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Huawei TaiShan 2280 vs. AMD DAYTONA

2 x HiSilicon Kunpeng 920-7260 64-Core @ 2.60 GHz (128 Cores) vs. 2 x AMD EPYC 7742 64-Core @ 2.25GHz (128 Cores / 256 Threads). Details: <https://servernews.ru/1010630/>

Automated Executive Summary

EPYC | Ubuntu 19.04 had the most wins, coming in first place for 59% of the tests.

Based on the geometric mean of all complete results, the fastest (EPYC | Ubuntu 19.04) was 1.42x the speed of the slowest (Kunpeng | Ubuntu 19.10). Kunpeng | openEuler 20.03 was 0.75x the speed of EPYC | Ubuntu 19.04, Kunpeng | Ubuntu 20.04 was 0.98x the speed of Kunpeng | openEuler 20.03, Kunpeng | Ubuntu 19.10 was 0.97x the speed of Kunpeng | Ubuntu 20.04.

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

FLAC Audio Encoding (WAV To FLAC) at 4.62x

Dbench (Client Count: 6) at 4.03x

Tinymembench (Standard Memset) at 3.18x

MBW (Test: Memory Copy - Array Size: 1024 MiB) at 3.13x

POV-Ray (Trace Time) at 2.98x

OSBench (Test: Create Files) at 2.53x

LAME MP3 Encoding (WAV To MP3) at 2.28x

C-Ray (Total Time - 4K, 16 Rays Per Pixel) at 2.27x
Apache Benchmark (Static Web Page Serving) at 2.12x
PostMark (Disk Transaction Performance) at 2.06x.

Test Systems:

Kunpeng | Ubuntu 19.10

Processor: 2 x HiSilicon Kunpeng 920-7260 64-Core @ 2.60 GHz (128 Cores), Motherboard: Huawei BC82AMDD (1.05 BIOS), Chipset: Huawei HiSilicon, Memory: 16 x 32 GB DDR4-2933MT/s Samsung M393A4K40CB2-CVF, Disk: 2 x 1199GB HW-SAS3508 + 4796GB HW-SAS3508, Graphics: Huawei Hi1710 [iBMC Intelligent Management chip w/VGA support], Network: 8 x Huawei Hi1822 + 8 x Huawei HNS GE/10GE/25GE

OS: Ubuntu 19.10, Kernel: 5.3.0-46-generic (aarch64), Compiler: GCC 9.2.1 20191008, File-System: xfs, Screen Resolution: 640x480

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++,gm2 --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 --with-target-system-zlib=auto -v
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v2: Mitigation of __user pointer sanitization + spectre_v2: Not affected + tsx_async_abort: Not affected

Kunpeng | Ubuntu 20.04

Processor: 2 x HiSilicon Kunpeng 920-7260 64-Core @ 2.60 GHz (128 Cores), Motherboard: Huawei BC82AMDD (1.05 BIOS), Chipset: Huawei HiSilicon, Memory: 16 x 32 GB DDR4-2933MT/s Samsung M393A4K40CB2-CVF, Disk: 2 x 1199GB HW-SAS3508 + 4796GB HW-SAS3508, Graphics: Huawei Hi1710 [iBMC Intelligent Management chip w/VGA support], Network: 8 x Huawei Hi1822 + 8 x Huawei HNS GE/10GE/25GE

OS: Ubuntu 20.04, Kernel: 5.4.0-28-generic (aarch64), Compiler: GCC 9.3.0, File-System: xfs, Screen Resolution: 640x480

Compiler Notes: --build=aarch64-linux-gnu --disable-libquadmath --disable-libquadmath-support --disable-werror --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++,gm2 --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 --with-target-system-zlib=auto -v
Disk Notes: MQ_DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,sunit=512,swidth=1024
Java Notes: OpenJDK Runtime Environment (build 11.0.7+10-post-Ubuntu-3ubuntu1)
Python Notes: Python 2.7.18rc1 + Python 3.8.2
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + tsx_async_abort: Not affected

Kunpeng | openEuler 20.03

Processor: 2 x HiSilicon Kunpeng 920-7260 64-Core @ 2.60 GHz (128 Cores), Motherboard: Huawei BC82AMDD (1.05 BIOS), Chipset: Huawei HiSilicon, Memory: 16 x 32 GB DDR4-2933MT/s Samsung M393A4K40CB2-CVF, Disk: 2 x 1199GB HW-SAS3508 + 4796GB HW-SAS3508, Graphics: Huawei Hi1710 [iBMC Intelligent Management chip w/VGA support], Network: 8 x Huawei Hi1822 + 8 x Huawei HNS GE/10GE/25GE

OS: openEuler 20.03, Kernel: 4.19.90-2003.4.0.0036.oe1.aarch64 (aarch64) 20200323, Compiler: GCC 7.3.0,

File-System: xfs, Screen Resolution: 640x480

Compiler Notes: --build=aarch64-linux-gnu --disable-libgcj --disable-libunwind-exceptions --enable-__cxa_atexit --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,objc,obj-c++,fortran,ito --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-boot-ldflags=' --with-linker-hash-style=gnu --with-multilib-list=lp64 --with-stage1-ldflags=' --without-cloog --without-isl -Wl,-z,relro,-z,no' -Wl,-z,now'

Disk Notes: BFQ / attr2,inode64,noquota,relatime,rw,seclabel,sunit=512,swidth=1024

Java Notes: OpenJDK Runtime Environment (build 1.8.0_242-b08)

Python Notes: Python 2.7.16 + Python 3.7.4

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

EPYC | Ubuntu 19.04

Processor: 2 x AMD EPYC 7742 64-Core @ 2.25GHz (128 Cores / 256 Threads), Motherboard: AMD DAYTONA_X (RDY1001C BIOS), Chipset: AMD Device 1480, Memory: 516096MB, Disk: 6 x 3841GB Micron_9300_MTFDHAL3T8TDP + 256GB Micron_1100_MTFD, Graphics: ASPEED, Network: 2 x Mellanox MT27710

OS: Ubuntu 19.04, Kernel: 5.0.0-21-generic (x86_64), Compiler: GCC 8.3.0, File-System: xfs, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale-gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance

Security Notes: l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Full AMD retroline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

	Kunpeng Ubuntu 19.10	Kunpeng Ubuntu 20.04	Kunpeng openEuler 20.03	EPYC Ubuntu 19.04
GNU MPC - M.P.B (Global Score)	4603	4607	4833	7163
Normalized	64.26%	64.32%	67.47%	100%
Standard Deviation	0.3%	0.1%	0.1%	0.1%
Rodinia - OpenMP LavaMD (sec)	8.157	7.778	7.391	4.50
Normalized	55.17%	57.86%	60.88%	100%
Standard Deviation	1.3%	2.4%	0.6%	15%
Rodinia - OpenMP CFD Solver (sec)	16.416	14.222	13.071	8.90
Normalized	54.22%	62.58%	68.09%	100%
Standard Deviation	9.8%	26.8%	5%	1.9%
Coremark - CoreMark Size 666 - I.P.S	1916064	2190153	2248994	3700180
(Iterations/Sec)				
Normalized	51.78%	59.19%	60.78%	100%
Standard Deviation	4.7%	1.9%	5.1%	0.4%
Stockfish - Total Time (Nodes/s)	151586151	149367032	169954198	236474655
Normalized	64.1%	63.16%	71.87%	100%
Standard Deviation	1.2%	1.4%	1.2%	0.3%
Stream - Copy (MB/s)	212013	213498	129799	182592
Normalized	99.3%	100%	60.8%	85.52%
Standard Deviation	12.2%	13.3%	21%	4.5%
Stream - Scale (MB/s)	231955	230358	132901	177759
Normalized	100%	99.31%	57.3%	76.64%
Standard Deviation	4%	4.3%	2.8%	0.8%

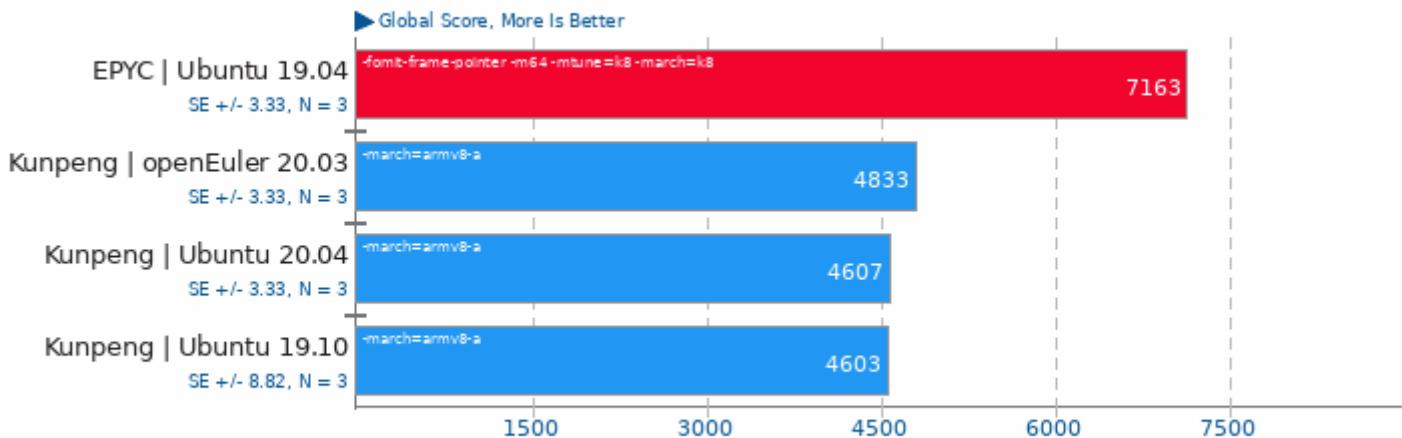
Stream - Triad (MB/s)	214743	224687	155296	192717
Normalized	95.57%	100%	69.12%	85.77%
Standard Deviation	12.9%	10.2%	15.5%	5.7%
Stream - Add (MB/s)	220225	227186	168356	190583
Normalized	96.94%	100%	74.11%	83.89%
Standard Deviation	11.9%	9%	21.9%	3%
Tinymembench - Standard Memcpy (MB/s)	5624	5872	6278	8110
Normalized	69.34%	72.4%	77.4%	100%
Standard Deviation	0.5%	0.3%	0.4%	0.7%
Tinymembench - Standard Memset (MB/s)	11570	12530	36749	13459
Normalized	31.48%	34.1%	100%	36.62%
Standard Deviation	0.1%	0.2%	1.8%	0.7%
MBW - Memory Copy - 1024 MiB	4950	6250	6960	15479
Normalized	31.98%	40.38%	44.97%	100%
Standard Deviation	0.5%	1%	0.6%	0%
MBW - M.C.F.B.S - 1024 MiB (MiB/s)	4881	5705	6578	9026
Normalized	54.08%	63.21%	72.88%	100%
Standard Deviation	2.8%	0.2%	0.1%	0.2%
Sockperf - Throughput	291853	255363	308126	492047
Normalized	59.31%	51.9%	62.62%	100%
Standard Deviation	2.9%	3%	2.6%	2.7%
Sockperf - Latency Ping Pong (usec)	6.421	5.215	6.614	2.59
Normalized	40.34%	49.66%	39.16%	100%
Standard Deviation	7.8%	0.4%	12.2%	0.3%
Loopback TCP Network Performance - T.T.T.I.V.L (sec)	16.750	16.380	14.425	11.54
Normalized	68.9%	70.45%	80%	100%
Standard Deviation	9.4%	1.1%	7.1%	14.4%
C-Ray - Total Time - 4.1.R.P.P (sec)	14.279	14.244	14.308	6.30
Normalized	44.12%	44.23%	44.03%	100%
Standard Deviation	0.4%	0.9%	0.4%	2.9%
POV-Ray - Trace Time (sec)	24.821	24.496	22.475	8.32
Normalized	33.52%	33.96%	37.02%	100%
Standard Deviation	5%	5.2%	3.2%	2.9%
Smallpt - G.I.R.1.S (sec)	2.903	3.046	2.597	3.53
Normalized	89.46%	85.26%	100%	73.57%
Standard Deviation	4%	4.7%	0.3%	
Sysbench - Memory (Events/sec)	7750721	7783172	6049767	4889449
Normalized	99.58%	100%	77.73%	62.82%
Standard Deviation	0.5%	1.5%	1.7%	0.2%
Sysbench - CPU (Events/sec)	415977	402083	418474	204344
Normalized	99.4%	96.08%	100%	48.83%
Standard Deviation	0.2%	1.8%	0.5%	0.4%
Sunflow Rendering System - G.I.I.S (sec)	2.678	2.662	0.906	0.70
Normalized	26.14%	26.3%	77.26%	100%
Standard Deviation	20.3%	10.3%	16.1%	5.7%
OSBench - Create Files (us/Event)	54.384858	55.085366	82.322768	32.48
Normalized	59.72%	58.96%	39.45%	100%
Standard Deviation	0.7%	1.3%	0.3%	2.9%
OSBench - Create Threads (us/Event)	28.223991	26.253859	20.967325	32.27
Normalized	74.29%	79.86%	100%	64.97%
Standard Deviation	2.3%	1.6%	0.6%	2.3%

			63.133240	76.65
OSBench - Launch Programs	67.972342	64.999263		
Normalized	92.88%	97.13%	100%	82.37%
Standard Deviation	0.2%	1.4%	1.9%	0.9%
OSBench - Create Processes	57.847500	55.907568	51.514506	42.31
Normalized	73.14%	75.68%	82.13%	100%
Standard Deviation	1.4%	2.4%	2.7%	2.9%
OSBench - Memory Allocations	134.985745	134.991408	89.430253	95.66
(Ns/Event)				
Normalized	66.25%	66.25%	100%	93.49%
Standard Deviation	2.6%	1.2%	0.7%	0.5%
Dbench - 1 (MB/s)	636.274	631.767	653.282	789.48
Normalized	80.59%	80.02%	82.75%	100%
Standard Deviation	0.3%	0.2%	0.2%	6.9%
Dbench - 6 (MB/s)	2917	2837	722.959	2344
Normalized	100%	97.27%	24.79%	80.38%
Standard Deviation	0.7%	2.1%	1.2%	5.2%
Dbench - 12 (MB/s)	4749	4621	982.951	3729
Normalized	100%	97.3%	20.7%	78.53%
Standard Deviation	1.6%	1.8%	0.6%	13.4%
Dbench - 48 (MB/s)	4849	4925	6738	5854
Normalized	71.96%	73.08%	100%	86.87%
Standard Deviation	1.4%	1.6%	1.1%	10%
Dbench - 128 (MB/s)	4056	4567	5927	5915
Normalized	68.44%	77.06%	100%	99.8%
Standard Deviation	0.4%	0.3%	0.4%	3%
Dbench - 256 (MB/s)	4201	4486	5813	5674
Normalized	72.28%	77.17%	100%	97.62%
Standard Deviation	0.1%	0.3%	0.3%	1.7%
PostMark - D.T.P (TPS)	3488	3440	5525	7076
Normalized	49.29%	48.62%	78.08%	100%
Standard Deviation	0.8%	0.8%	4.6%	1.6%
Bork File Encrypter - F.E.T (sec)	13.910	14.198	13.155	9.98
Normalized	71.75%	70.29%	75.86%	100%
Standard Deviation	0.8%	2%	0.8%	0.5%
DaCapo Benchmark - H2 (msec)	5743	5601	5414	5462
Normalized	94.27%	96.66%	100%	99.12%
Standard Deviation	4.1%	2.7%	3.9%	3%
DaCapo Benchmark - Jython (msec)	7535	7463	5771	4993
Normalized	66.26%	66.9%	86.52%	100%
Standard Deviation	5.5%	5.4%	1.1%	1.3%
DaCapo Benchmark - Tradebeans	6339	6249	4466	5007
(msec)				
Normalized	70.45%	71.47%	100%	89.2%
Standard Deviation	1.2%	2.9%	3.5%	3.3%
John The Ripper - Blowfish (Real C/S)	47923	52918	72764	184099
Normalized	26.03%	28.74%	39.52%	100%
Standard Deviation	25.8%	21.1%	0.6%	1.3%
7-Zip Compression - C.S.T (MIPS)	195030	193778	225882	373978
Normalized	52.15%	51.82%	60.4%	100%
Standard Deviation	0.6%	1.7%	0.6%	2.6%
Node.js Octane Benchmark (Score)	22276	22500	23337	38833
Normalized	57.36%	57.94%	60.1%	100%
Standard Deviation	0.5%	1.8%	1.2%	0.2%
Gzip Compression - L.S.T.A.T.t.g (sec)	61.312	61.340	54.323	41.06
Normalized	66.97%	66.94%	75.58%	100%

