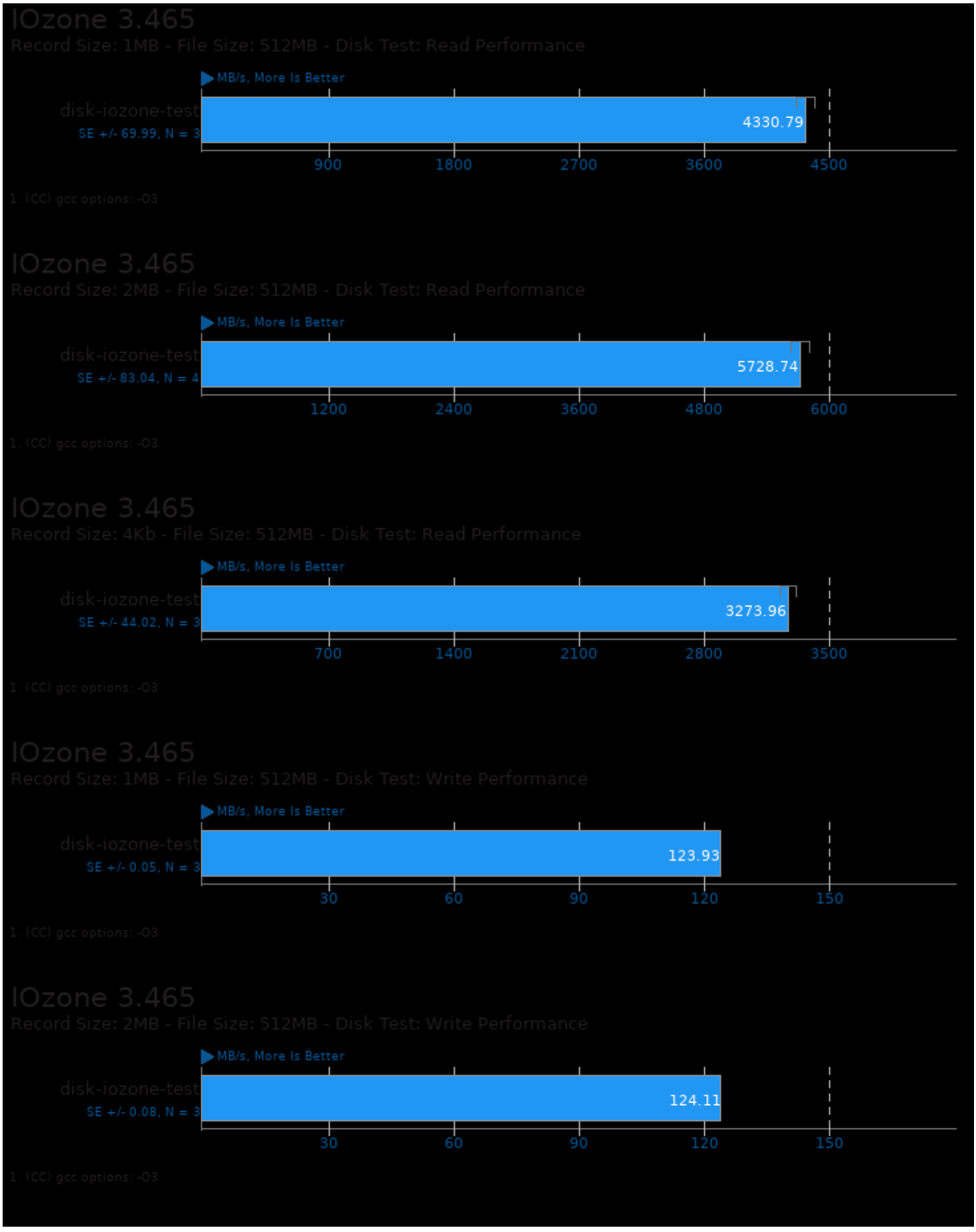
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: NONE / attr2,inode64,noquota,relatime,rw,seclabel / Block Size: 4096
Processor Notes: CPU Microcode: 0x1
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Mitigation of Clear buffers; SMT Host state unknown + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of Clear buffers; SMT Host state unknown

