



www.phoronix-test-suite.com

ol79-fw4-try2

2 x Intel Xeon E5-2680 v3 testing with a Cisco UCSB-B200-M4 (B200M4.4.1.1b.0.1112191544 BIOS) and Matrox MGA G200e [Pilot] on OracleServer 8.3 via the Phoronix Test Suite.

Test Systems:

12 x 322GB FlashArray

Processor: 2 x Intel Xeon E5-2680 v3 @ 3.30GHz (24 Cores / 48 Threads), Motherboard: Cisco UCSB-B200-M4 (B200M4.4.1.1b.0.1112191544 BIOS), Chipset: Intel Xeon E7 v3/Xeon, Memory: 16 x 32 GB DDR4-2133MT/s M393A4K40BB0-CPB, Disk: 12 x 322GB FlashArray + 12 x 54GB FlashArray, Graphics: Matrox MGA G200e [Pilot], Network: 2 x Cisco VIC NIC

OS: OracleServer 8.3, Kernel: 5.4.17-2011.7.4.el8uek.x86_64 (x86_64), Display Driver: matrox, Compiler: GCC 8.3.1 20191121 + Clang 10.0.1, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
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: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw / Block Size: 4096
 Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0x43
 Java Notes: OpenJDK Runtime Environment (build 1.8.0_265-b01)
 Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 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 + srbs: Not affected + tsx_async_abort: Not affected

12 x 322GB FlashArray

LevelDB - Hot Read (us/Op)	51.508
Standard Deviation	3%
LevelDB - Fill Sync (MB/s)	2.9
Standard Deviation	7.1%
LevelDB - Fill Sync (us/Op)	1810
Standard Deviation	6.5%
LevelDB - Overwrite (MB/s)	24.5
Standard Deviation	0.5%
LevelDB - Overwrite (us/Op)	216.527
Standard Deviation	0.4%
LevelDB - Rand Fill (MB/s)	24.2
Standard Deviation	0.6%
LevelDB - Rand Fill (us/Op)	219.558
Standard Deviation	0.6%
LevelDB - Rand Read (us/Op)	51.064
Standard Deviation	1.3%
LevelDB - Seek Rand (us/Op)	64.673
Standard Deviation	1%
LevelDB - Rand Delete (us/Op)	204.832
Standard Deviation	0.8%
LevelDB - Seq Fill (MB/s)	24.6
Standard Deviation	1.1%
LevelDB - Seq Fill (us/Op)	215.330
Standard Deviation	1.1%
SQLite - 1 (sec)	15.118
Standard Deviation	0.3%
BlogBench - Read (Final Score)	2514927
Standard Deviation	1.4%
BlogBench - Write (Final Score)	7995
Standard Deviation	2%
Node.js Express HTTP Load Test (Req/sec)	5515
Standard Deviation	1.6%
ebizzy (Records/s)	623909
Standard Deviation	7.1%
Perl Benchmarks - Pod2html (sec)	0.15660520
Standard Deviation	1.1%
Perl Benchmarks - Interpreter (sec)	0.00149612
Standard Deviation	1.2%
OpenSSL - R.4.b.P (Signs/sec)	3144
Standard Deviation	0.1%
Apache CouchDB - 100 - 1000 - 24 (sec)	103.820

	Standard Deviation	0.3%
PostgreSQL pgbench - 1 - 1 - Read Only (TPS)	18481	
	Standard Deviation	1.6%
PostgreSQL pgbench - 1 - 1 - Read Only - Average Latency (ms)	0.054	
	Standard Deviation	2.1%
PostgreSQL pgbench - 1 - 1 - Read Write (TPS)	1130	
	Standard Deviation	0.4%
PostgreSQL pgbench - 1 - 1 - Read Write - Average Latency (ms)	0.886	
	Standard Deviation	0.4%
PostgreSQL pgbench - 1 - 50 - Read Only (TPS)	446011	
	Standard Deviation	0.3%
PostgreSQL pgbench - 1 - 50 - Read Only - Average Latency (ms)	0.112	
	Standard Deviation	0%
PostgreSQL pgbench - 1 - 100 - Read Only (TPS)	437258	
	Standard Deviation	0.2%
PostgreSQL pgbench - 1 - 100 - Read Only - Average Latency (ms)	0.229	
	Standard Deviation	0.3%
PostgreSQL pgbench - 1 - 250 - Read Only (TPS)	439267	
	Standard Deviation	0.3%
PostgreSQL pgbench - 1 - 250 - Read Only - Average Latency (ms)	0.570	
	Standard Deviation	0.4%
PostgreSQL pgbench - 1 - 50 - Read Write (TPS)	1693	
	Standard Deviation	0.4%
PostgreSQL pgbench - 1 - 50 - Read Write - Average Latency (ms)	29.548	
	Standard Deviation	0.4%
PostgreSQL pgbench - 100 - 1 - Read Only (TPS)	15055	
	Standard Deviation	2.1%
PostgreSQL pgbench - 100 - 1 - Read Only - Average Latency (ms)	0.066	
	Standard Deviation	1.7%
PostgreSQL pgbench - 1 - 100 - Read Write (TPS)	1499	
	Standard Deviation	2.1%
PostgreSQL pgbench - 1 - 100 - Read Write - Average Latency (ms)	66.772	
	Standard Deviation	2.1%
PostgreSQL pgbench - 1 - 250 - Read Write (TPS)	1429	
	Standard Deviation	7%
PostgreSQL pgbench - 1 - 250 - Read Write - Average Latency (ms)	175.898	
	Standard Deviation	7.4%
PostgreSQL pgbench - 100 - 1 - Read Write (TPS)	970	
	Standard Deviation	7.7%
PostgreSQL pgbench - 100 - 1 - Read Write - Average Latency (ms)	1.038	
	Standard Deviation	9.6%
PostgreSQL pgbench - 100 - 50 - Read Only (TPS)	362578	
	Standard Deviation	0.4%
PostgreSQL pgbench - 100 - 50 - Read Only - Average Latency (ms)	0.138	
	Standard Deviation	0.4%
PostgreSQL pgbench - 1000 - 1 - Read Only (TPS)	14058	
	Standard Deviation	1.6%
PostgreSQL pgbench - 1000 - 1 - Read Only - Average Latency (ms)	0.071	
	Standard Deviation	1.4%
PostgreSQL pgbench - 100 - 100 - Read Only (TPS)	368674	
	Standard Deviation	0.1%
PostgreSQL pgbench - 100 - 100 - Read Only - Average Latency	0.272	
	Standard Deviation	0.2%