	Standard Deviation 0.3%	0.3%	0.5%	0.6%
XZ Compression - C.u.1.0.3.s.i.i.C.L.9	32.040 (sec)	31.323	25.625	28.84
	Normalized 79.98%	81.81%	100%	88.85%
	Standard Deviation 4.5%	4.4%	0.8%	1.5%
Zstd Compression -	14.631	14.896	13.664	10.84
C.u.1.0.3.s.i.i.C.L.1 (sec)				
	Normalized 74.09%	72.77%	79.33%	100%
	Standard Deviation 2.9%	3.6%	1.1%	2.8%
FLAC Audio Encoding - WAV To	41.785	41.921	45.437	9.83
	FLAC (sec)			
	Normalized 23.53%	23.45%	21.63%	100%
	Standard Deviation 0.1%	0.1%	0.1%	0.2%
LAME MP3 Encoding - WAV To MP3	14.365 (sec)	14.410	14.919	32.71
	Normalized 100%	99.69%	96.29%	43.92%
	Standard Deviation 0.1%	0.1%	0%	0%
OpenSSL - R.4.b.P (Signs/sec)	14806	15037	14993	24724
	Normalized 59.88%	60.82%	60.64%	100%
	Standard Deviation 2.8%	0.2%	1.7%	0.5%
Apache Benchmark - S.W.P.S	14162 (Req/sec)	13790	13007	27564
	Normalized 51.38%	50.03%	47.19%	100%
	Standard Deviation 0.5%	0.3%	3.3%	4.3%
PHPBench - P.B.S (Score)	293810	357887	278937	501755
	Normalized 58.56%	71.33%	55.59%	100%
	Standard Deviation 0.2%	0.1%	0.3%	0.2%

GNU MPC v1.1.0

Multi-Precision Benchmark



1. (CC) gcc options: -lm -O2 -pedantic -MT -MD -MP -MF

Rodinia v2.4

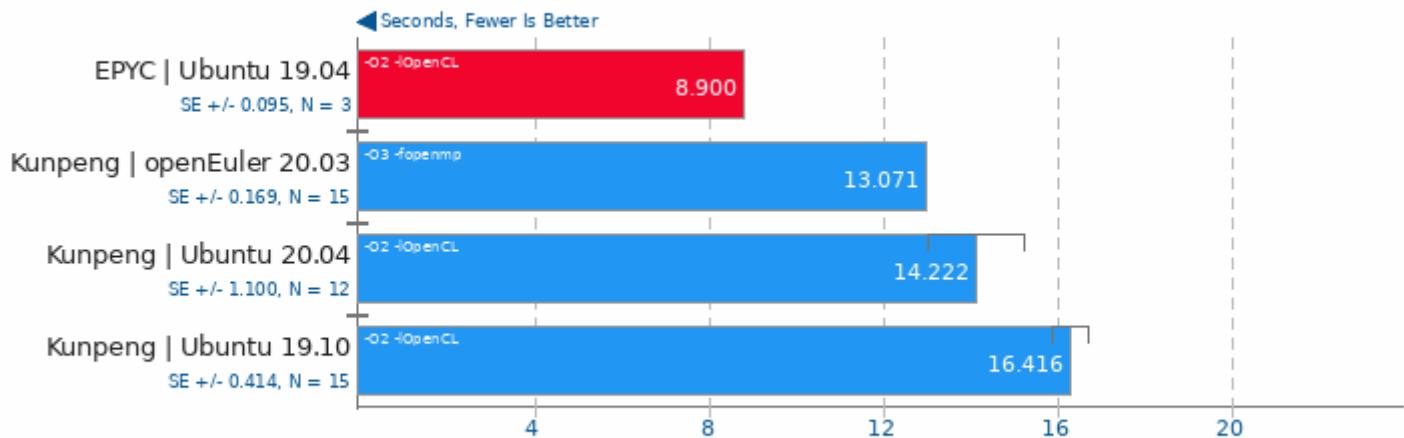
Test: OpenMP LavaMD



1. (CXX) g++ options:

Rodinia v2.4

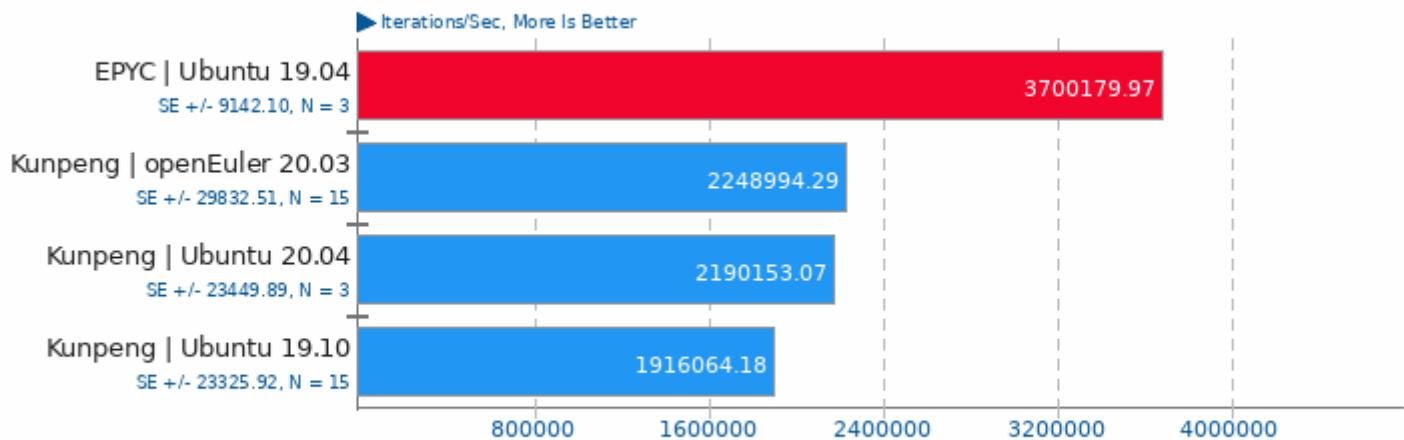
Test: OpenMP CFD Solver



1. (CXX) g++ options:

Coremark v1.0

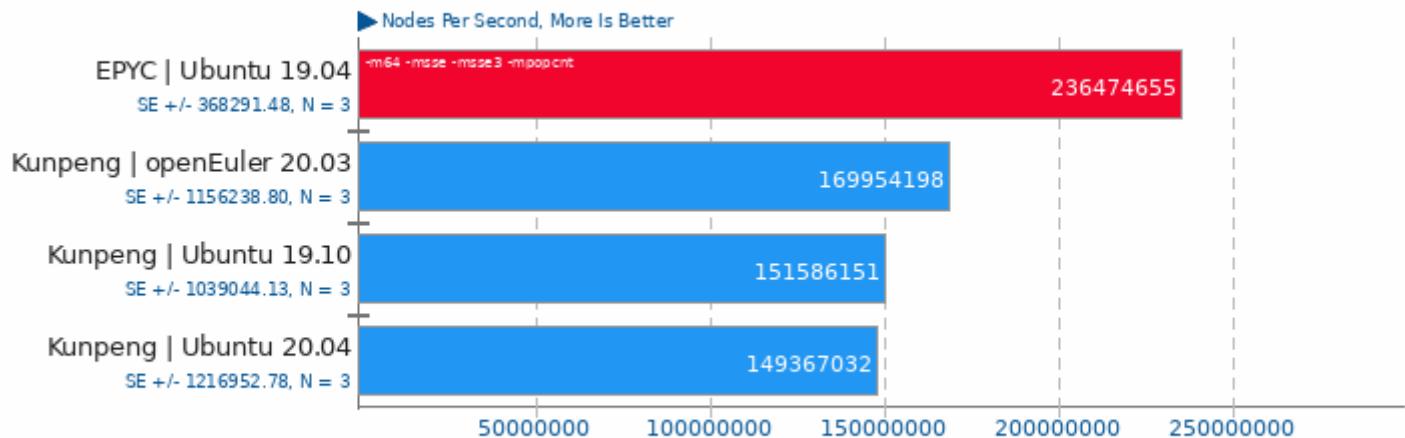
CoreMark Size 666 - Iterations Per Second



