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stock-test, zfs

Intel Core i7-6500U testing with a Purism Librem 15 v3 v3.0 (4.6-a86d1b-Purism-4 BIOS) and Intel Skylake GT2 [HD 520] on Ubuntu 19.10 via the Phoronix Test Suite Stock 19.10

zfs: Intel Core i7-6500U testing with a Purism Librem 15 v3 v3.0 (4.6-a86d1b-Purism-4 BIOS) and Intel HD 520 3GB on Ubuntu 19.10 via the Phoronix Test Suite.

Automated Executive Summary

ubuntu 19.10 with zfs had the most wins, coming in first place for 54% of the tests.

Based on the geometric mean of all complete results, the fastest (stock-test) was 1.131x the speed of the slowest (ubuntu 19.10 with zfs).

Test Systems:

stock-test

Processor: Intel Core i7-6500U @ 3.10GHz (2 Cores / 4 Threads), Motherboard: Purism Librem 15 v3 v3.0 (4.6-a86d1b-Purism-4 BIOS), Chipset: Intel Xeon E3-1200 v5/E3-1500, Memory: 16384MB, Disk: 500GB Samsung SSD 850 + 16GB USB DISK 3.0, Graphics: Intel Skylake GT2 [HD 520] (1050MHz), Audio: Realtek ALC269VC, Network: Qualcomm Atheros AR9462

OS: Ubuntu 19.10, Kernel: 5.3.0-18-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1, Compiler: GCC 9.2.1 20191008, File-System: ext4, Screen Resolution: 1920x1080

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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-offload-targets=nvptx-none,hsa --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=auto --with-tune=generic --without-cuda-driver -v

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw

Processor Notes: Scaling Governor: intel_pstate powersave

Python Notes: Python 2.7.17rc1 + Python 3.7.5rc1

Security Notes: l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

ubuntu 19.10 with zfs

Processor: Intel Core i7-6500U @ 3.10GHz (2 Cores / 4 Threads), Motherboard: Purism Librem 15 v3 v3.0 (4.6-a86d1b-Purism-4 BIOS), Chipset: Intel Xeon E3-1200 v5/E3-1500, Memory: 16384MB, Disk: 500GB Samsung SSD 850, Graphics: Intel HD 520 3GB (1050MHz), Audio: Realtek ALC269VC, Network: Qualcomm Atheros AR9462

OS: Ubuntu 19.10, Kernel: 5.3.0-18-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1, Compiler: GCC 9.2.1 20191008, File-System: zfs, Screen Resolution: 1920x1080

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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-offload-targets=nvptx-none,hsa --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=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: intel_pstate powersave

Disk Scheduler Notes: MQ-DEADLINE

Python Notes: Python 2.7.17rc1 + Python 3.7.5rc1

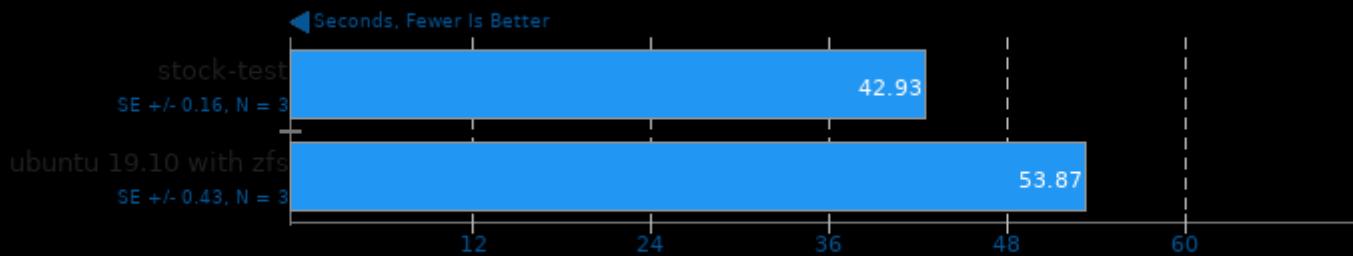
Security Notes: l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

	stock-test	ubuntu 19.10 with zfs
SQLite - T.S.I (sec)	42.93	53.87
Normalized	100%	79.69%
Standard Deviation	0.7%	1.4%
FS-Mark - 1.F.1.S (Files/s)	87.57	143.57
Normalized	60.99%	100%
Standard Deviation	0.3%	2.1%
FS-Mark - 5.F.1.S.4.T (Files/s)	129.80	176.37
Normalized	73.6%	100%
Standard Deviation	2.4%	2.2%
FS-Mark - 4.F.3.S.D.1.S (Files/s)	62.39	98.96
Normalized	63.05%	100%