PostgreSQL pgbench - 100 - 250 - Read Only (TPS)	355437
Standard Deviation	0.1%
PostgreSQL pgbench - 100 - 250 - Read Only - Average Latency	0.704
Standard Deviation	0.1%
PostgreSQL pgbench - 100 - 50 - Read Write (TPS)	18418
Standard Deviation	1.7%
PostgreSQL pgbench - 100 - 50 - Read Write - Average Latency	2.716
Standard Deviation	1.7%
PostgreSQL pgbench - 1000 - 1 - Read Write (TPS)	914
Standard Deviation	2%
PostgreSQL pgbench - 1000 - 1 - Read Write - Average Latency	1.094
Standard Deviation	2%
PostgreSQL pgbench - 1000 - 50 - Read Only (TPS)	348724
Standard Deviation	0.3%
PostgreSQL pgbench - 1000 - 50 - Read Only - Average Latency	0.144
Standard Deviation	0.4%
PostgreSQL pgbench - 10000 - 1 - Read Only (TPS)	13322
Standard Deviation	2.3%
PostgreSQL pgbench - 10000 - 1 - Read Only - Average Latency	0.075
Standard Deviation	2.3%
PostgreSQL pgbench - 100 - 100 - Read Write (TPS)	22469
Standard Deviation	1.3%
PostgreSQL pgbench - 100 - 100 - Read Write - Average Latency	4.454
Standard Deviation	1.3%
PostgreSQL pgbench - 100 - 250 - Read Write (TPS)	24126
Standard Deviation	2.5%
PostgreSQL pgbench - 100 - 250 - Read Write - Average Latency	10.373
Standard Deviation	2.5%
PostgreSQL pgbench - 1000 - 100 - Read Only (TPS)	355039
Standard Deviation	0.2%
PostgreSQL pgbench - 1000 - 100 - Read Only - Average Latency	0.282
Standard Deviation	0.2%
PostgreSQL pgbench - 1000 - 250 - Read Only (TPS)	339025
Standard Deviation	0.3%
PostgreSQL pgbench - 1000 - 250 - Read Only - Average Latency	0.738
Standard Deviation	0.4%
PostgreSQL pgbench - 1000 - 50 - Read Write (TPS)	14233
Standard Deviation	2%
PostgreSQL pgbench - 1000 - 50 - Read Write - Average Latency	3.516
Standard Deviation	2%
PostgreSQL pgbench - 10000 - 1 - Read Write (TPS)	915
Standard Deviation	2.2%
PostgreSQL pgbench - 10000 - 1 - Read Write - Average Latency	1.093
Standard Deviation	2.2%
PostgreSQL pgbench - 10000 - 50 - Read Only (TPS)	333743
Standard Deviation	0.2%
PostgreSQL pgbench - 10000 - 50 - Read Only - Average Latency	0.150
Standard Deviation	0.4%
PostgreSQL pgbench - 1000 - 100 - Read Write (TPS)	14335
Standard Deviation	12.1%
PostgreSQL pgbench - 1000 - 100 - Read Write - Average Latency	7.076
Standard Deviation	12.8%
PostgreSQL pgbench - 1000 - 250 - Read Write (TPS)	15600

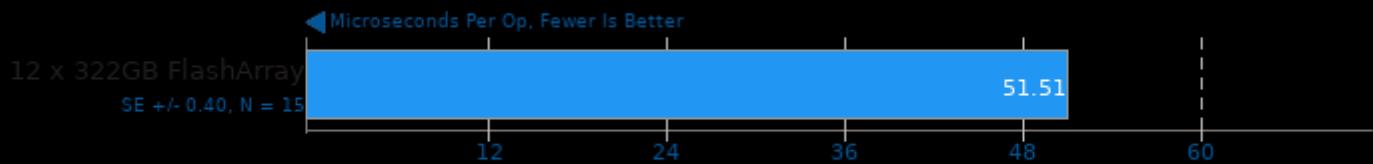
	Standard Deviation	7.7%
PostgreSQL pgbench - 1000 - 250 - Read Write - Average Latency	16.128	
	Standard Deviation	8.2%
PostgreSQL pgbench - 10000 - 100 - Read Only (TPS)	338685	
	Standard Deviation	0.4%
PostgreSQL pgbench - 10000 - 100 - Read Only - Average Latency	0.296	
	Standard Deviation	0.4%
PostgreSQL pgbench - 10000 - 250 - Read Only (TPS)	319243	
	Standard Deviation	0.8%
PostgreSQL pgbench - 10000 - 250 - Read Only - Average Latency	0.784	
	Standard Deviation	0.8%
PostgreSQL pgbench - 10000 - 50 - Read Write (TPS)	10755	
	Standard Deviation	16.6%
PostgreSQL pgbench - 10000 - 50 - Read Write - Average Latency	4.775	
	Standard Deviation	18%
PostgreSQL pgbench - 10000 - 100 - Read Write (TPS)	8967	
	Standard Deviation	23.8%
PostgreSQL pgbench - 10000 - 100 - Read Write - Average Latency	11.774	
	(ms)	
	Standard Deviation	25.4%
PostgreSQL pgbench - 10000 - 250 - Read Write (TPS)	13916	
	Standard Deviation	7%
PostgreSQL pgbench - 10000 - 250 - Read Write - Average Latency	18.054	
	(ms)	
	Standard Deviation	7.2%
SQLite Speedtest - Timed Time - Size 1,000 (sec)	90.371	
	Standard Deviation	0.4%
Memtier_benchmark - Redis (Ops/sec)	1799732	
	Standard Deviation	2.3%
Redis - LPOP (Req/s/sec)	1736924	
	Standard Deviation	1.9%
Redis - SADD (Req/s/sec)	1432731	
	Standard Deviation	3%
Redis - LPUSH (Req/s/sec)	1107223	
	Standard Deviation	3.1%
Redis - GET (Req/s/sec)	1676464	
	Standard Deviation	2.3%
Redis - SET (Req/s/sec)	1321468	
	Standard Deviation	2.5%
Apache Cassandra - Reads (Op/s)	40186	
	Standard Deviation	73.7%
Apache Cassandra - Writes (Op/s)	159107	
	Standard Deviation	8%
Apache Cassandra - Mixed 1:1 (Op/s)	5748	
	Standard Deviation	32.5%
Apache Cassandra - Mixed 1:3 (Op/s)	3386	
	Standard Deviation	31.6%
Facebook RocksDB - Rand Fill (Op/s)	462015	
	Standard Deviation	3.5%
Facebook RocksDB - Rand Read (Op/s)	86645253	
	Standard Deviation	0.6%
Facebook RocksDB - Seq Fill (Op/s)	581590	
	Standard Deviation	4.5%

Facebook RocksDB - Rand Fill Sync (Op/s)	25793
Standard Deviation	1.5%
Facebook RocksDB - Read While Writing (Op/s)	3923453
Standard Deviation	0.8%
NGINX Benchmark - S.W.P.S (Req/sec)	25188
Standard Deviation	0.4%
Apache HBase - Increment - 1 (Rows/sec)	6822
Standard Deviation	2%
Apache HBase - Increment - 1 (us - Latency)	145
Standard Deviation	1.8%
Apache HBase - Increment - 4 (Rows/sec)	21181
Standard Deviation	2.9%
Apache HBase - Increment - 4 (us - Latency)	188
Standard Deviation	3%
Apache HBase - Increment - 16 (Rows/sec)	55997
Standard Deviation	1.6%
Apache HBase - Increment - 16 (us - Latency)	284
Standard Deviation	1.4%
Apache HBase - Increment - 32 (Rows/sec)	77538
Standard Deviation	0.9%
Apache HBase - Increment - 32 (us - Latency)	409
Standard Deviation	0.4%
Apache HBase - Increment - 64 (Rows/sec)	87222
Standard Deviation	1.7%
Apache HBase - Increment - 64 (us - Latency)	730
Standard Deviation	1.6%
Apache HBase - Increment - 128 (Rows/sec)	86037
Standard Deviation	1.1%
Apache HBase - Increment - 128 (us - Latency)	1479
Standard Deviation	1.4%
Apache HBase - Rand Read - 1 (Rows/sec)	8383
Standard Deviation	3.5%
Apache HBase - Rand Read - 1 (us - Latency)	118
Standard Deviation	3.7%
Apache HBase - Rand Read - 4 (Rows/sec)	37225
Standard Deviation	2.1%
Apache HBase - Rand Read - 4 (us - Latency)	106
Standard Deviation	2.4%
Apache HBase - Rand Read - 16 (Rows/sec)	121290
Standard Deviation	1.3%
Apache HBase - Rand Read - 16 (us - Latency)	130
Standard Deviation	1.3%
Apache HBase - Rand Read - 32 (Rows/sec)	164035
Standard Deviation	0.9%
Apache HBase - Rand Read - 32 (us - Latency)	192
Standard Deviation	0.8%
Apache HBase - Rand Read - 64 (Rows/sec)	200909
Standard Deviation	0.4%
Apache HBase - Rand Read - 64 (us - Latency)	314
Standard Deviation	0.4%
Apache HBase - Rand Write - 1 (Rows/sec)	65987
Standard Deviation	5.5%
Apache HBase - Rand Write - 1 (us - Latency)	15

