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B596

2 x AMD EPYC 7552 48-Core testing with a iEi B596 (B596AR02.ROM BIOS) and llvmpipe 1008GB on CentOS Linux 8 via the Phoronix Test Suite.

Test Systems:

AMD EPYC 7552

Processor: 2 x AMD EPYC 7552 48-Core @ 2.20GHz (96 Cores / 192 Threads), Motherboard: iEi B596 (B596AR02.ROM BIOS), Chipset: AMD Starship/Matisse, Memory: 16 x 64 GB DDR4-3200MT/s Samsung M393A8G40AB2-CWE, Disk: 12802GB Micron_9300_MTFDHAL12T8TDR + 124GB Ultra USB 3.0, Graphics: llvmpipe 1008GB, Network: 2 x Intel 10G X550T + Intel I210

OS: CentOS Linux 8, Kernel: 4.18.0-80.el8.x86_64 (x86_64), Desktop: GNOME Shell 3.28.3, Display Server: X Server, OpenGL: 3.3 Mesa 18.3.1 (LLVM 7.0 128 bits), Compiler: GCC 8.3.1 20191121, File-System: xfs, Screen Resolution: 1024x768

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x8301038
Security Notes: SELinux + l1tf: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of

B596

__user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

	AMD EPYC 7552
Timed Linux Kernel Compilation - Time To Compile (sec)	21.052
Standard Deviation	2.8%
C-Ray - Total Time - 4.1.R.P.P (sec)	7.910
Standard Deviation	0.4%
7-Zip Compression - C.S.T (MIPS)	417519
Standard Deviation	0.6%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	0.30545
Standard Deviation	1.2%
OpenSSL - R.4.b.P (Signs/sec)	19315
Standard Deviation	0.3%
asmFish - 1.H.M.2.D (Nodes/s)	188462959
Standard Deviation	1.6%
IOzone - 1MB - 512MB - Read Performance (MB/s)	9406
Standard Deviation	1.9%
IOzone - 2MB - 512MB - Read Performance (MB/s)	9401
Standard Deviation	1.4%
IOzone - 4Kb - 512MB - Read Performance (MB/s)	6855
Standard Deviation	1%
IOzone - 1MB - 512MB - Write Performance (MB/s)	988.515625000
Standard Deviation	0.5%
IOzone - 2MB - 512MB - Write Performance (MB/s)	1090
Standard Deviation	2.6%
IOzone - 4Kb - 512MB - Write Performance (MB/s)	48.61
Standard Deviation	0.8%
IOzone - 64Kb - 512MB - Read Performance (MB/s)	9403
Standard Deviation	1.8%
IOzone - 64Kb - 512MB - Write Performance (MB/s)	414.904947917
Standard Deviation	1.1%