	disk-iozone-test	iozone-test1	iozone-test2	iozone-test3	iozone-test4	iozone-test5	iozone-test6
IOzone - 1MB - 512MB - Read Performance (MB/s)	4331						
Standard Deviation	2.8%						
IOzone - 2MB - 512MB - Read Performance (MB/s)	5729						
Standard Deviation	2.9%						
IOzone - 4Kb - 512MB - Read Performance (MB/s)	3274						
Standard Deviation	2.3%						
IOzone - 1MB - 512MB - Write Performance (MB/s)	123.93						
Standard Deviation	0.1%						
IOzone - 2MB - 512MB - Write Performance (MB/s)	124.11						
Standard Deviation	0.1%						
IOzone - 4Kb - 512MB - Write Performance (MB/s)	3.59						
Standard Deviation	2.4%						
IOzone - 64Kb - 512MB - Read Performance (MB/s)	5081						
Standard Deviation	15%						
IOzone - 64Kb - 512MB - Write Performance (MB/s)	36.55						
Standard Deviation	1.4%						

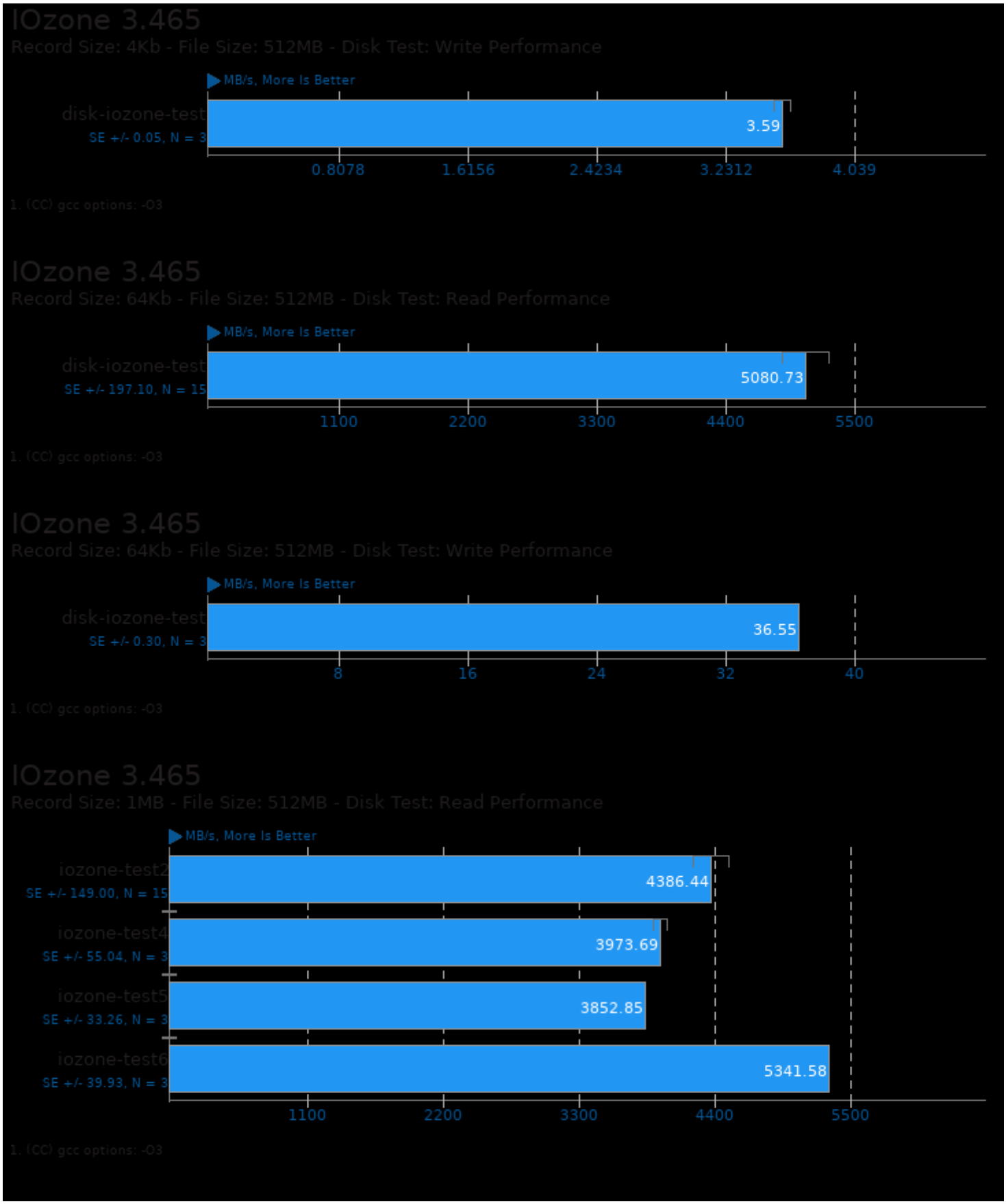
disk-iozone