	Standard Deviation	7.3%
Apache HBase - Rand Write - 4 (Rows/sec)	200232	
	Standard Deviation	31.2%
Apache HBase - Rand Write - 4 (us - Latency)	32	
	Standard Deviation	144.4%
Apache HBase - Rand Read - 128 (Rows/sec)	232446	
	Standard Deviation	1.3%
Apache HBase - Rand Read - 128 (us - Latency)	549	
	Standard Deviation	1.2%
Apache HBase - Rand Write - 16 (Rows/sec)	190367	
	Standard Deviation	57.6%
Apache HBase - Rand Write - 16 (us - Latency)	124	
	Standard Deviation	86.2%
Apache Benchmark - S.W.P.S (Req/s)	21563	
	Standard Deviation	0.7%
Apache Siege - 250 (Transactions/sec)	107670	
	Standard Deviation	2.2%
PHPBench - P.B.S (Score)	481639	
	Standard Deviation	0.5%
PHP Micro Benchmarks - Zend bench (sec)	0.522	
	Standard Deviation	0.4%
PHP Micro Benchmarks - Zend micro_bench (sec)	2.754	
	Standard Deviation	0.7%
InfluxDB - 4 - 10000 - 2,5000,1 - 10000 (val/sec)	1131996	
	Standard Deviation	0.2%
InfluxDB - 64 - 10000 - 2,5000,1 - 10000 (val/sec)	1161206	
	Standard Deviation	2.3%
InfluxDB - 1024 - 10000 - 2,5000,1 - 10000 (val/sec)	1140562	
	Standard Deviation	0.8%

