



performance-linx-software

Unknown testing with a THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS) and llvmpipe on Linx 10 via the Phoronix Test Suite.

Automated Executive Summary

kyv10-serversp2 had the most wins, coming in first place for 26% of the tests.

Based on the geometric mean of all complete results, the fastest (kyv10-serversp2) was 1.161x the speed of the slowest (linx100-buildinkyv10). 4 x 16384 MB DDR4-2933MT was 0.997x the speed of kyv10-serversp2, kyv10-server-sp2 was 0.995x the speed of 4 x 16384 MB DDR4-2933MT, linx100-kyv10sp2 was 0.965x the speed of kyv10-server-sp2, Anolis-OS-8.5 was 0.941x the speed of linx100-kyv10sp2, linx100-anolis-origin was 0.996x the speed of Anolis-OS-8.5, Linx-120-arm64 was 0.979x the speed of linx100-anolis-origin, linx-100 was 0.993x the speed of Linx-120-arm64, linx100-openeuler-origin was 0.992x the speed of linx-100, linx100-arm64 was 0.997x the speed of linx100-openeuler-origin, linx100-buildinkyv10 was 0.998x the speed of linx100-arm64.

The results with the greatest spread from best to worst included:

FS-Mark (Test: 1000 Files, 1MB Size, No Sync/FSync) at 2.206x

Threaded I/O Tester (Test: Read - Size Per Thread: 32MB - Thread Count: 4) at 1.719x

RAMspeed SMP (Type: Scale - Benchmark: Integer) at 1.686x

PHPBench (PHP Benchmark Suite) at 1.589x

CacheBench (Test: Read / Modify / Write) at 1.542x

PostMark (Disk Transaction Performance) at 1.494x

Compile Bench (Test: Initial Create) at 1.475x

RAMspeed SMP (Type: Triad - Benchmark: Integer) at 1.453x

Threaded I/O Tester (Test: Read - Size Per Thread: 64MB - Thread Count: 4) at 1.443x

BlogBench (Test: Read) at 1.441x.

Test Systems:

Anolis-OS-8.5

Processor: Unknown @ 2.60GHz (64 Cores), Motherboard: THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS), Chipset: Huawei HiSilicon, Memory: 4 x 16 GB DDR4-2933MT/s Hynix HMA82GR7CJR8N-WM, Disk: 1999GB HW-SAS3508, Graphics: Huawei Hi171x [iBMC Intelligent Management chip w/VGA support], Network: 4 x Huawei HNS GE/10GE/25GE

OS: Anolis OS 8.5, Kernel: 4.19.91-23.4.an8.aarch64 (aarch64) 20210430, Display Server: X Server, File-System: ext4, Screen Resolution: 640x480

Kernel Notes: Transparent Huge Pages: always

Disk Notes: MQ-DEADLINE / relatime,rw,seclabel,stripe=64 / Block Size: 4096

Processor Notes: Scaling Governor: cppc_cpufreq performance

Python Notes: Python 3.6.8

Security Notes: SELinux + itlb_multihit: Not affected + I1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

Linx-120-arm64

Processor: Unknown @ 2.60GHz (64 Cores), Motherboard: THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS), Chipset: Huawei HiSilicon, Memory: 4 x 16 GB DDR4-2933MT/s Hynix HMA82GR7CJR8N-WM, Disk: 1999GB HW-SAS3508, Graphics: Huawei Hi171x [iBMC Intelligent Management chip w/VGA support], Network: 4 x Huawei HNS GE/10GE/25GE

OS: Linx 12, Kernel: 4.19.0-11-linx-security-arm64 (aarch64), Display Server: X Server 1.21.1.3, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always

Environment Notes: DEBUGINFOD_URLS=

Compiler Notes: --build=aarch64-linux-gnu --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu --target=aarch64-linux-gnu --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-target-system-zlib=auto -v

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw,stripe=64 / Block Size: 4096

Processor Notes: Scaling Governor: cppc_cpufreq performance

Python Notes: Python 3.9.11

Security Notes: itlb_multihit: Not affected + I1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

4 x 16384 MB DDR4-2933MT

kyv10-serversp2

kyv10-server-sp2

Processor: HUAWEI Kunpeng 920 @ 2.60GHz (64 Cores), Motherboard: THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS), Chipset: Huawei HiSilicon, Memory: 4 x 16384 MB DDR4-2933MT/s Hynix HMA82GR7CJR8N-WM, Disk: 1999GB HW-SAS3508, Graphics: llvmpipe, Network: 4 x Huawei HNS GE/10GE/25GE

OS: Kylin Linux Advanced Server V10, Kernel: 4.19.90-25.14.v2101.ky10.aarch64 (aarch64) 20220415, Display Server: X Server 1.20.8, OpenGL: 3.3 Mesa 20.1.4 (LLVM 10.0.1 128 bits), Compiler: GCC 7.3.0, File-System: ext4, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: madvise

Disk Notes: MQ-DEADLINE / relatime,rw,stripe=64 / Block Size: 4096

Processor Notes: Scaling Governor: cppc_cpufreq performance

Python Notes: Python 2.7.18 + Python 3.7.9

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

linx-100

linx100-arm64

Processor: Unknown (64 Cores), Motherboard: THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS), Chipset: Huawei HiSilicon, Memory: 4 x 16384 MB DDR4-2933MT/s Hynix HMA82GR7CJR8N-WM, Disk: 1999GB HW-SAS3508, Graphics: llvmpipe, Monitor: S24D300, Network: 4 x Huawei HNS GE/10GE/25GE

OS: Linx 10, Kernel: 4.19.0-11-linx-security-arm64 (aarch64), Display Server: X Server 1.20.4, OpenGL: 3.3 Mesa 18.3.6 (LLVM 7.0 128 bits), Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always

Compiler Notes: --build=aarch64-linux-gnu --disable-libphobos --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw,stripe=64 / Block Size: 4096

Python Notes: Python 2.7.16 + Python 3.7.3

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

linx100-anolis-origin

Processor: Unknown (64 Cores), Motherboard: THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS), Chipset: Huawei HiSilicon, Memory: 4 x 16384 MB DDR4-2933MT/s Hynix HMA82GR7CJR8N-WM, Disk: 1999GB HW-SAS3508, Graphics: llvmpipe, Network: 4 x Huawei HNS GE/10GE/25GE

OS: Linx 10, Kernel: 4.19.91 (aarch64), Display Server: X Server 1.20.4, OpenGL: 3.3 Mesa 18.3.6 (LLVM 7.0 128 bits), Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always

Compiler Notes: --build=aarch64-linux-gnu --disable-libphobos --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw,stripe=64 / Block Size: 4096

Python Notes: Python 2.7.16 + Python 3.7.3

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

linx100-openeuler-origin

Processor: Unknown (64 Cores), Motherboard: THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS), Chipset: Huawei

HiSilicon, Memory: 4 x 16384 MB DDR4-2933MT/s Hynix HMA82GR7CJR8N-WM, Disk: 1999GB HW-SAS3508, Graphics: llvmpipe, Monitor: S24D300, Network: 4 x Huawei HNS GE/10GE/25GE

OS: Linx 10, Kernel: 4.19.90+ (aarch64), Display Server: X Server 1.20.4, OpenGL: 3.3 Mesa 18.3.6 (LLVM 7.0 128 bits), Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=aarch64-linux-gnu --disable-libphobos --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu- --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw,stripe=64 / Block Size: 4096
Python Notes: Python 2.7.16 + Python 3.7.3
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

linx100-kyv10sp2

Processor: HUAWEI Kunpeng 920 (64 Cores), Motherboard: THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS), Chipset: Huawei HiSilicon, Memory: 4 x 16384 MB DDR4-2933MT/s Hynix HMA82GR7CJR8N-WM, Disk: 1999GB HW-SAS3508, Graphics: llvmpipe, Network: 4 x Huawei HNS GE/10GE/25GE

OS: Linx 10, Kernel: 4.19.90-25.14.v2101.ky10.aarch64 (aarch64) 20220415, Display Server: X Server 1.20.4, OpenGL: 3.3 Mesa 18.3.6 (LLVM 7.0 128 bits), Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=aarch64-linux-gnu --disable-libphobos --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu- --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw,stripe=64 / Block Size: 4096
Python Notes: Python 2.7.16 + Python 3.7.3
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

linx100-buildinkyv10

Processor: Unknown (64 Cores), Motherboard: THTF BC82AMDGE (KL4.41.017.TF.201225.R BIOS), Chipset: Huawei HiSilicon, Memory: 4 x 16384 MB DDR4-2933MT/s Hynix HMA82GR7CJR8N-WM, Disk: 1999GB HW-SAS3508, Graphics: llvmpipe, Monitor: S24D300, Network: 4 x Huawei HNS GE/10GE/25GE

OS: Linx 10, Kernel: 4.19.90+ (aarch64), Display Server: X Server 1.20.4, OpenGL: 3.3 Mesa 18.3.6 (LLVM 7.0 128 bits), Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=aarch64-linux-gnu --disable-libphobos --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu- --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw,stripe=64 / Block Size: 4096
Python Notes: Python 2.7.16 + Python 3.7.3
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

	Anolis-OS-8.5	Linix-120 -arm64	4 x 16384 MB DDR4-2 933MT	kyv10-s erversp 2	kyv10-s erver-sp 2	linx-100	linx100-arm64	linx100-anolis-o rigin	linx100-openeul er-origin	linx100-kyv10sp 2	linx100-buildink yv10
7-Zip Compression -	114065	103505		121286	122246	106486	105180	112374	104058	119988	103647
Normalized	93.31%	84.67%		99.21%	100%	87.11%	86.04%	91.92%	85.12%	98.15%	84.79%
Standard Deviation	0.6%	2.2%		0.3%	2.5%	1.3%	0.8%	2.3%	0.7%	1.7%	3.2%
BlogBench - Read (Final Score)	1342672	1004609	1430148	1447393	1433208	1050190	1011768	1250686	1023746	1394764	1015945
Normalized	92.76%	69.41%	98.81%	100%	99.02%	72.56%	69.9%	86.41%	70.73%	96.36%	70.19%
Standard Deviation	4.9%	2.5%	2%	3.1%	2.3%	2.8%	0.7%	2.6%	1.2%	2.5%	2.4%
C-Ray - Total Time - 4.1.R.P.P (sec)	27.439	27.175		27.489	27.440	27.132	27.127	27.149	27.040	27.197	27.252
Normalized	98.55%	99.5%		98.37%	98.54%	99.66%	99.68%	99.6%	100%	99.42%	99.22%
Standard Deviation	0.3%	0.2%		0.1%	0.2%	0.4%	0.3%	0.2%	0.2%	0.3%	0.5%
CacheBench - Read (MB/s)	4957	4957		4958	4958	4957	4957	4957	4957	4958	4957
Normalized	99.98%	99.98%		100%	100%	99.98%	99.98%	99.98%	99.97%	100%	99.97%
Standard Deviation	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%
CacheBench - Write (MB/s)	18735	18972		19244	19246	18723	18704	18759	18753	18757	18758
Normalized	97.34%	98.58%		99.99%	100%	97.29%	97.19%	97.47%	97.44%	97.46%	97.47%
Standard Deviation	0%	0.3%		0%	0%	0.1%	0%	0.1%	0%	0%	0%
CacheBench - R.M.W (MB/s)	29691	29796		19571	19567	19345	19349	19332	19327	19338	19337
Normalized	99.65%	100%		65.68%	65.67%	64.92%	64.94%	64.88%	64.86%	64.9%	64.9%
Standard Deviation	0%	0.1%		0%	0%	0%	0%	0%	0%	0%	0%
Compile Bench - Initial Create (MB/s)		280.18		272.61	279.26	198.76	199.71	229.52	226.49	189.97	227.82
Normalized		100%		97.3%	99.67%	70.94%	71.28%	81.92%	80.84%	67.8%	81.31%
Standard Deviation		0.5%		0.7%	1.6%	2.4%	1%	0.9%	0.9%	1.1%	0.8%
Dbench - 6 (MB/s)	391.113	400.821		402.800	394.757	368.850	374.786	396.770	350.454	389.749	377.824
Normalized	97.1%	99.51%		100%	98%	91.57%	93.05%	98.5%	87%	96.76%	93.8%
Standard Deviation	0.3%	0.1%		1.7%	0.7%	0.5%	0.2%	0.2%	7.9%	5.2%	0.4%
Flexible IO Tester - Rand Read - LINUX AIO - Yes - No - 4KB (MB/s)	0.695	0.697	0.796	0.793	0.780	0.699	0.706	0.700	0.697	0.791	0.702
Normalized	87.31%	87.56%	100%	99.62%	97.99%	87.81%	88.69%	87.94%	87.56%	99.37%	88.19%
Standard Deviation	0.8%	0.7%	1.2%	1%	1.7%	0.4%	1.4%	1.7%	0.9%	2.2%	0.6%
Flexible IO Tester - Rand Read - LINUX AIO - Yes - No - 4KB (IOPS)	170	170	195	195	191	171	173	171	171	194	172
Normalized	87.18%	87.18%	100%	100%	97.95%	87.69%	88.72%	87.69%	87.69%	99.49%	88.21%
Standard Deviation	1%	0.7%	1.1%	1.1%	1.7%	1.7%	1.7%	1.7%	0.7%	2.2%	

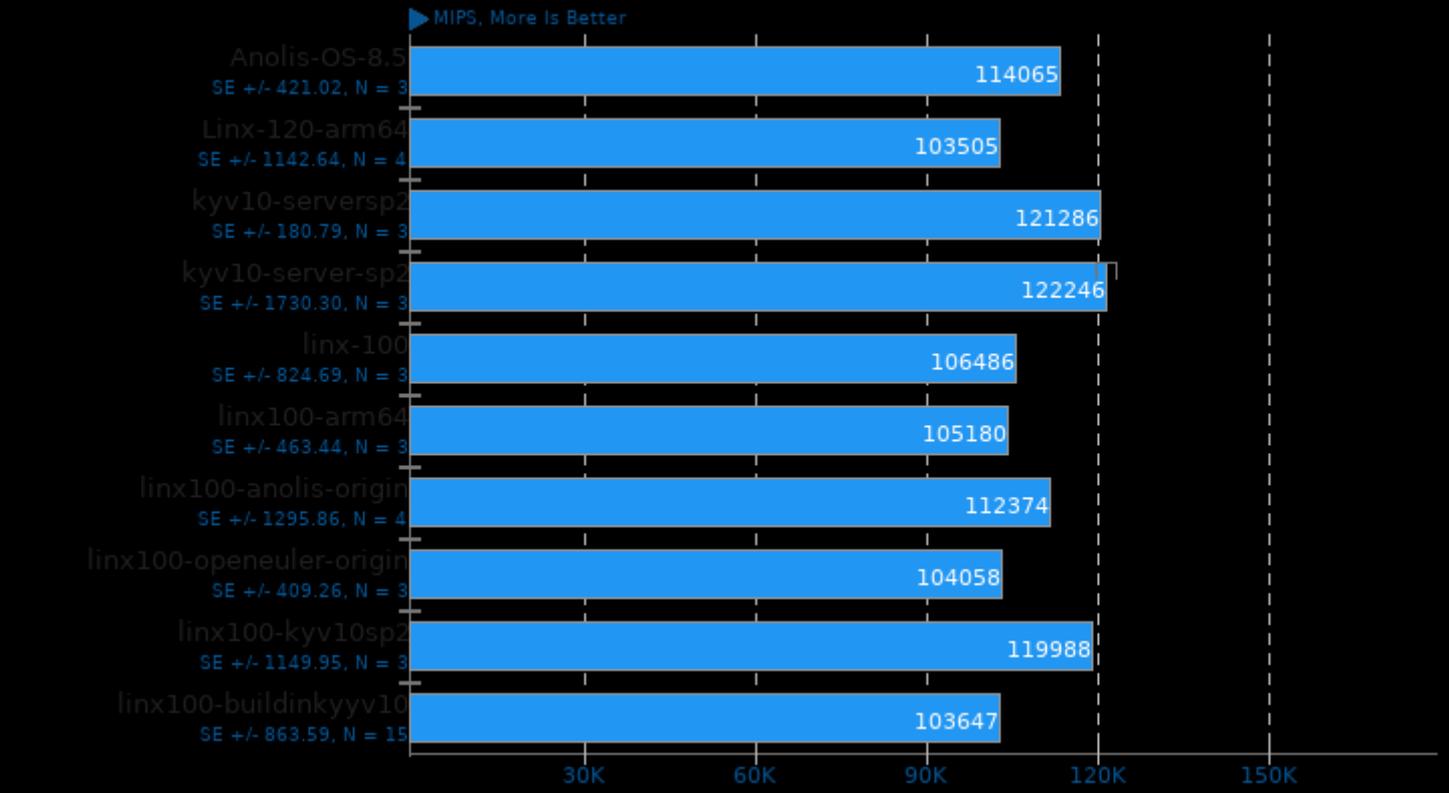
Flexible IO Tester	175	168	179	179	178	172	170	180	171	174	171
- Rand Write -											
Linux AIOO - Yes -											
No - 4KB (MB/s)											
Normalized	97.22%	93.33%	99.44%	99.44%	98.89%	95.56%	94.44%	100%	95%	96.67%	95%
Standard Deviation	0.9%	1.5%	1.8%	0.6%	0.3%		0.7%	0.6%	0.7%		0.3%
Flexible IO Tester	44733	43100	45667	45800	45633	44033	43600	46067	43767	44533	43600
- Rand Write -											
Linux AIOO - Yes -											
No - 4KB (IOPS)											
Normalized	97.1%	93.56%	99.13%	99.42%	99.06%	95.58%	94.64%	100%	95.01%	96.67%	94.64%
Standard Deviation	0.8%	1.4%	1.9%	0.4%	0.3%	0.3%	0.6%	0.5%	0.7%	0.3%	0.4%
Flexible IO Tester	189	192	191	191	190	185	183	185	180	183	181
- Seq Read - Linux											
AIOO - Yes - No -											
4KB (MB/s)											
Normalized	98.44%	100%	99.48%	99.48%	98.96%	96.35%	95.31%	96.35%	93.75%	95.31%	94.27%
Standard Deviation	0.3%	0.8%	0.6%		1.1%	0.3%	0.3%		1.6%	1.7%	1.2%
Flexible IO Tester	48267	49133	48900	48867	48733	47433	46867	47333	46233	46867	46267
- Seq Read - Linux											
AIOO - Yes - No -											
4KB (IOPS)											
Normalized	98.24%	100%	99.53%	99.46%	99.19%	96.54%	95.39%	96.34%	94.1%	95.39%	94.17%
Standard Deviation	0.3%	0.8%	0.5%	0.1%	1.1%	0.1%	0.3%	0.1%	1.6%	1.6%	1.2%
Flexible IO Tester	174	174	183	184	183	178	173	183	177	182	175
- Seq Write - Linux											
AIO - Yes - No -											
4KB (MB/s)											
Normalized	94.57%	94.57%	99.46%	100%	99.46%	96.74%	94.02%	99.46%	96.2%	98.91%	95.11%
Standard Deviation	1.4%	2.4%	0.6%	0.5%	1.1%	0.3%					2.3%
Flexible IO Tester	44567	44525	46967	47167	46900	45400	44233	46833	45267	46600	44725
- Seq Write - Linux											
AIO - Yes - No -											
4KB (IOPS)											
Normalized	94.49%	94.4%	99.58%	100%	99.43%	96.25%	93.78%	99.29%	95.97%	98.8%	94.82%
Standard Deviation	1.5%	2.4%	0.5%	0.7%	1.1%	0.2%	0.7%	0.5%	0.3%		2.2%
FS-Mark - 1.F.1.S	173.3	172.8	180.5	181.6	180.6	164.9	163.9	165.9	164.7	169.2	164.8
(Files/s)											
Normalized	95.43%	95.15%	99.39%	100%	99.45%	90.8%	90.25%	91.35%	90.69%	93.17%	90.75%
Standard Deviation	0.8%	1.6%	0.7%	0.4%	0.8%	0.4%	2.4%	1.2%	2.1%	1.3%	1.4%
FS-Mark -	189.9	192.0	187.9	188.1	185.9	182.8	181.1	180.5	180.0	180.7	180.8
5.F.1.S.4.T											
Normalized	98.91%	100%	97.86%	97.97%	96.82%	95.21%	94.32%	94.01%	93.75%	94.11%	94.17%
Standard Deviation	0.4%	0.4%	0.4%	0.1%	0.1%	0.4%	0.9%	0.4%	0.4%	0.5%	0%
FS-Mark -	173.1	174.1	180.8	180.7	180.2	166.7	166.4	166.8	166.1	169.9	163.4
4.F.3.S.D.1.S											
(Files/s)											
Normalized	95.74%	96.29%	100%	99.94%	99.67%	92.2%	92.04%	92.26%	91.87%	93.97%	90.38%
Standard Deviation	0.8%	0.9%	0.4%	0.8%	0.3%	0.5%	1.1%	0.5%	0.7%	0.8%	0.5%