IOzone - 1MB - 512MB - Read Performance (MB/s)	4386	3974	**3853**	**5342**
Normalized	82.12%	74.39%	72.13%	100%
Standard Deviation	13.2%	2.4%	1.5%	1.3%
IOzone - 4Kb - 512MB - Read Performance (MB/s)	**2915**	2927	2922	**3230**
Normalized	90.23%	90.6%	90.46%	100%
Standard Deviation	11.9%	1.6%	6.4%	23.9%
IOzone - 1MB - 512MB - Write Performance (MB/s)	117.78	117.72	**118.21**	**13.12**
Normalized	99.64%	99.59%	100%	11.1%
Standard Deviation	0.1%	0.5%	0.2%	5.7%
IOzone - 4Kb - 512MB - Write Performance (MB/s)	116.06640625	115.90	**116.21**	**13.20**
Normalized	99.88%	99.73%	100%	11.36%
Standard Deviation	0.1%	0.2%	0.3%	5.8%
IOzone - 64Kb - 512MB - Read Performance (MB/s)	**3593**	3891	**4275**	3614
Normalized	84.04%	91.01%	100%	84.55%
Standard Deviation	22%	12%	2.9%	20.9%
IOzone - 64Kb - 512MB - Write Performance (MB/s)	**13.06**	13.17	**118.12**	13.13
Normalized	11.06%	11.15%	100%	11.12%
Standard Deviation	6%	6.2%	0.2%	5.8%