LevelDB 1.22

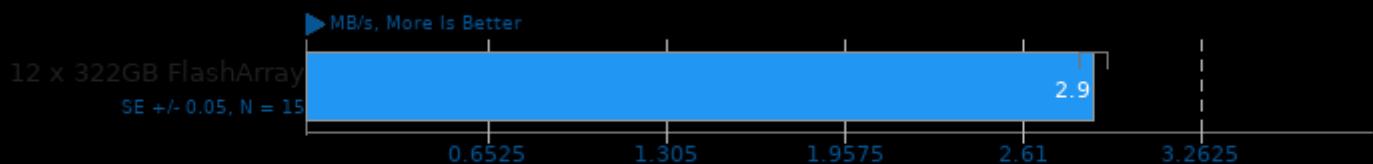
Benchmark: Hot Read



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

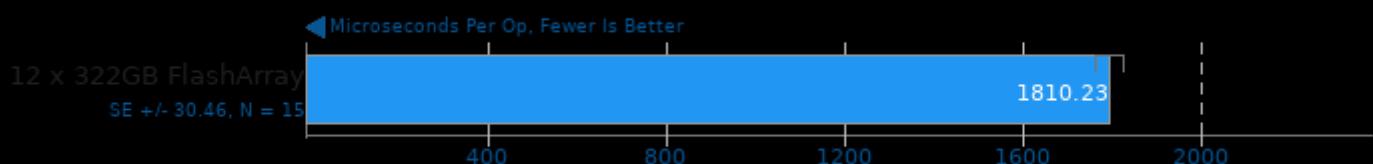
Benchmark: Fill Sync



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

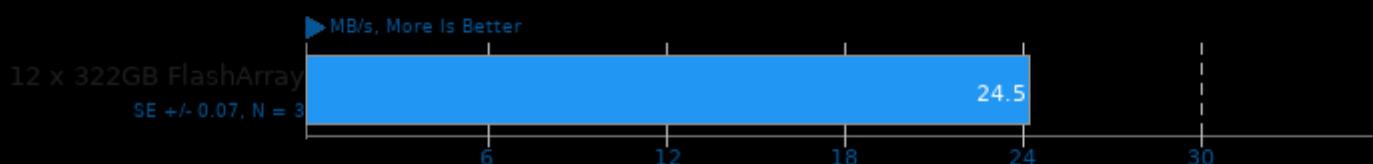
Benchmark: Fill Sync



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

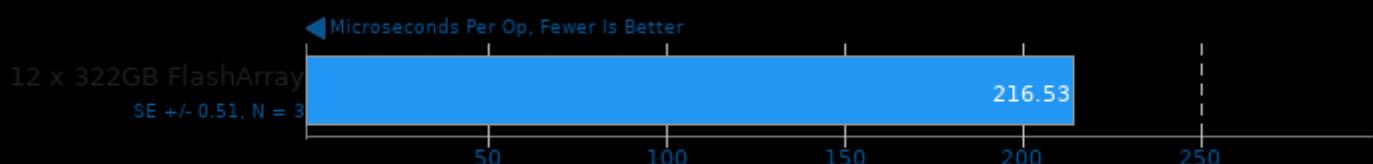
Benchmark: Overwrite



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

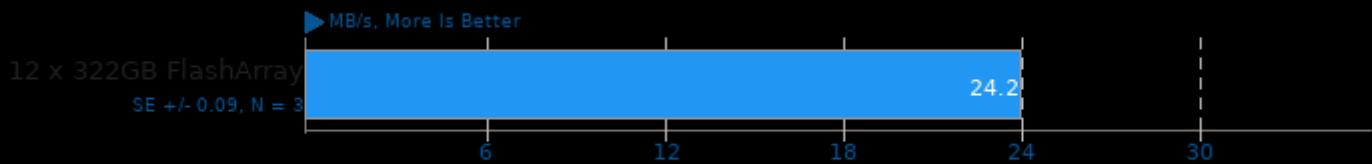
Benchmark: Overwrite



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

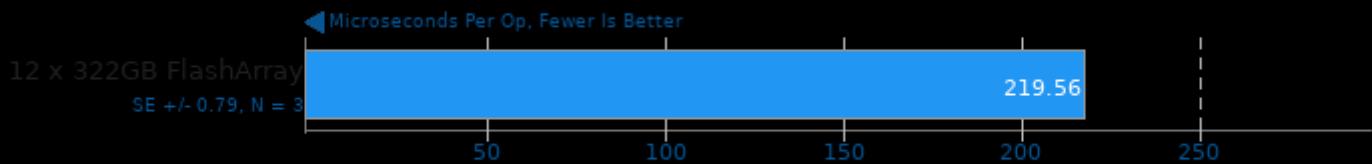
Benchmark: Random Fill



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

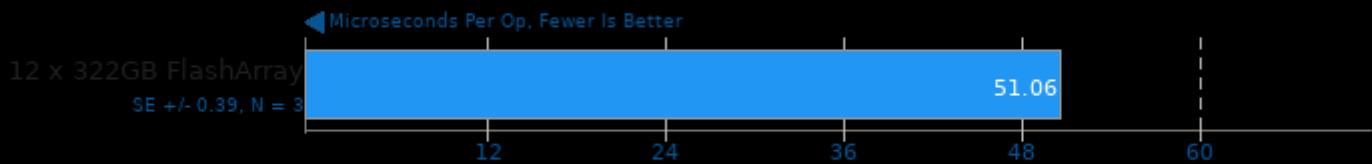
Benchmark: Random Fill



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

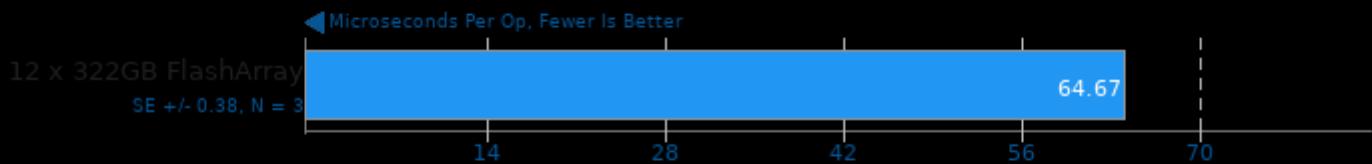
Benchmark: Random Read



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

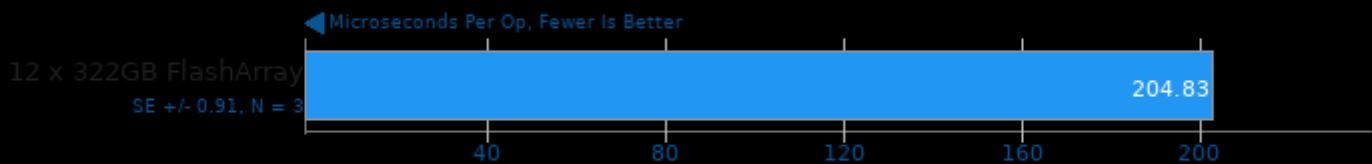
Benchmark: Seek Random



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

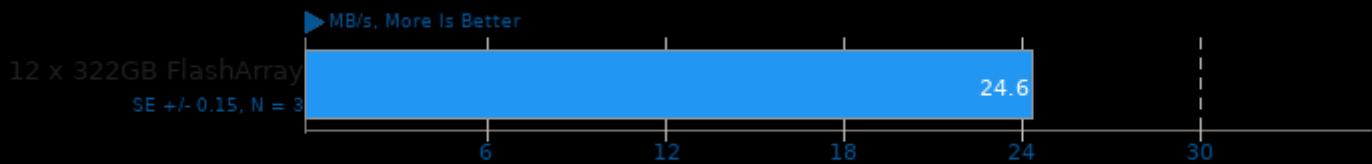
Benchmark: Random Delete



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

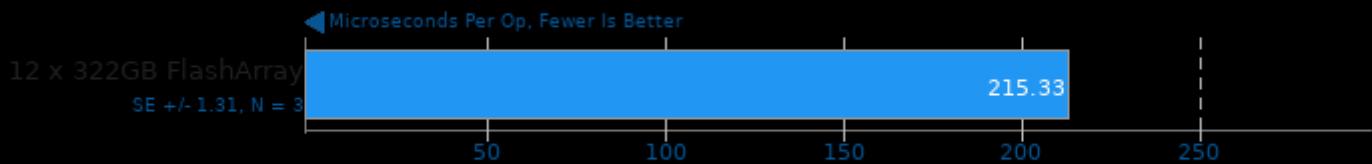
Benchmark: Sequential Fill



1. (CXX) g++ options: -O2 -lsnappy -lpthread

LevelDB 1.22

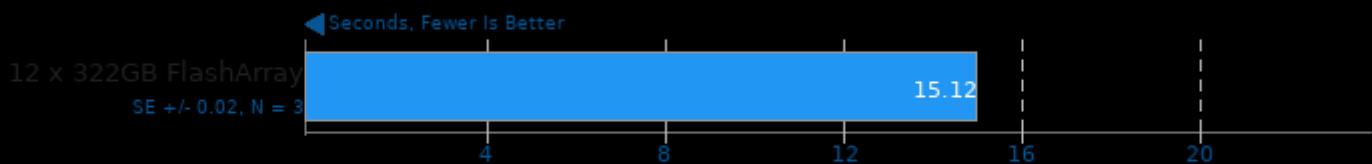
Benchmark: Sequential Fill



1. (CXX) g++ options: -O2 -lsnappy -lpthread

SQLite 3.30.1

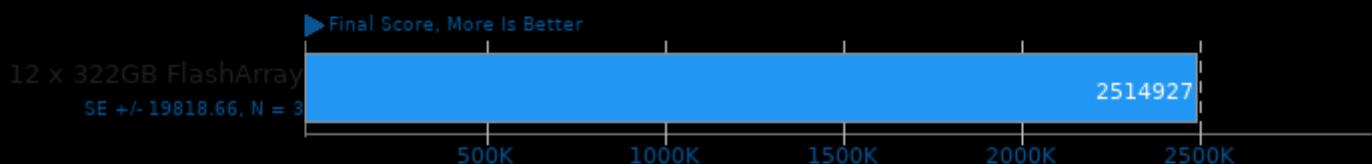
Threads / Copies: 1



1. (CC) gcc options: -O2 -lreadline -ltermcap -lz -lm -ldl -lpthread

BlogBench 1.1

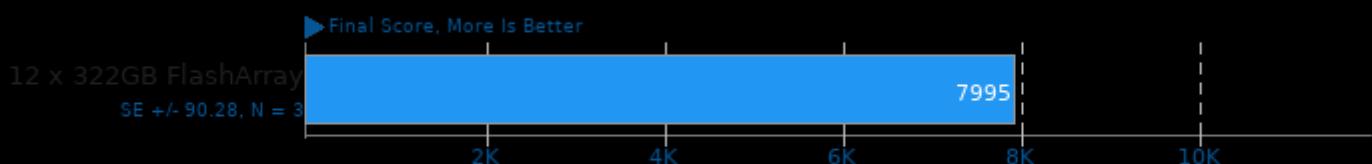
Test: Read