FS-Mark - 1356	1347	2842	2872	2853	1326	1309	1379	1355	2375	1302	
1.F.1.S.N.S.F (Files/s)											
Normalized	47.21%	46.9%	98.93%	100%	99.32%	46.15%	45.57%	48.01%	47.19%	82.69%	45.34%
Standard Deviation	0.6%	0.3%	0.1%	0.1%	0.4%	0.3%	0.2%	0.3%	0.2%	0.9%	0.3%
IOzone - 64Kb - 37.70	37.16		38.24	37.64	36.94	37.3958	36.99	37.00	37.57	36.98	
512MB - Write Performance (MB/s)						333					
Normalized	98.59%	97.18%	100%	98.43%	96.6%	97.79%	96.73%	96.76%	98.25%	96.71%	
Standard Deviation	0.5%	0.9%	0.6%	0.5%	0.5%	0.6%	0.1%	0.3%	0.8%	0.5%	
Loopback TCP Network Performance - T.T.T.1.V.L (sec)	12.456				12.821	13.203	14.227	12.874	11.055	12.838	
Normalized	88.75%				86.23%	83.73%	77.7%	85.87%	100%	86.11%	
Standard Deviation	0.7%				0.6%	0.2%	0.1%	1%	0.8%	1.4%	
OpenSSL - 3878268	3670140		3876909	3871988	3920197	3919357	3920267	3919854	3903908	3919317	
SHA256 (byte/s)	4253	9527	7837	1770	8943	0287	5580	1217	9483	5250	
Normalized	98.93%	93.62%	98.89%	98.77%	100%	99.98%	100%	99.99%	99.58%	99.98%	
Standard Deviation	0.1%	0%	0.1%	0%	0%	0%	0%	0%	0%	0%	
OpenSSL - 7693	7656		7688	7690	7554	7608	7694	7633	7699	7566	
RSA4096 (sign/s)											
Normalized	99.92%	99.44%	99.86%	99.89%	98.12%	98.82%	99.94%	99.14%	100%	98.27%	
Standard Deviation	0%	0.1%	0%	0%	0.8%	0.3%	0%	0.2%	0%	0.6%	
OpenSSL - 550930	561969		551022	550501	551351	551299	551031	550686	551805	550800	
RSA4096 (verify/s)											
Normalized	98.04%	100%	98.05%	97.96%	98.11%	98.1%	98.05%	97.99%	98.19%	98.01%	
Standard Deviation	0.1%	0.1%	0%	0.1%	0%	0%	0.1%	0.1%	0%	0.1%	
PHPBench - P.B.S (Score)	287127	409819	257848	261094	310323	313161	310265	314682	313981	313483	
Normalized	70.06%	100%	62.92%	63.71%	75.72%	76.41%	75.71%	76.79%	76.61%	76.49%	
Standard Deviation	0.9%	0%	1.6%	2.1%	2.3%	0.1%	2.5%	0%	0.3%	0.1%	
PostMark - D.T.P (TPS)	3024	3191	4411	4519	3099	3086	3191	3191	4261	3164	
Normalized	66.92%	70.61%	97.61%	100%	68.58%	68.29%	70.61%	70.61%	94.29%	70.02%	
Standard Deviation	1.4%	0.7%	1%	2.1%	1.4%	1.2%	1.5%	0.7%	1%		
RAMspeed SMP - 24852	24970		23095	22999	25229	24945	24147	24577	22834	24736	
Add - Integer (MB/s)											
Normalized	98.51%	98.97%	91.54%	91.16%	100%	98.88%	95.71%	97.41%	90.51%	98.04%	
Standard Deviation	0.1%	1.2%	0.2%	0.1%	0.1%	0%	0.2%	0.1%	0.4%	0.3%	
RAMspeed SMP - 23916	23343		21155	21098	23934	23872	23682	23729	24397	23816	
Copy - Integer (MB/s)											
Normalized	98.03%	95.68%	86.71%	86.47%	98.1%	97.85%	97.07%	97.26%	100%	97.62%	
Standard Deviation	0.1%	0.2%	0.1%	0%	0.4%	0.2%	0%	0%	0.1%	0.1%	
RAMspeed SMP - 17099	26159		15534	15515	16890	16971	16527	16734	17161	16937	
Scale - Integer (MB/s)											
Normalized	65.36%	100%	59.38%	59.31%	64.57%	64.88%	63.18%	63.97%	65.6%	64.74%	
Standard Deviation	0%	1.1%	0.1%	0%	1%	1.7%	0.2%	0.1%	0%	0.1%	

RAMspeed SMP - Triad - Integer (MB/s)	18159	20616	15988	15944	18351	18241	17383	17972	14190	18048
Normalized	88.08%	100%	77.55%	77.34%	89.01%	88.48%	84.32%	87.17%	68.83%	87.54%
Standard Deviation	0.1%	4.2%	0.3%	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.6%
RAMspeed SMP - Average - Integer (MB/s)	20986	23647	18944	18850	21085	21057	20437	20752	19645	20845
Normalized	88.75%	100%	80.12%	79.72%	89.17%	89.05%	86.43%	87.76%	83.08%	88.15%
Standard Deviation	0%	1.4%	0.2%	0.1%	0.3%	0%	0.1%	0.1%	0.2%	0.2%
Stream - Copy (MB/s)	66099	65960	71425	71600	66673	66180	66634	66011	67120	66446
Normalized	92.32%	92.12%	99.76%	100%	93.12%	92.43%	93.06%	92.19%	93.74%	92.8%
Standard Deviation	0.9%	0.9%	0.4%	0.6%	0.8%	0.7%	1.9%	2%	0.3%	1%
Stream - Scale (MB/s)	70372	70506	70487	70506	70757	70218	70810	69609	70450	70798
Normalized	99.38%	99.57%	99.54%	99.57%	99.92%	99.16%	100%	98.3%	99.49%	99.98%
Standard Deviation	0.4%	0.5%	0.1%	0.5%	0.4%	0.8%	0.5%	1.6%	0.7%	0.5%
Stream - Triad (MB/s)	70936	71077	71621	71343	71442	70922	70997	70868	71314	71335
Normalized	99.04%	99.24%	100%	99.61%	99.75%	99.02%	99.13%	98.95%	99.57%	99.6%
Standard Deviation	0.1%	0.7%	0.1%	0.6%	0.5%	0.7%	1.7%	1.1%	0.3%	0.3%
Stream - Add (MB/s)	70991	70840	71599	71493	71143	70906	70954	70315	71525	71161
Normalized	99.15%	98.94%	100%	99.85%	99.36%	99.03%	99.1%	98.21%	99.9%	99.39%
Standard Deviation	0.7%	0.8%	0.3%	0.4%	0.6%	0.9%	1.3%	1.7%	0.5%	0.5%
Threaded I/O Tester - Read - 32MB - 4 (MB/s)	10583	7763	13345	12762	10089	9854	10489	10531	12416	10298
Normalized	79.31%	58.17%	100%	95.63%	75.6%	73.84%	78.6%	78.91%	93.04%	77.17%
Standard Deviation	4%	3.4%	6%	5.5%	0.4%	9.3%	5.6%	0.5%	5.1%	3.8%
Threaded I/O Tester - Read - 64MB - 4 (MB/s)	11732	11914	15193	14727	10848	10527	11358	11322	13926	11278
Normalized	77.22%	78.42%	100%	96.94%	71.4%	69.29%	74.76%	74.53%	91.66%	74.23%
Standard Deviation	1.2%	2.4%	0.3%	1.7%	2.5%	0.7%	2.4%	0.7%	1.4%	0.9%
Threaded I/O Tester - Read - 128MB - 4 (MB/s)	11947	12513	15886	15968	11682	11833	12378	11614	14550	12304
Normalized	74.82%	78.36%	99.49%	100%	73.16%	74.11%	77.52%	72.73%	91.12%	77.06%
Standard Deviation	3.2%	2.3%	0.3%	0.6%	2%	0.4%	1.7%	2.5%	0.3%	1.4%
Threaded I/O Tester - Read - 256MB - 4 (MB/s)	12625	12863	15759	16268	11664	12577	12630	12470	14853	12678
Normalized	74.82%	78.36%	99.49%	100%	73.16%	74.11%	77.52%	72.73%	91.12%	77.06%
Standard Deviation	3.2%	2.3%	0.3%	0.6%	2%	0.4%	1.7%	2.5%	0.3%	1.4%
Timed MAFFT - LSU RNA (sec)	18.833	20.418	16.095	16.166	18.915	19.060	18.786	18.934	15.817	19.031
Normalized	77.61%	79.07%	96.87%	100%	71.7%	77.31%	77.64%	76.65%	91.3%	77.93%
Standard Deviation	4.4%	9.1%	8.4%	2.9%	2.2%	2.5%	2.4%	2.1%	0.7%	0.9%
Alignment - M.S.A - LSU RNA (sec)	18.833	20.418	16.095	16.166	18.915	19.060	18.786	18.934	15.817	19.031
Normalized	83.99%	77.47%	98.27%	97.84%	83.62%	82.99%	84.2%	83.54%	100%	83.11%
Standard Deviation	0.7%	1.5%	0.4%	1.3%	0.8%	0.2%	0.6%	1.4%	1.9%	1.3%