	Standard Deviation	4.2%	11.5%
FS-Mark - 1.F.1.S.N.S.F (Files/s)	1534	866.43	
	Normalized	100%	56.5%
	Standard Deviation	1.3%	2%
Dbench - 12 Clients (MB/s)	298.05	412.24	
	Normalized	72.3%	100%
	Standard Deviation	2.6%	7.1%
Dbench - 1 Clients (MB/s)	54.09	64.78	
	Normalized	83.5%	100%
	Standard Deviation	0.6%	0.1%
Compile Bench - Compile (MB/s)	647.58	998.10	
	Normalized	64.88%	100%
	Standard Deviation	0.9%	1.3%
Compile Bench - Initial Create (MB/s)	373.56	125.31	
	Normalized	100%	33.54%
	Standard Deviation	1%	1.8%
Compile Bench - Read Compiled Tree (MB/s)	1954	814.93	
	Normalized	100%	41.7%
	Standard Deviation	0.4%	1.3%
PostMark - D.T.P (TPS)	4213	1908	
	Normalized	100%	45.29%
	Standard Deviation	1%	

SQLite 3.22

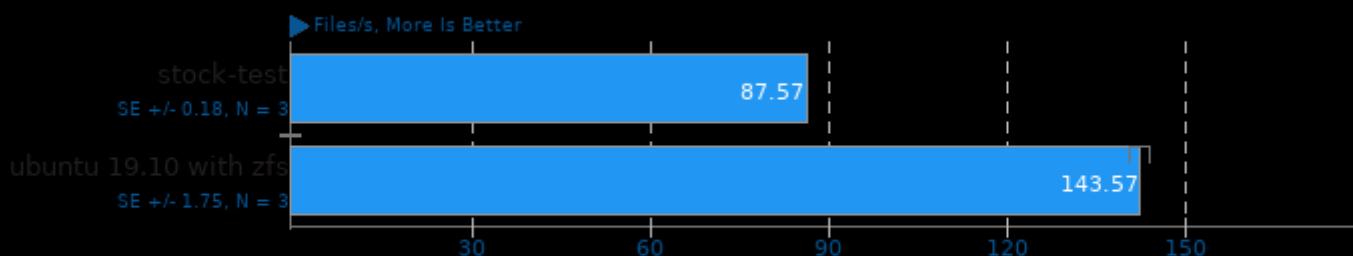
Timed SQLite Insertions



1. (CC) gcc options: -O2 -ldl -lpthread

FS-Mark 3.3

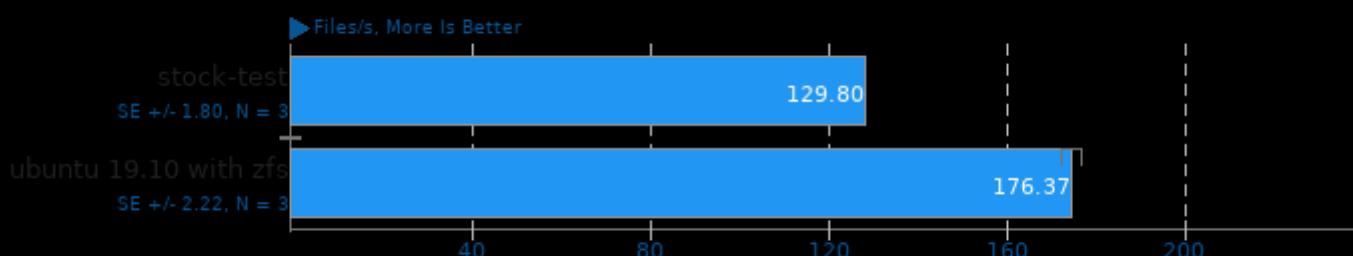
Test: 1000 Files, 1MB Size



1. (CC) gcc options: -static

FS-Mark 3.3

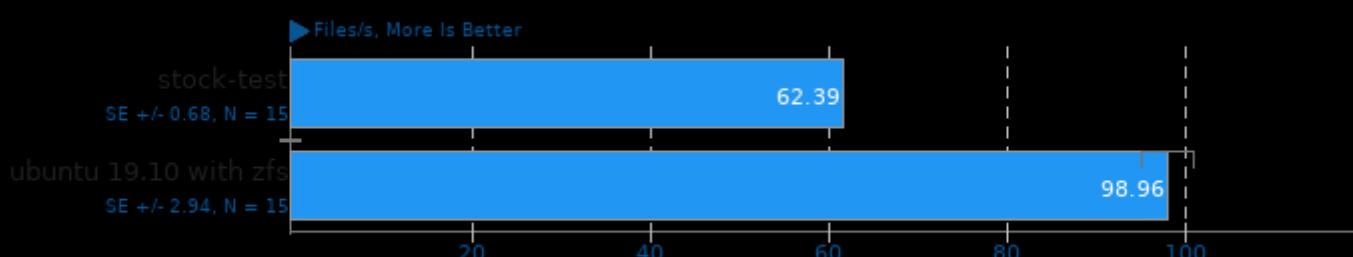
Test: 5000 Files, 1MB Size, 4 Threads



1. (CC) gcc options: -static

FS-Mark 3.3

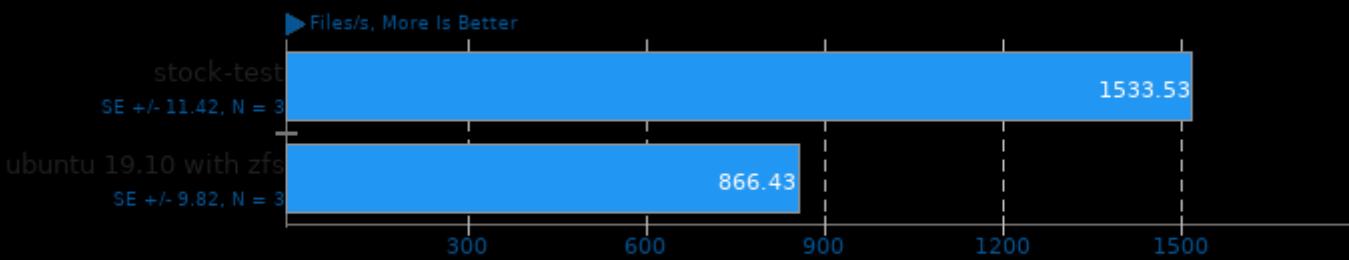
Test: 4000 Files, 32 Sub Dirs, 1MB Size



1. (CC) gcc options: -static

FS-Mark 3.3

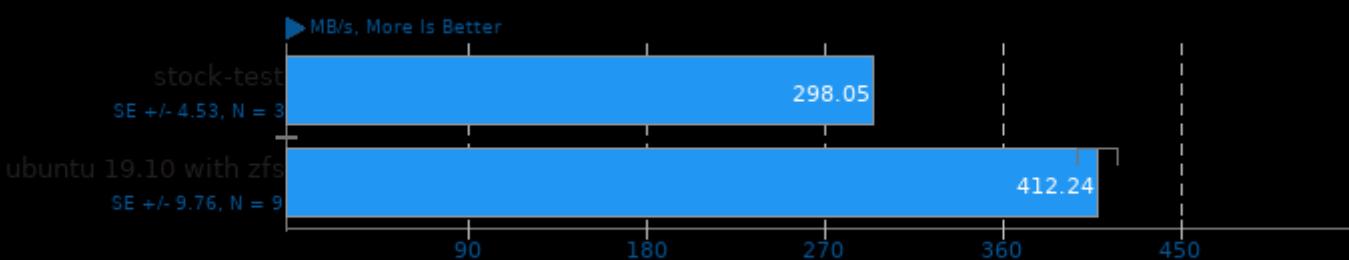
Test: 1000 Files, 1MB Size, No Sync/FSync