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

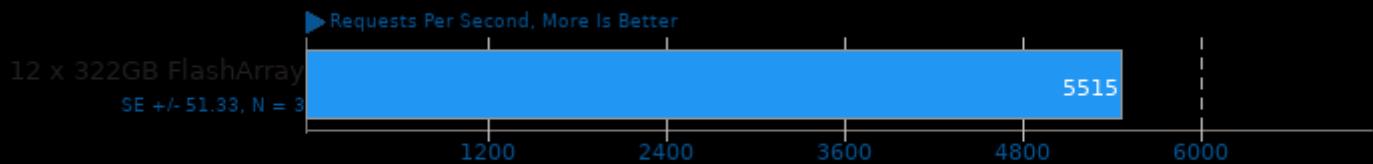
BlogBench 1.1

Test: Write



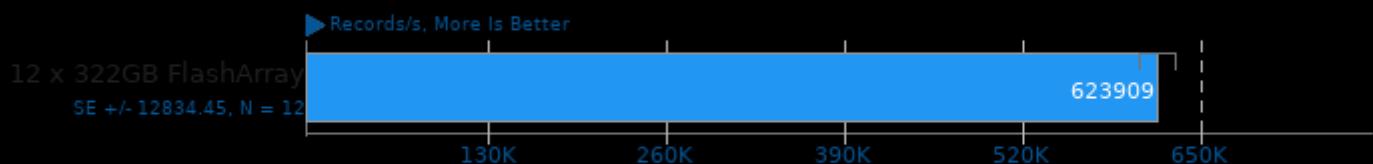
1. (CC) gcc options: -O2 -pthread

Node.js Express HTTP Load Test



1. Nodejs

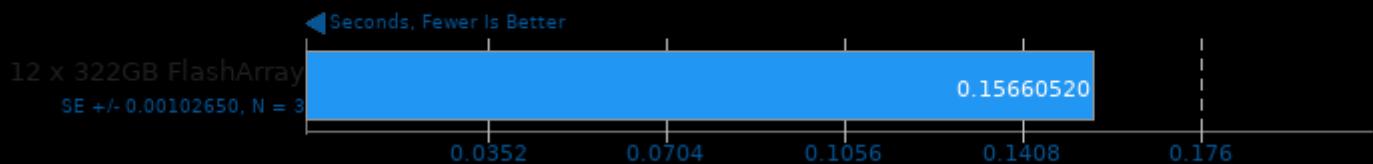
ebizzy 0.3



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

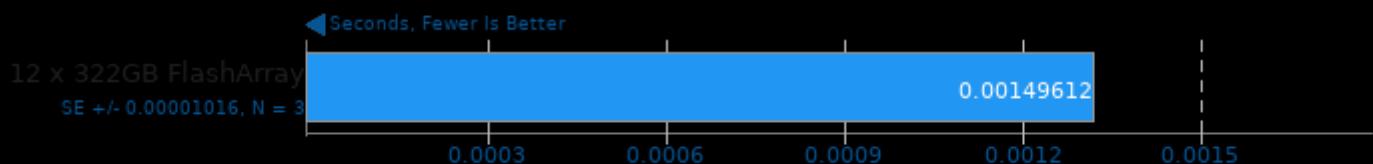
Perl Benchmarks

Test: Pod2html



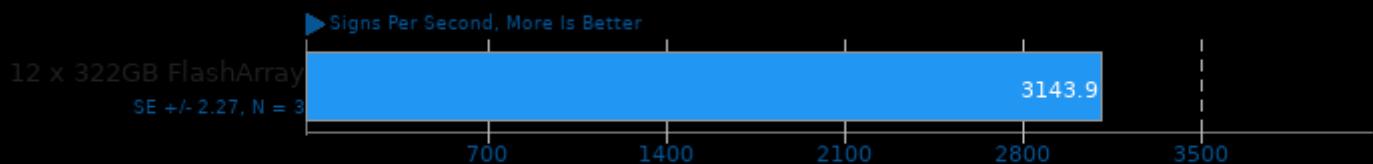
Perl Benchmarks

Test: Interpreter



OpenSSL 1.1.1

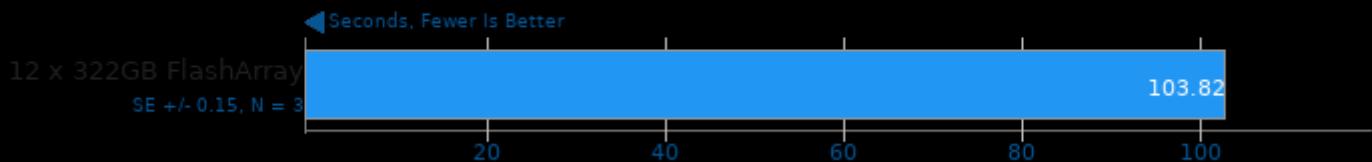
RSA 4096-bit Performance



1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

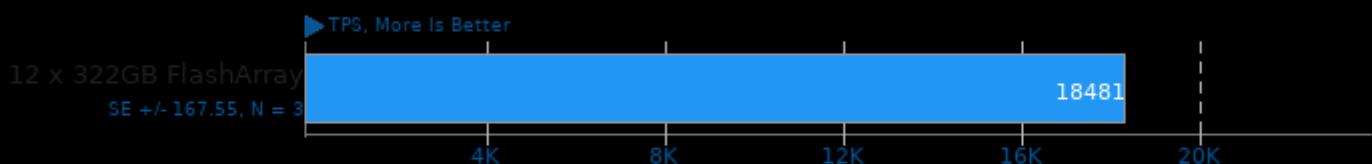
Apache CouchDB 3.1.1

Bulk Size: 100 - Inserts: 1000 - Rounds: 24



PostgreSQL pgbench 13.0

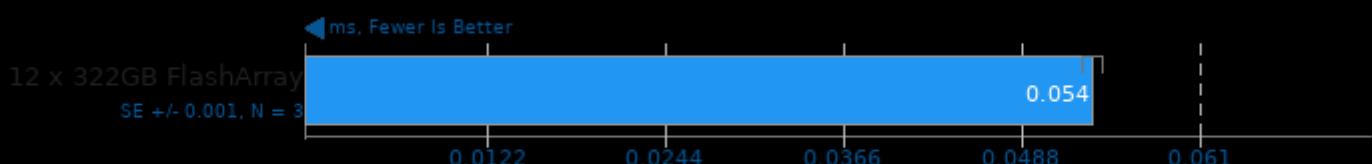
Scaling Factor: 1 - Clients: 1 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lgpgcommon -lgpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

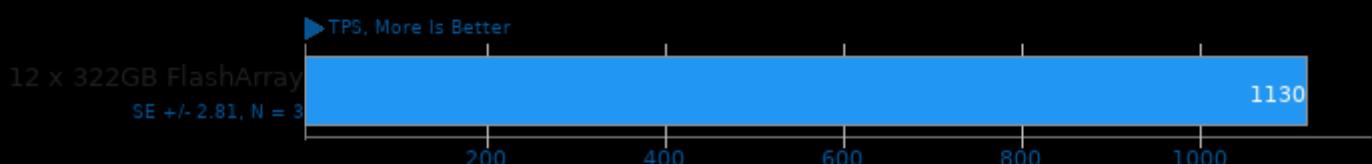
Scaling Factor: 1 - Clients: 1 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lgpgcommon -lgpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

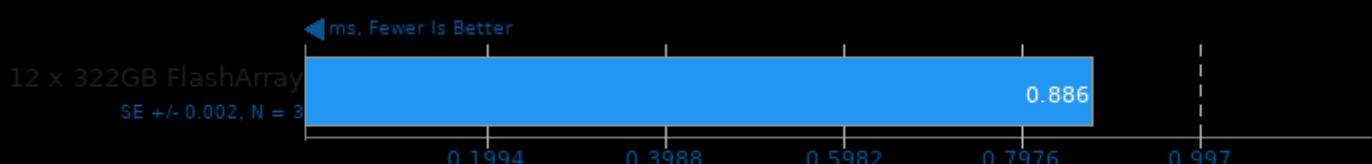
Scaling Factor: 1 - Clients: 1 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lgpgcommon -lgpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

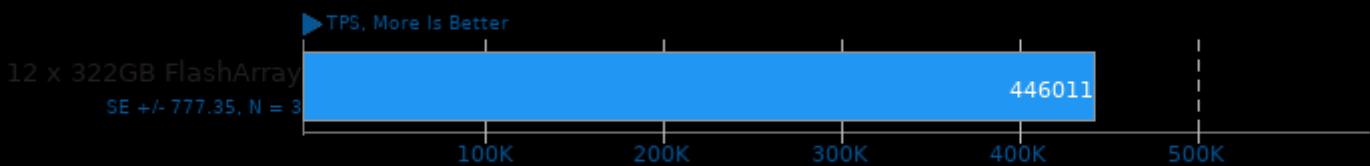
Scaling Factor: 1 - Clients: 1 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lgpgcommon -lgpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

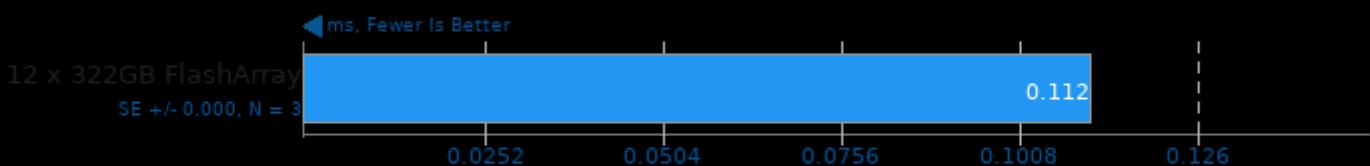
Scaling Factor: 1 - Clients: 50 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