7-Zip Compression 16.02

Compress Speed Test

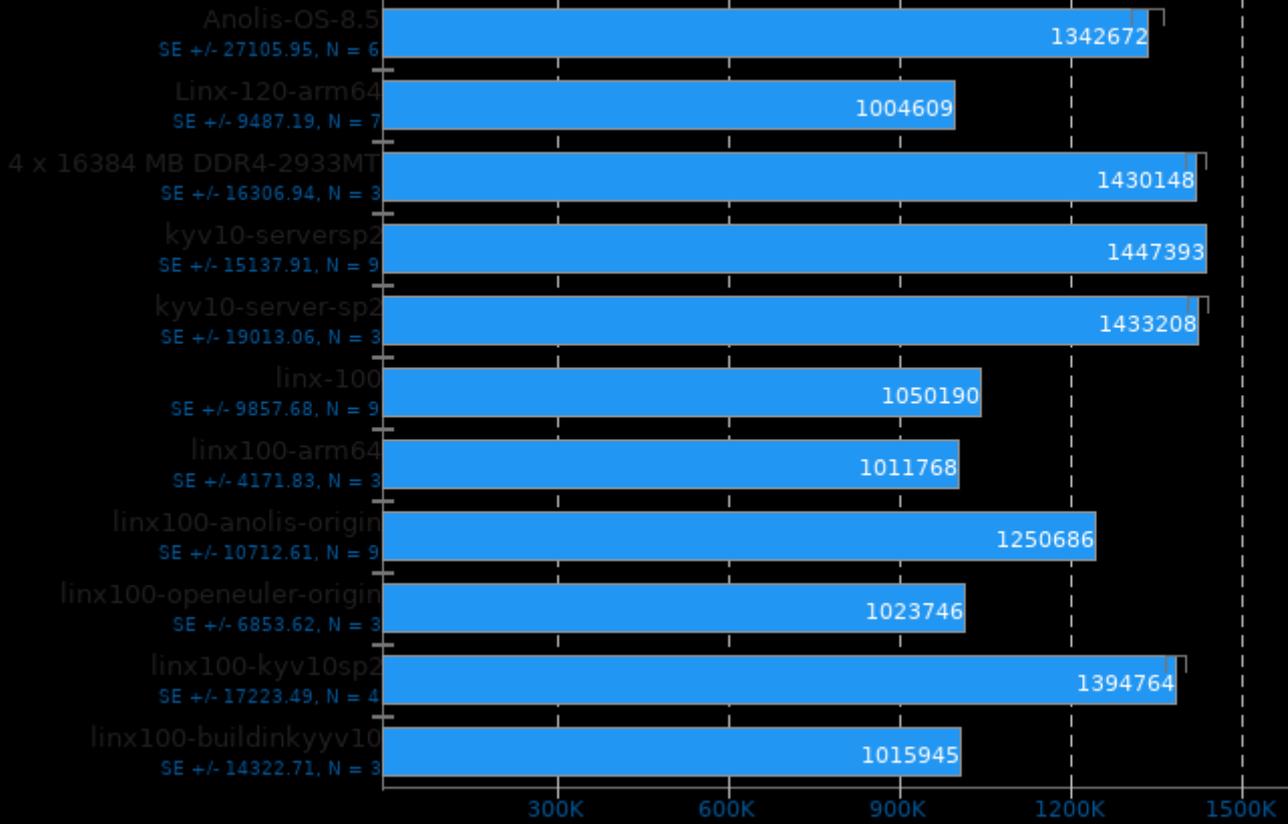


1. (CXX) g++ options: -pipe -pthread

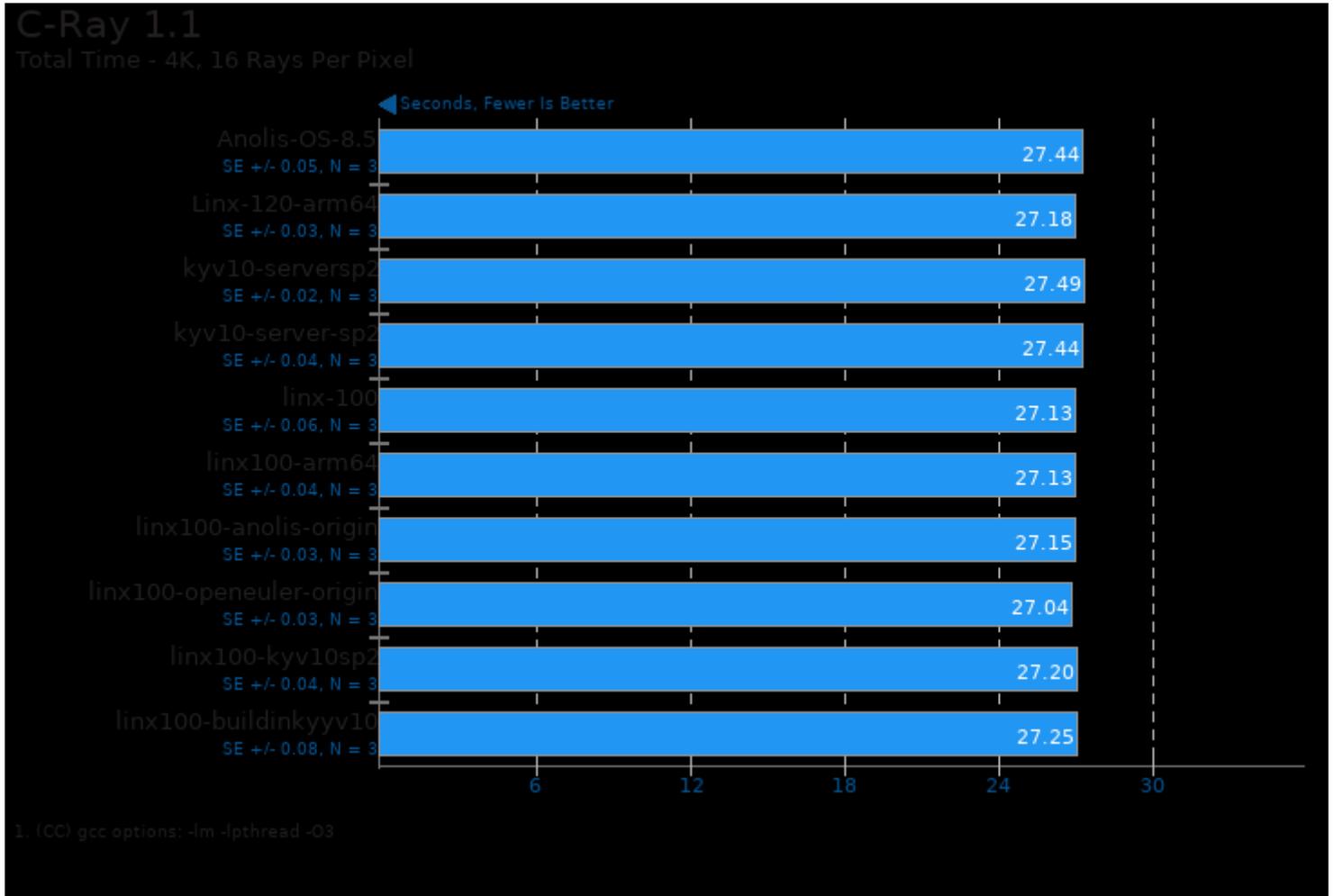
BlogBench 1.1

Test: Read

Final Score, More Is Better



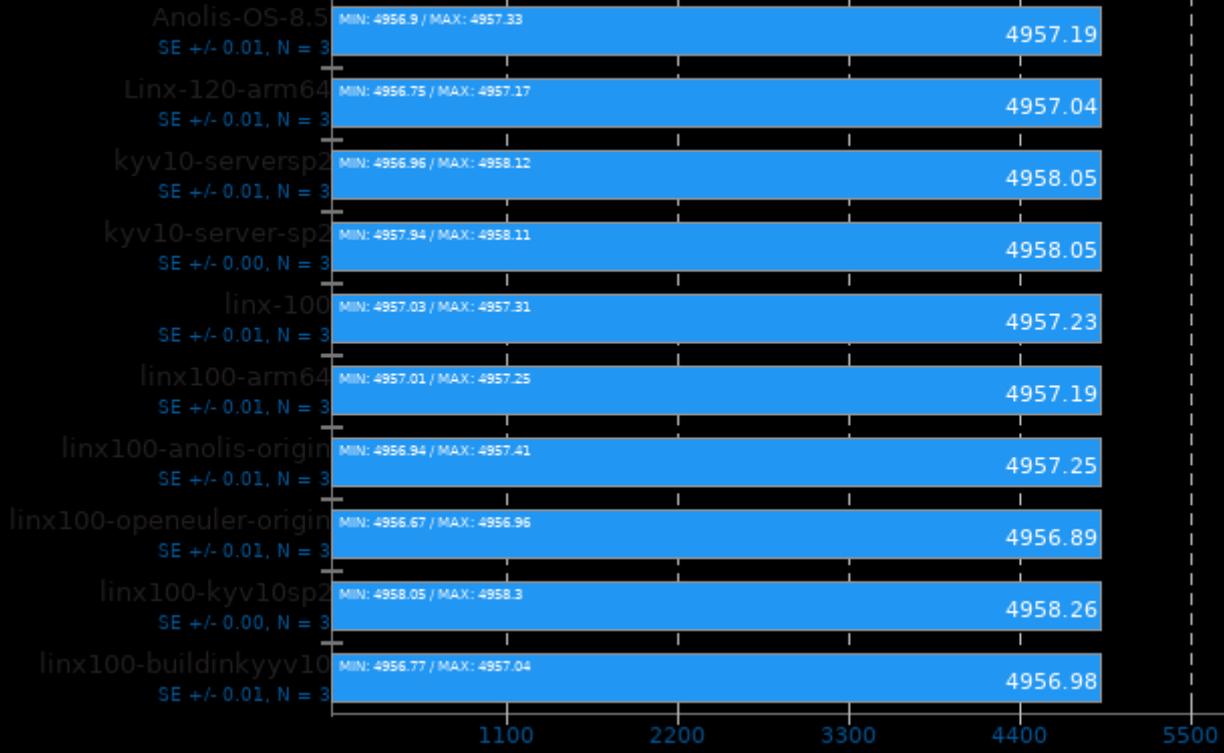
1. (CC) gcc options: -O2 -pthread



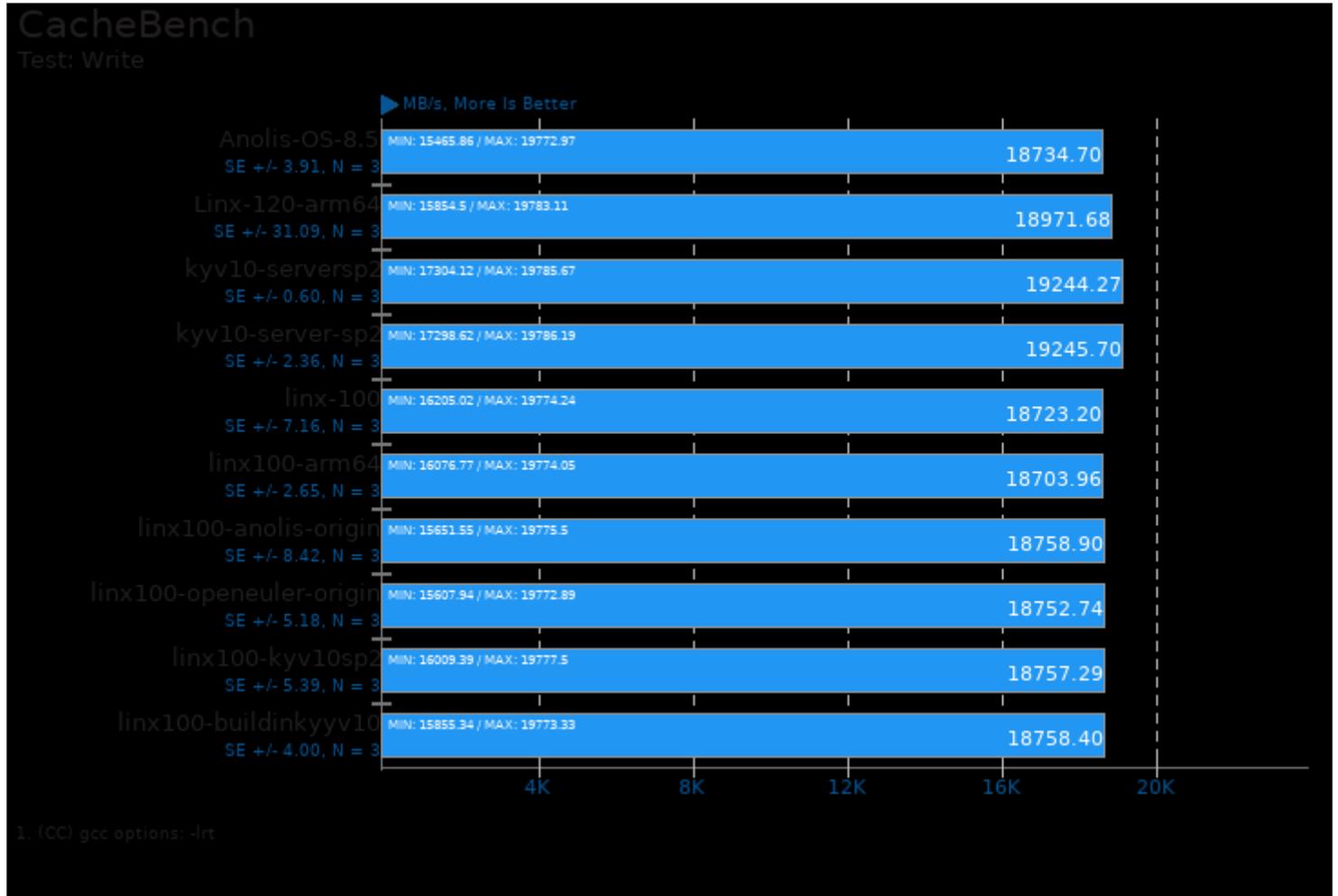
CacheBench

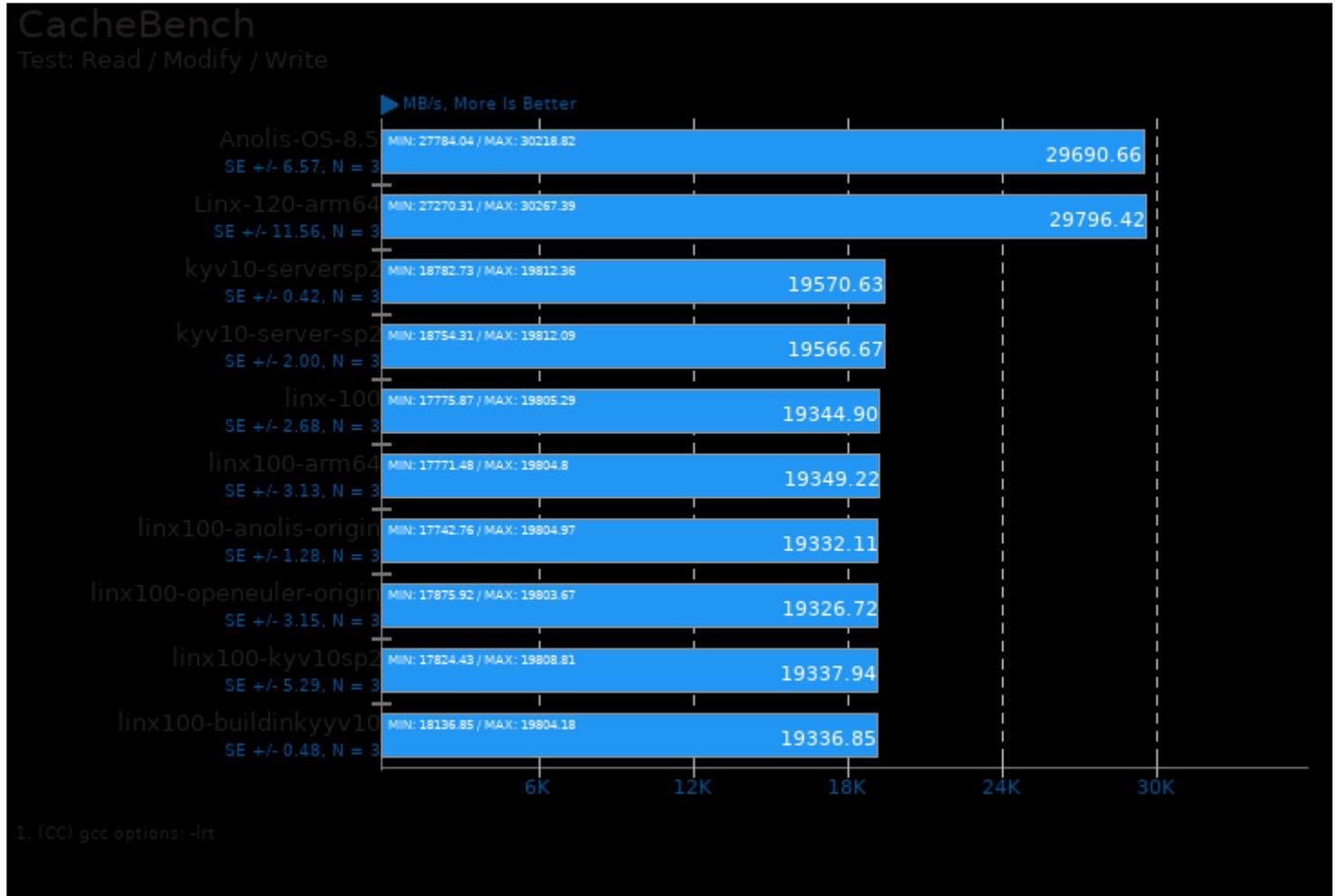
Test: Read

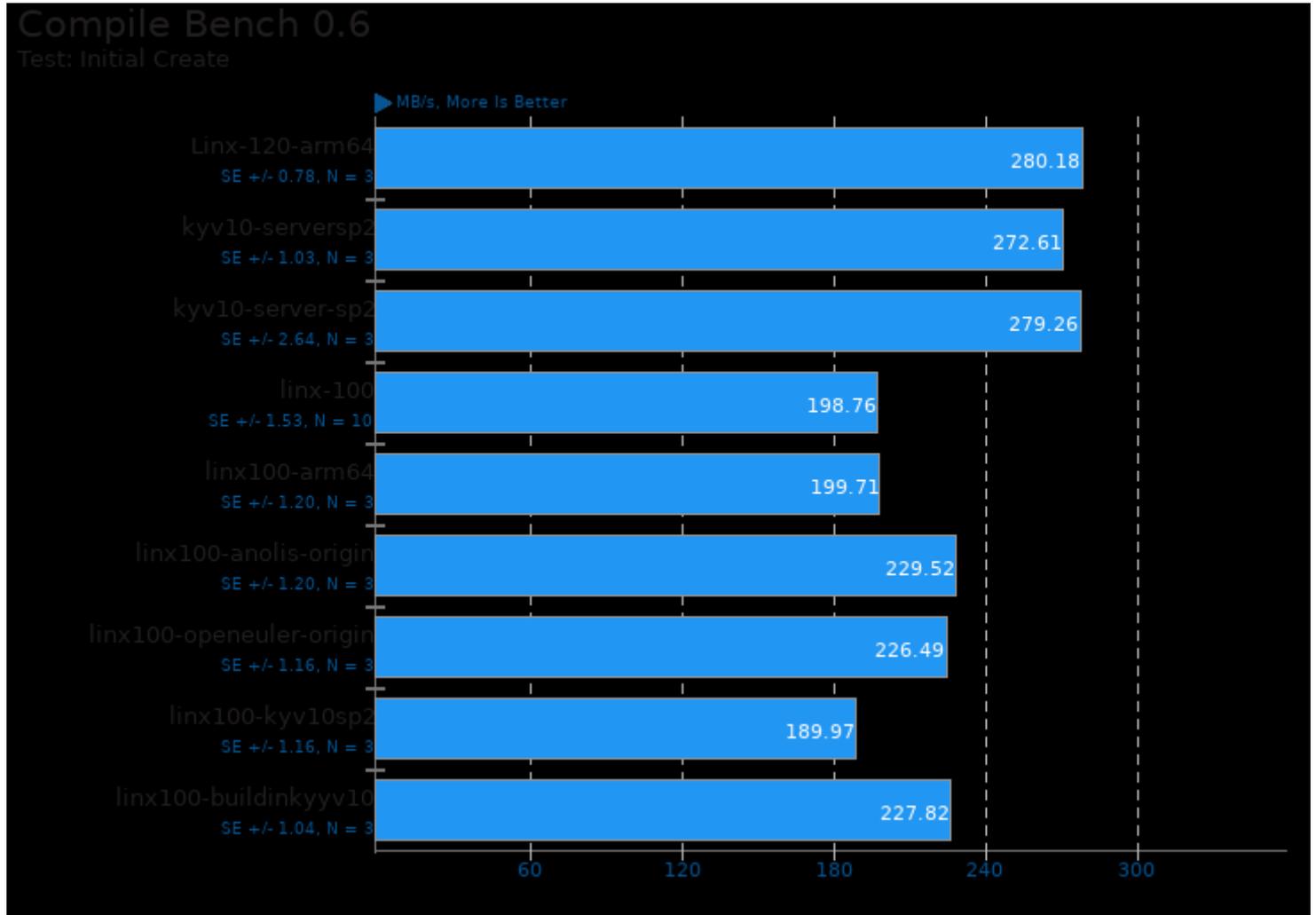
▶ MB/s, More Is Better

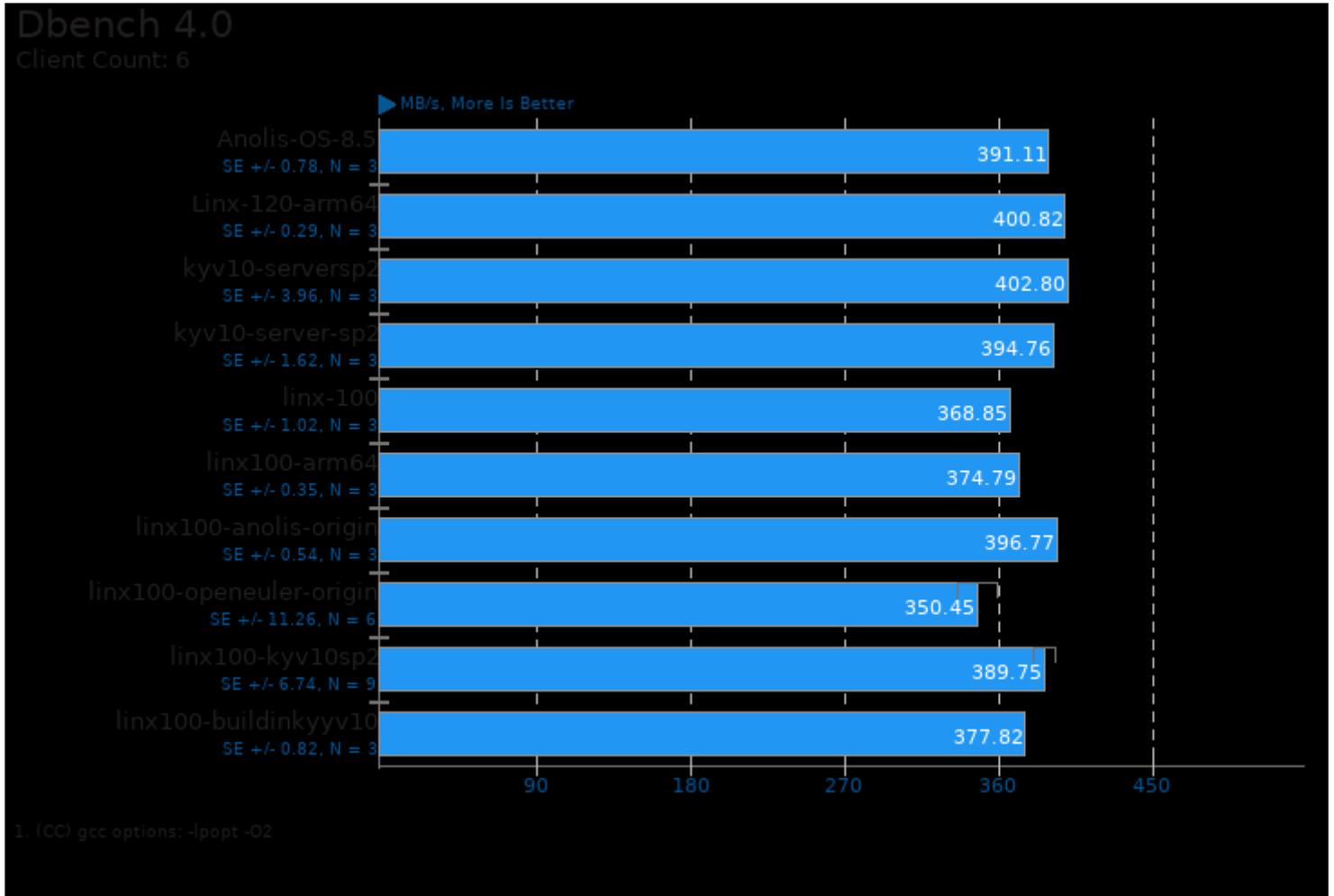


1. (CC) gcc options: -lrt



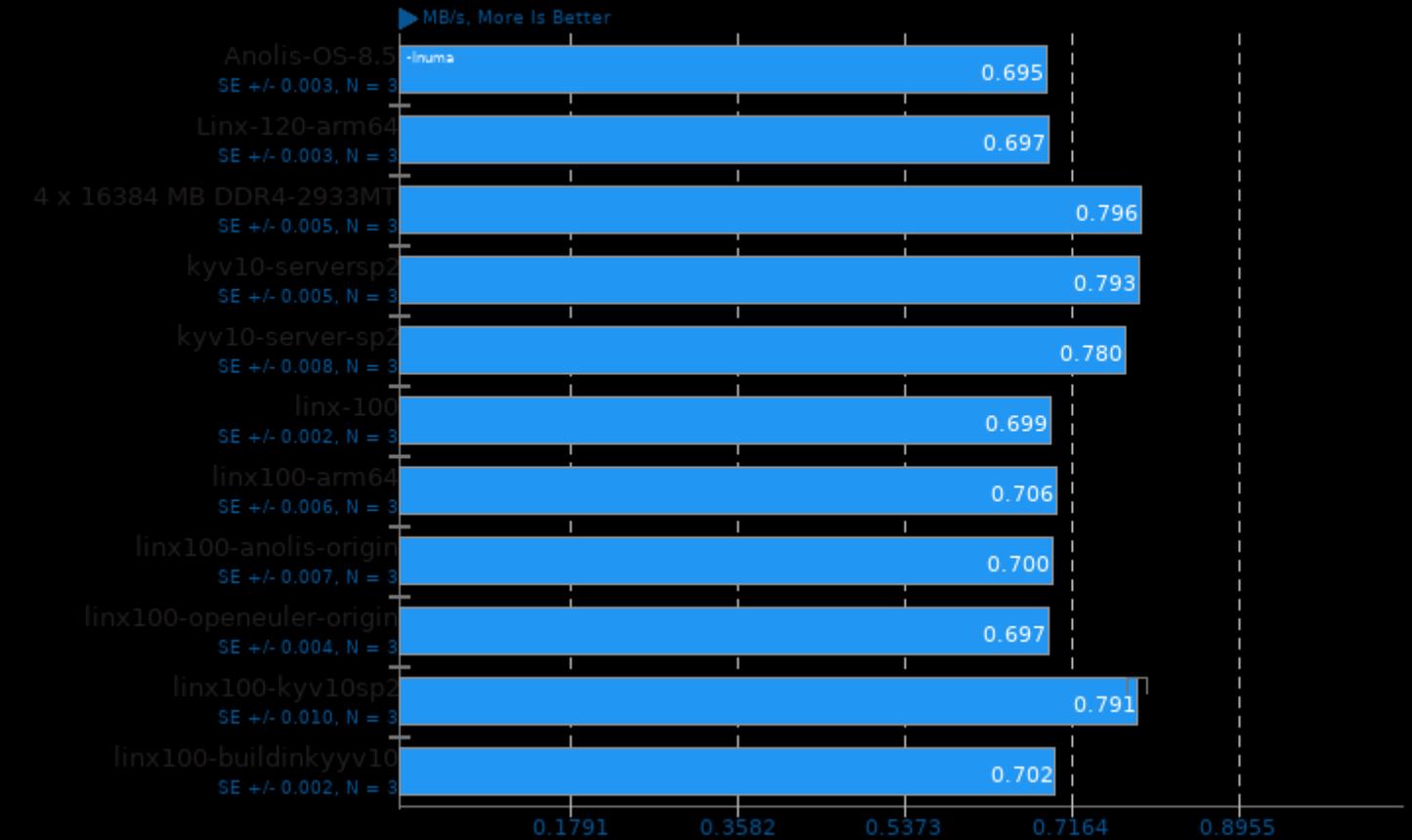






Flexible IO Tester 3.25

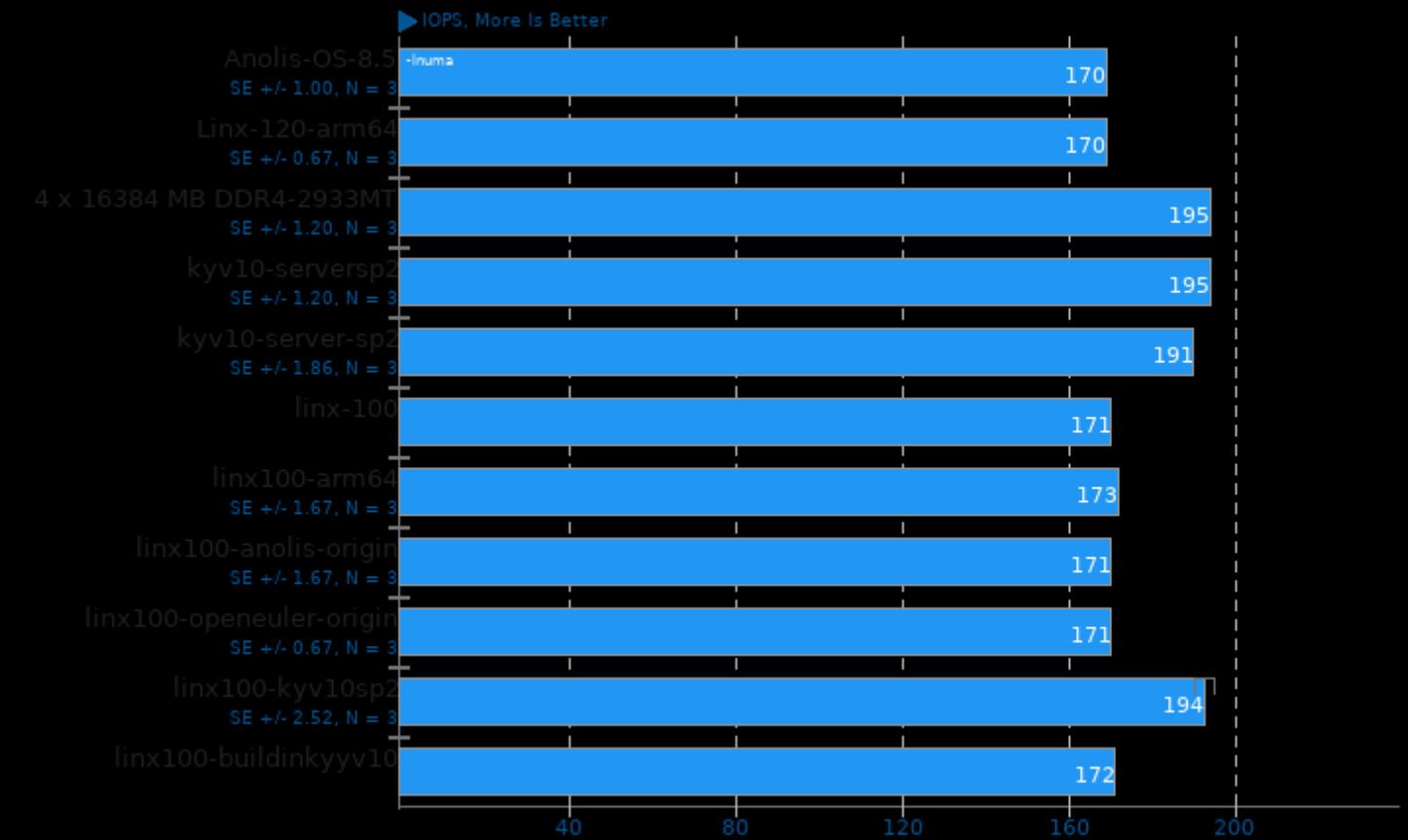
Type: Random Read - IO Engine: LINUX AIO - Buffered: Yes - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

Flexible IO Tester 3.25

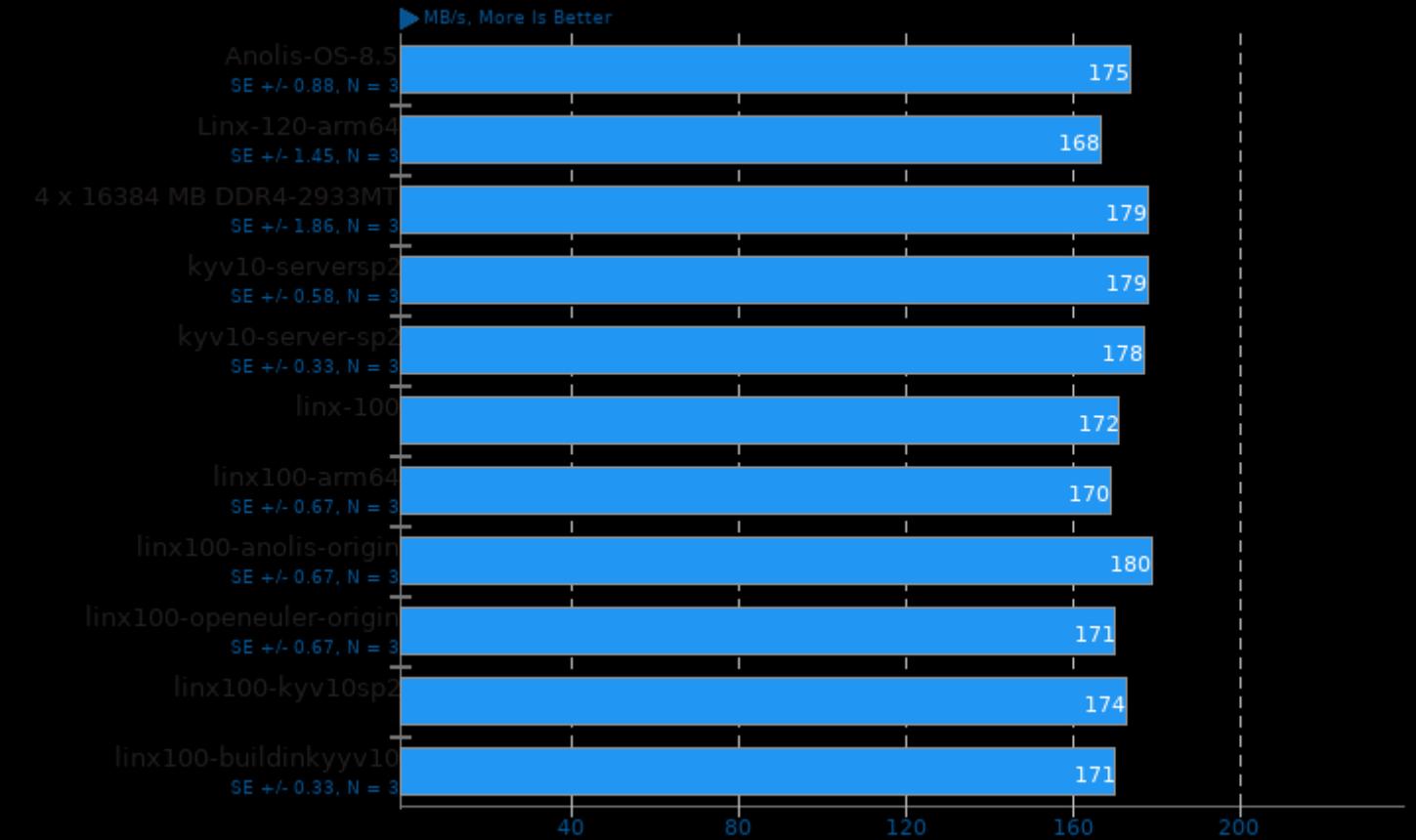
Type: Random Read - IO Engine: LINUX AIO - Buffered: Yes - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