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

Stockfish 9

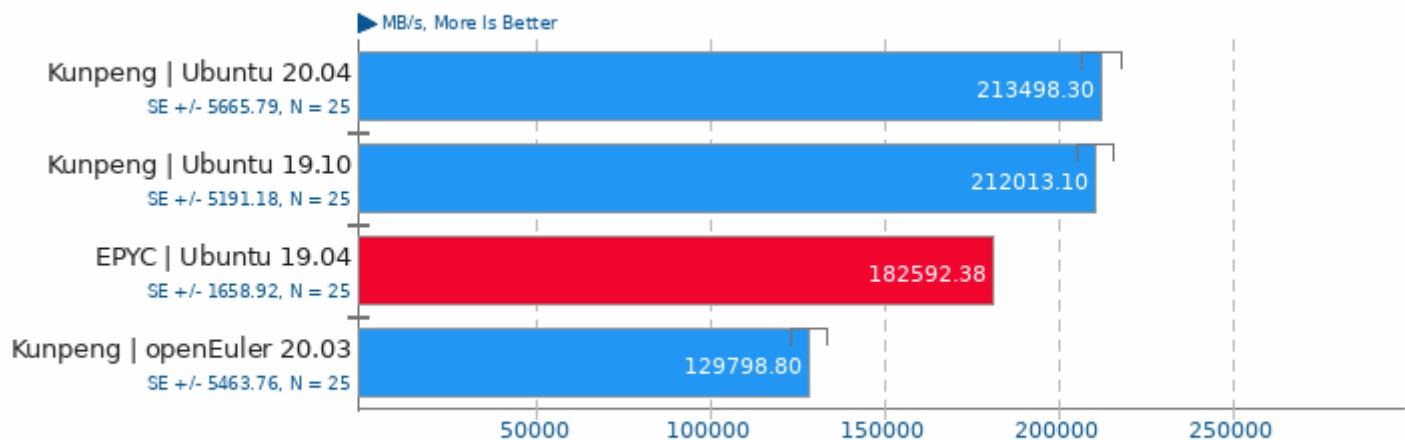
Total Time



1. (CXX) g++ options: -lpthread -fno-exceptions -std=c++11 -pedantic -O3 -fno-

Stream v2013-01-17

Type: Copy



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

Stream v2013-01-17

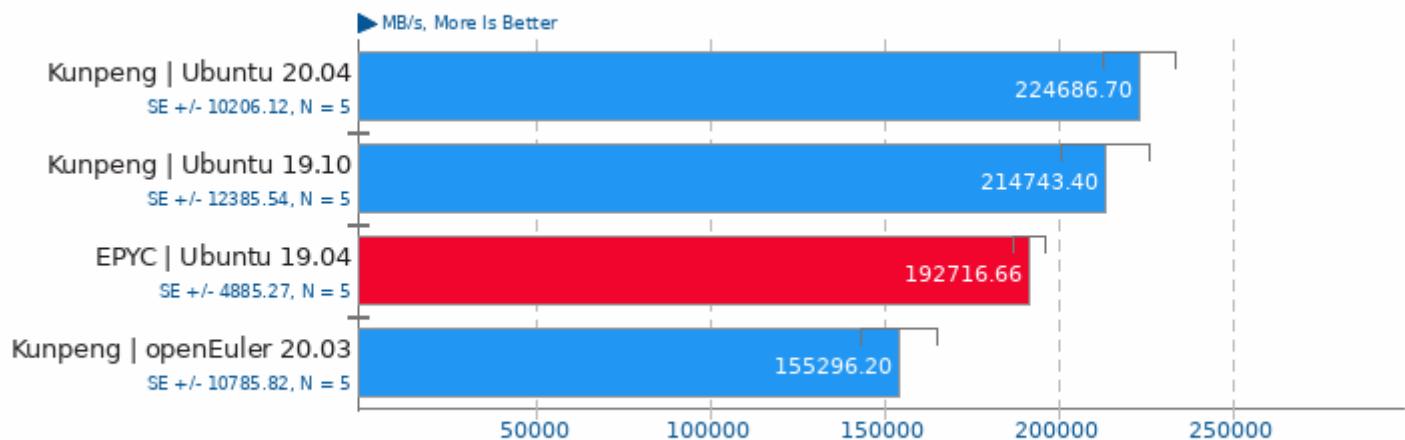
Type: Scale



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

Stream v2013-01-17

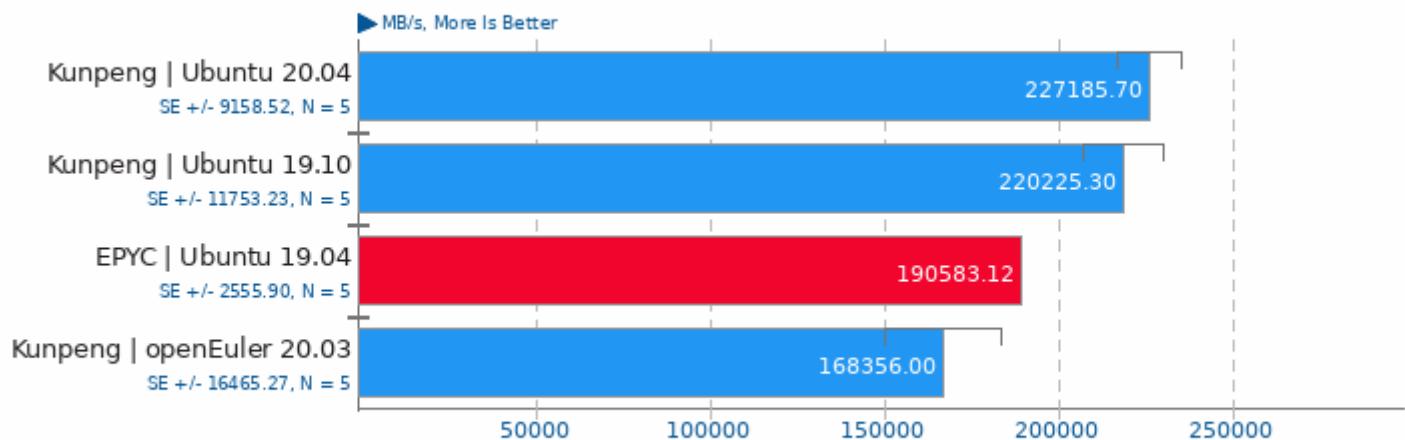
Type: Triad



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

Stream v2013-01-17

Type: Add



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

Tinymembench v2018-05-28

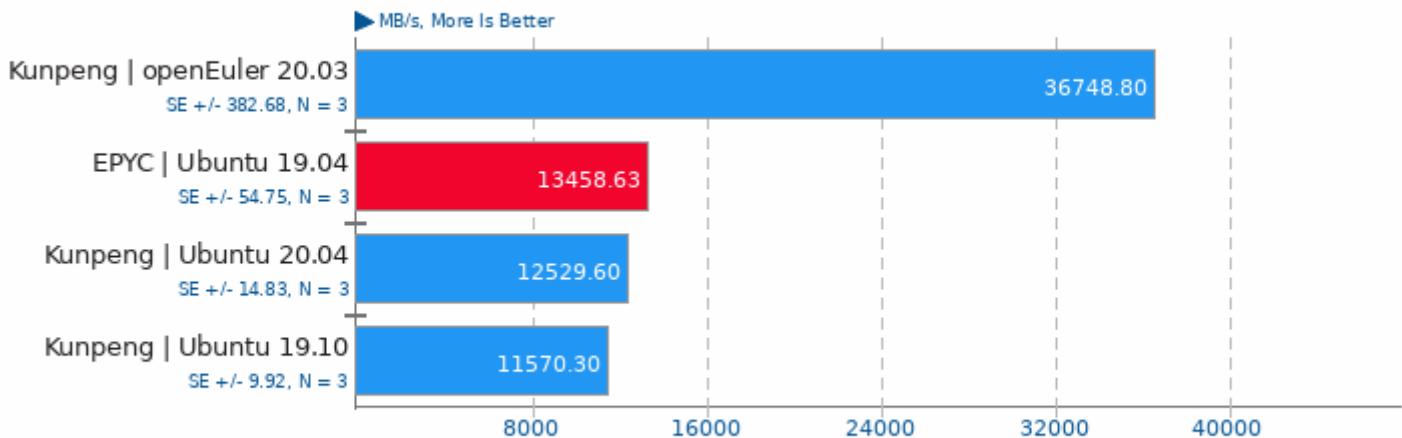
Standard Memcpy



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

Tinymembench v2018-05-28

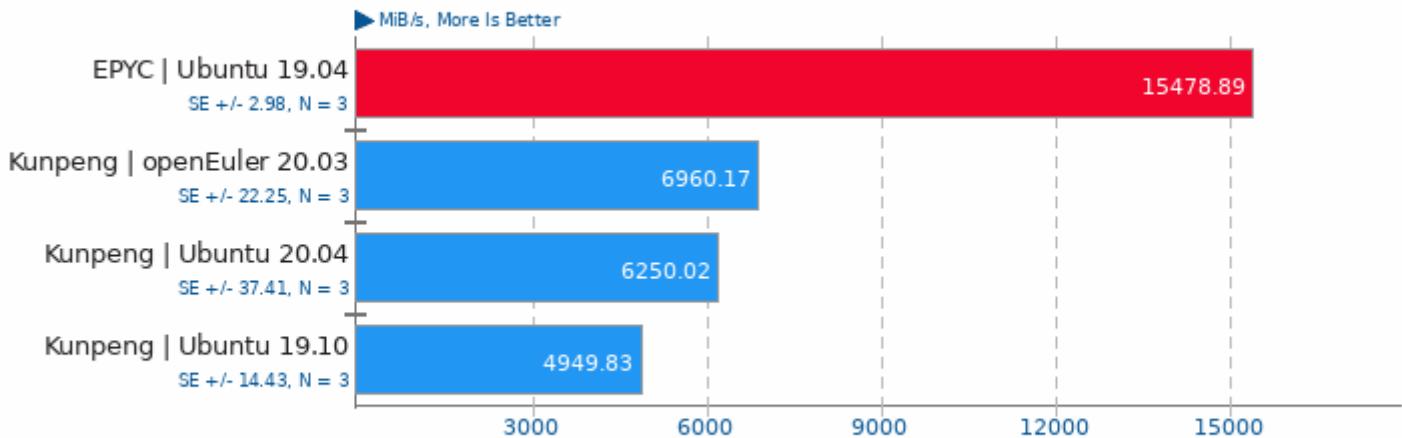
Standard Memset



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

MBW v2018-09-08

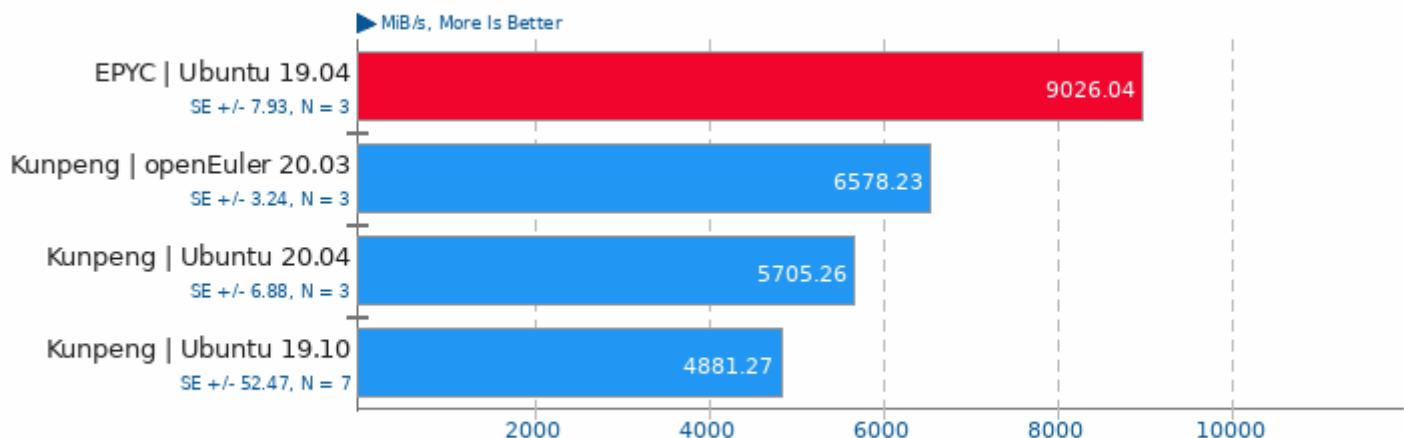
Test: Memory Copy - Array Size: 1024 MiB



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

MBW v2018-09-08

Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB



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

Sockperf v3.4

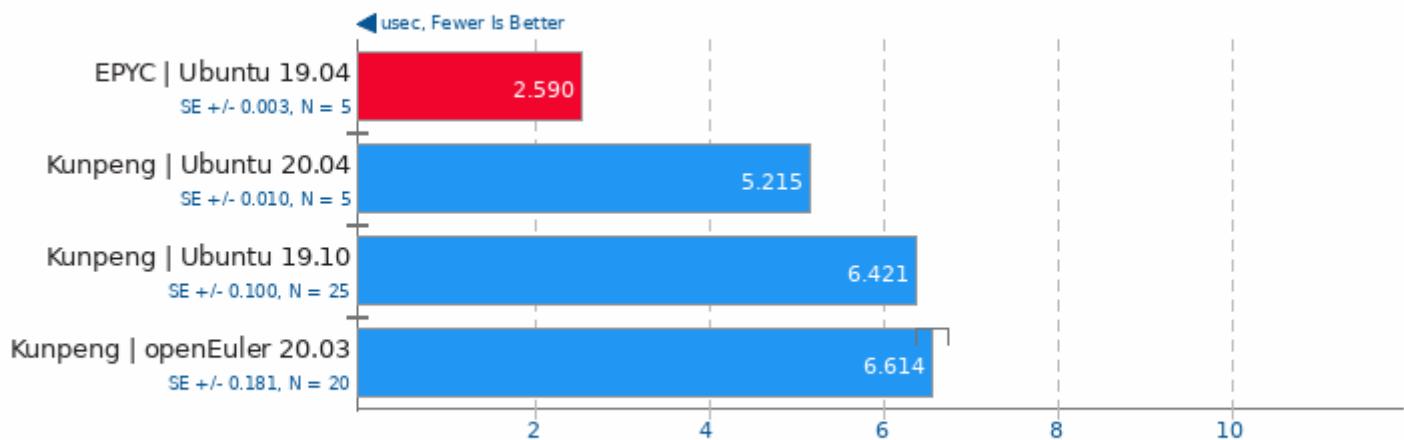
Test: Throughput



1. (CXX) g++ options: --param -O3 -rdynamic -ldl -lpthread

Sockperf v3.4

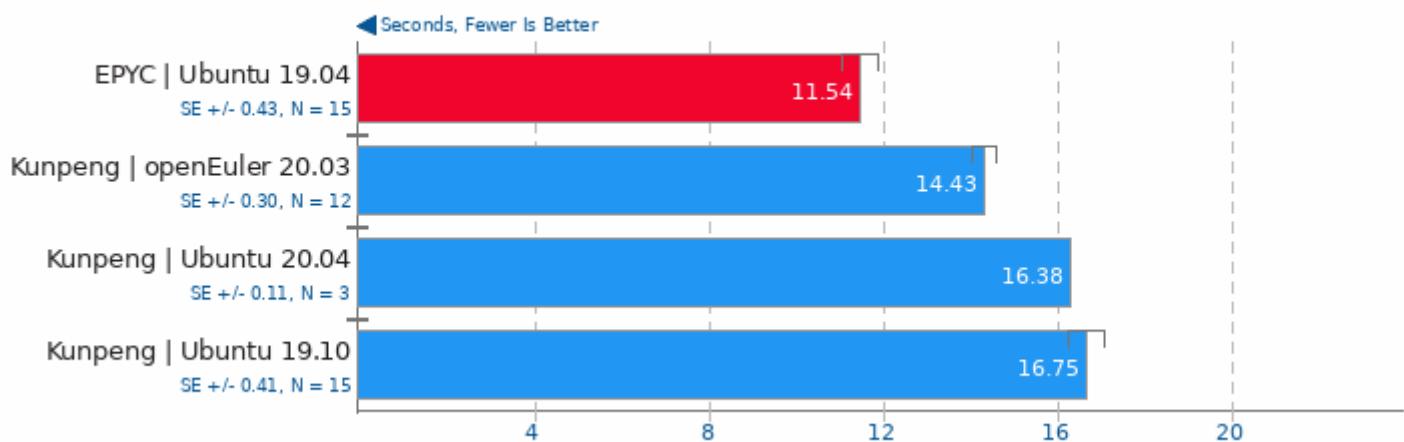
Test: Latency Ping Pong



1. (CXX) g++ options: --param -O3 -rdynamic -ldl -lpthread

Loopback TCP Network Performance

Time To Transfer 10GB Via Loopback



C-Ray v1.1

Total Time - 4K, 16 Rays Per Pixel



1. (CC) gcc options: -lm -lpthread -O3

POV-Ray v3.7.0.7

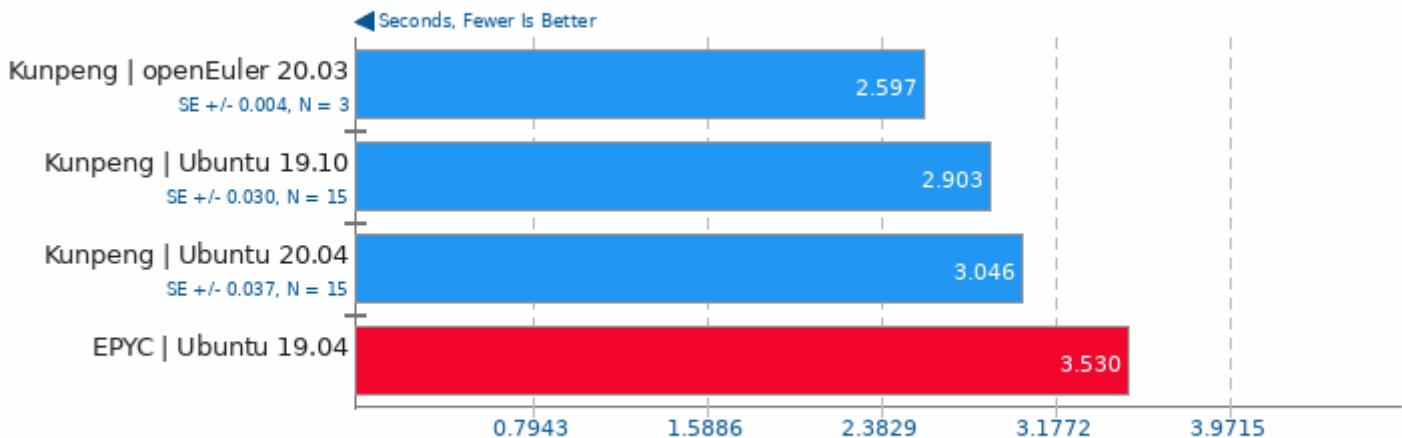
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -pthread -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system

Smallpt v1.0

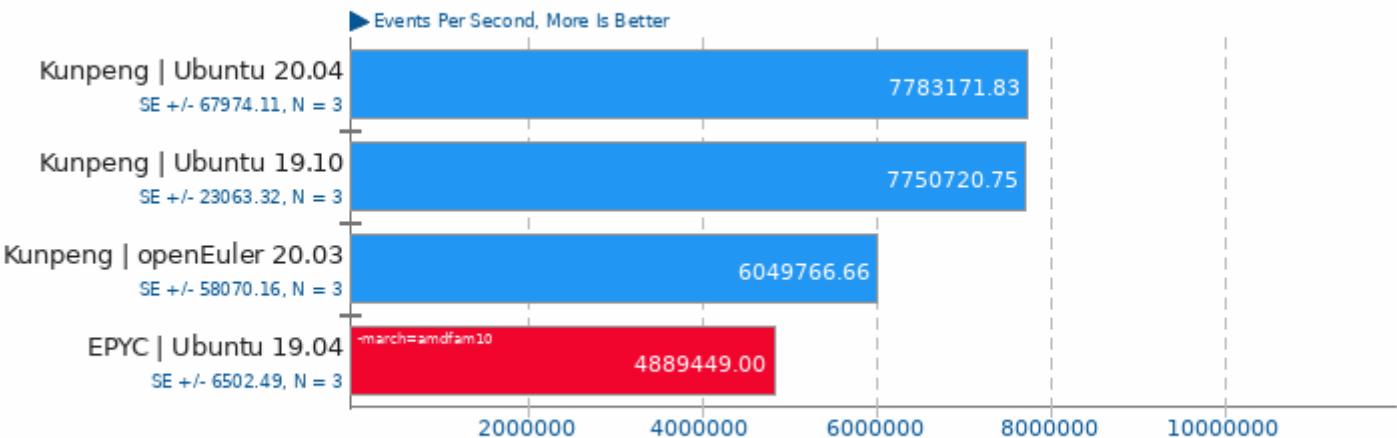
Global Illumination Renderer; 128 Samples