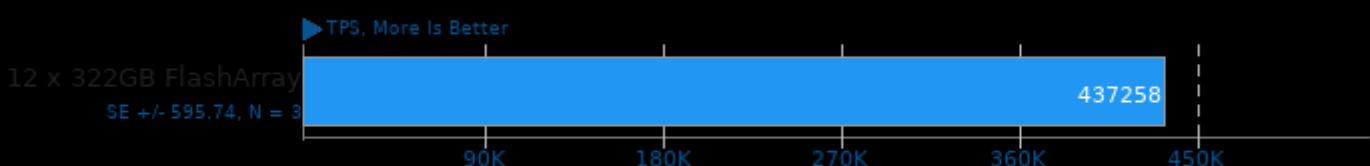
Scaling Factor: 1 - Clients: 50 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

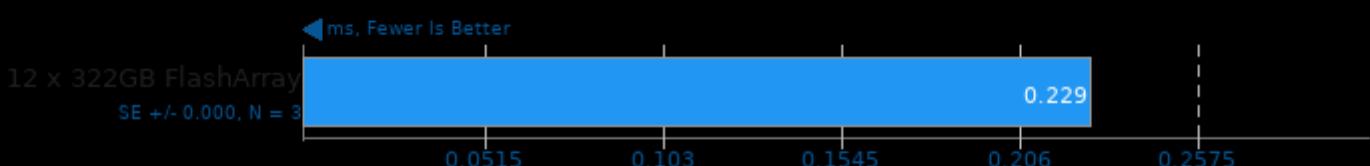
Scaling Factor: 1 - Clients: 100 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

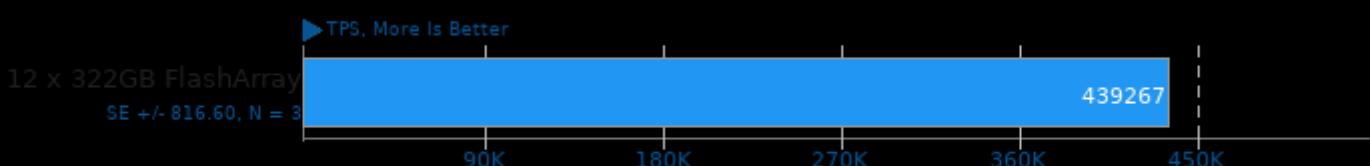
Scaling Factor: 1 - Clients: 100 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

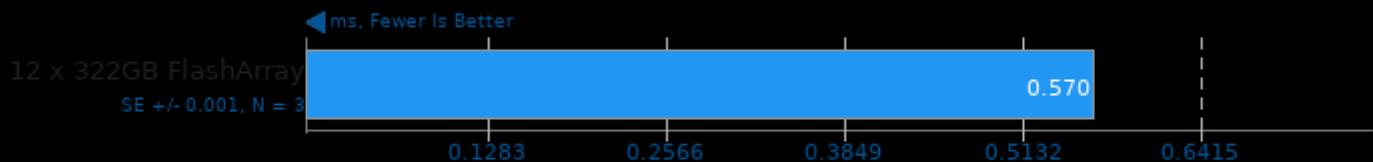
Scaling Factor: 1 - Clients: 250 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

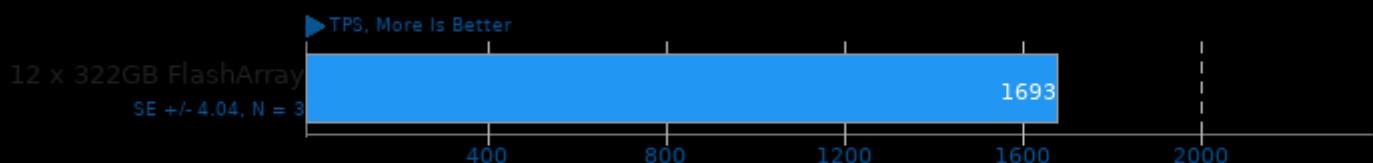
Scaling Factor: 1 - Clients: 250 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

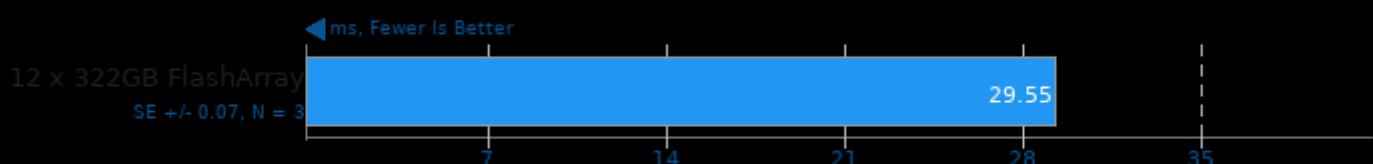
Scaling Factor: 1 - Clients: 50 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

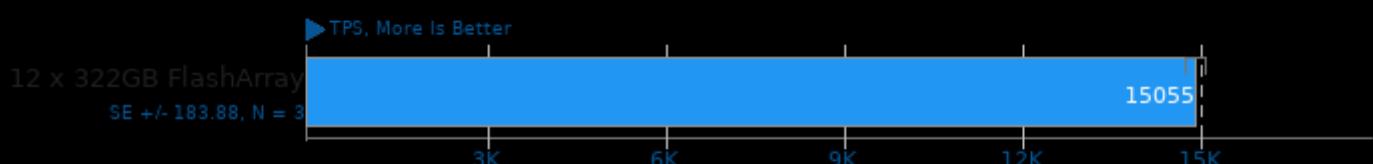
Scaling Factor: 1 - Clients: 50 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

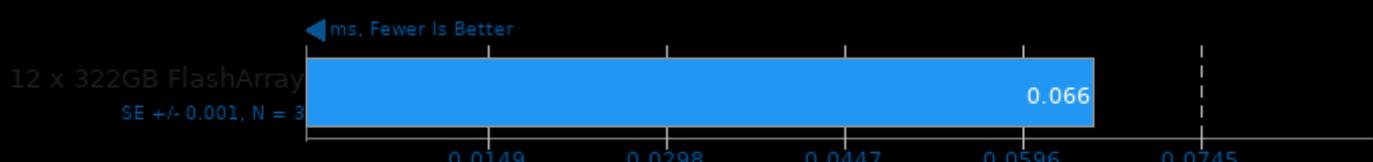
Scaling Factor: 100 - Clients: 1 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

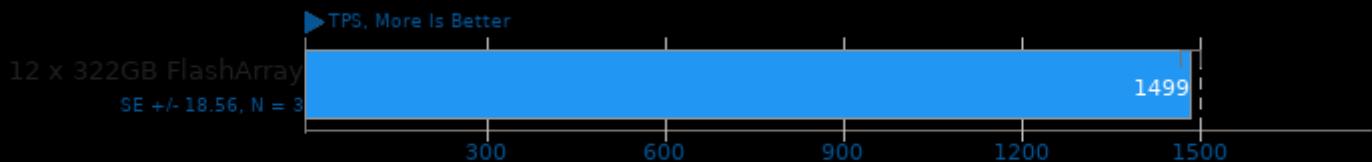
Scaling Factor: 100 - Clients: 1 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