Flexible IO Tester 3.29

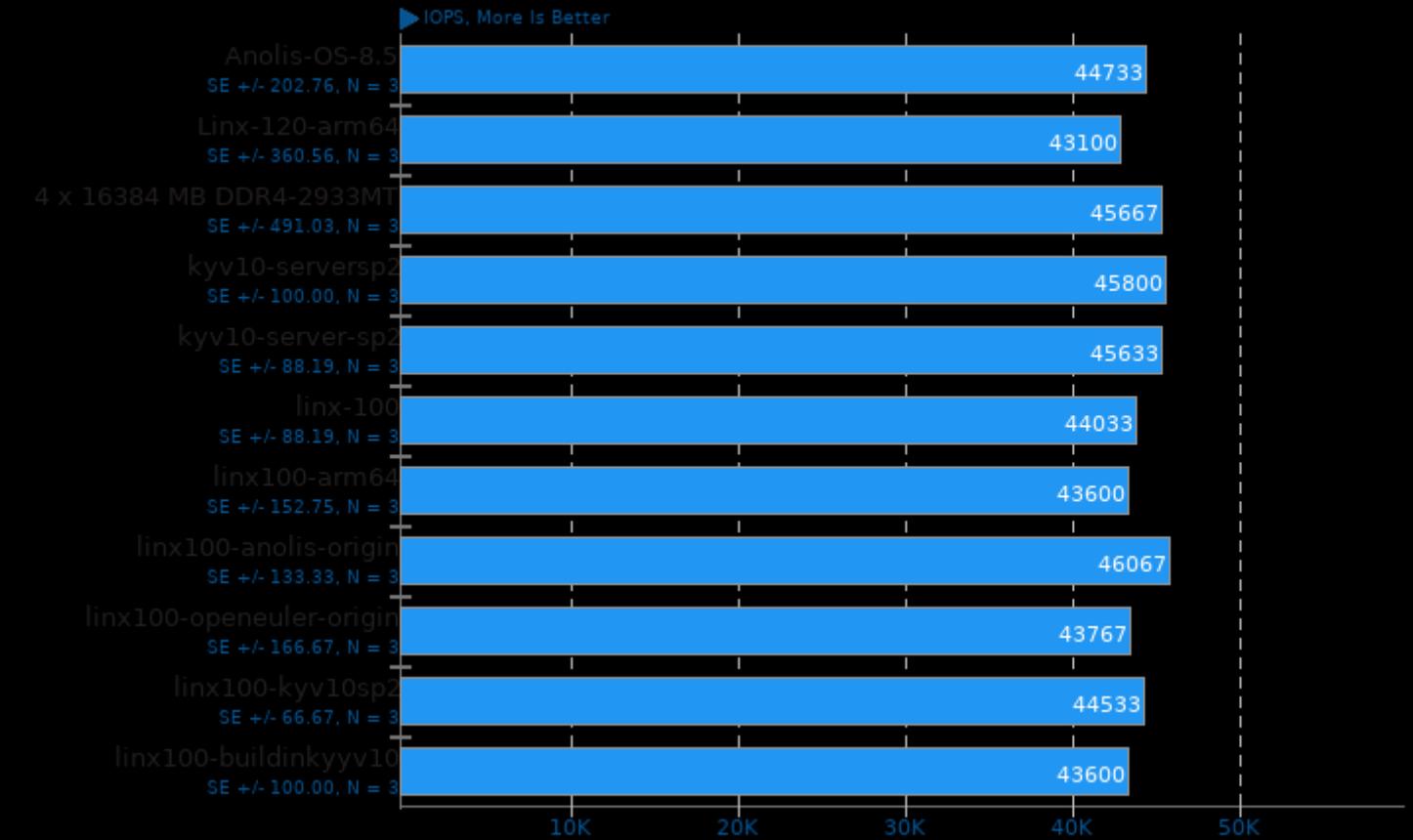
Type: Random Write - IO Engine: Linux AIOO - Buffered: Yes - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

Flexible IO Tester 3.29

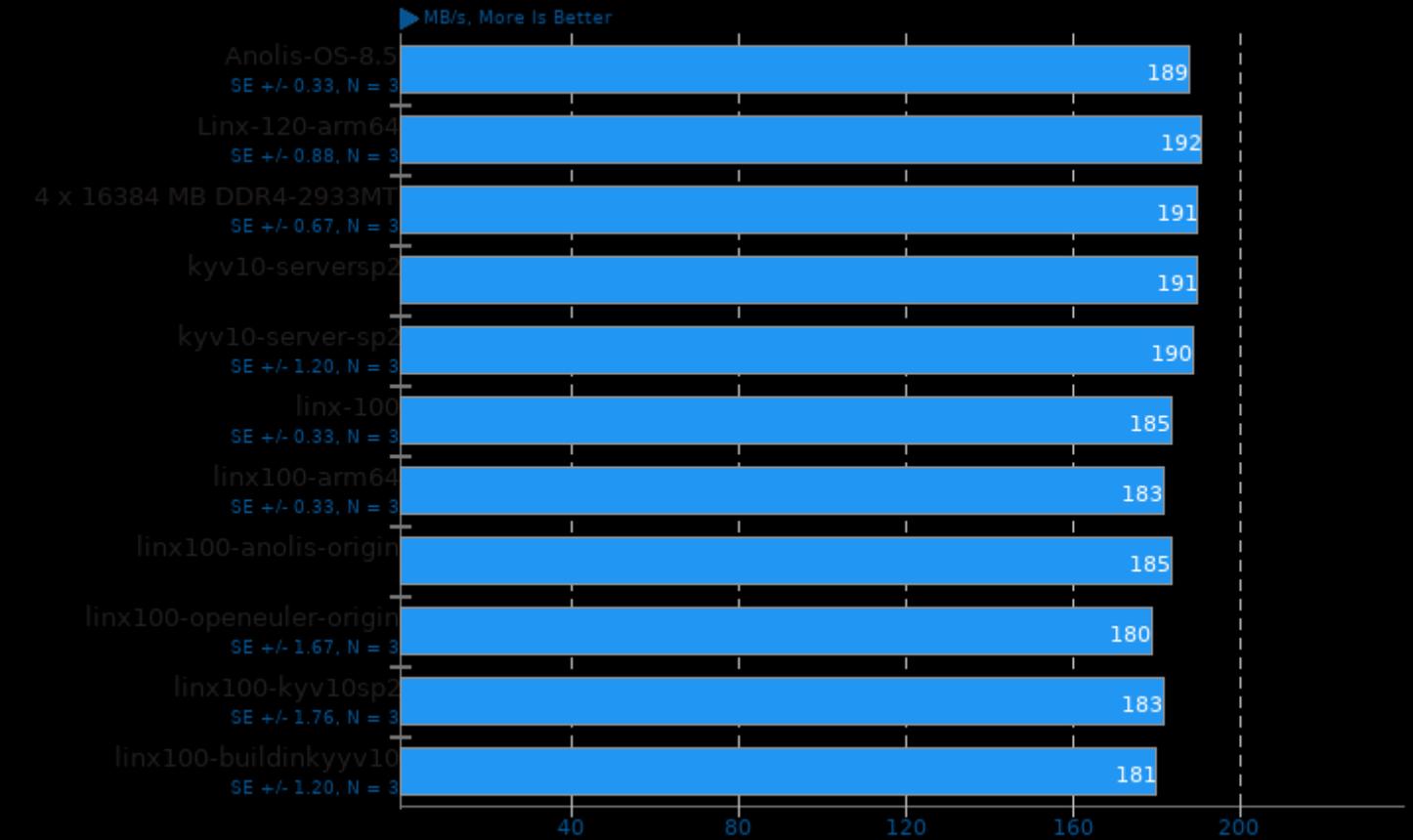
Type: Random Write - IO Engine: Linux AIOO - Buffered: Yes - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

Flexible IO Tester 3.29

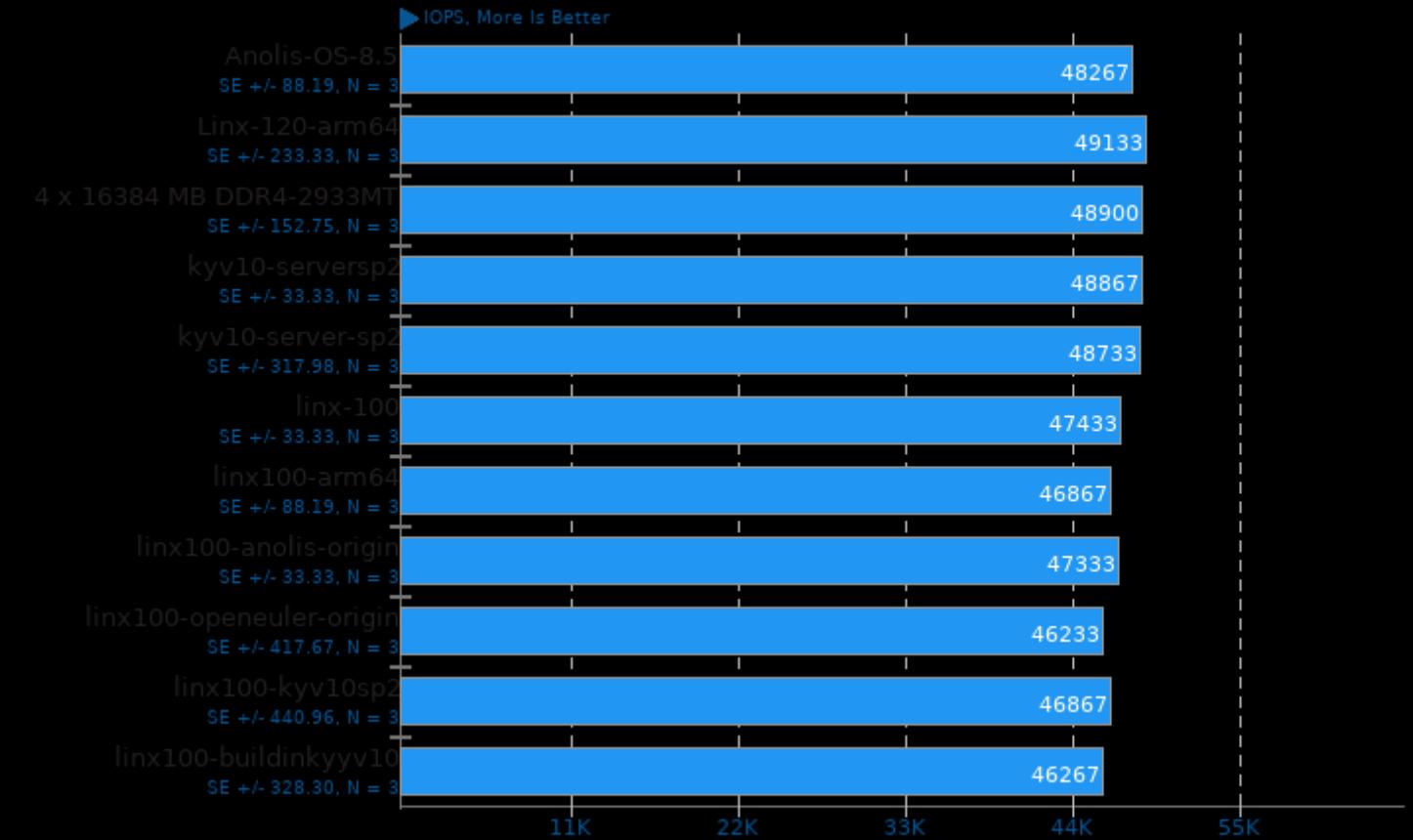
Type: Sequential Read - IO Engine: Linux AIOO - Buffered: Yes - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

Flexible IO Tester 3.29

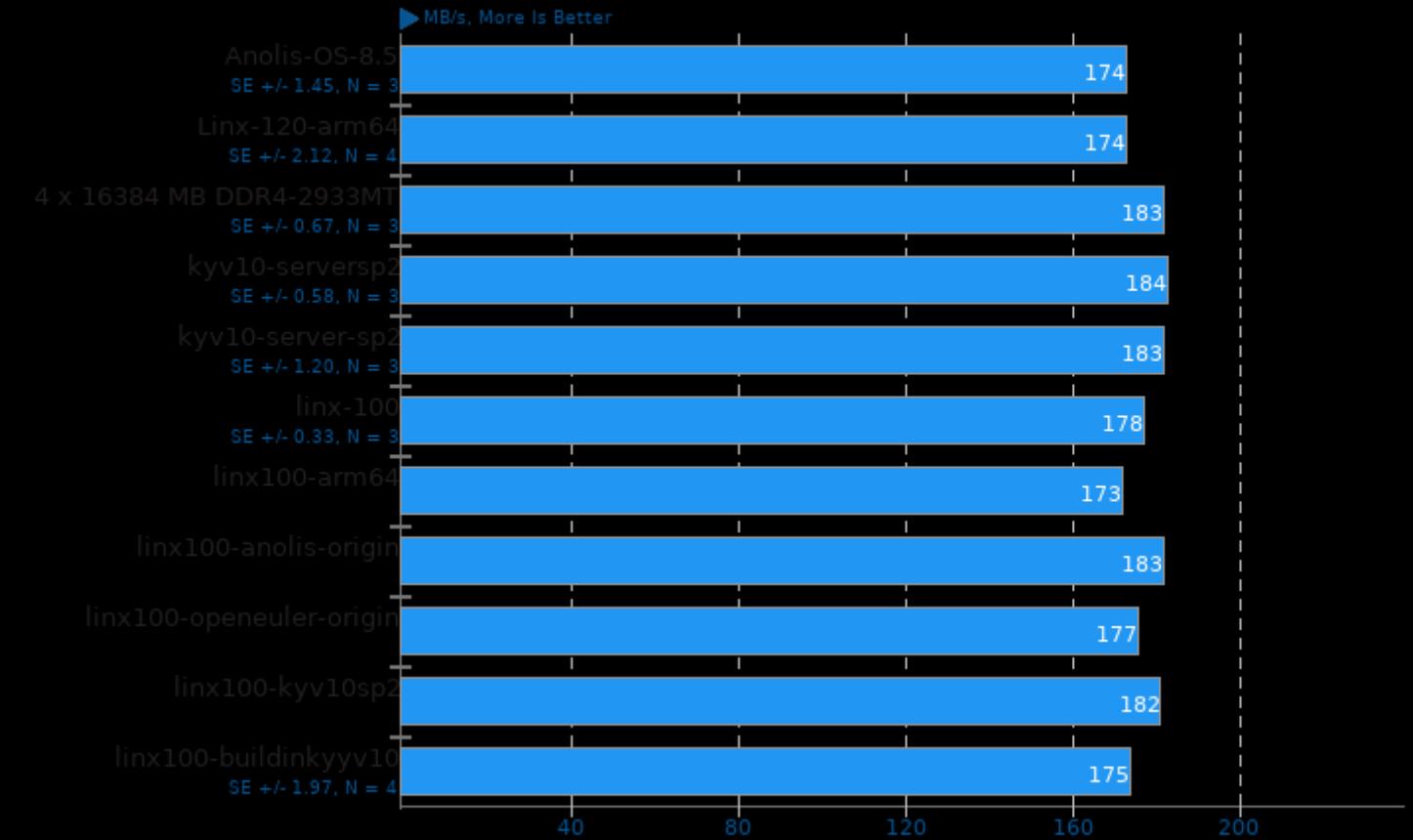
Type: Sequential Read - IO Engine: Linux AIOO - Buffered: Yes - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

Flexible IO Tester 3.29

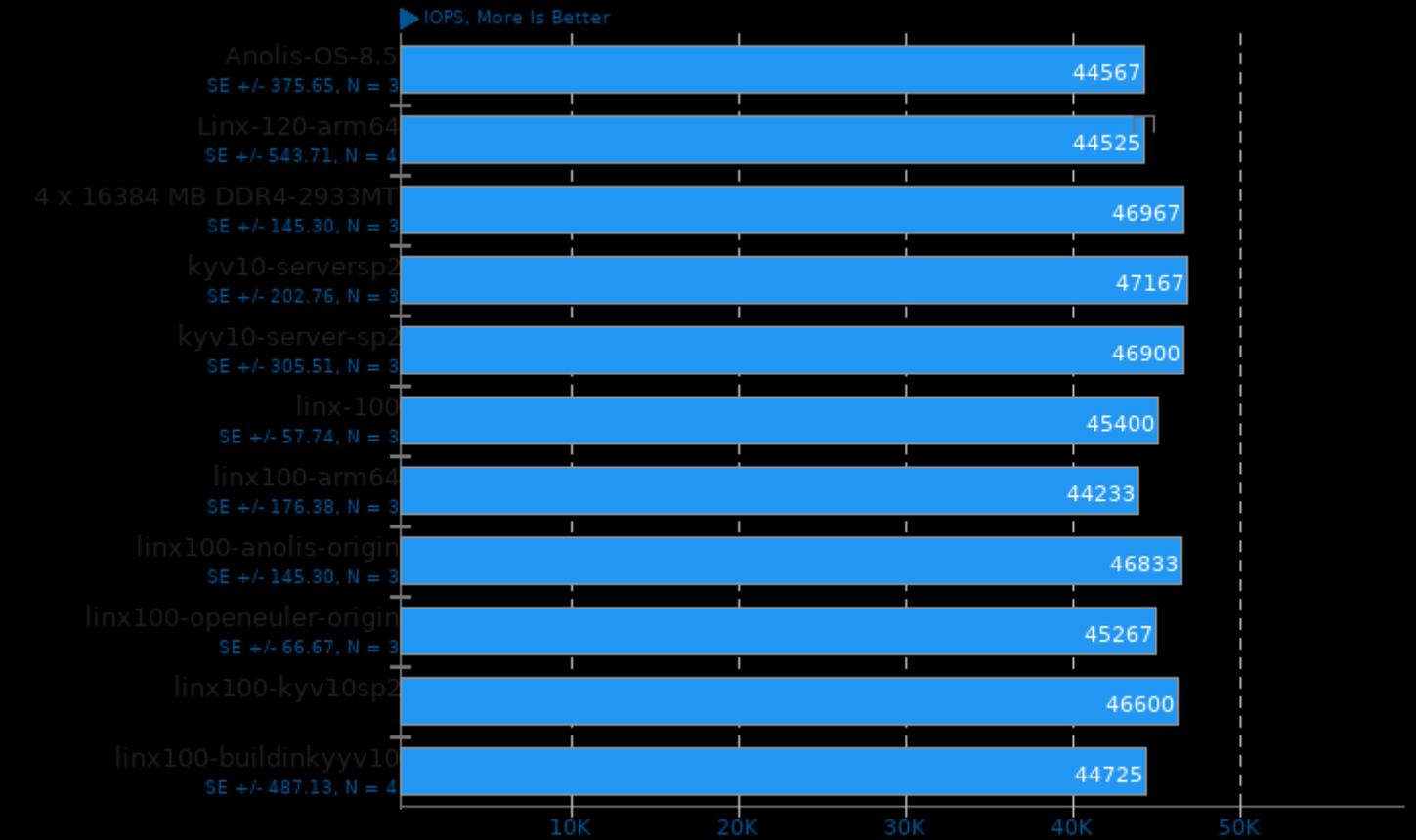
Type: Sequential Write - IO Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



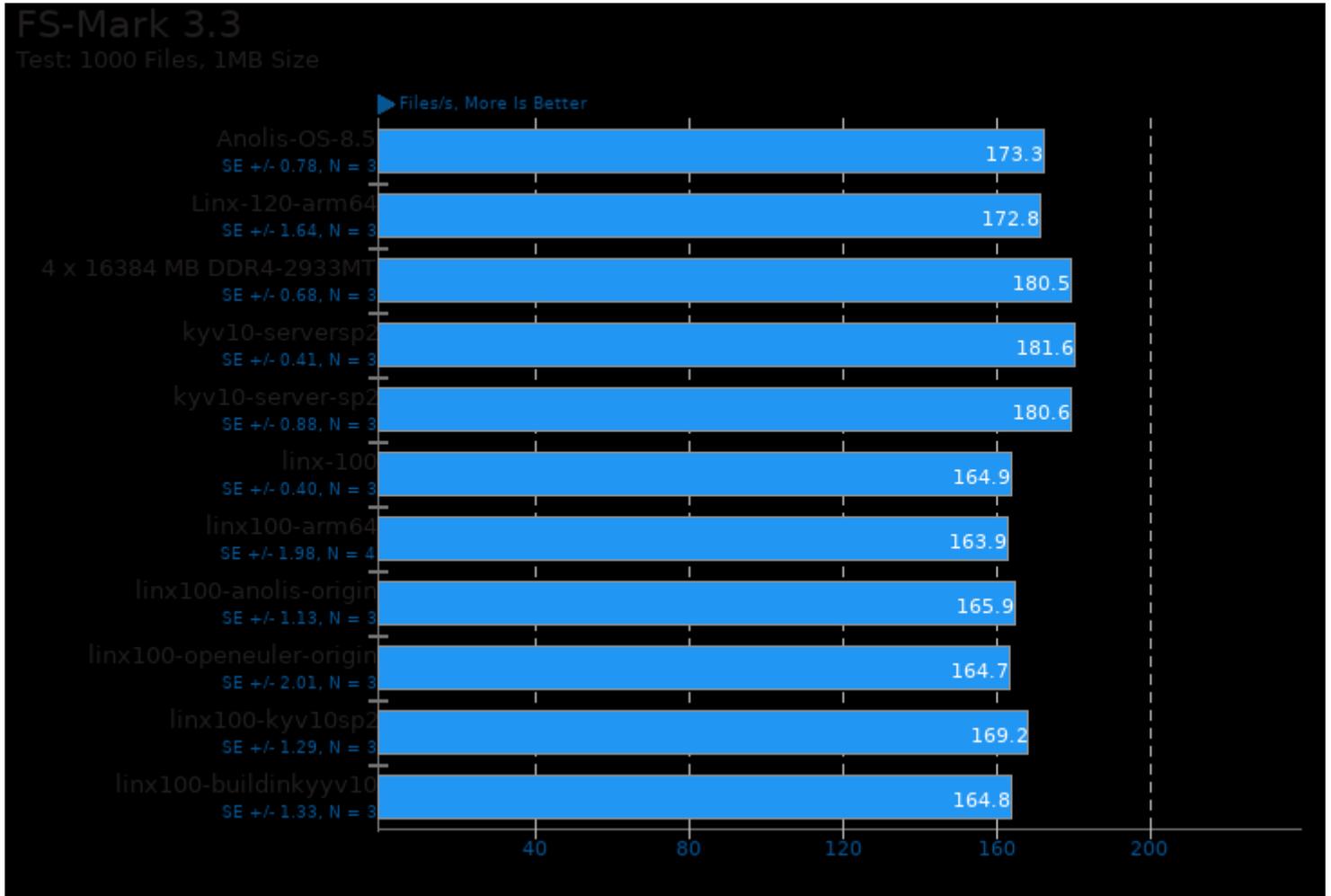
1. (CC) gcc options: -rdynamic -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