1. (CXX) g++ options: -fopenmp -O3

Sysbench v2018-07-28

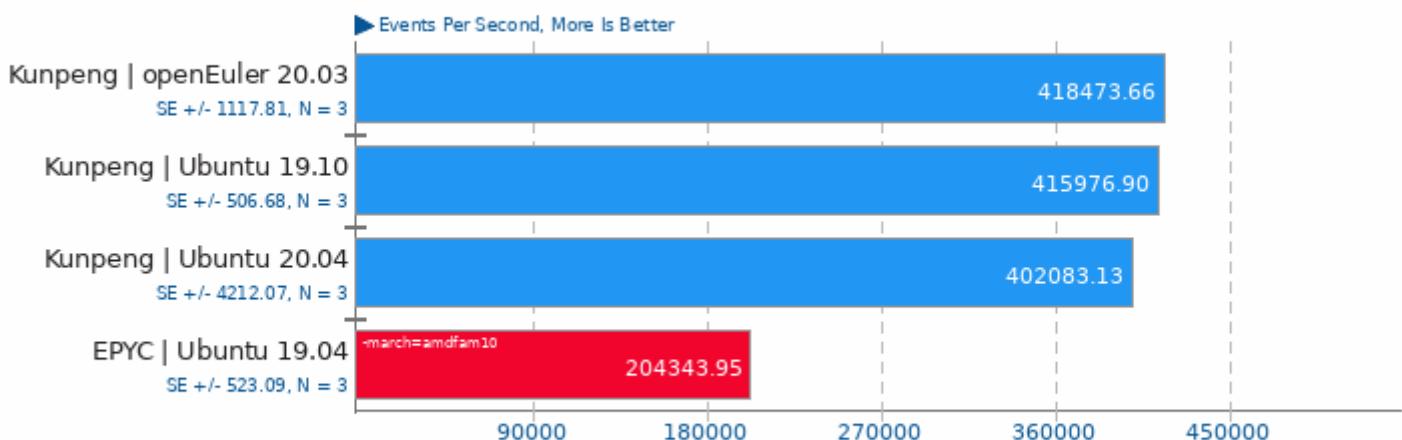
Test: Memory



1. (CC) gcc options: -pthread -O3 -funroll-loops -ggdb3 -rdynamic -ldl -laio -lm

Sysbench v2018-07-28

Test: CPU



1. (CC) gcc options: -pthread -O3 -funroll-loops -ggdb3 -rdynamic -ldl -laio -lm

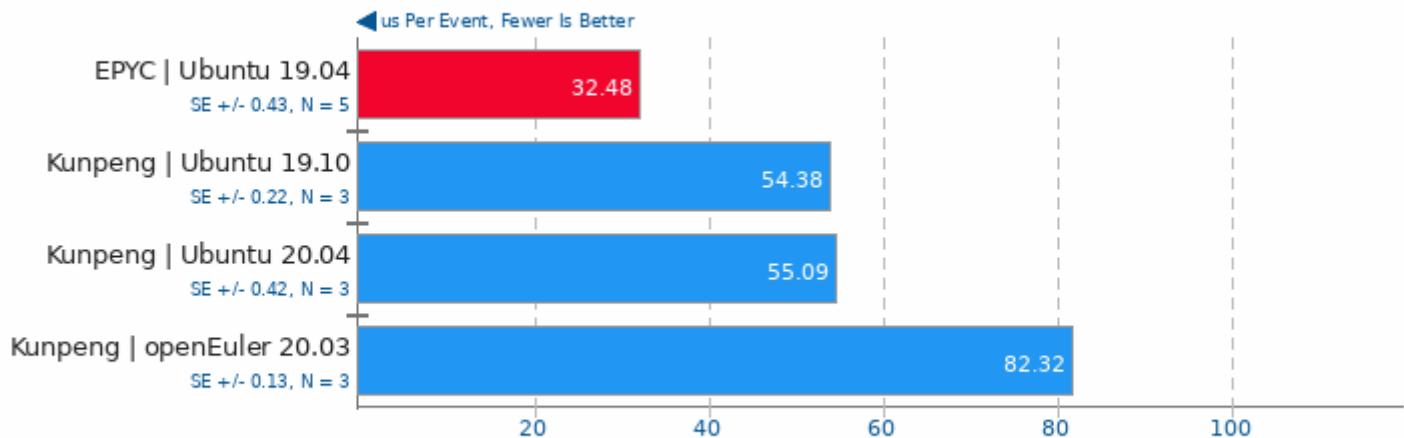
Sunflow Rendering System v0.07.2

Global Illumination + Image Synthesis



OSBench

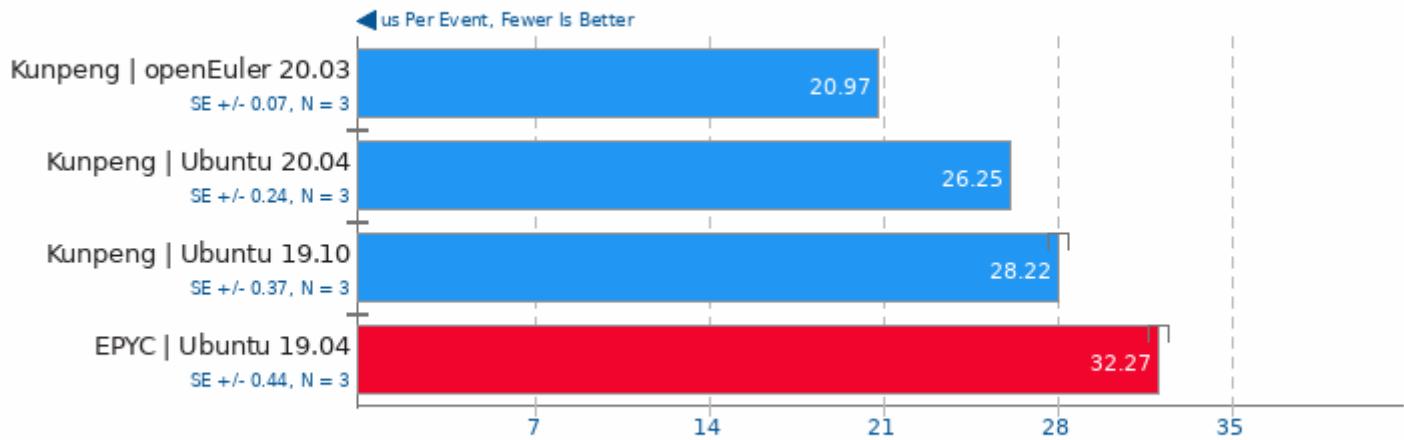
Test: Create Files



1. (CC) gcc options: -lm

OSBench

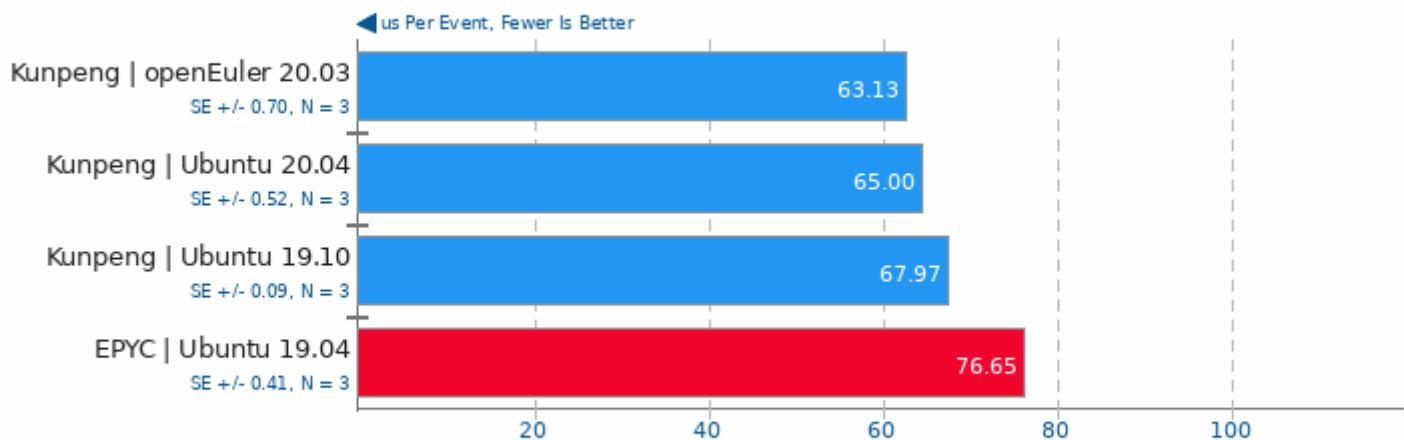
Test: Create Threads



1. (CC) gcc options: -lm

OSBench

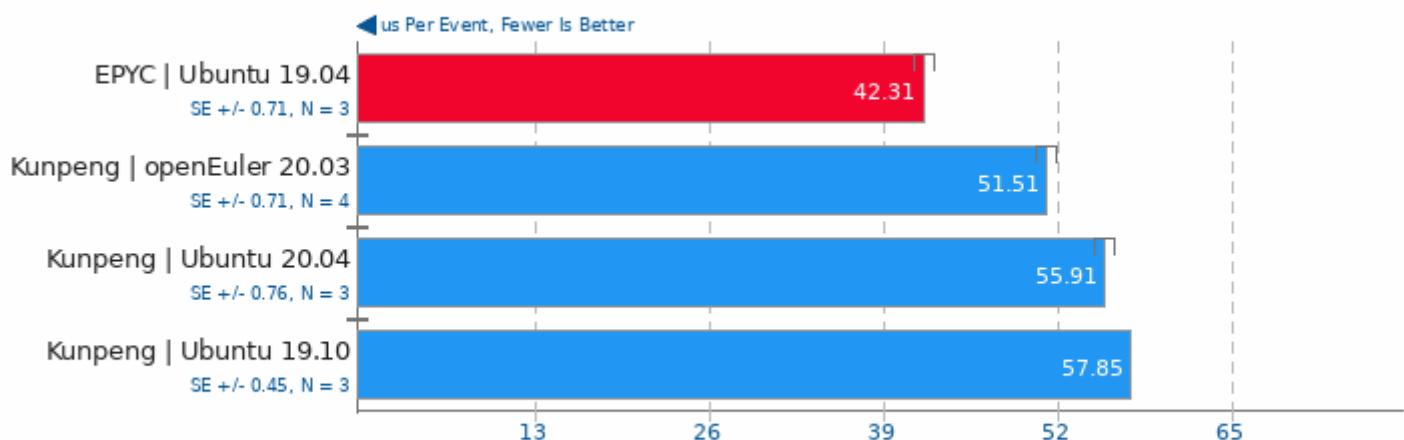
Test: Launch Programs



1. (CC) gcc options: -lm

OSBench

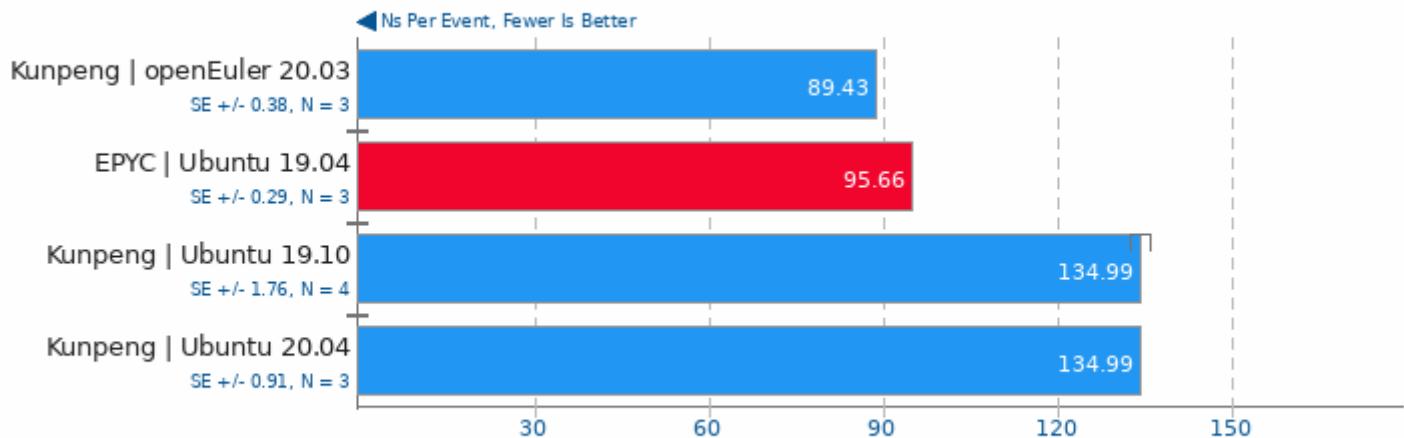
Test: Create Processes



1. (CC) gcc options: -lm

OSBench

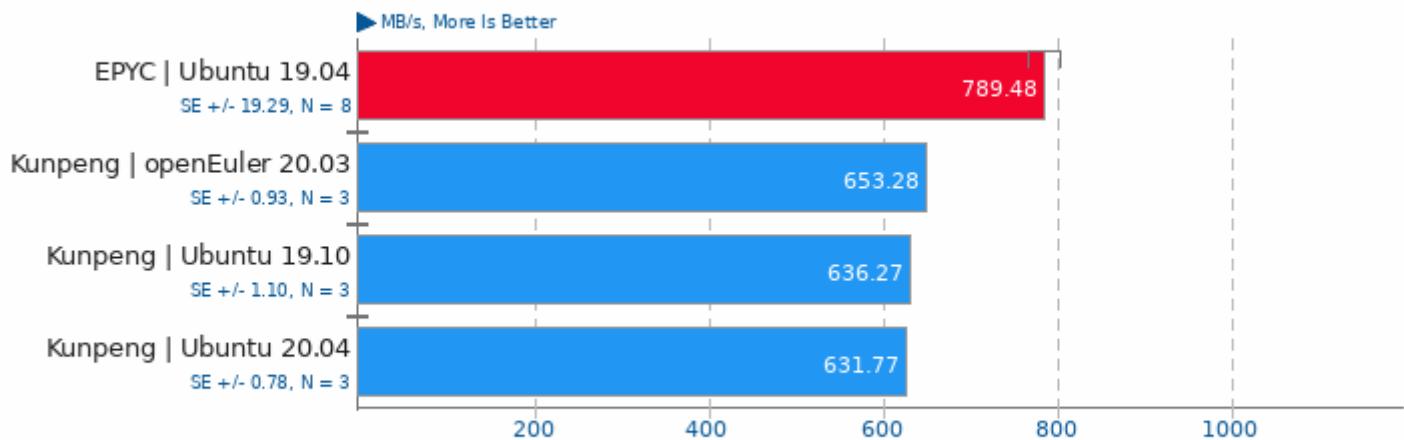
Test: Memory Allocations



1. (CC) gcc options: -lm

Dbench v4.0