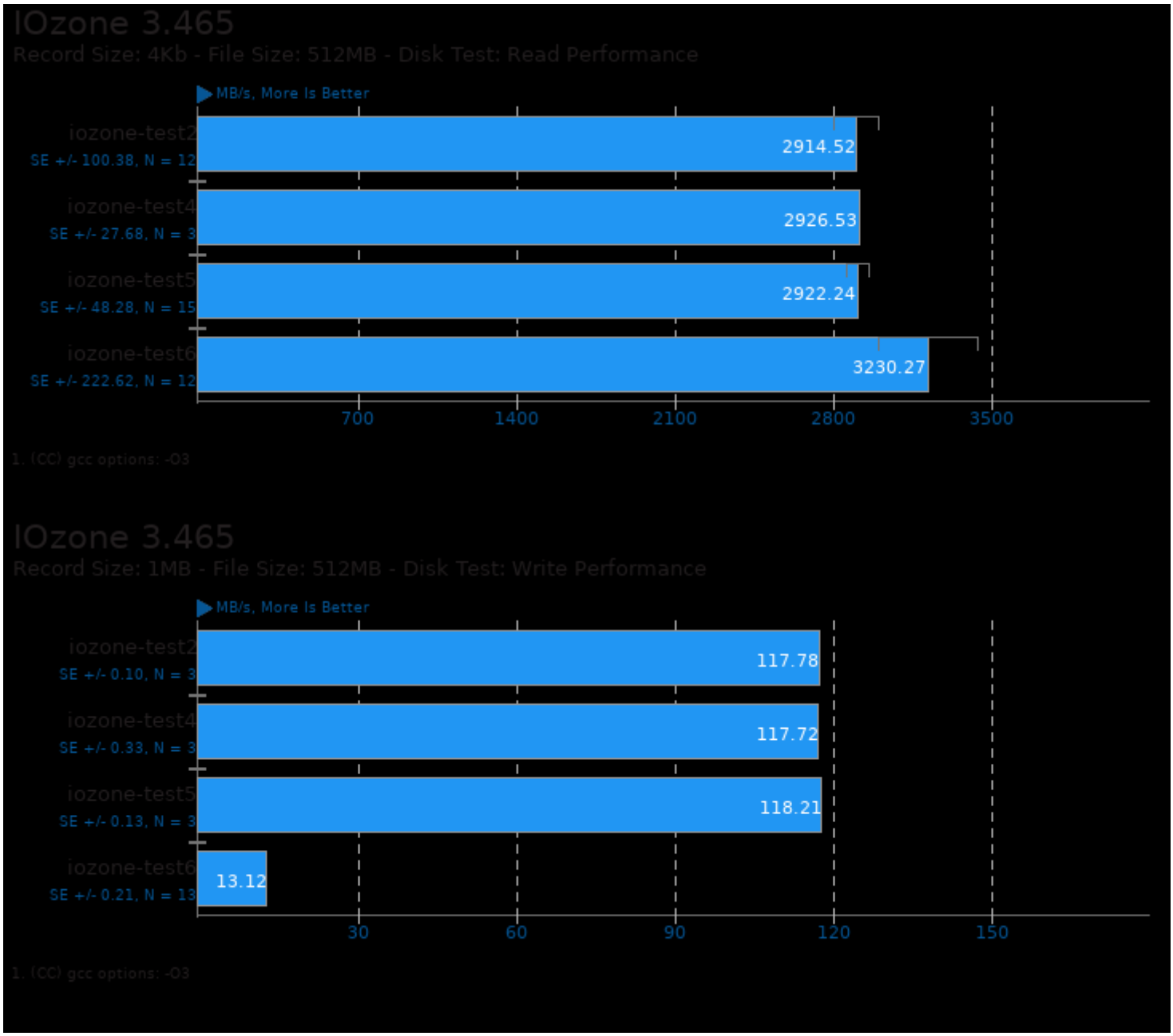
disk-iozone


IOzone 3.465
Record Size: 1MB - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
disk-iozone-test
SE +/- 69.99, N = 3
4330.79
900
1800
2700
3600
4500
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 2MB - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
disk-iozone-test
SE +/- 83.04, N = 4
5728.74
1200
2400
3600
4800
6000
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 4Kb - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
disk-iozone-test
SE +/- 44.02, N = 3
3273.96
700
1400
2100
2800
3500
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 1MB - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
disk-iozone-test
SE +/- 0.05, N = 3
123.93
30
60
90
120
150
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 2MB - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
disk-iozone-test
SE +/- 0.08, N = 3
124.11
30
60
90
120
150
1. (CC) gcc options: -O3