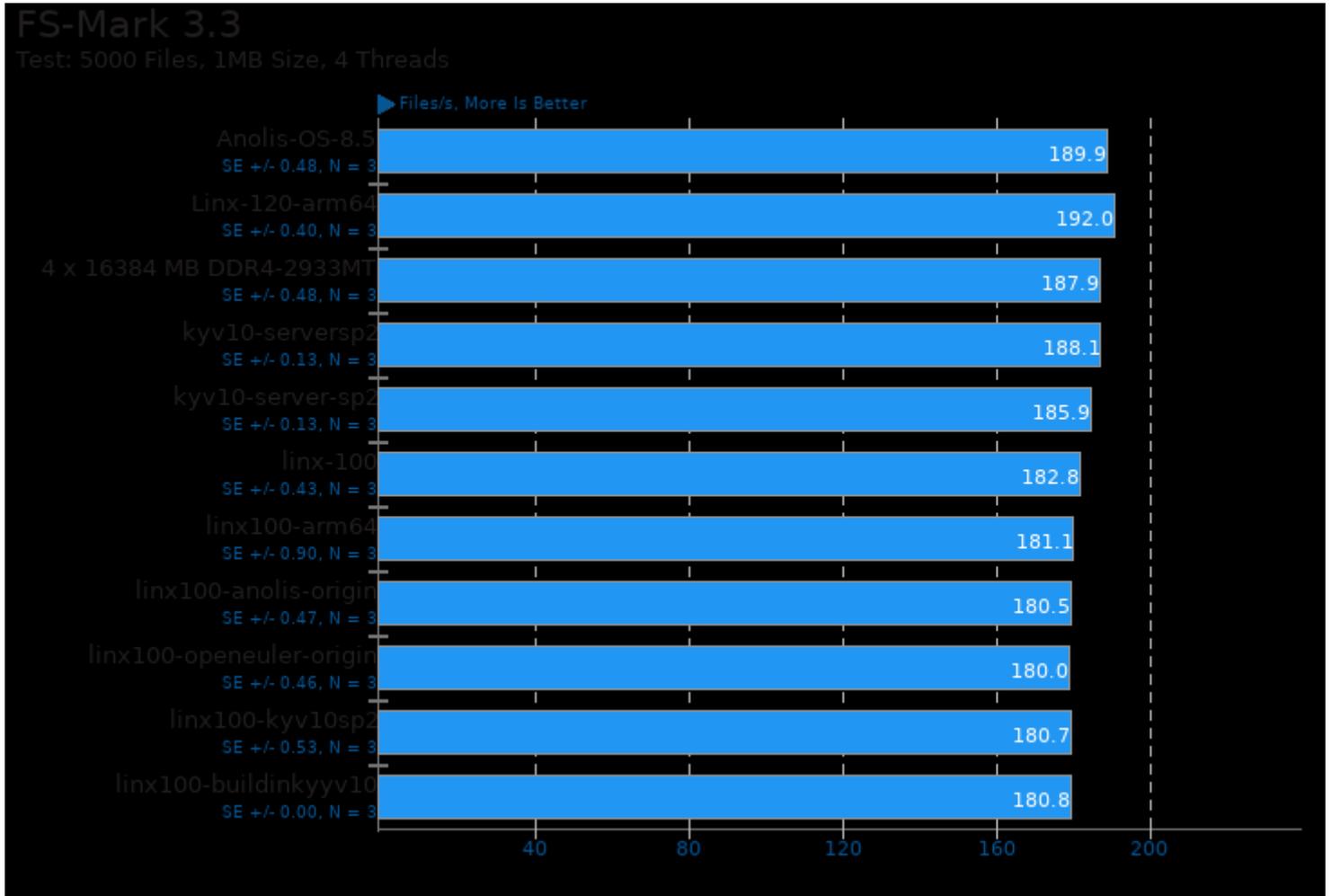
Flexible IO Tester 3.29

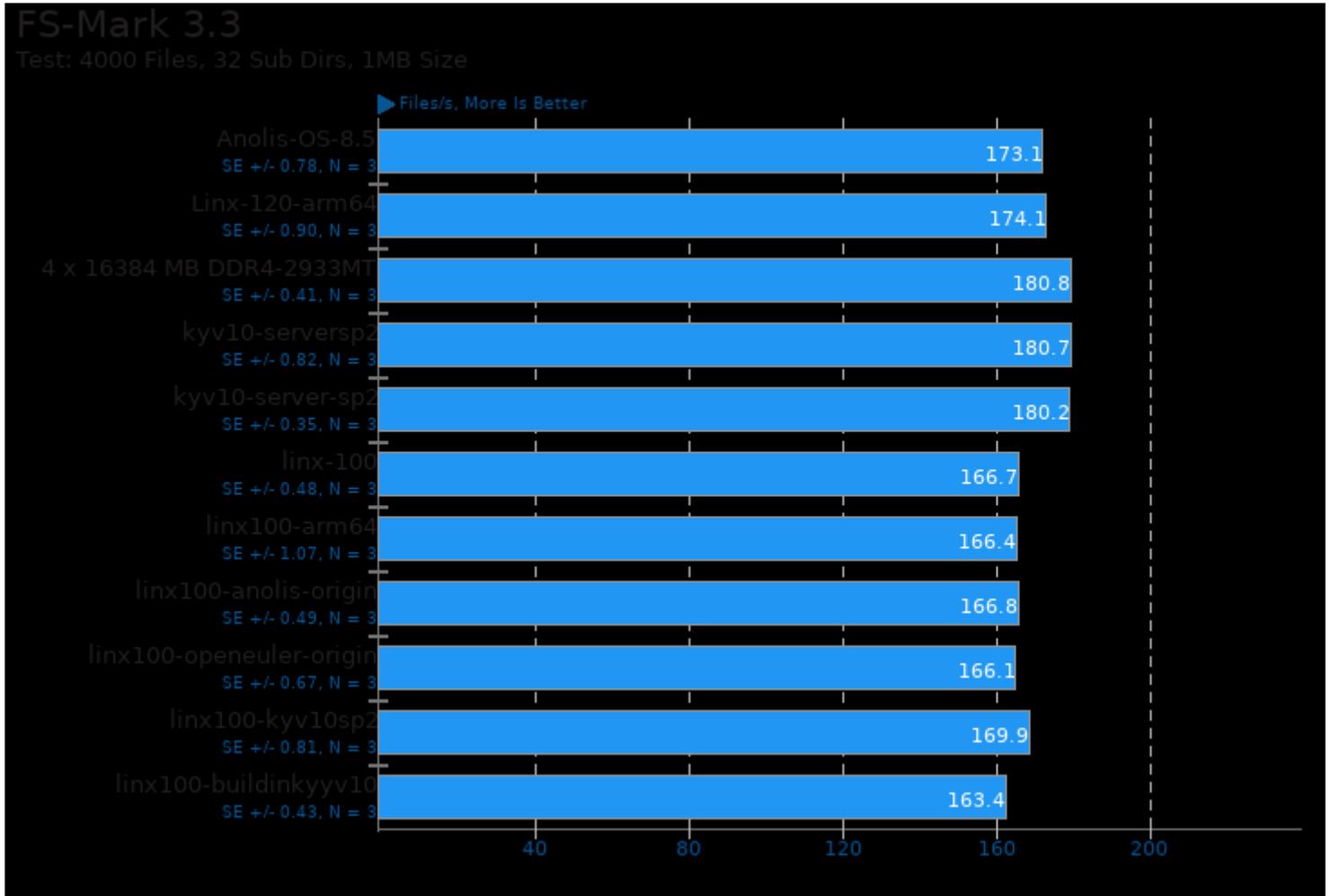
Type: Sequential Write - IO Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory

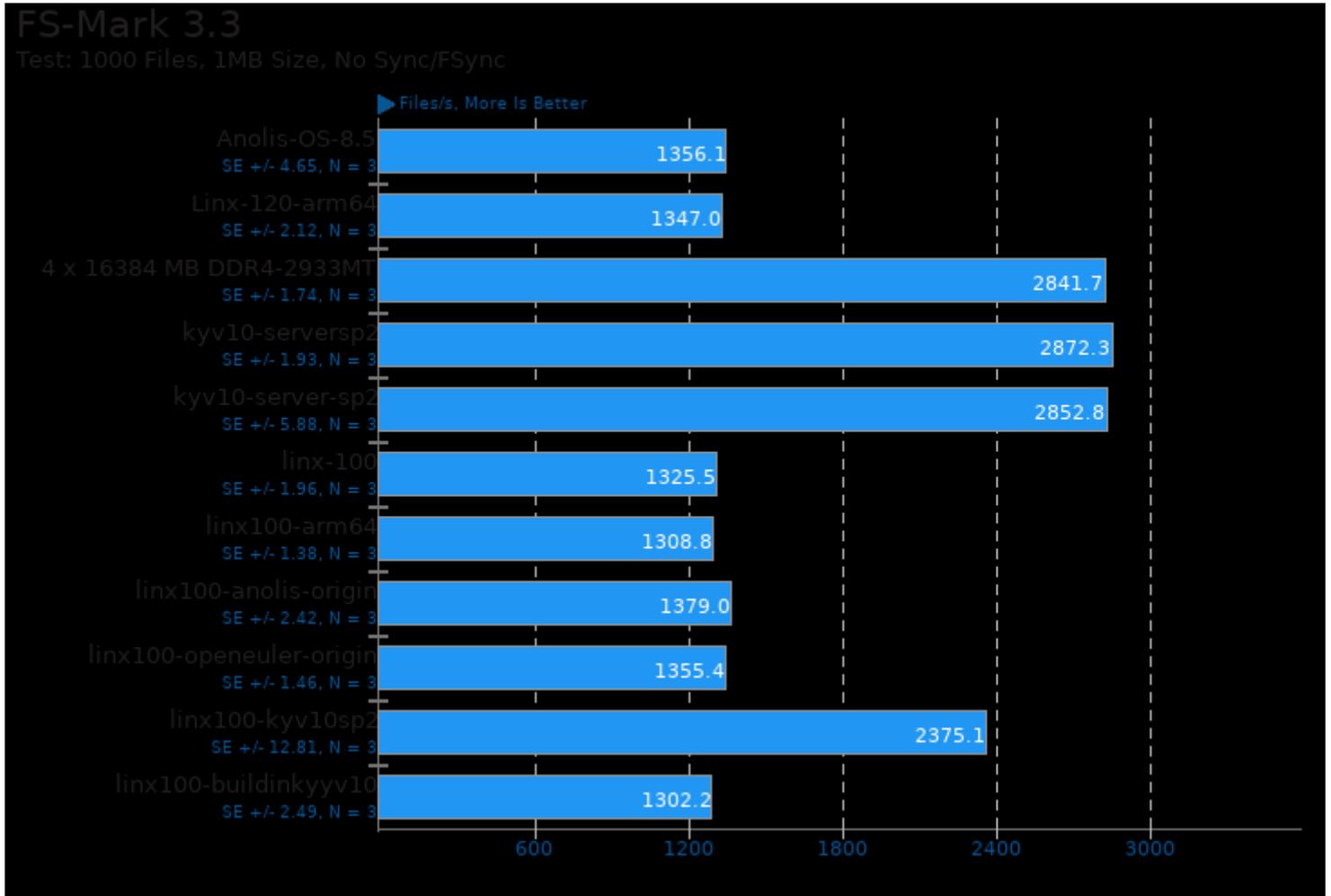


1. (CC) gcc options: -rdynamic -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE



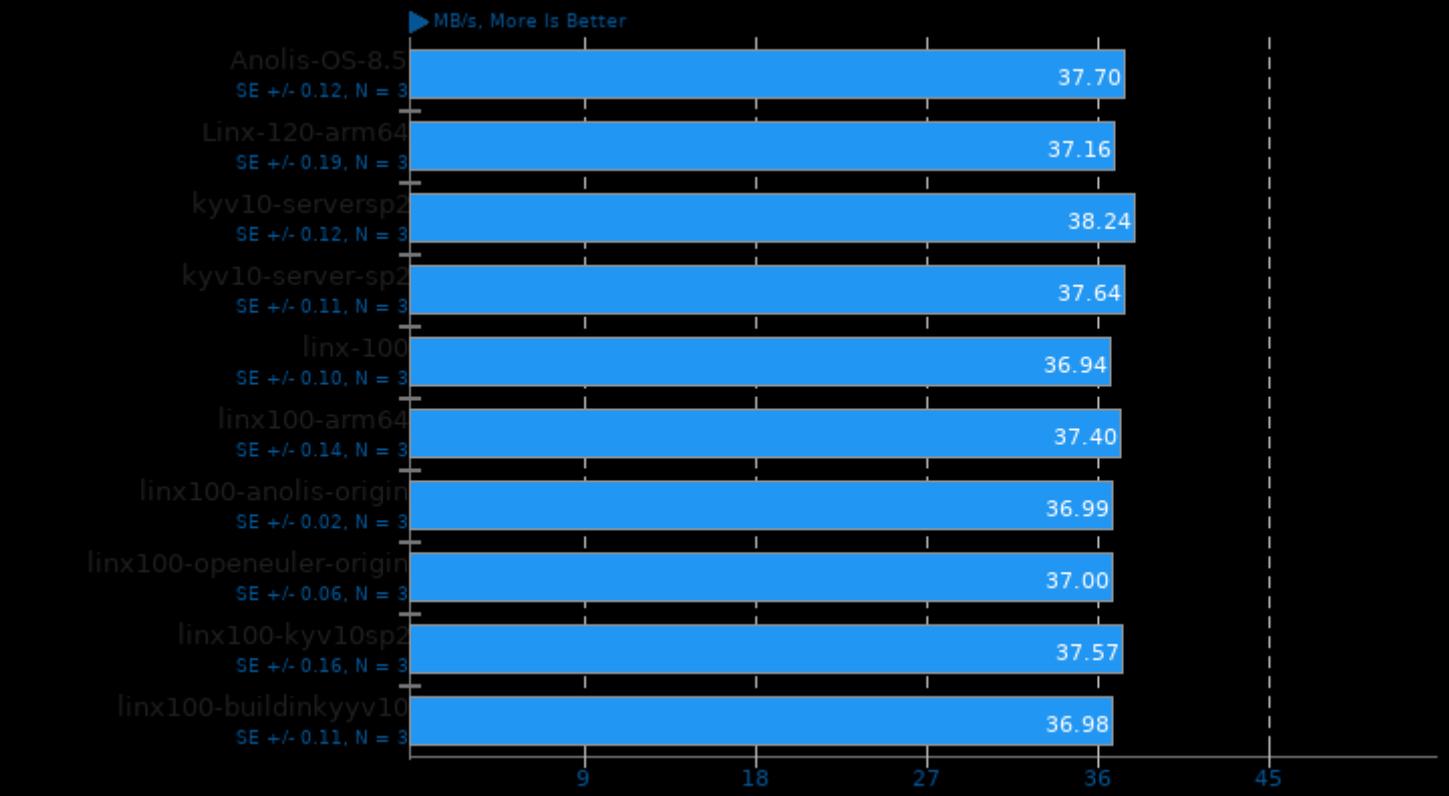






IOzone 3.465

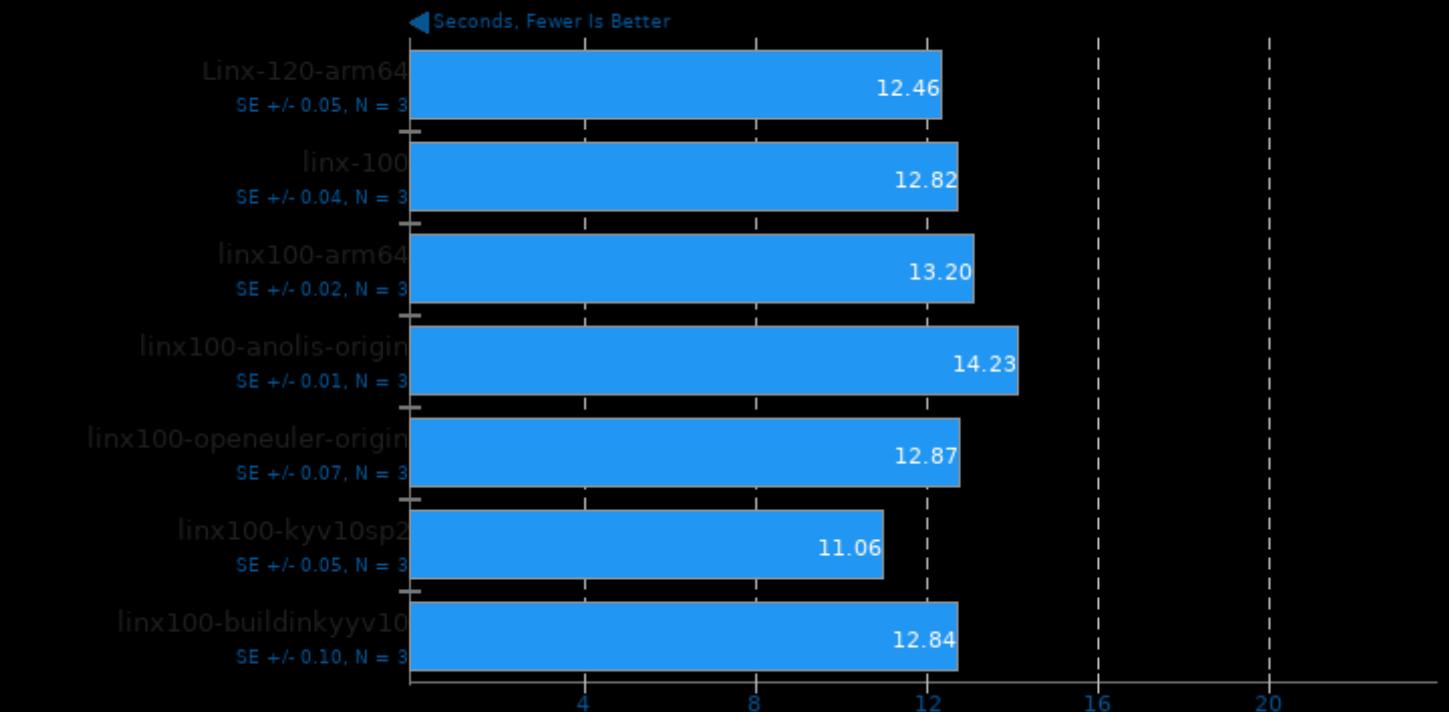
Record Size: 64Kb - File Size: 512MB - Disk Test: Write Performance