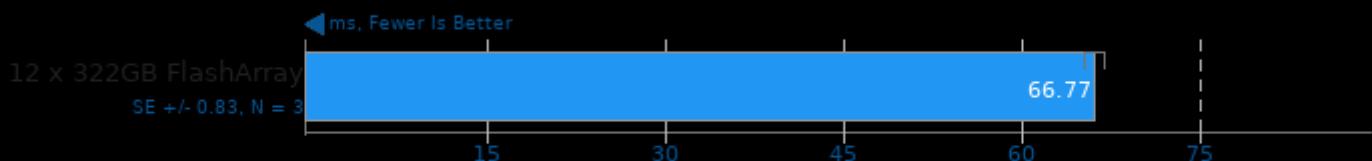
PostgreSQL pgbench 13.0

Scaling Factor: 1 - Clients: 100 - Mode: Read Write



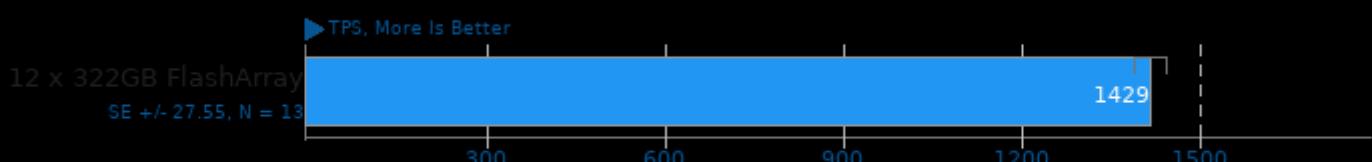
PostgreSQL pgbench 13.0

Scaling Factor: 1 - Clients: 100 - Mode: Read Write - Average Latency



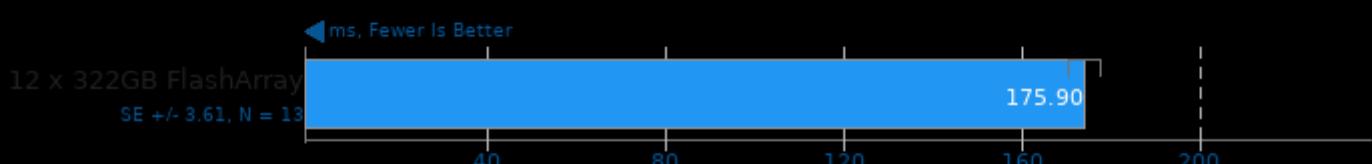
PostgreSQL pgbench 13.0

Scaling Factor: 1 - Clients: 250 - Mode: Read Write



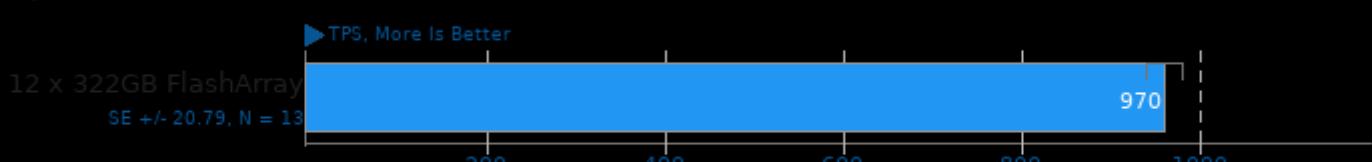
PostgreSQL pgbench 13.0

Scaling Factor: 1 - Clients: 250 - Mode: Read Write - Average Latency



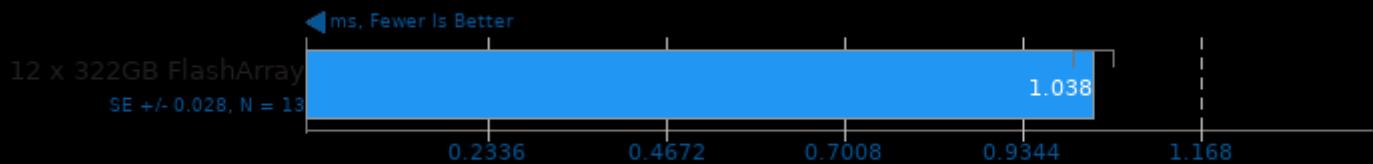
PostgreSQL pgbench 13.0

Scaling Factor: 100 - Clients: 1 - Mode: Read Write



PostgreSQL pgbench 13.0

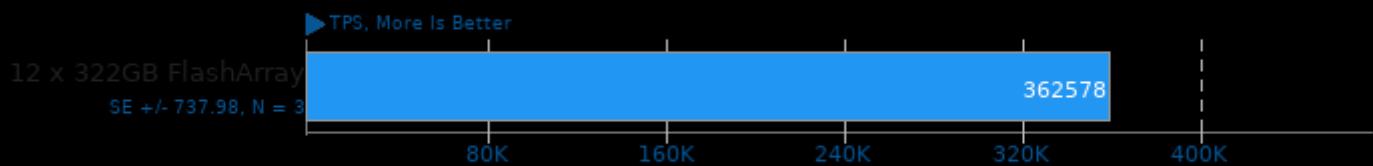
Scaling Factor: 100 - Clients: 1 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

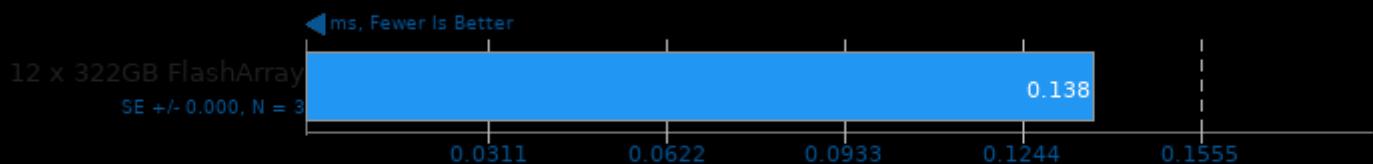
Scaling Factor: 100 - Clients: 50 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

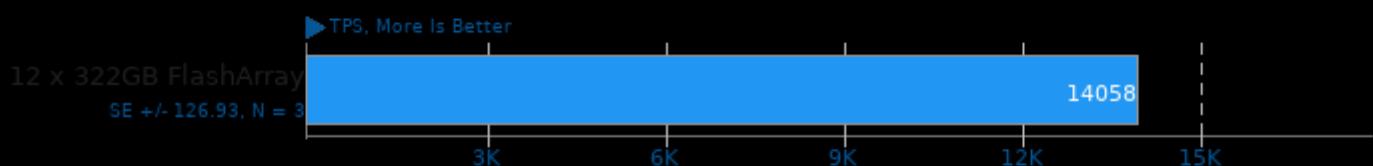
Scaling Factor: 100 - Clients: 50 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

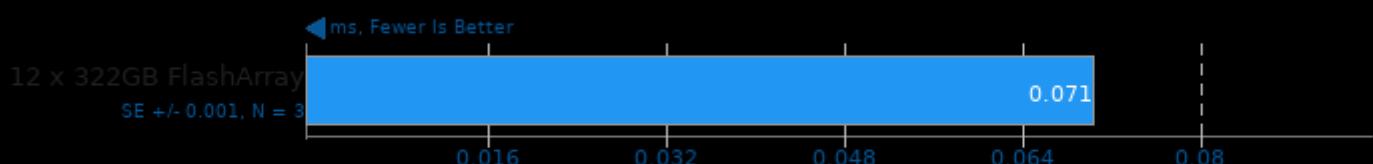
Scaling Factor: 1000 - Clients: 1 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