Client Count: 1



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

Dbench v4.0

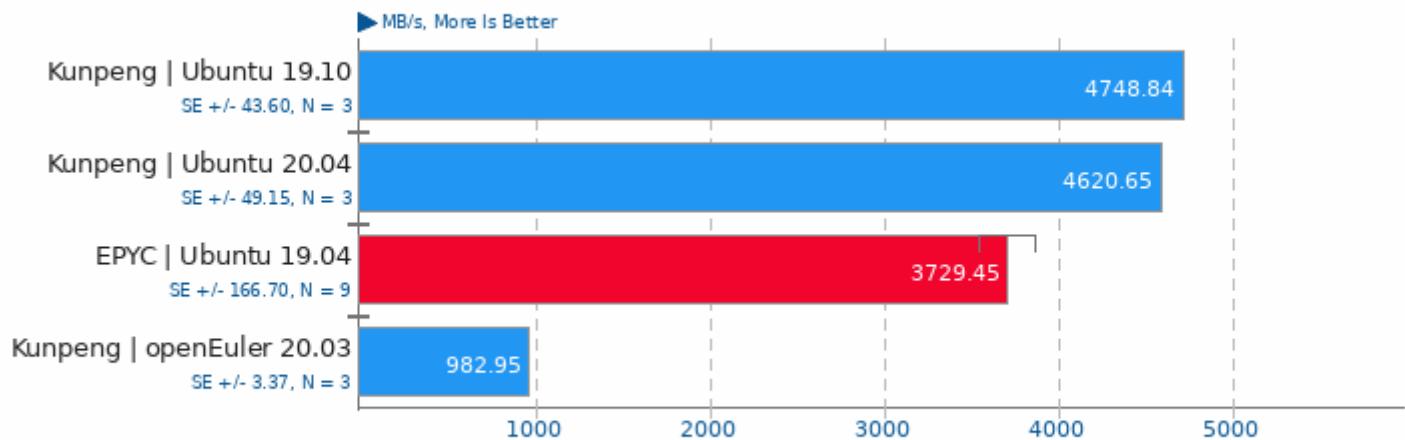
Client Count: 6



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

Dbench v4.0

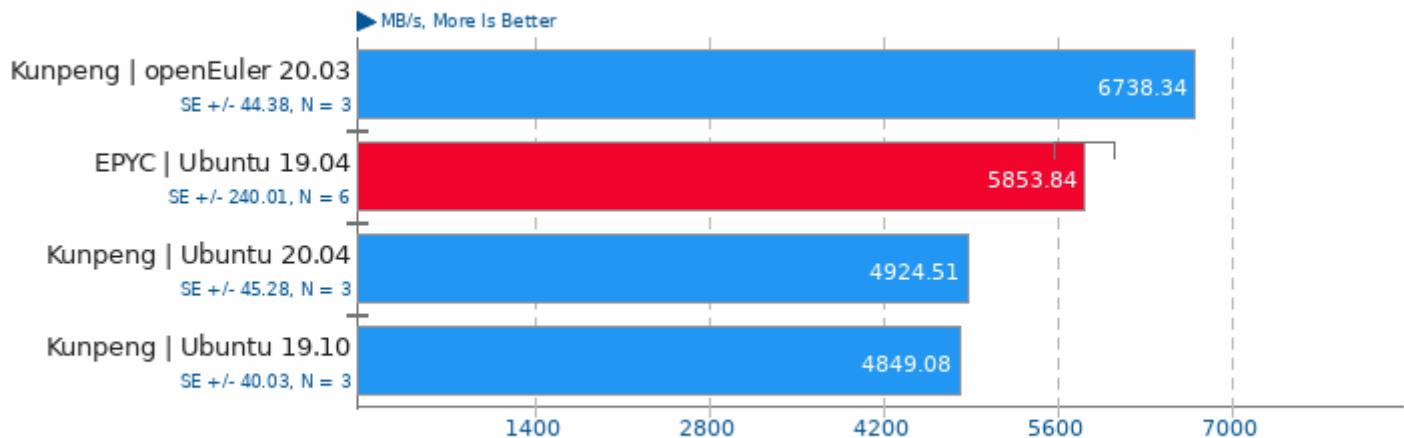
Client Count: 12



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

Dbench v4.0

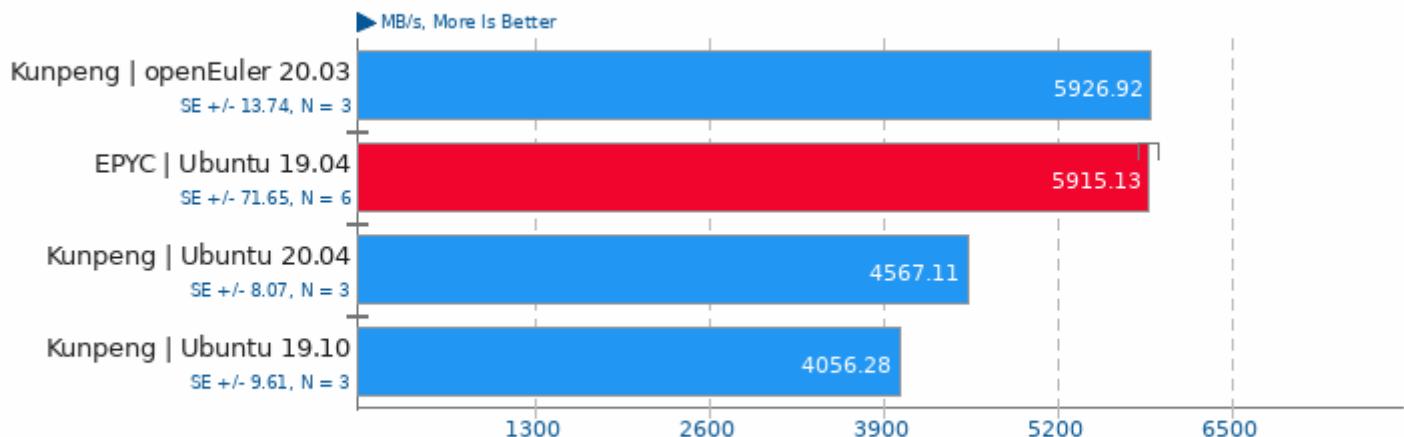
Client Count: 48



1. (CC) gcc options: -fipa-optimizations -O2

Dbench v4.0

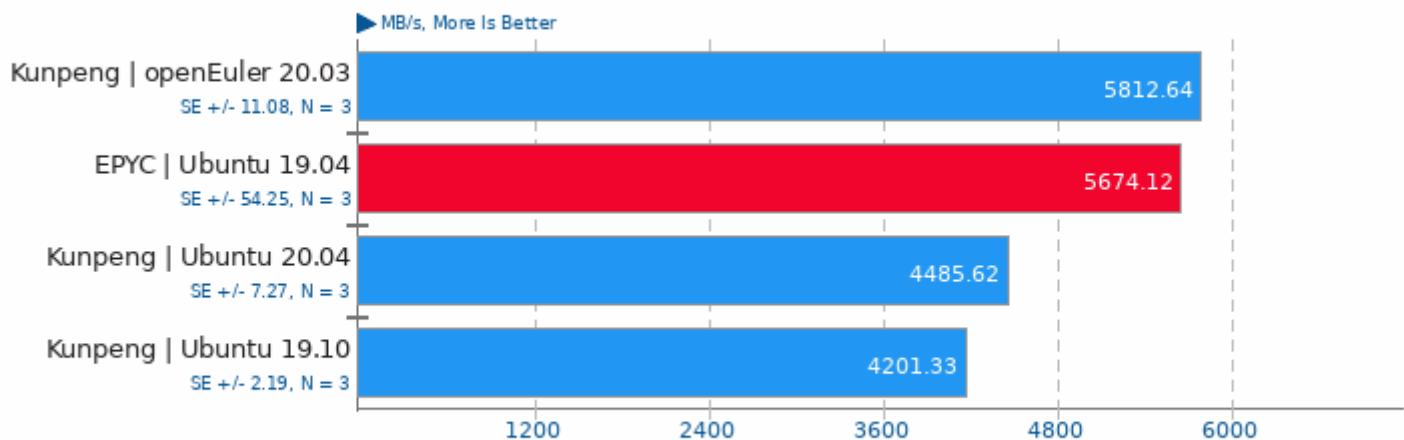
Client Count: 128



1. (CC) gcc options: -fipa-optimizations -O2

Dbench v4.0

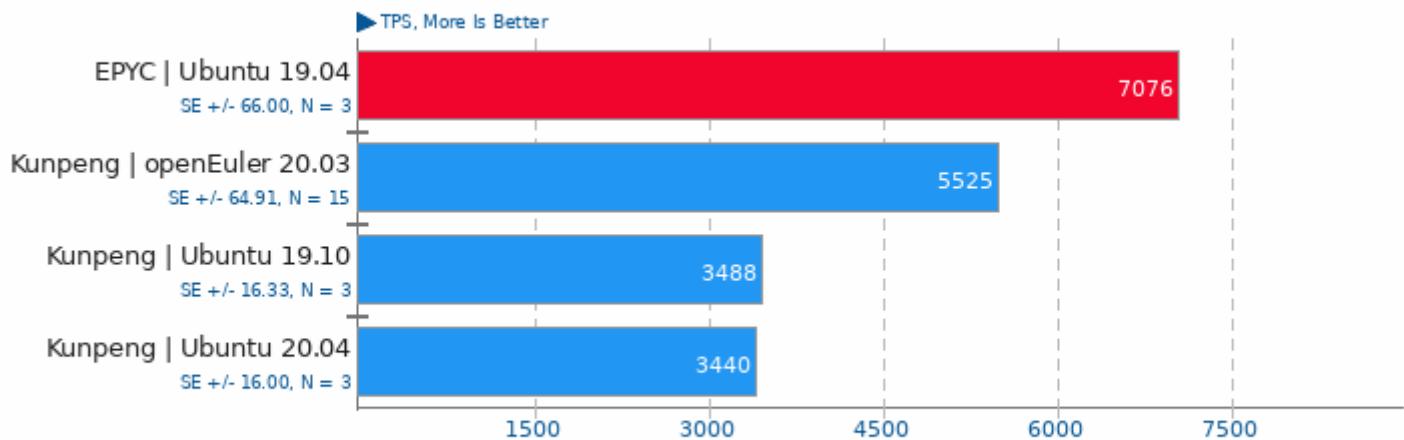
Client Count: 256



1. (CC) gcc options: -fno-optimize-sibling-calls -O2

PostMark v1.51

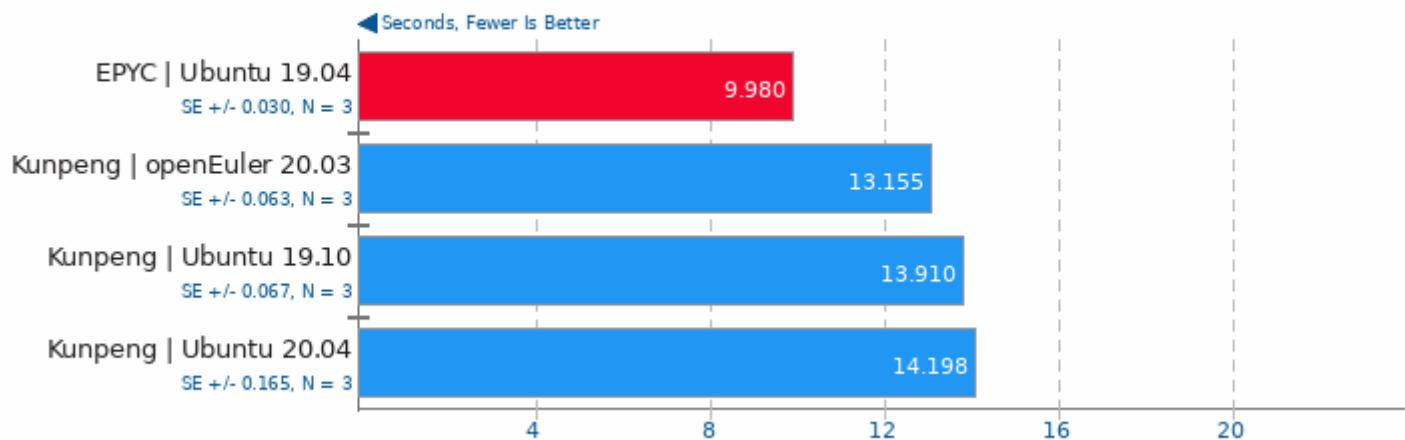
Disk Transaction Performance



1. (CC) gcc options: -O3

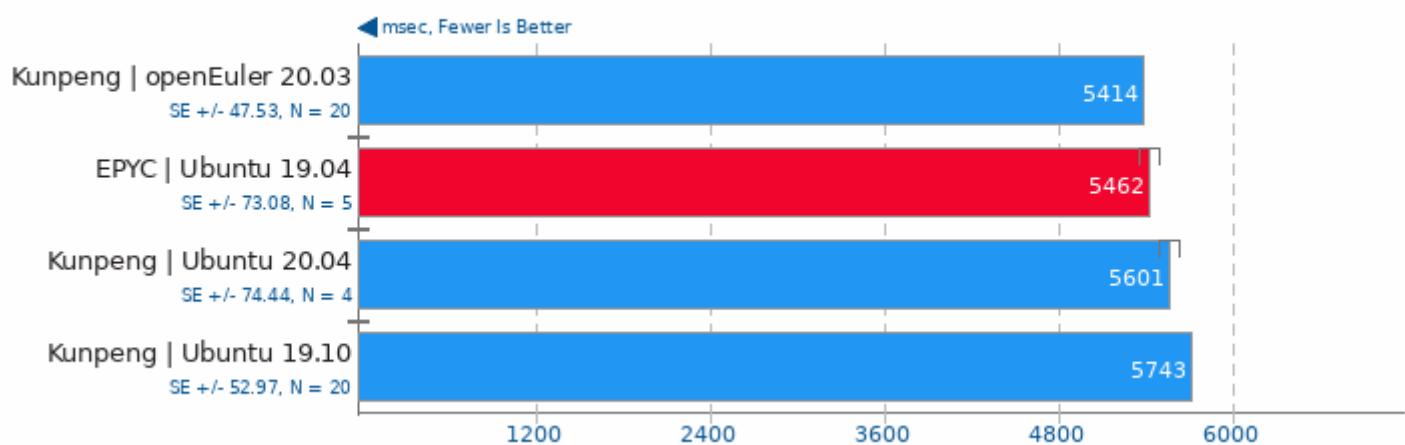
Bork File Encrypter v1.4

File Encryption Time



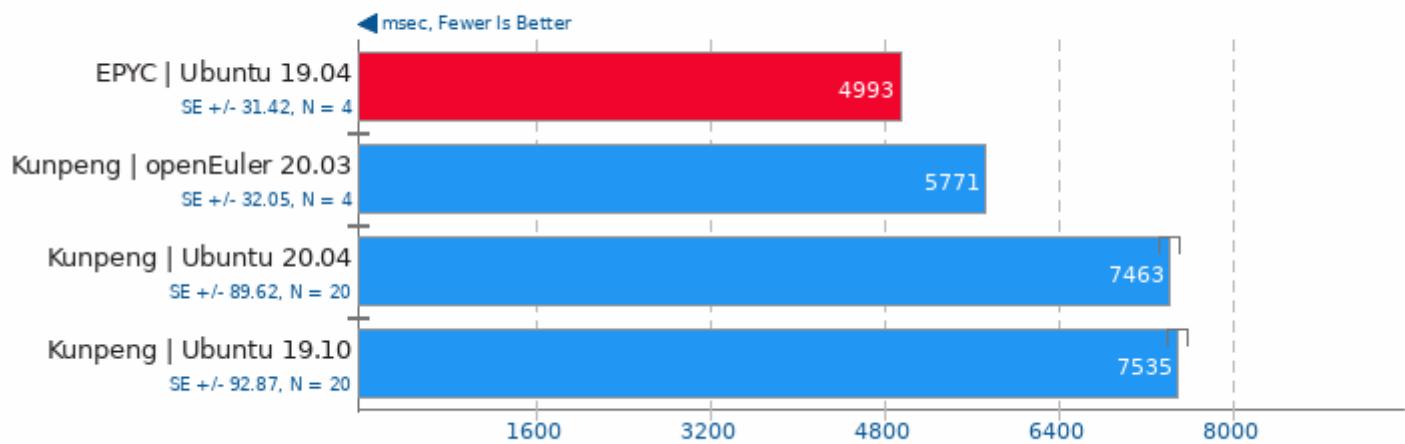