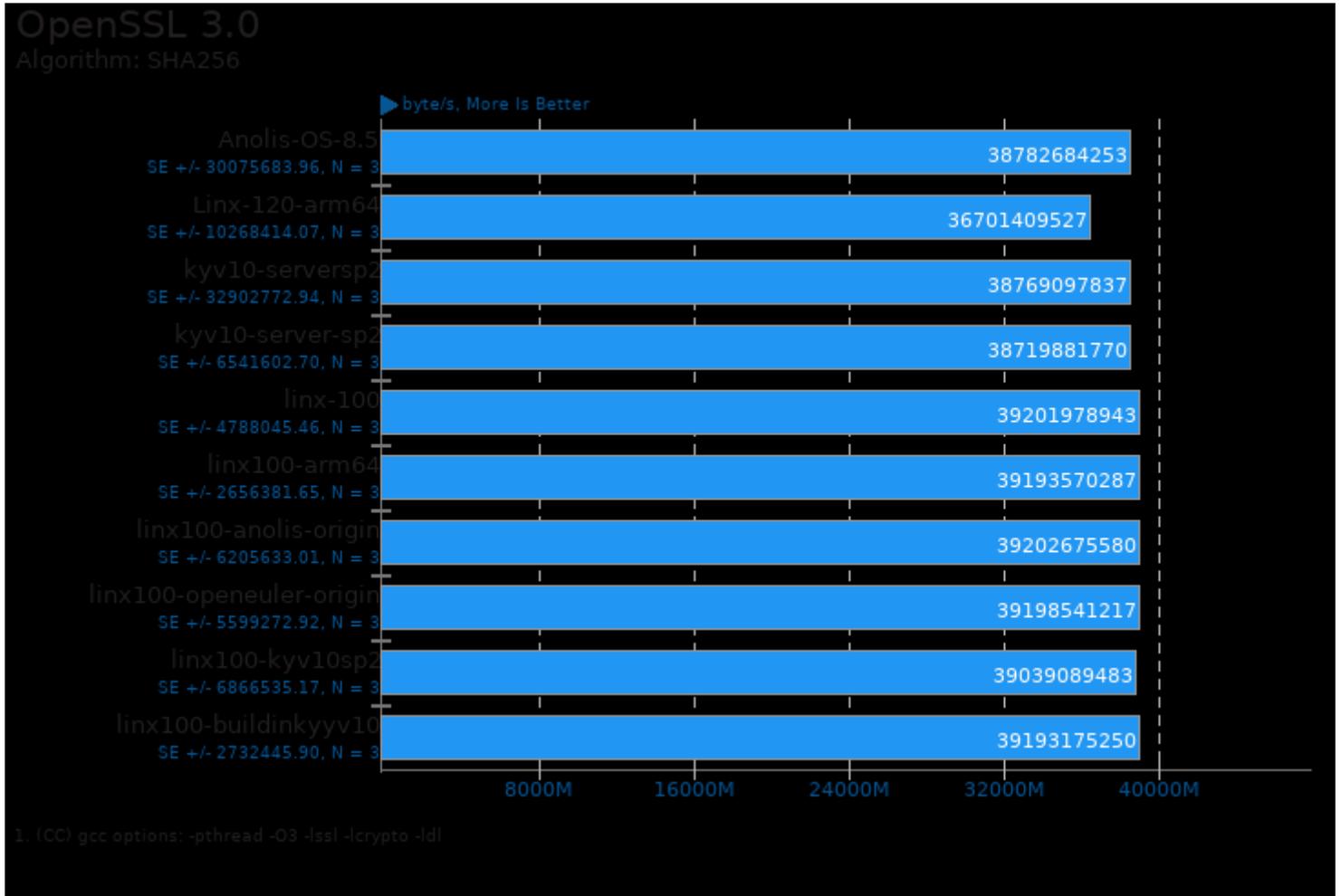


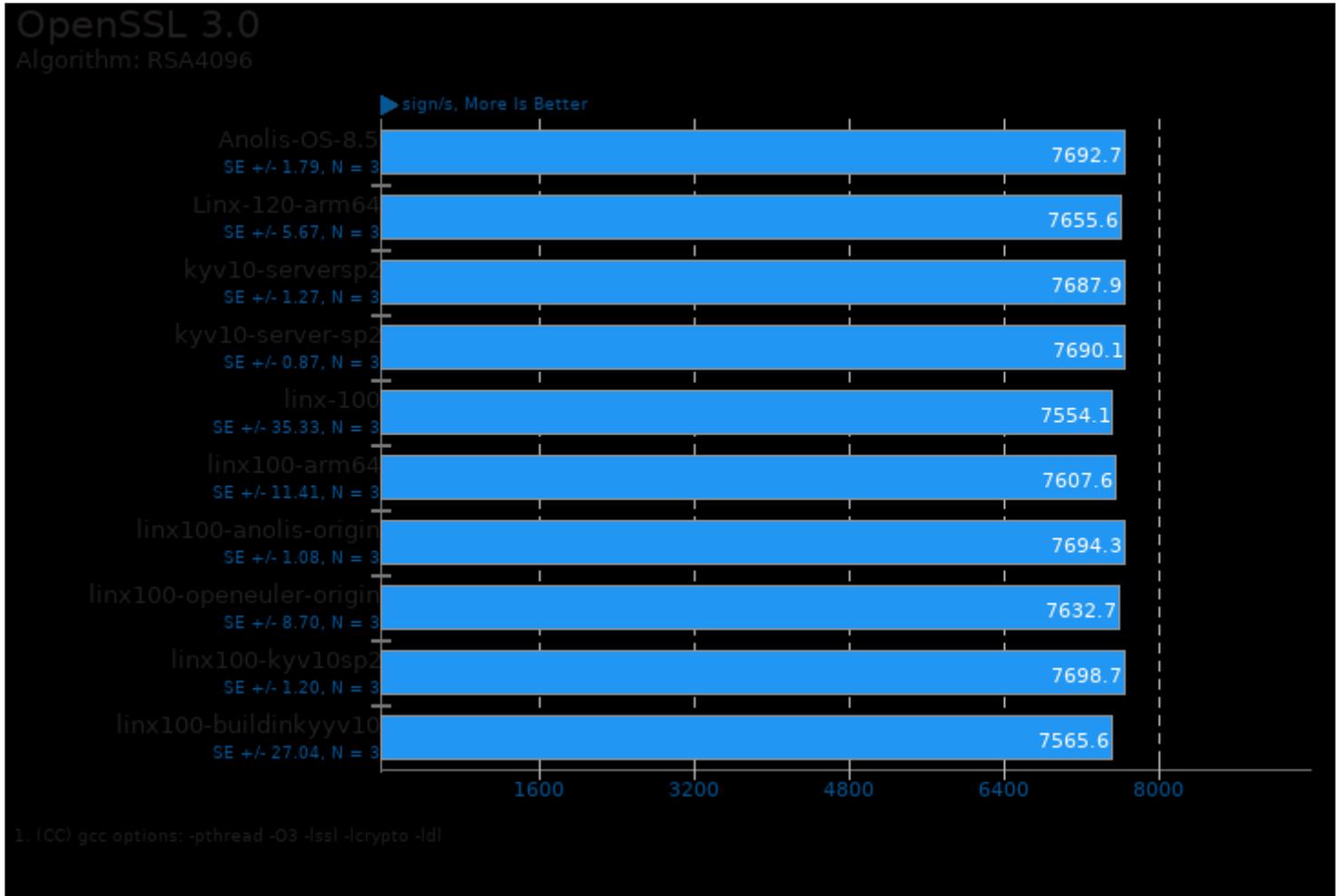
1. (CC) gcc options: -O3

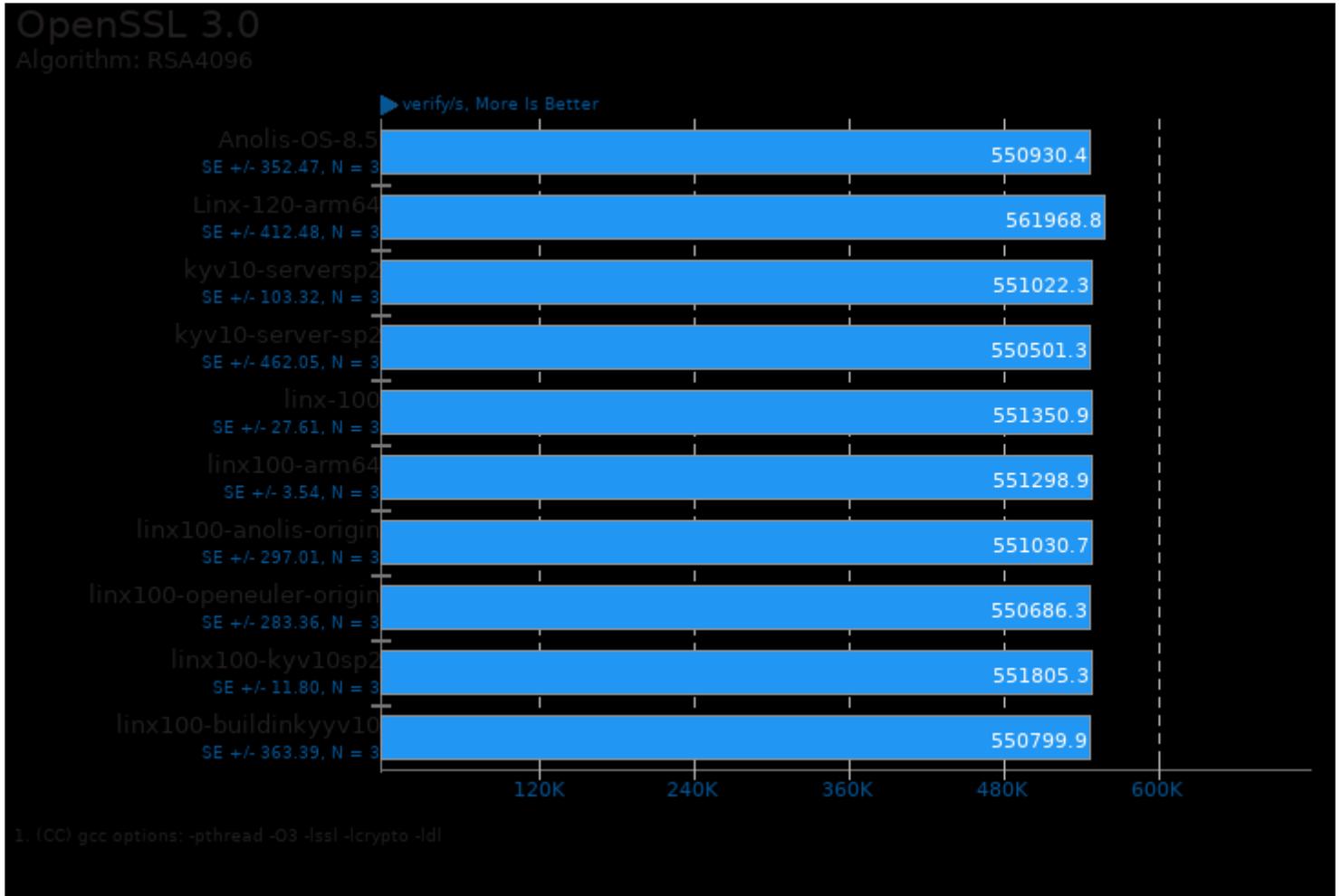
Loopback TCP Network Performance

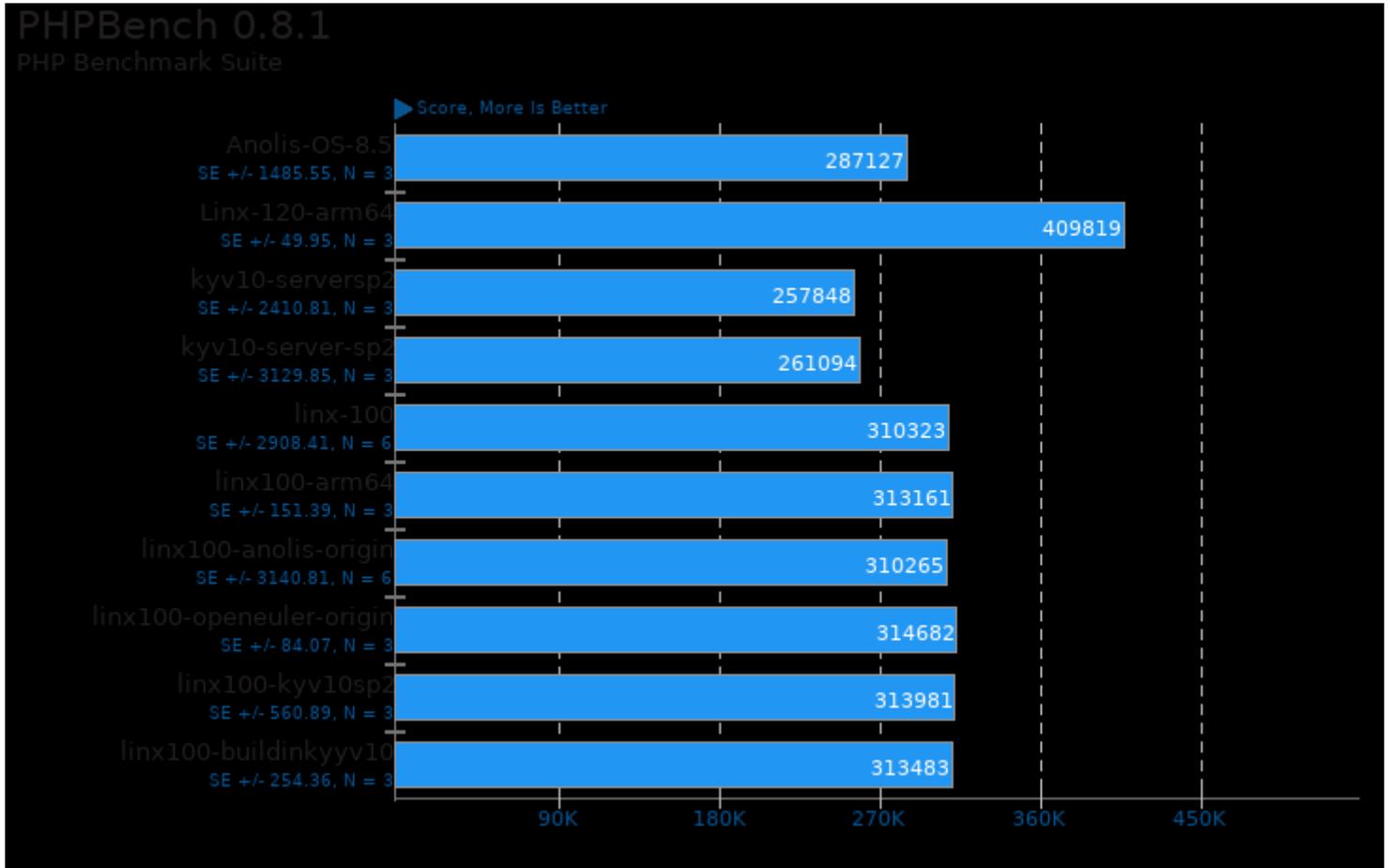
Time To Transfer 10GB Via Loopback

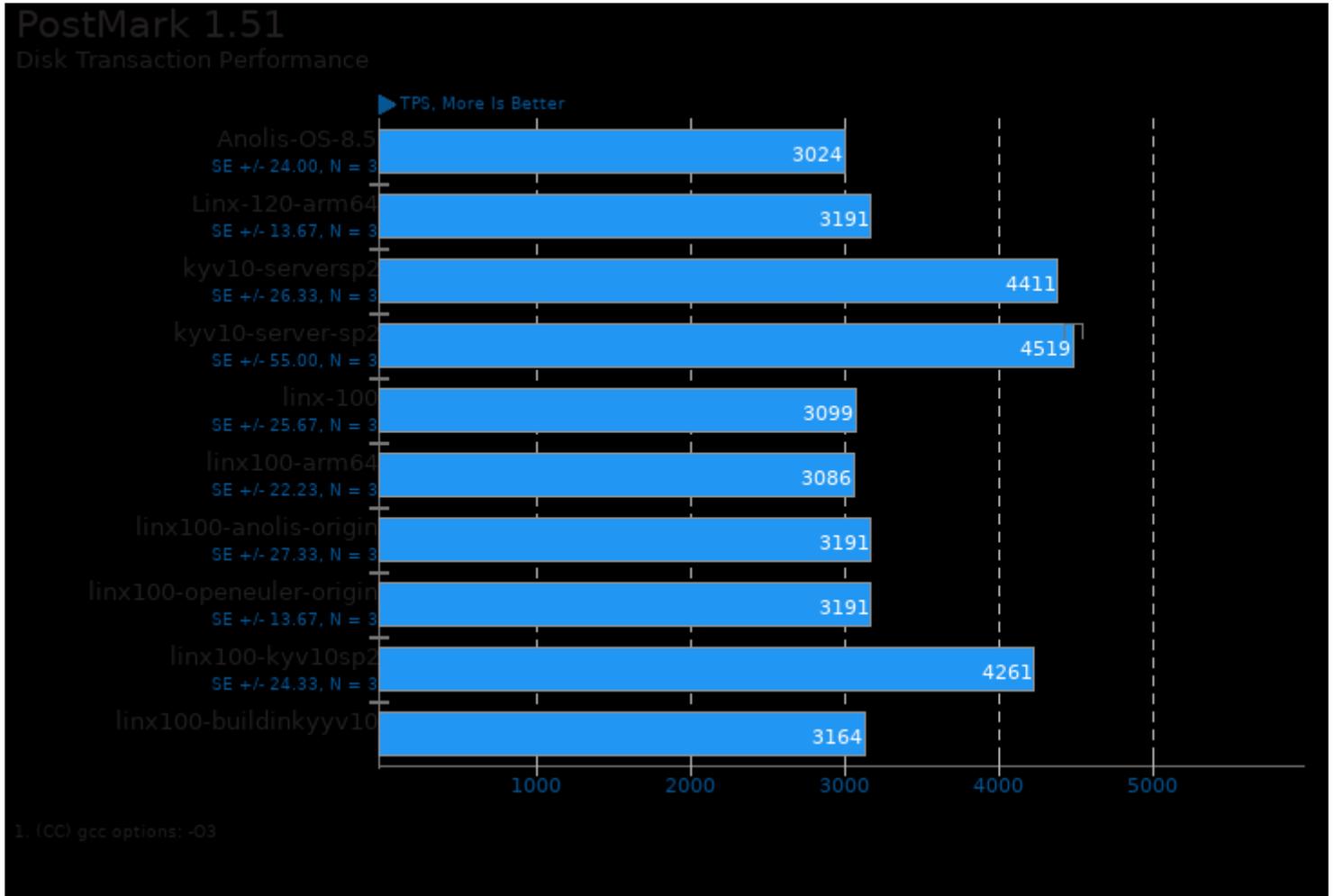








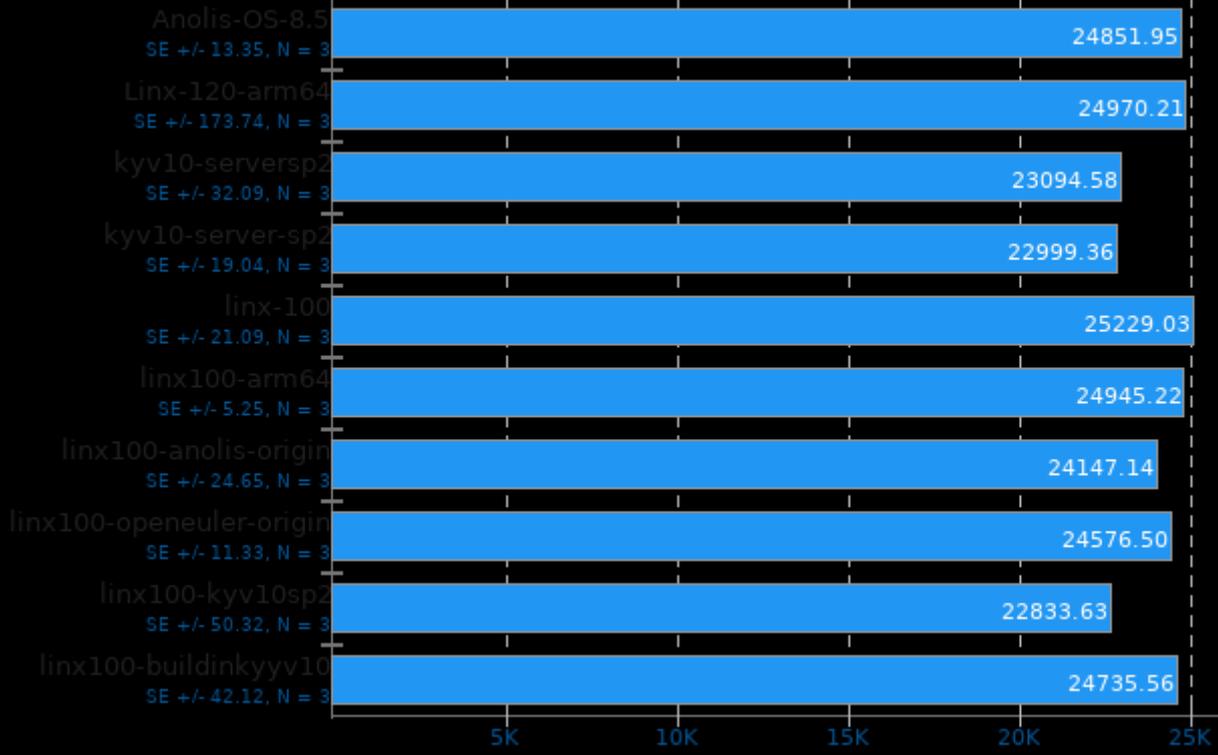




RAMspeed SMP 3.5.0

Type: Add - Benchmark: Integer

▶ MB/s, More Is Better

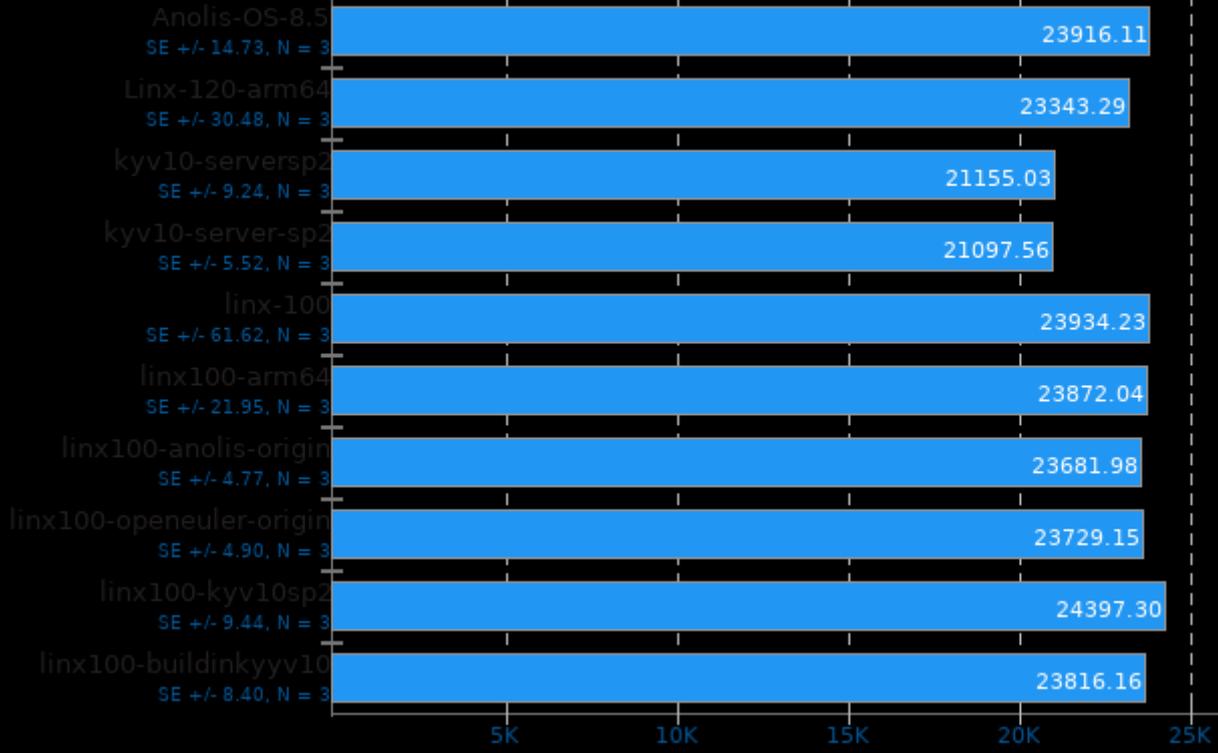


1. (CC) gcc options: -O3 -march=native

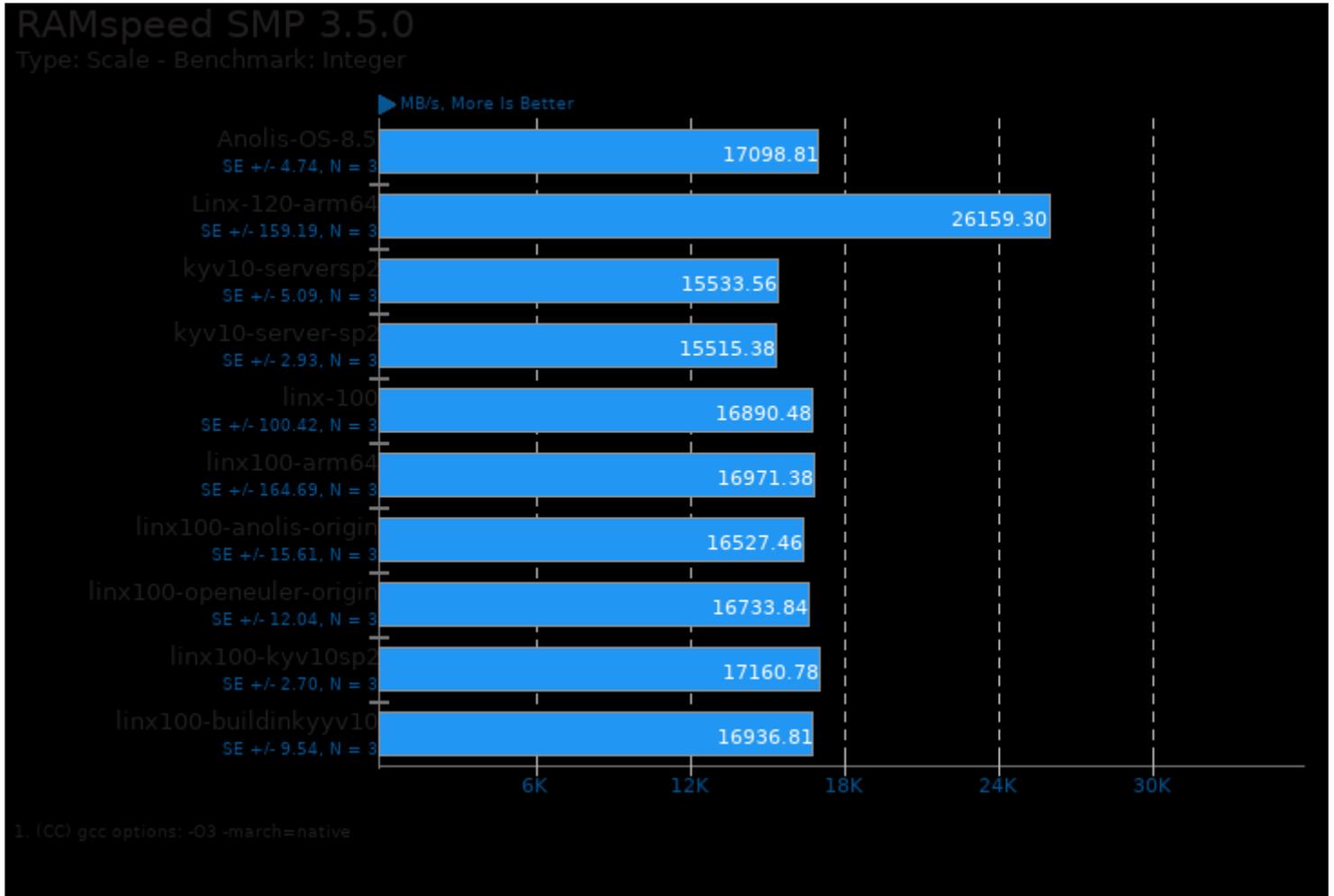
RAMspeed SMP 3.5.0

Type: Copy - Benchmark: Integer

▶ MB/s, More Is Better



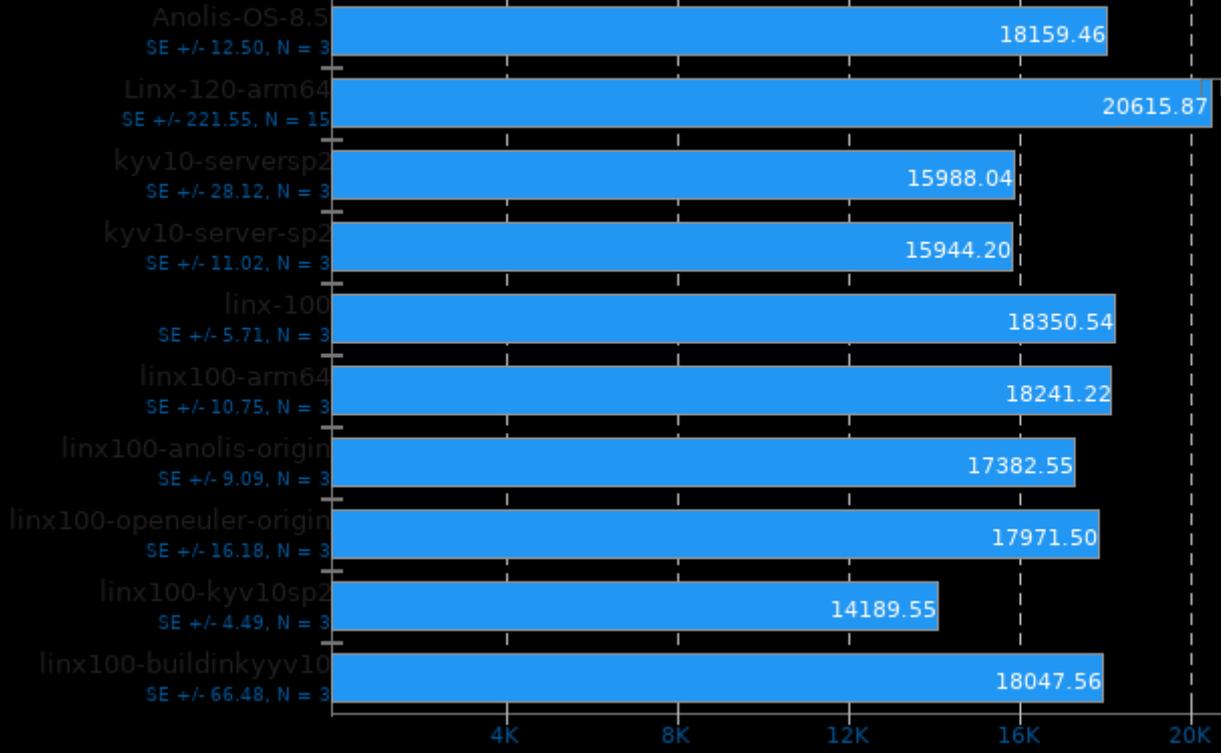