Timed Linux Kernel Compilation 5.4

Time To Compile



C-Ray 1.1

Total Time - 4K, 16 Rays Per Pixel



7-Zip Compression 16.02

Compress Speed Test



NAMD 2.13

ATPase Simulation - 327,506 Atoms



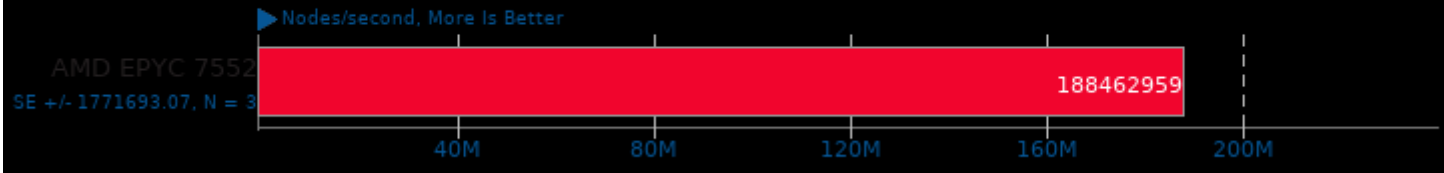
OpenSSL 1.1.1

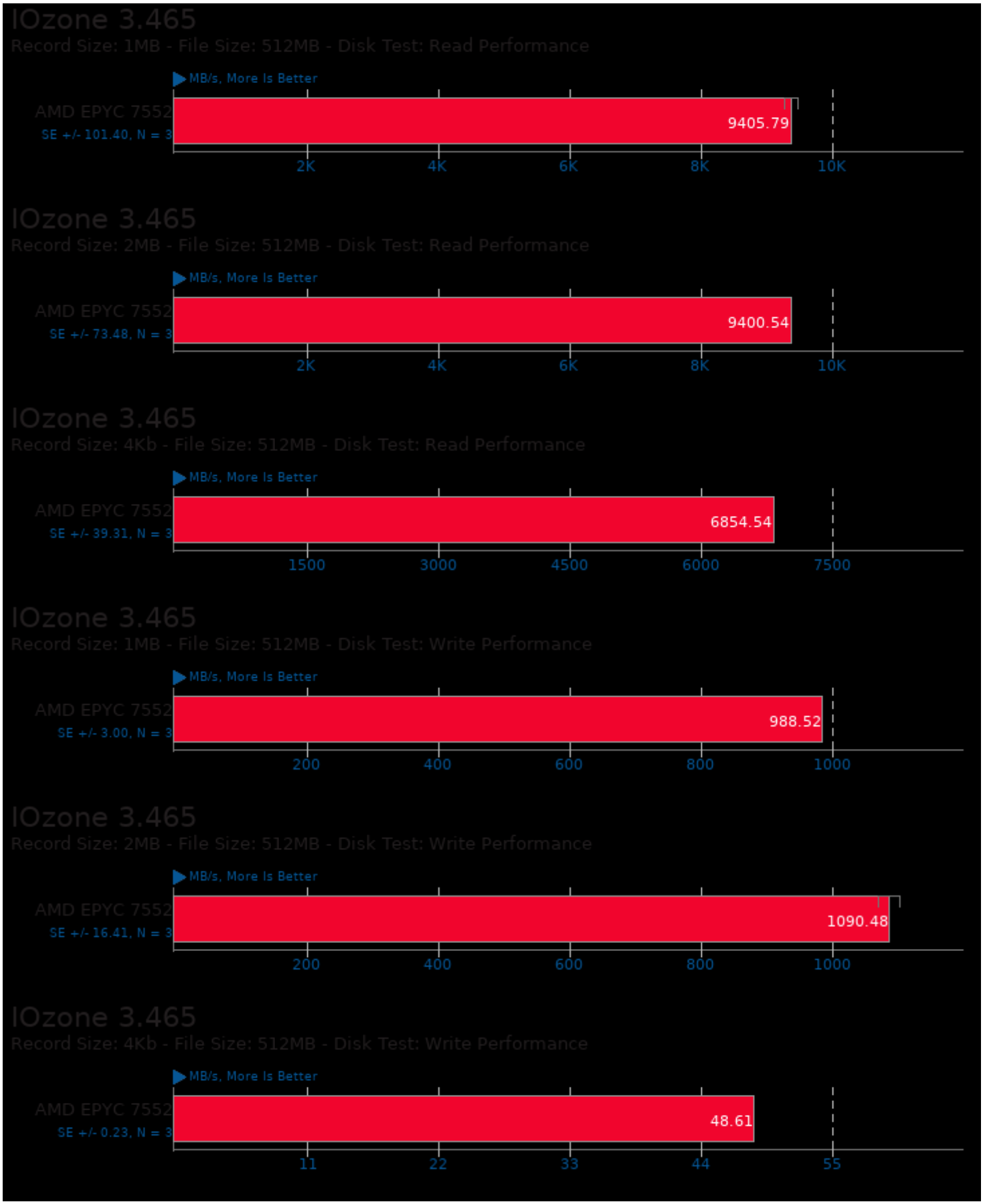
RSA 4096-bit Performance

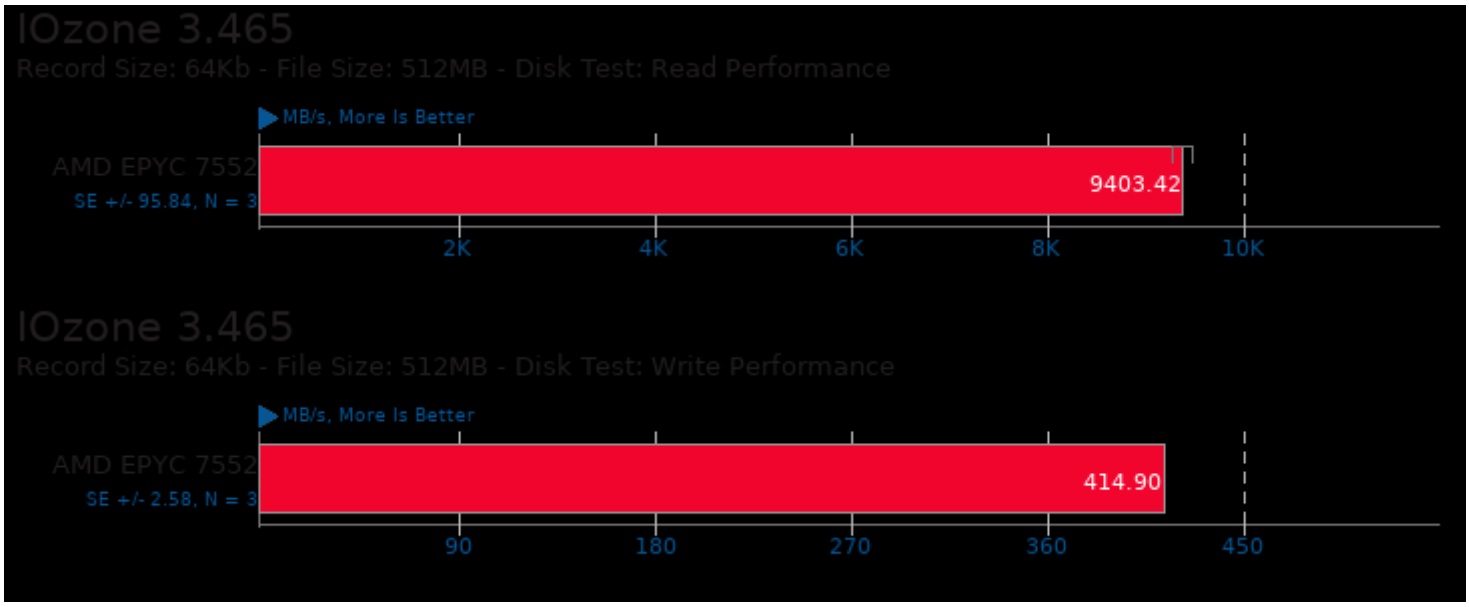


asmFish 2018-07-23

1024 Hash Memory, 26 Depth




IOzone 3.465
Record Size: 1MB - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
AMD EPYC 7552
SE +/- 101.40, N = 3
9405.79
2K
4K
6K
8K
10K
IOzone 3.465
Record Size: 2MB - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
AMD EPYC 7552
SE +/- 73.48, N = 3
9400.54
2K
4K
6K
8K
10K
IOzone 3.465
Record Size: 4Kb - File Size: 512MB - Disk Test: Read Performance
MB/s, More Is Better
AMD EPYC 7552
SE +/- 39.31, N = 3
6854.54
1500
3000
4500
6000
7500
IOzone 3.465
Record Size: 1MB - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
AMD EPYC 7552
SE +/- 3.00, N = 3
988.52
200
400
600
800
1000
IOzone 3.465
Record Size: 2MB - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
AMD EPYC 7552
SE +/- 16.41, N = 3
1090.48
200
400
600
800
1000
IOzone 3.465
Record Size: 4Kb - File Size: 512MB - Disk Test: Write Performance
MB/s, More Is Better
AMD EPYC 7552
SE +/- 0.23, N = 3
48.61
11
22
33
44
55



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