DaCapo Benchmark v9.12-MR1

Java Test: H2



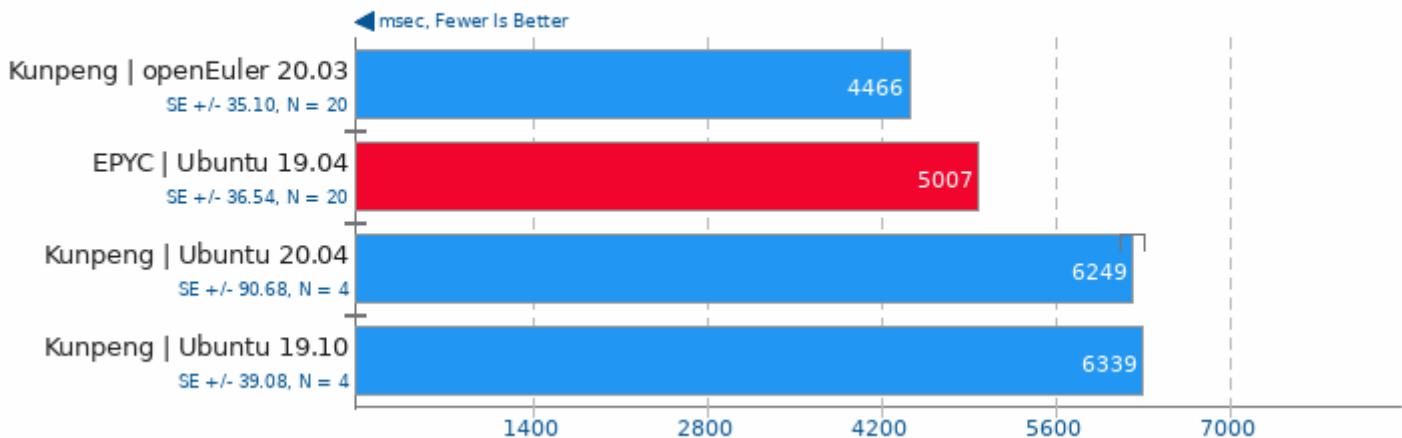
DaCapo Benchmark v9.12-MR1

Java Test: Jython



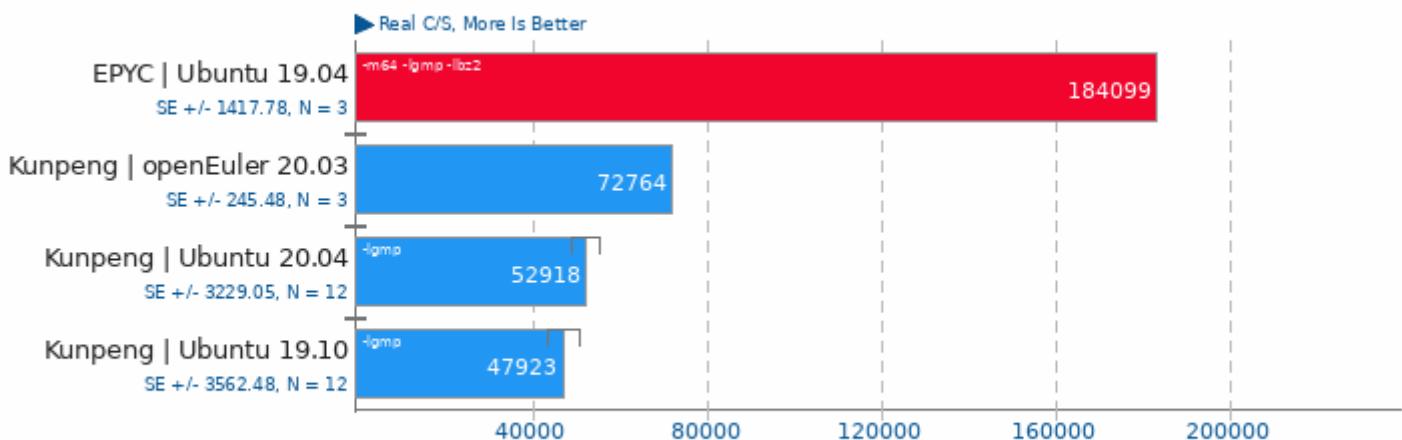
DaCapo Benchmark v9.12-MR1

Java Test: Tradebeans



John The Ripper v1.9.0-jumbo-1

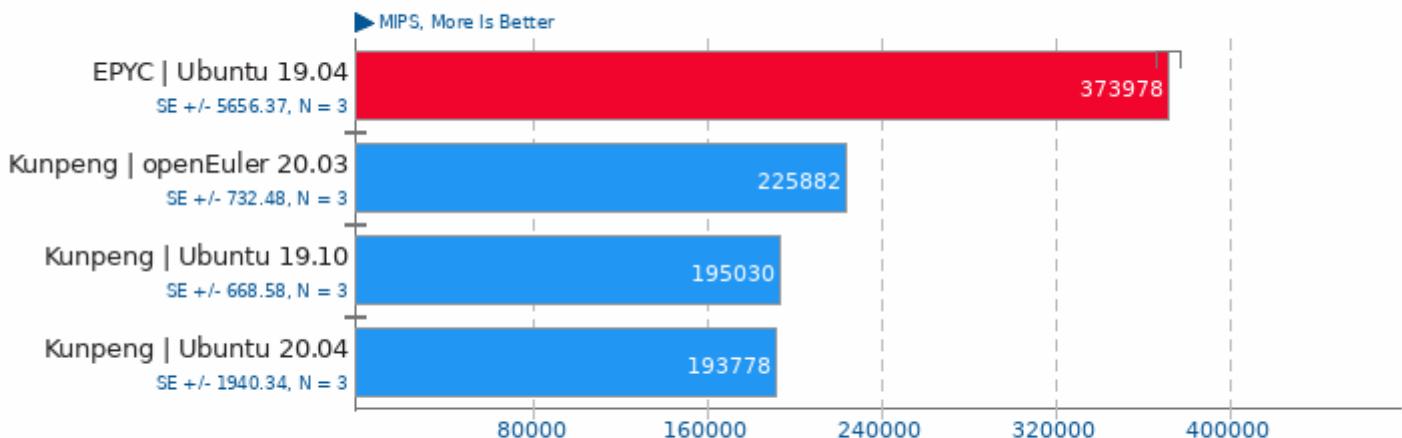
Test: Blowfish



1. (CC) gcc options: -lssl -lcrypto -fopenmp -pthread -lm -lz -ldl -lcrypt

7-Zip Compression v16.02

Compress Speed Test



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

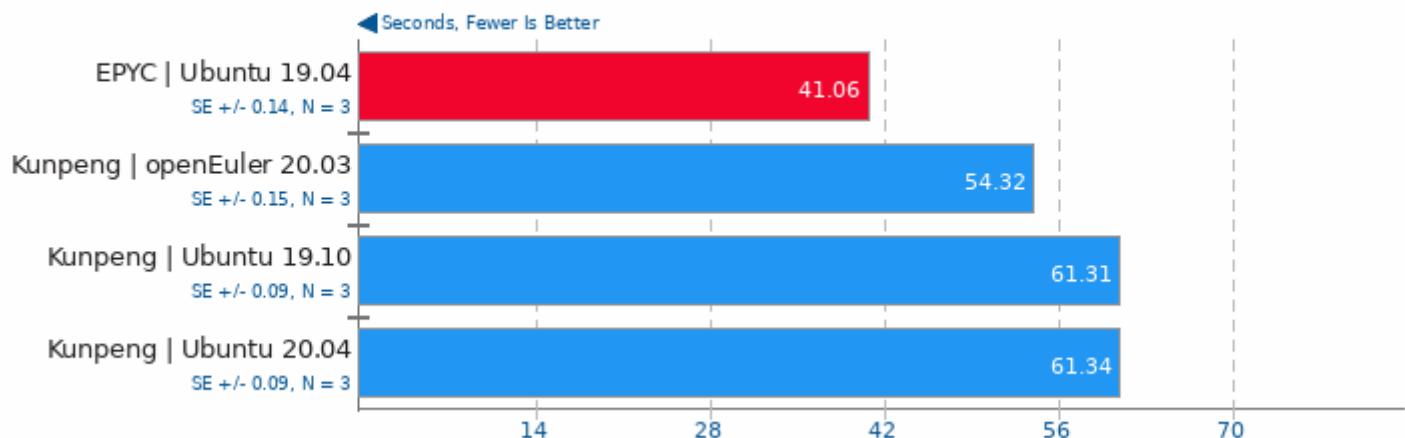
Node.js Octane Benchmark



1. EPYC | Ubuntu 19.04: Nodejs v10.15.2
2. Kunpeng | openEuler 20.03: Nodejs v10.15.2
3. Kunpeng | Ubuntu 20.04: Nodejs v10.15.2
4. Kunpeng | Ubuntu 19.10: Nodejs v10.15.2

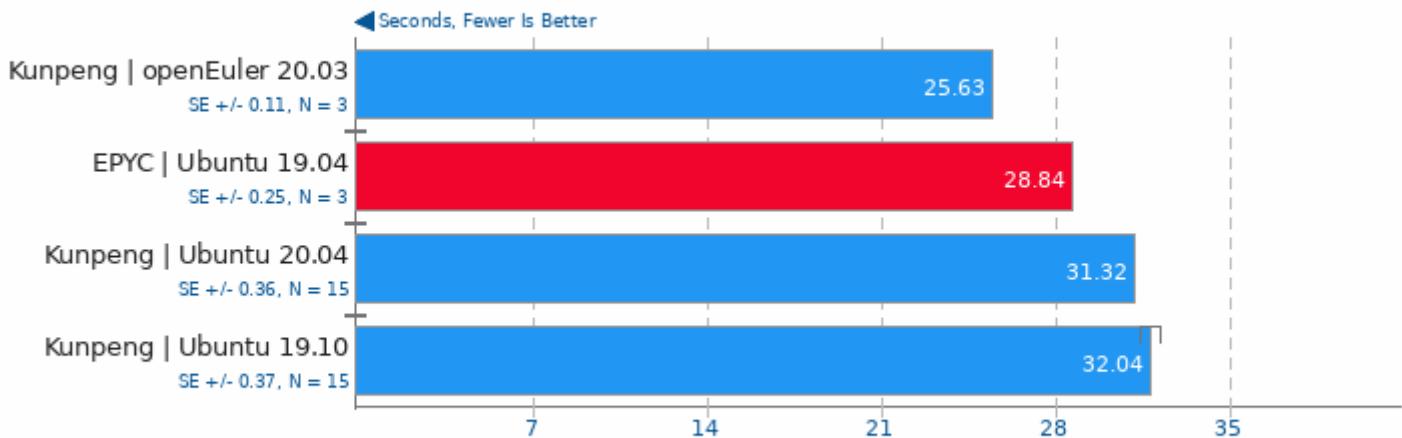
Gzip Compression

Linux Source Tree Archiving To .tar.gz



XZ Compression v5.2.4

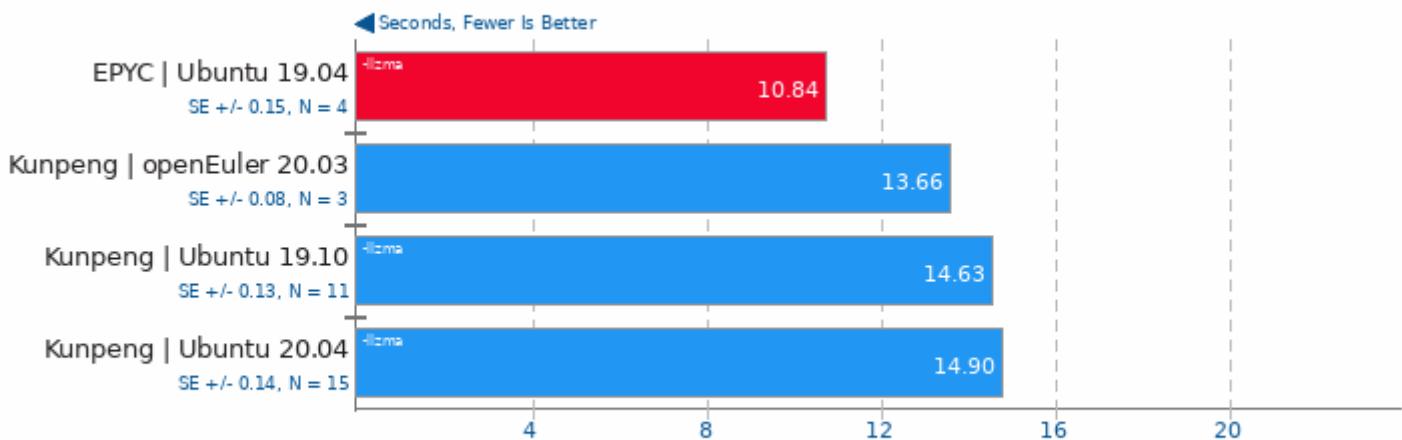
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9