1. (CC) gcc options: -static

Dbench 4.0

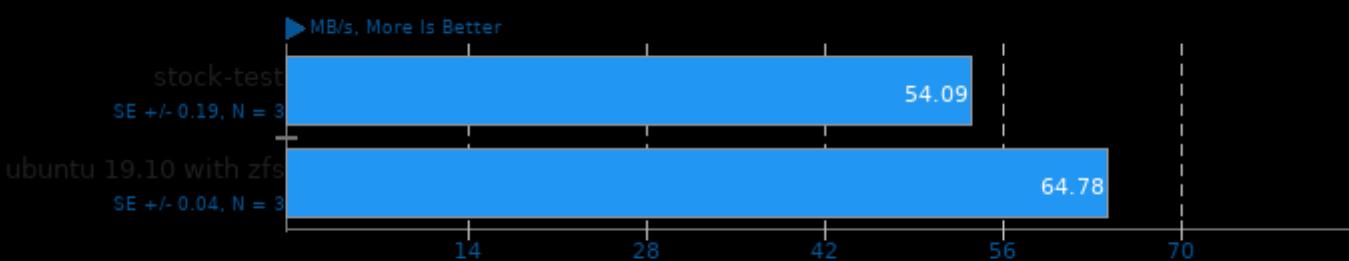
12 Clients



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

Dbench 4.0

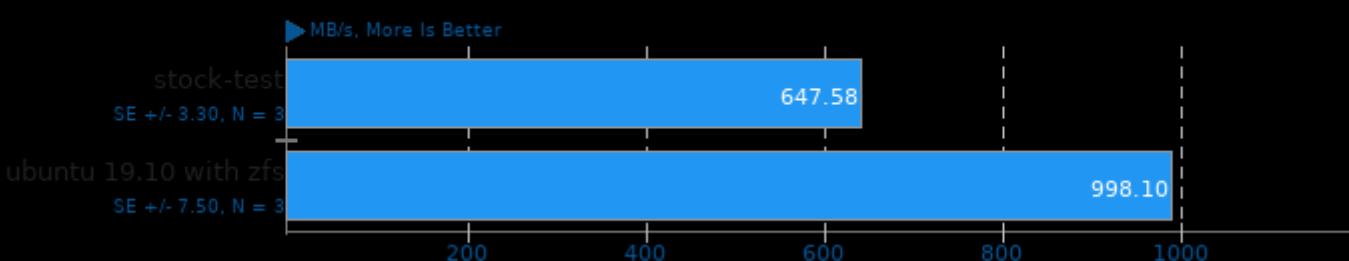
1 Clients



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

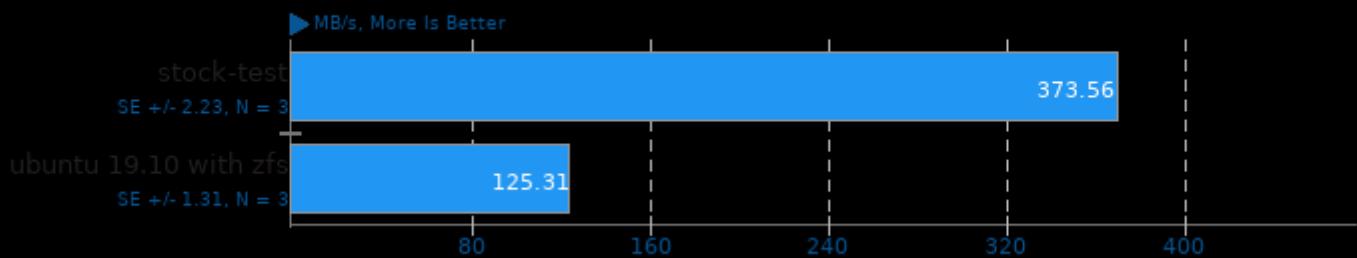
Compile Bench 0.6

Test: Compile



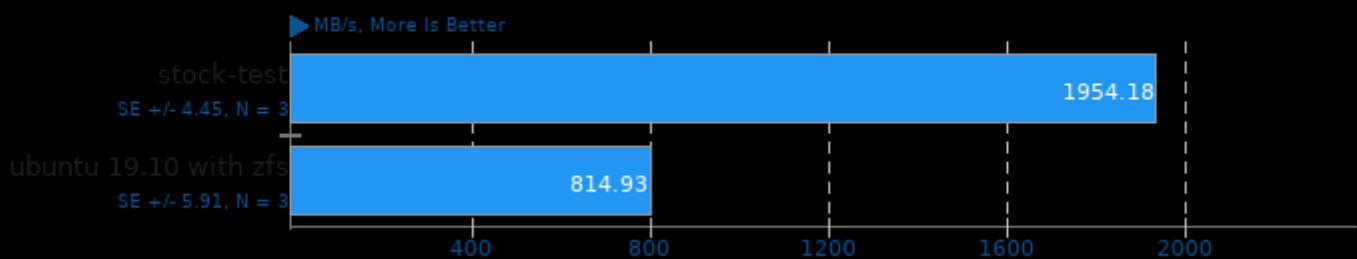
Compile Bench 0.6

Test: Initial Create



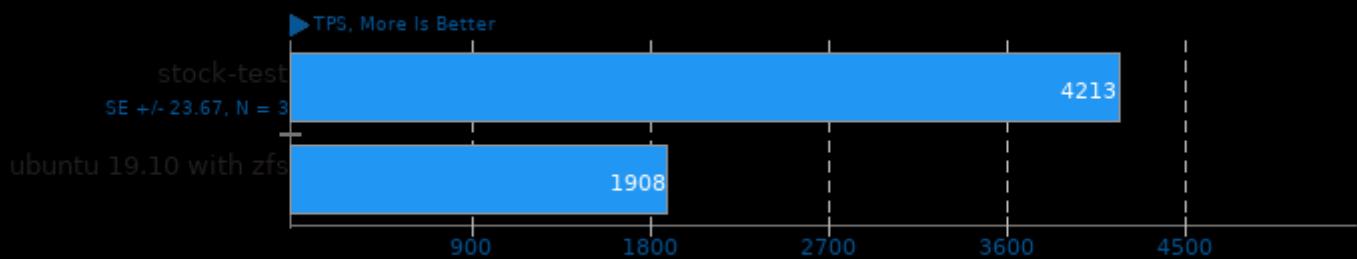
Compile Bench 0.6

Test: Read Compiled Tree



PostMark 1.51

Disk Transaction Performance



1. (CC) gcc options: -O3

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



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 08:35.