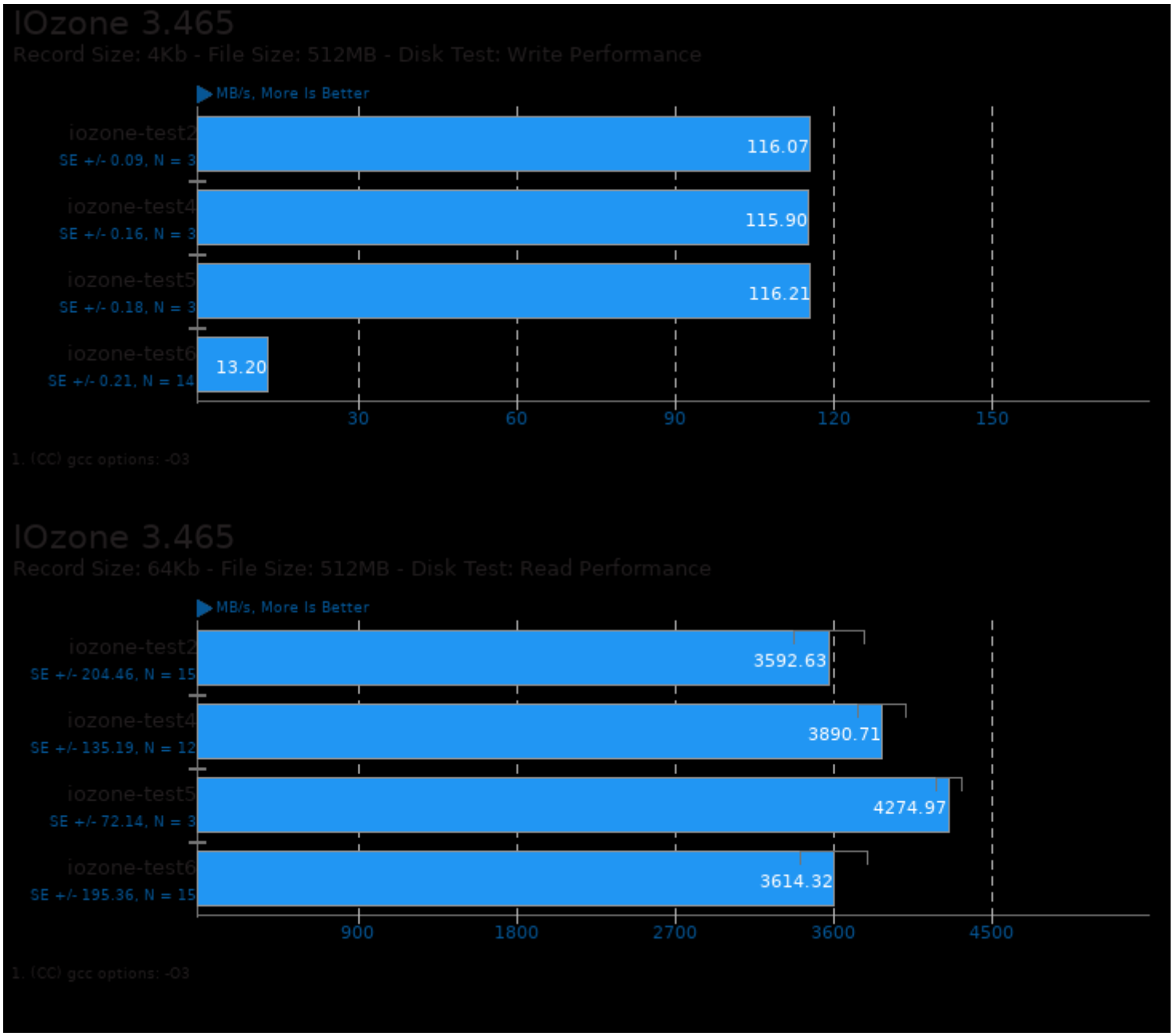
disk-iozone


IOzone 3.465
Record Size: 4Kb - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
disk-iozone-test
SE +/- 0.05, N = 3
3.59
0.8078
1.6156
2.4234
3.2312
4.039
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 64Kb - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
disk-iozone-test
SE +/- 197.10, N = 15
5080.73
1100
2200
3300
4400
5500
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 64Kb - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
disk-iozone-test
SE +/- 0.30, N = 3
36.55
8
16
24
32
40
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 1MB - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
iozone-test2
SE +/- 149.00, N = 15
4386.44
iozone-test4
SE +/- 55.04, N = 3
3973.69
iozone-test5
SE +/- 33.26, N = 3
3852.85
iozone-test6
SE +/- 39.93, N = 3
5341.58
1100
2200
3300
4400
5500
1. (CC) gcc options: -O3