1. (CC) gcc options: -pthread -fvisibility=hidden -O2

Zstd Compression v1.3.4

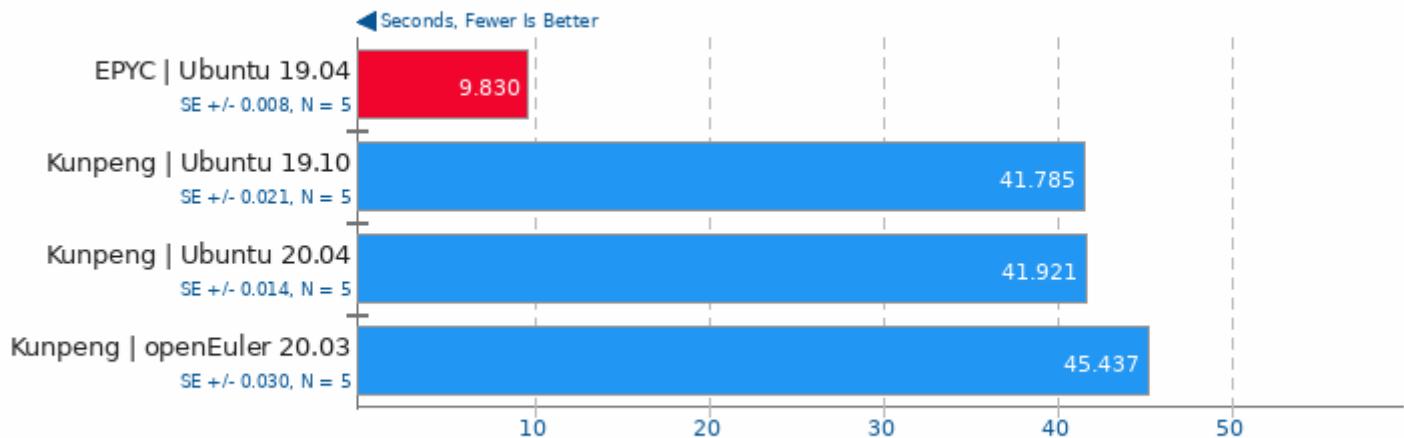
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 19



1. (CC) gcc options: -O3 -pthread -lz

FLAC Audio Encoding v1.3.2

WAV To FLAC



1. (CXX) g++ options: -O2 -fvisibility=hidden -fno-rtti

LAME MP3 Encoding v3.100

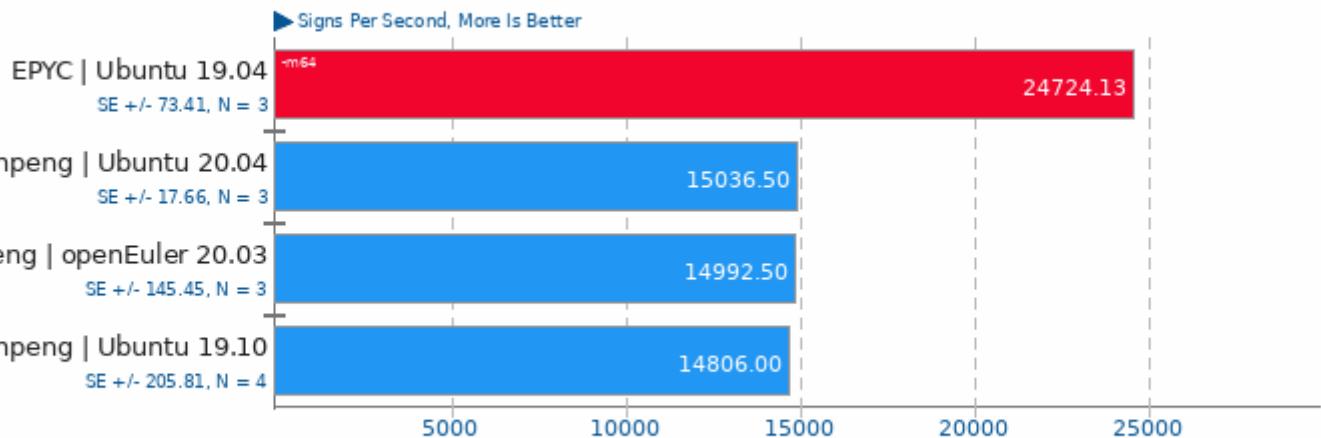
WAV To MP3



1. (CC) gcc options: -fno-rtti

OpenSSL v1.1.1

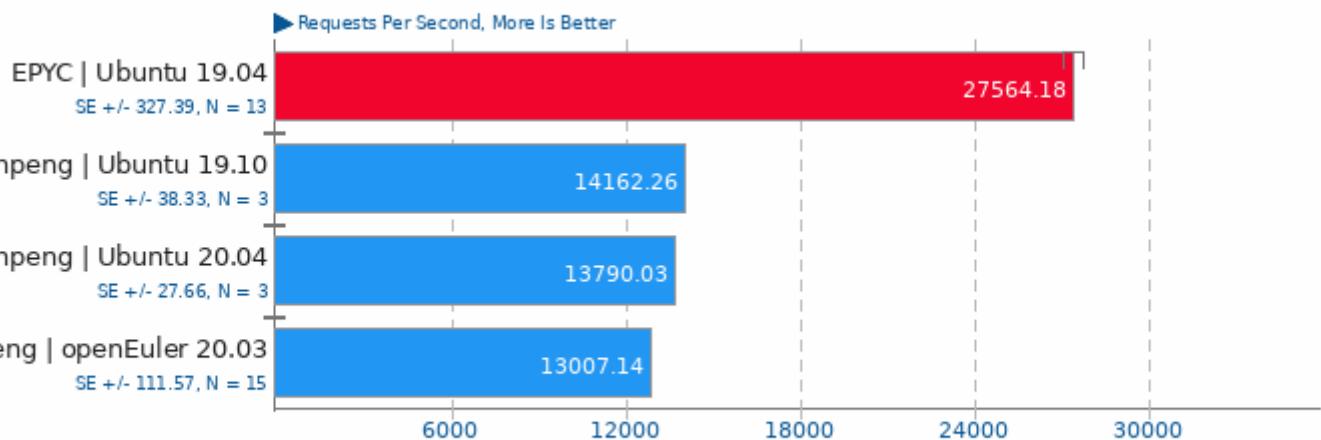
RSA 4096-bit Performance



1. (CC) gcc options: -pthread -O3 -lssl -lcrypto -ldl

Apache Benchmark v2.4.29

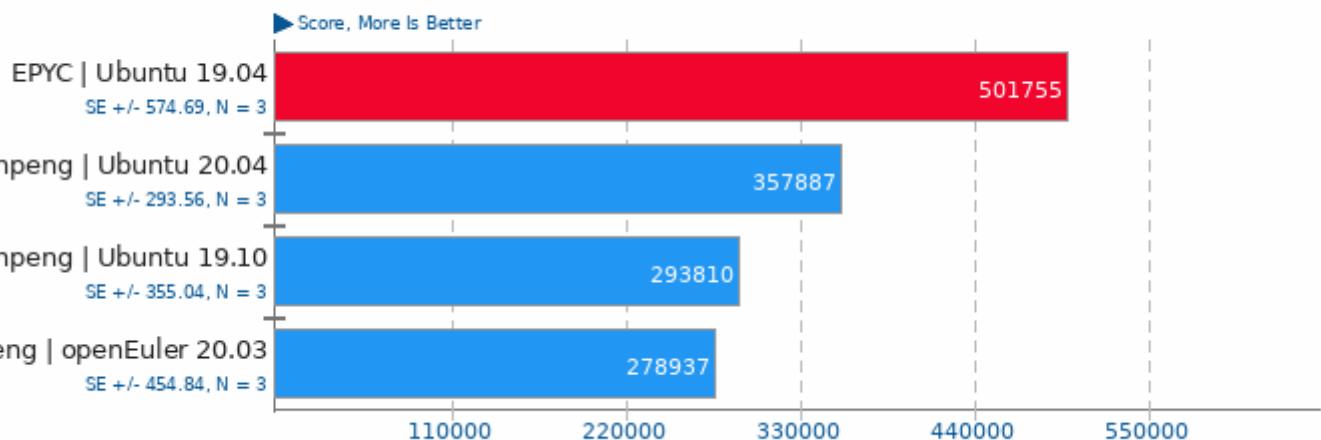
Static Web Page Serving



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

PHPBench v0.8.1

PHP Benchmark Suite



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

Geometric Mean Of Audio Encoding Tests

Result Composite



Geometric mean based upon tests: pts/encode-mp3 and pts/encode-flac

Geometric Mean Of C/C++ Compiler Tests Tests

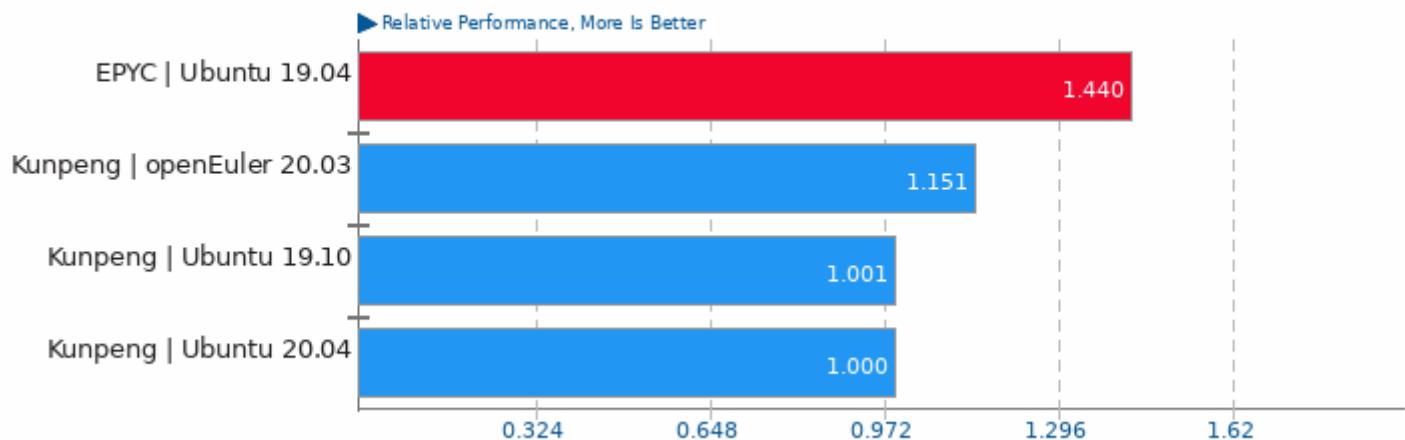
Result Composite



Geometric mean based upon tests: pts/stockfish, pts/c-ray, pts/compress-7zip, pts/encode-mp3, pts/encode-flac and pts/apache

Geometric Mean Of Timed File Compression Tests

Result Composite



Geometric mean based upon tests: pts/compress-7zip, pts/compress-gzip, pts/compress-zstd and pts/compress-xz

Geometric Mean Of Creator Workloads Tests

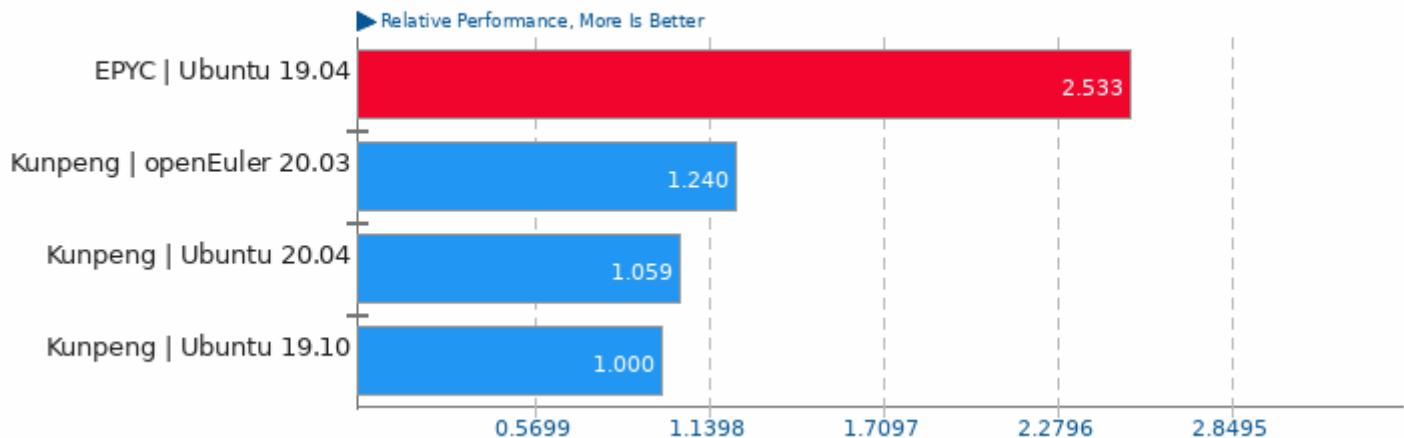
Result Composite



Geometric mean based upon tests: pts/c-ray, pts/povray, pts/smallpt, pts/encode-mp3 and pts/encode-flac