1. (CC) gcc options: -O3 -march=native



RAMspeed SMP 3.5.0

Type: Triad - Benchmark: Integer

▶ MB/s, More Is Better

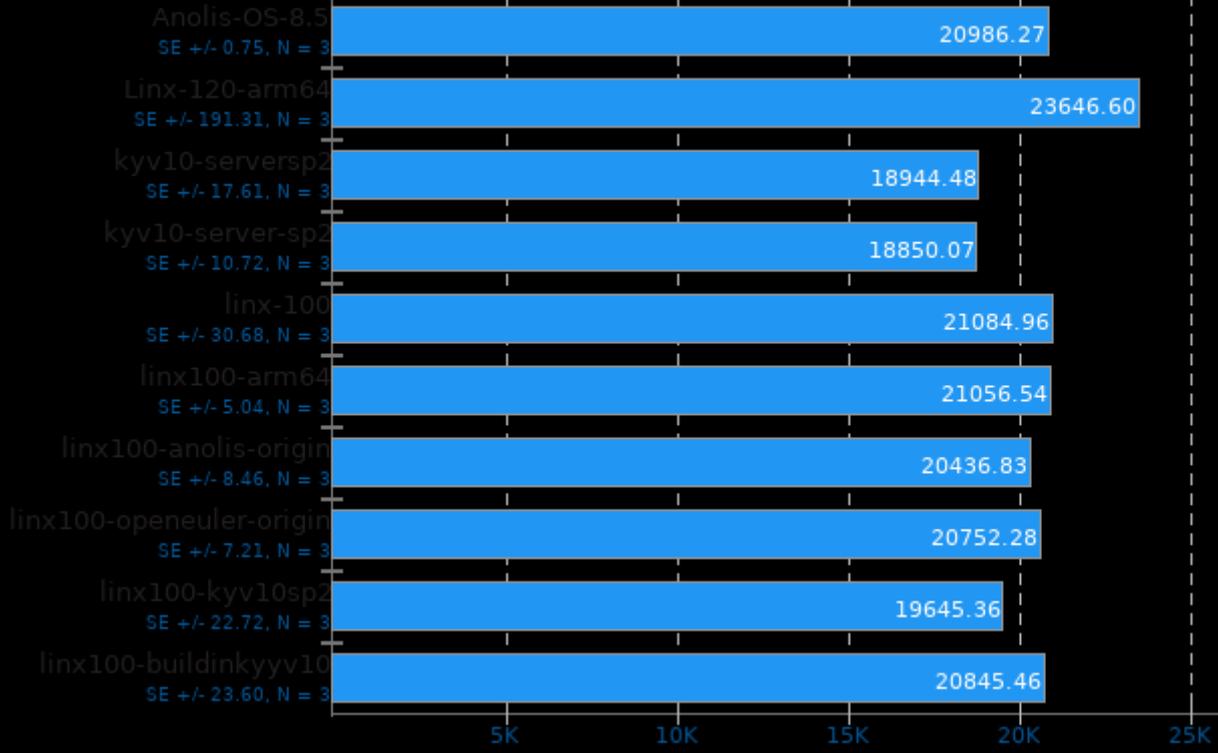


1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

Type: Average - Benchmark: Integer

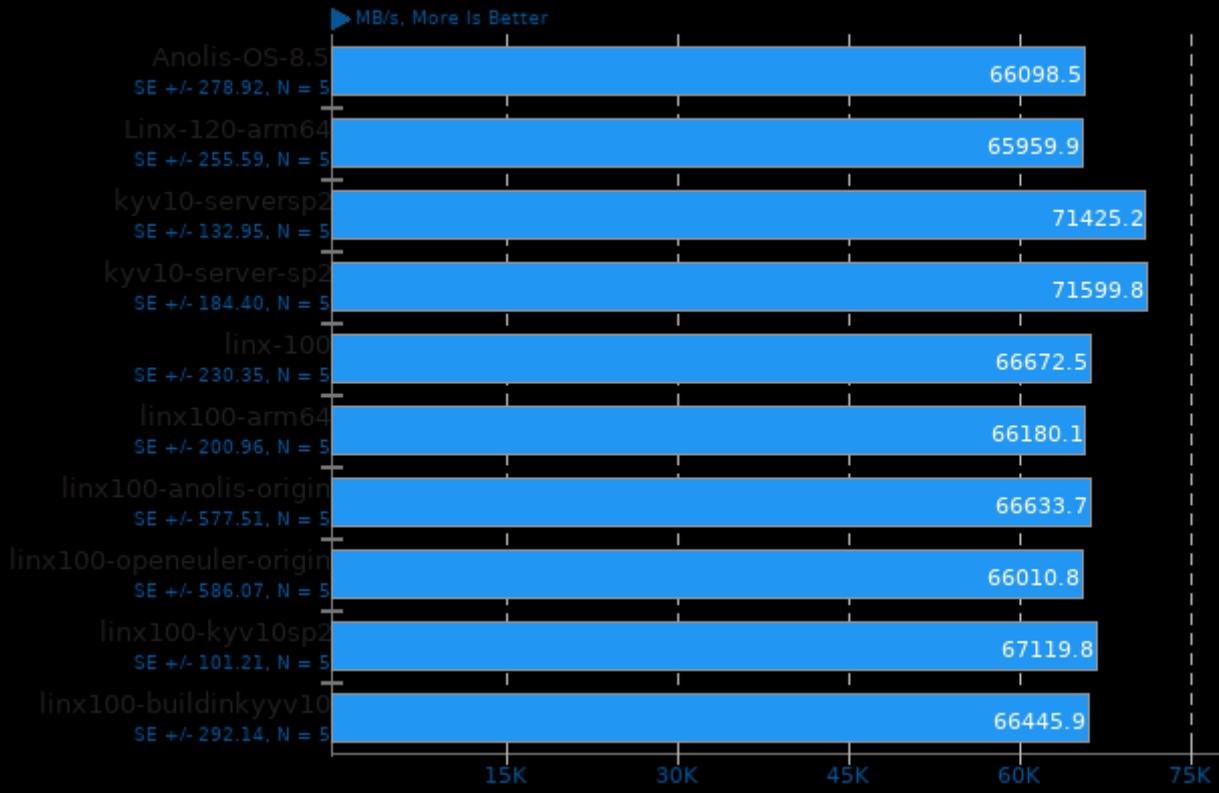
▶ MB/s, More Is Better



1. (CC) gcc options: -O3 -march=native

Stream 2013-01-17

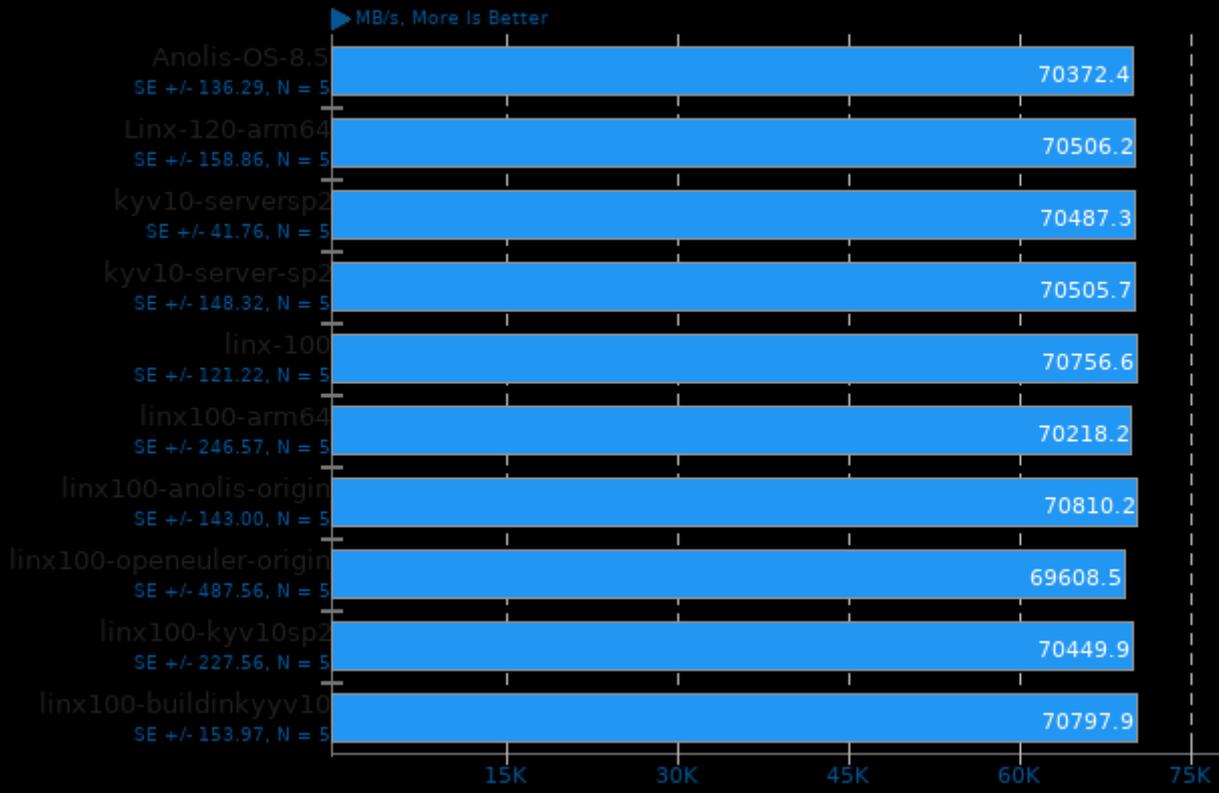
Type: Copy



1. (CC) gcc options: -O3 -march=native -fopenmp

Stream 2013-01-17

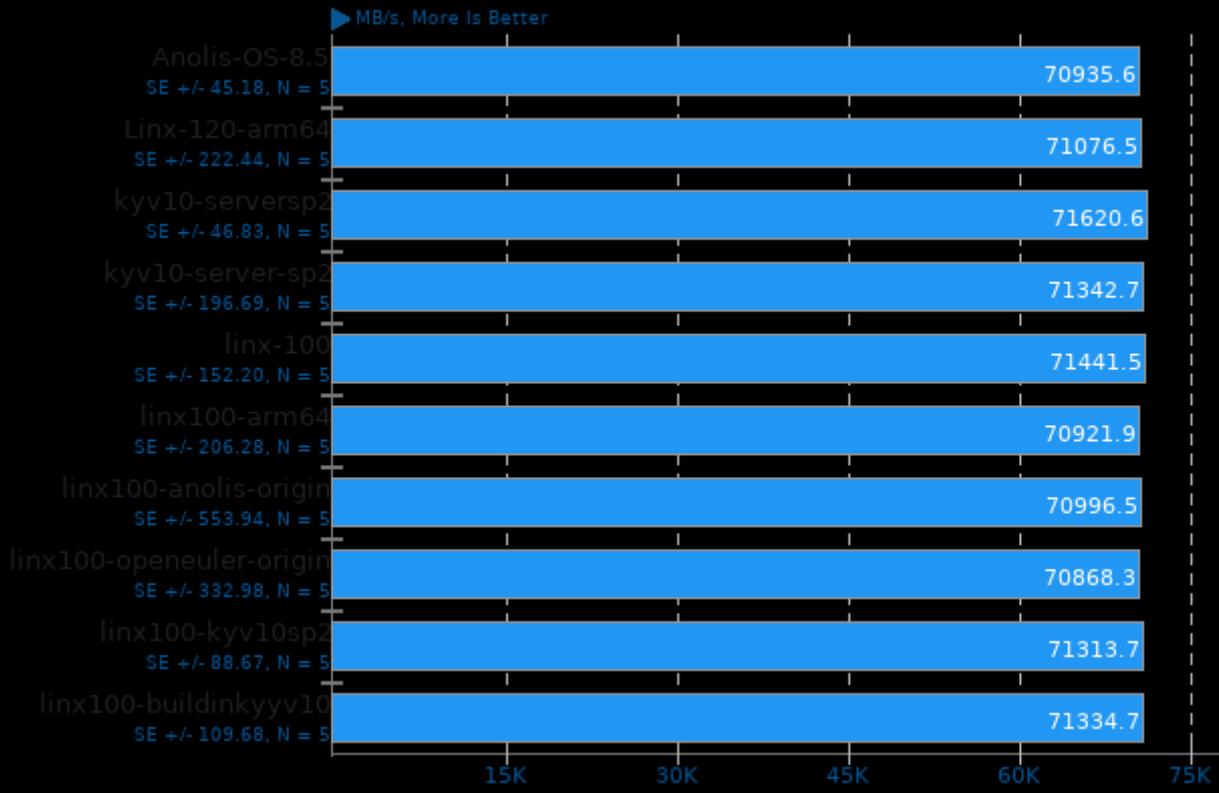
Type: Scale



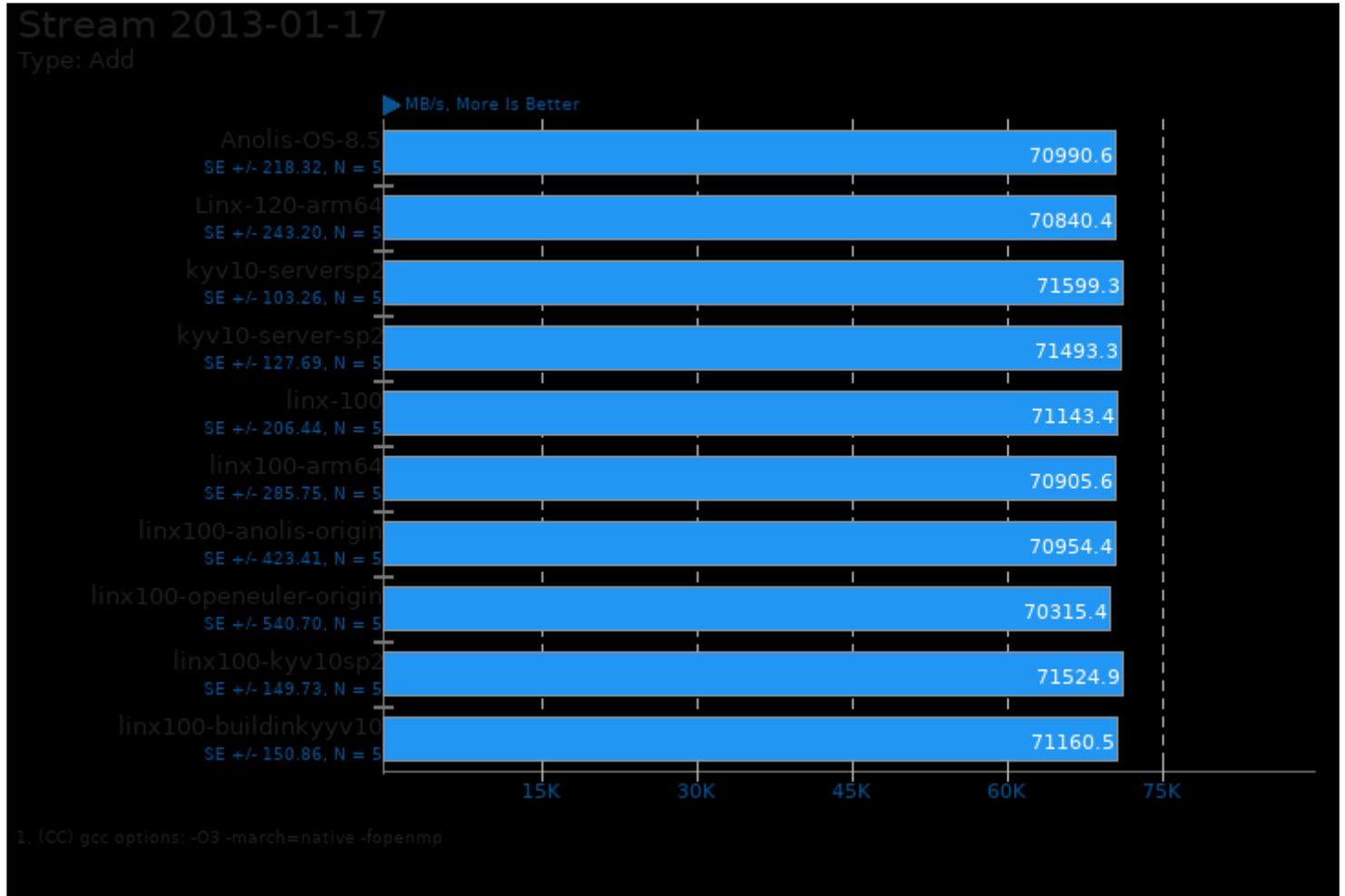
1. (CC) gcc options: -O3 -march=native -fopenmp