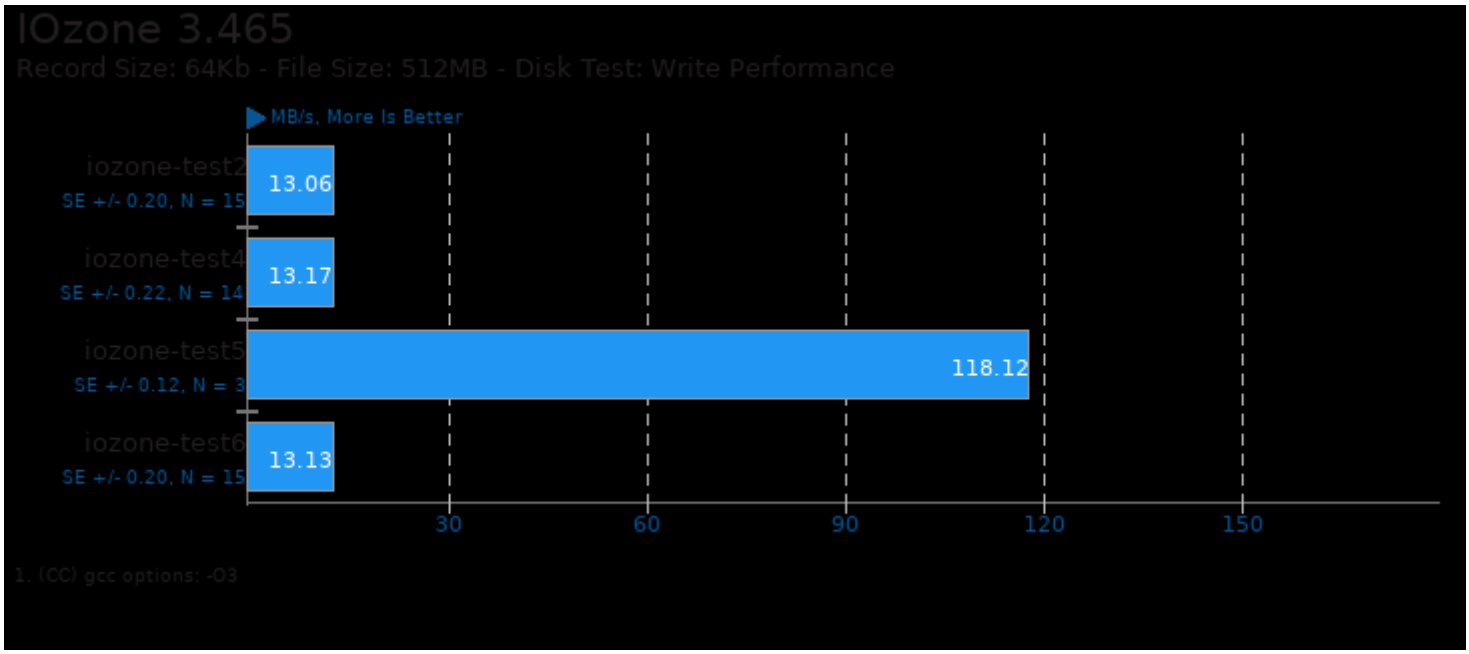
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IOzone 3.465
Record Size: 4Kb - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
iozone-test2
SE +/- 100.38, N = 12
2914.52
iozone-test4
SE +/- 27.68, N = 3
2926.53
iozone-test5
SE +/- 48.28, N = 15
2922.24
iozone-test6
SE +/- 222.62, N = 12
3230.27
700
1400
2100
2800
3500
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 1MB - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
iozone-test2
SE +/- 0.10, N = 3
117.78
iozone-test4
SE +/- 0.33, N = 3
117.72
iozone-test5
SE +/- 0.13, N = 3
118.21
iozone-test6
SE +/- 0.21, N = 13
13.12
30
60
90
120
150
1. (CC) gcc options: -O3

disk-iozone


IOzone 3.465
Record Size: 4Kb - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
iozone-test2
SE +/- 0.09, N = 3
116.07
iozone-test4
SE +/- 0.16, N = 3
115.90
iozone-test5
SE +/- 0.18, N = 3
116.21
iozone-test6
SE +/- 0.21, N = 14
13.20
30
60
90
120
150
1. (CC) gcc options: -O3
IOzone 3.465
Record Size: 64Kb - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
iozone-test2
SE +/- 204.46, N = 15
3592.63
iozone-test4
SE +/- 135.19, N = 12
3890.71
iozone-test5
SE +/- 72.14, N = 3
4274.97
iozone-test6
SE +/- 195.36, N = 15
3614.32
900
1800
2700
3600
4500
1. (CC) gcc options: -O3

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This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 15:40.