Geometric Mean Of Cryptography Tests

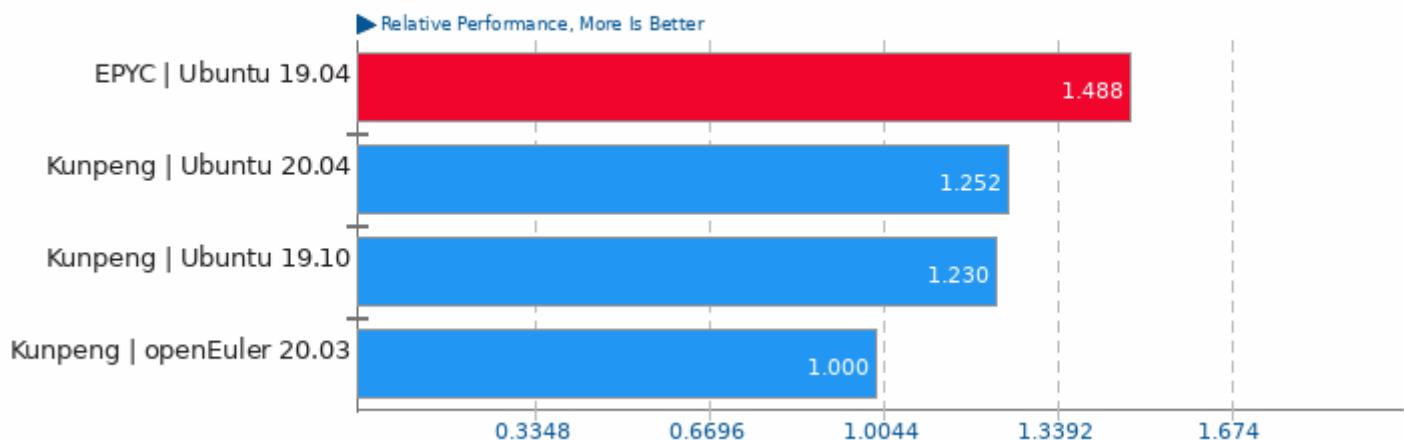
Result Composite



Geometric mean based upon tests: pts/openssl and pts/john-the-ripper

Geometric Mean Of Disk Test Suite Tests

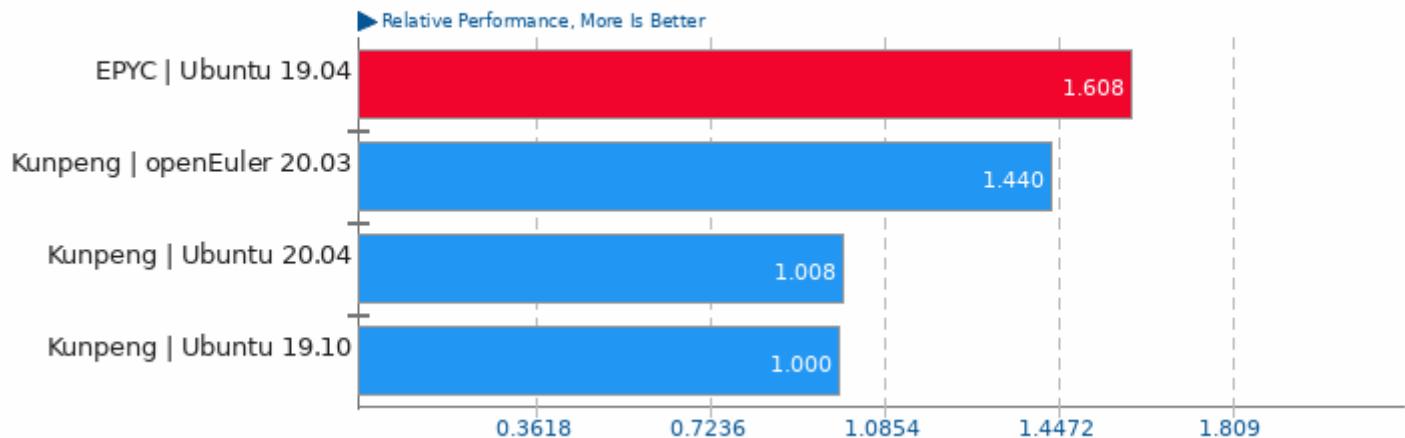
Result Composite



Geometric mean based upon tests: pts/dbench and pts/postmark

Geometric Mean Of Java Tests

Result Composite



Geometric mean based upon tests: pts/sunflow, pts/bork and pts/dacapobench

Geometric Mean Of Kernel Tests

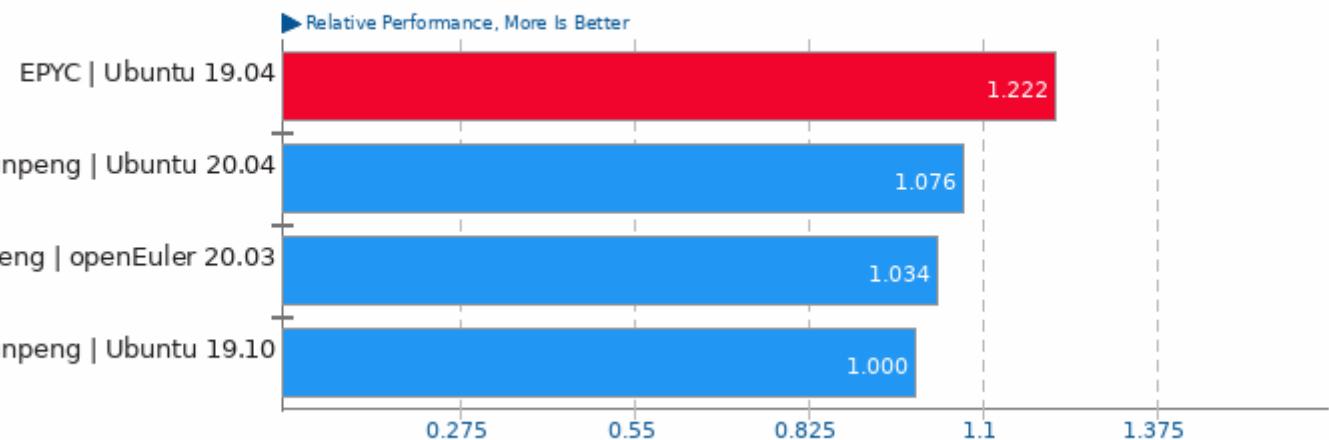
Result Composite



Geometric mean based upon tests: pts/apache, pts/compress-7zip, pts/encode-mp3, pts/openssl, pts/c-ray, pts/dbench, pts/postmark and pts/osbench

Geometric Mean Of Memory Test Suite Tests

Result Composite



Geometric mean based upon tests: pts/stream, pts/tinymembench and pts/mbw

Geometric Mean Of Multi-Core Tests

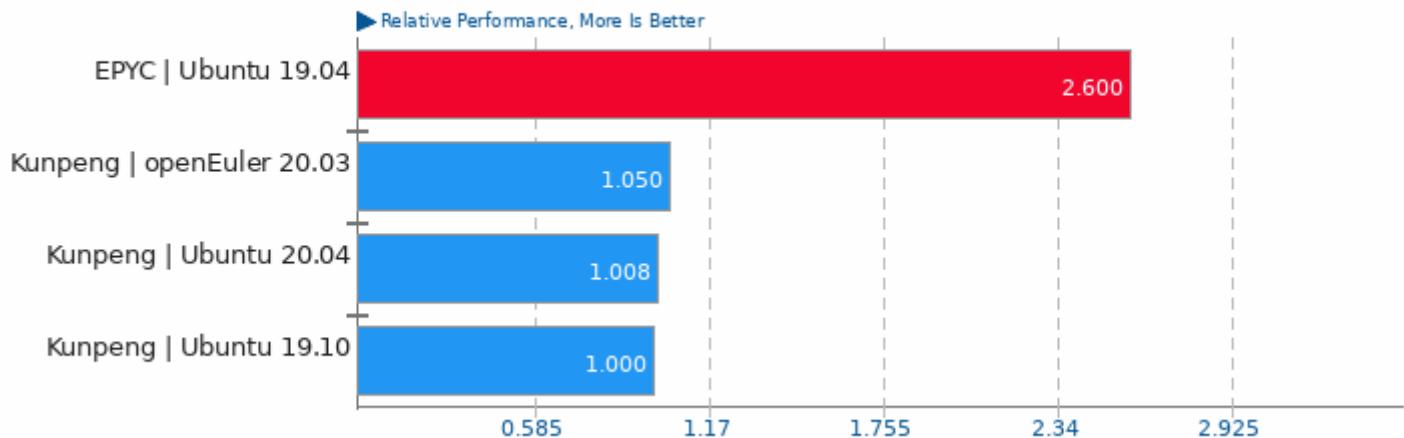
Result Composite



Geometric mean based upon tests: pts/c-ray, pts/stockfish, pts/rodinia, pts/povray, pts/smallpt and pts/compress-7zip

Geometric Mean Of Raytracing Tests

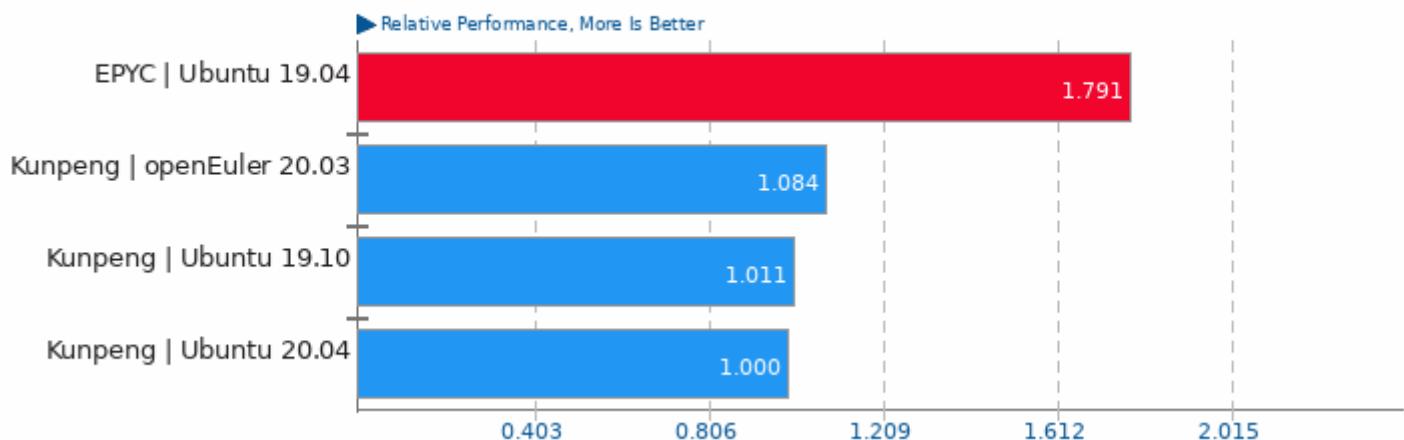
Result Composite



Geometric mean based upon tests: pts/c-ray and pts/povray

Geometric Mean Of Renderers Tests

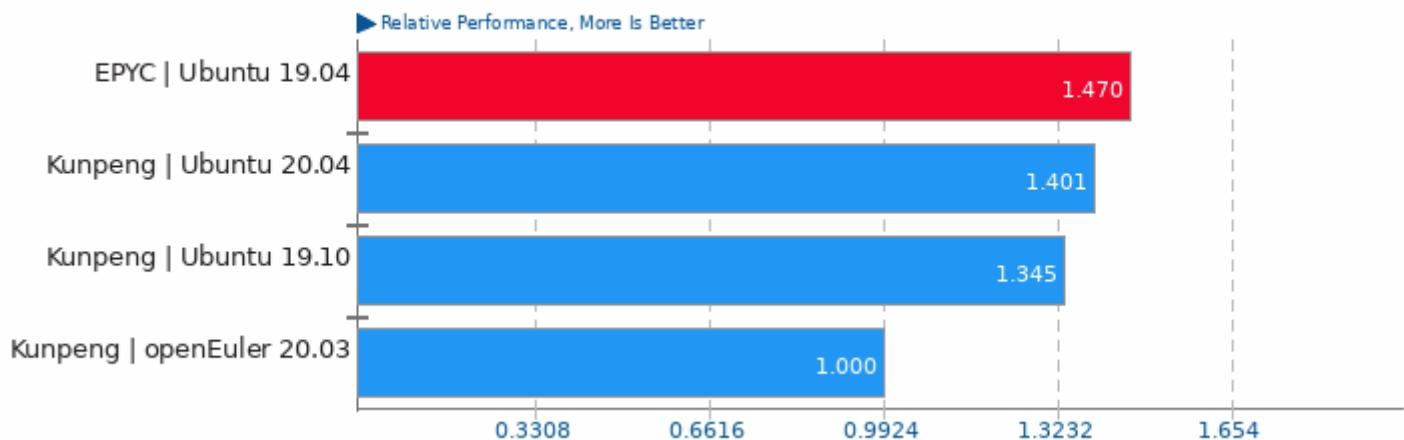
Result Composite



Geometric mean based upon tests: pts/c-ray, pts/povray and pts/smallpt

Geometric Mean Of Server Motherboard Tests

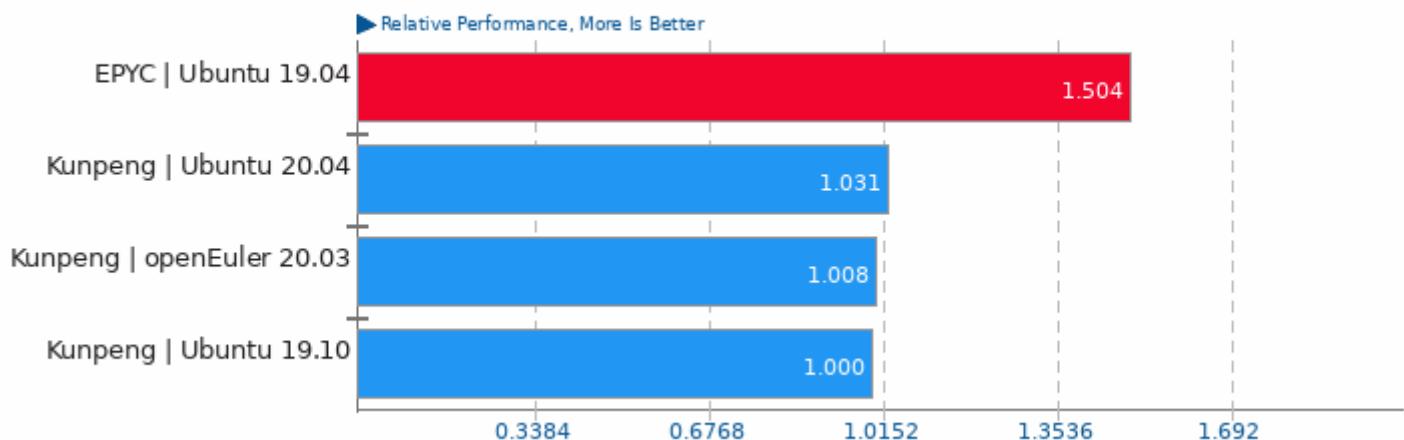
Result Composite



Geometric mean based upon tests: pts/apache, pts/phpbench and pts/stream

Geometric Mean Of Single-Threaded Tests

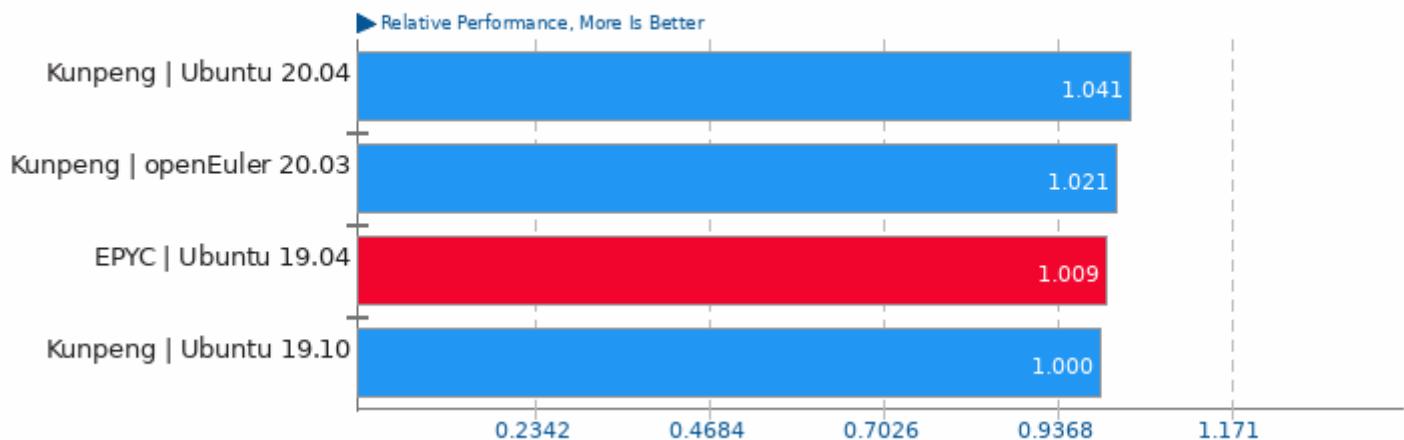
Result Composite



Geometric mean based upon tests: pts/bork, pts/node-octane, pts/compress-gzip, pts/encode-flac, pts/encode-mp3 and pts/phpbench

Geometric Mean Of Workstation Tests

Result Composite



Geometric mean based upon tests: pts/rodinia and pts/sysbench

This file was automatically generated via the Phoronix Test Suite benchmarking software on Monday, 11 May 2020 22:44.