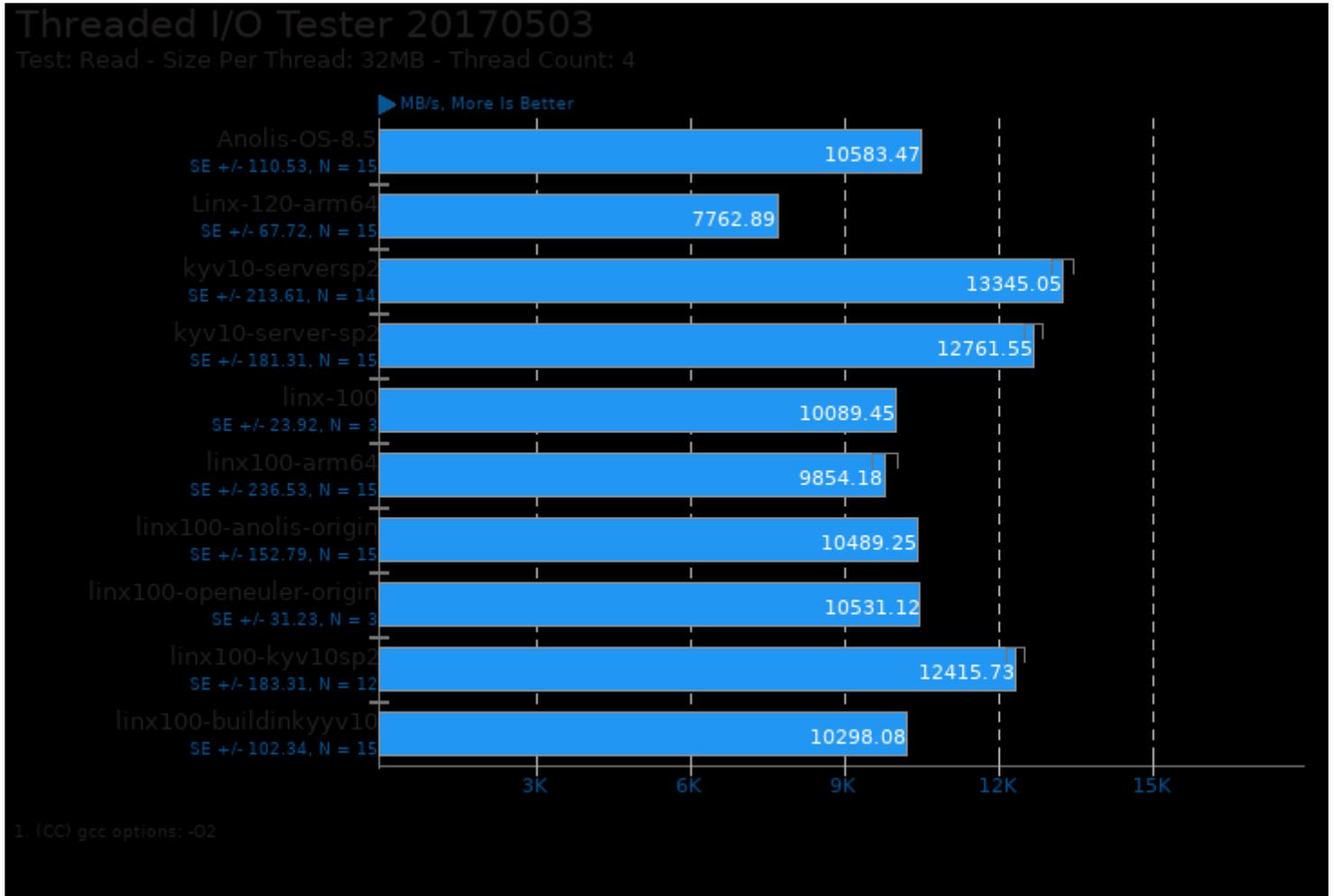
Stream 2013-01-17

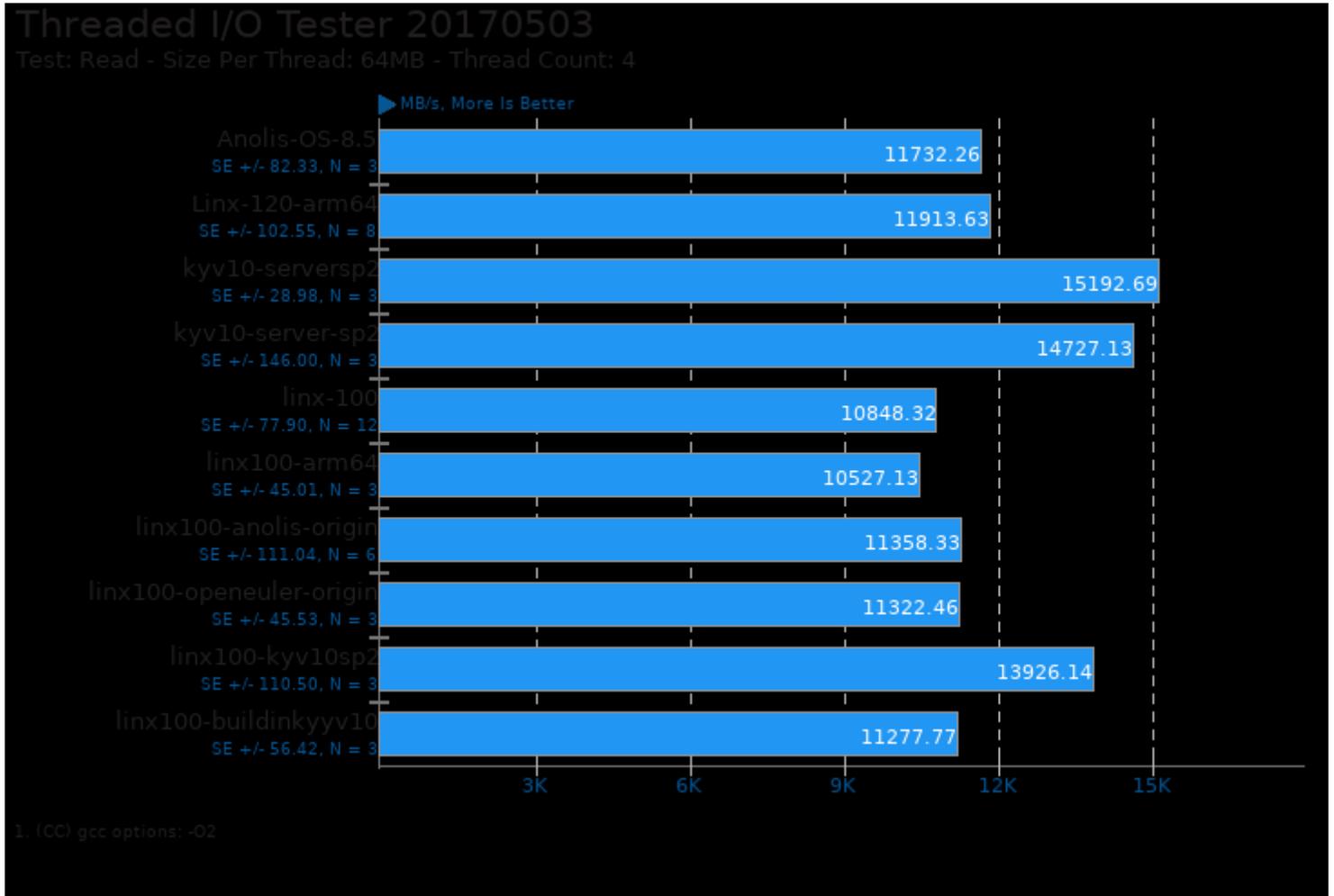
Type: Triad

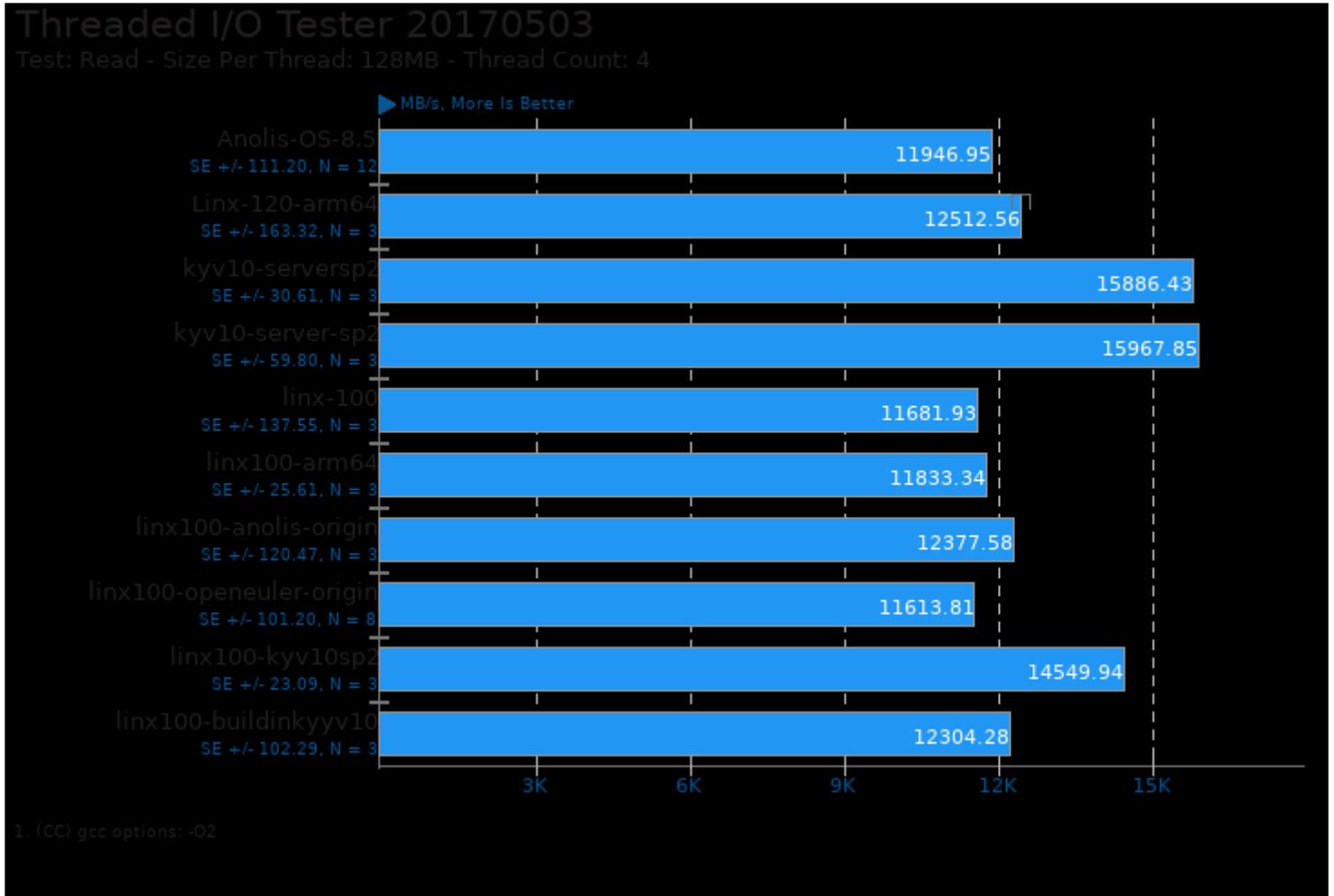


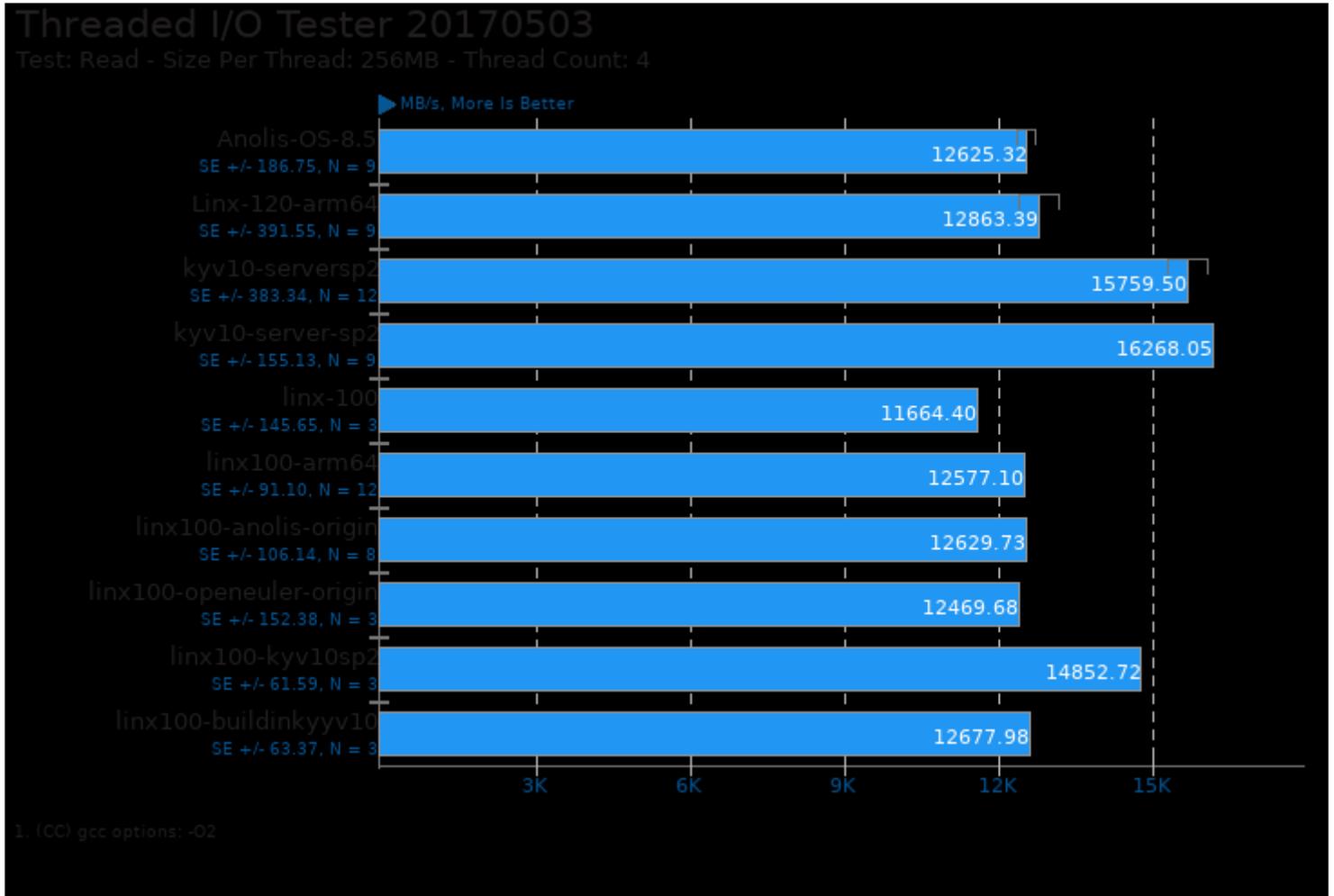
1. (CC) gcc options: -O3 -march=native -fopenmp

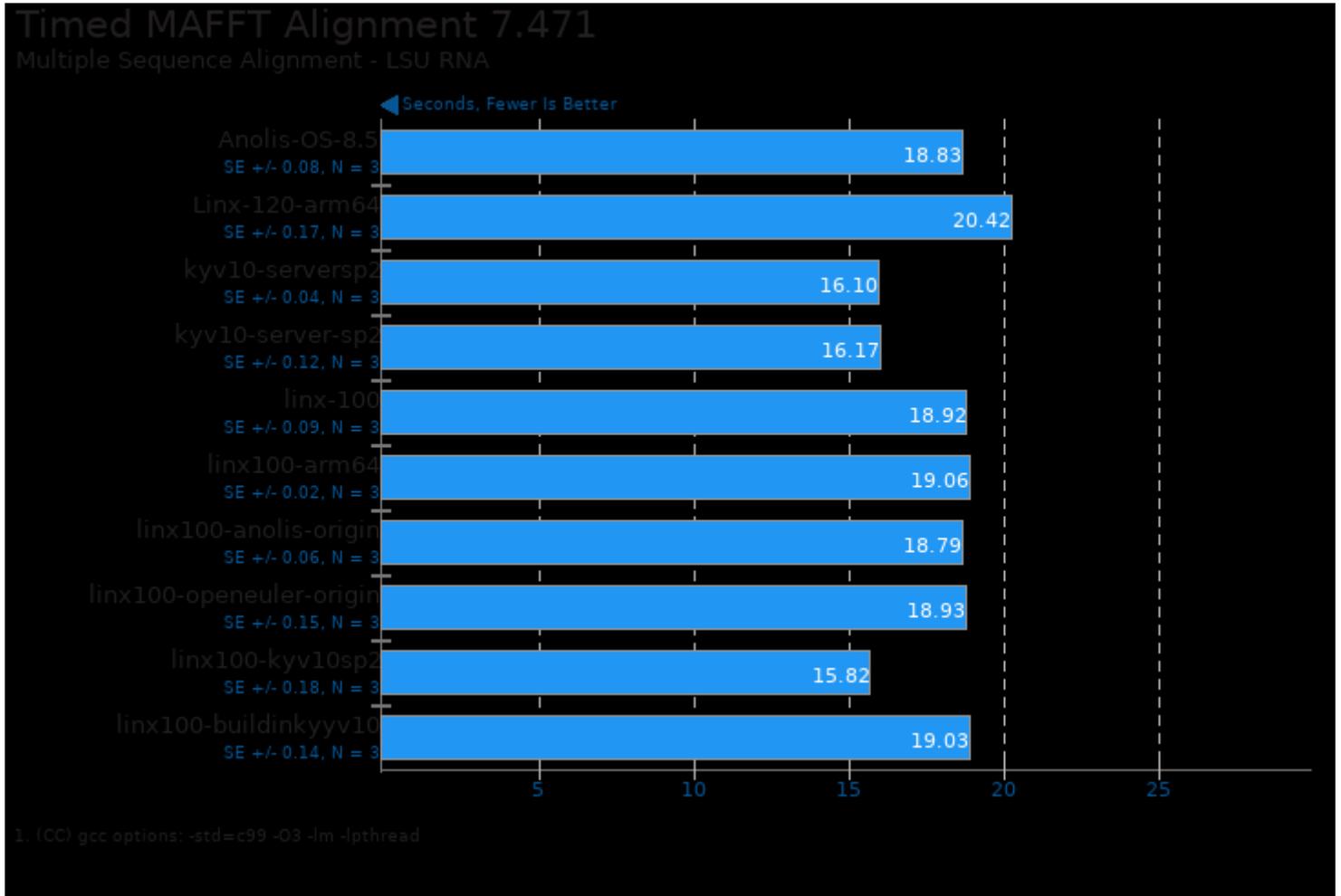




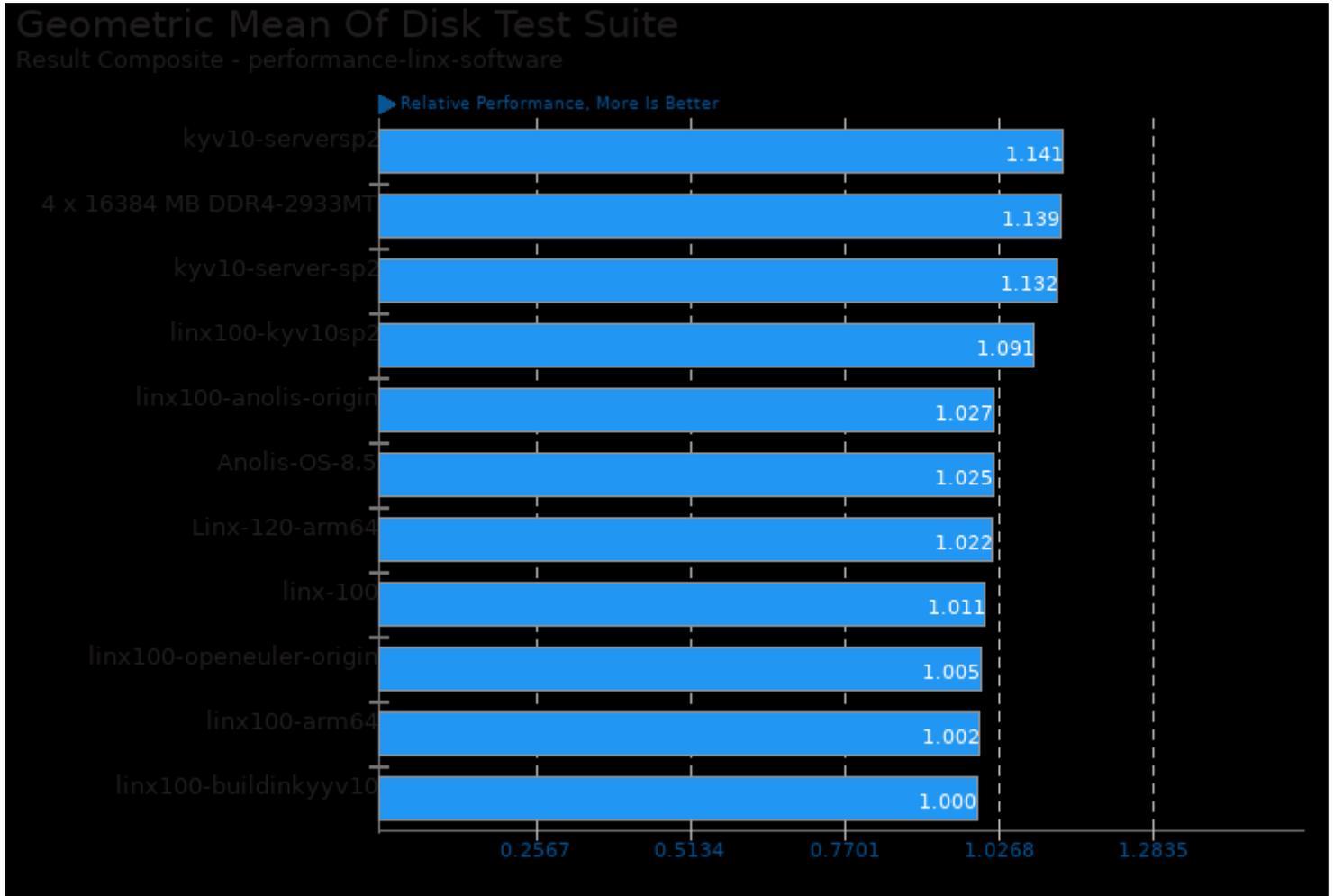








These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/fs-mark, pts/compilebench, pts/iozone, pts/dbench, pts/postmark and pts/fio

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 21:37.