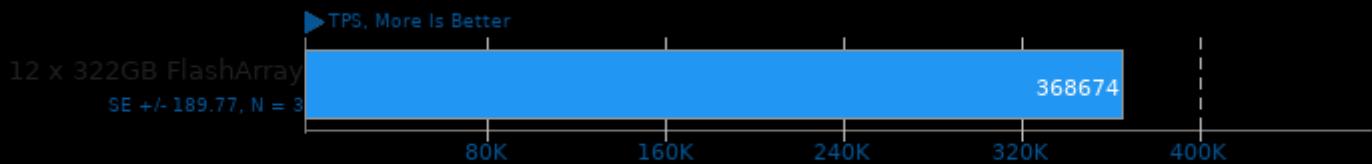
Scaling Factor: 1000 - Clients: 1 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

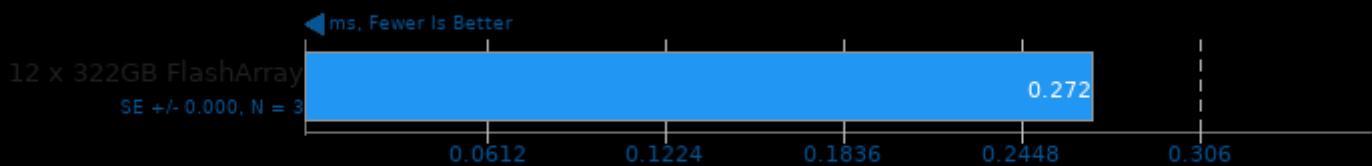
Scaling Factor: 100 - Clients: 100 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpqcommon -lpqport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

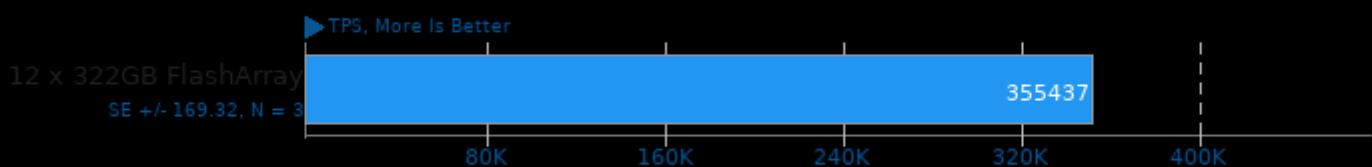
Scaling Factor: 100 - Clients: 100 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpqcommon -lpqport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

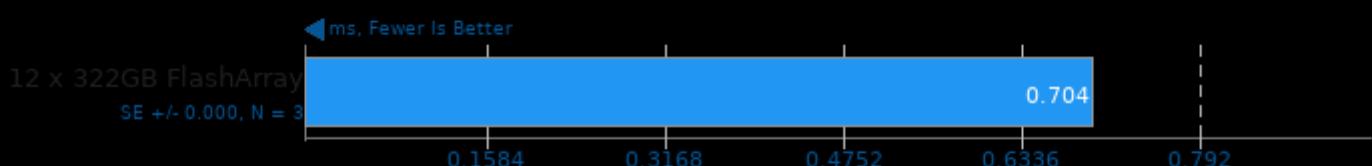
Scaling Factor: 100 - Clients: 250 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpqcommon -lpqport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

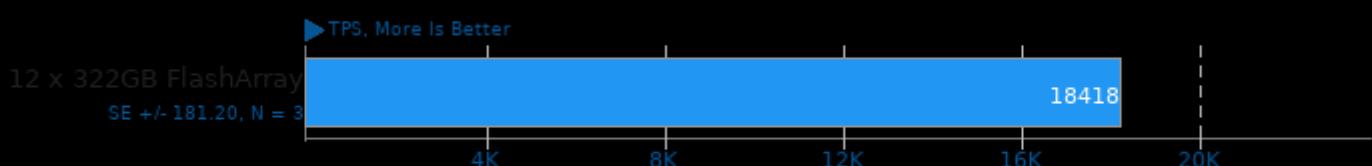
Scaling Factor: 100 - Clients: 250 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpqcommon -lpqport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

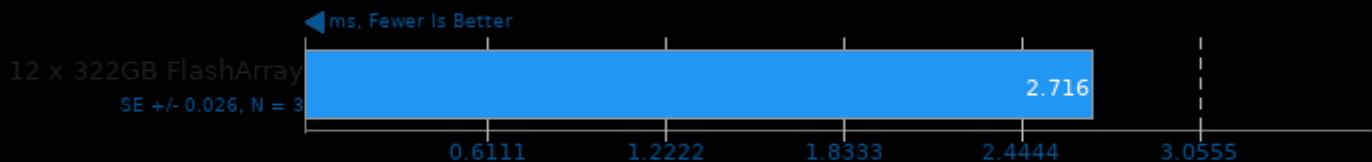
Scaling Factor: 100 - Clients: 50 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpqcommon -lpqport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

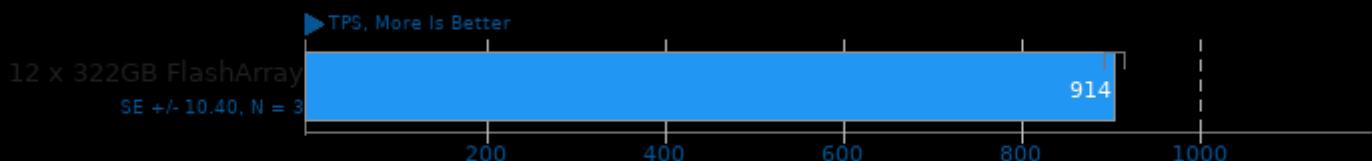
Scaling Factor: 100 - Clients: 50 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

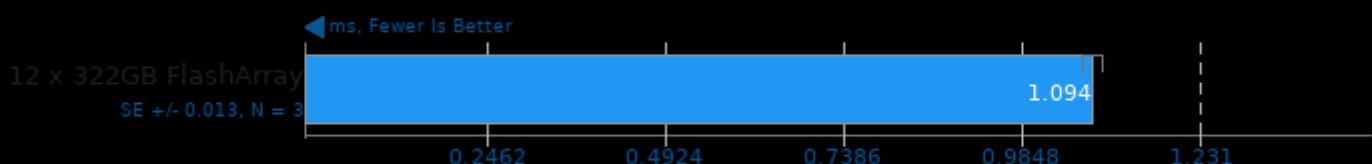
Scaling Factor: 1000 - Clients: 1 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

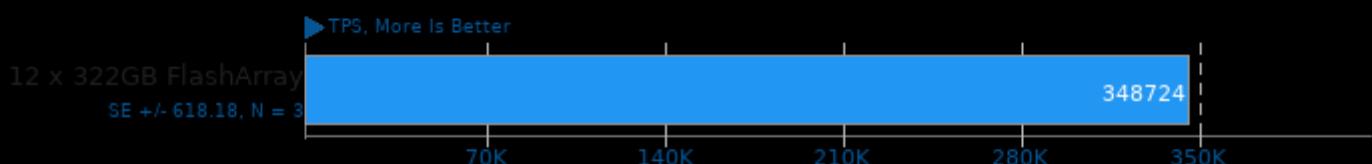
Scaling Factor: 1000 - Clients: 1 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

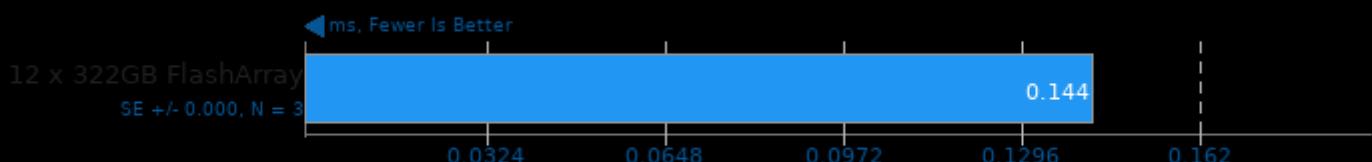
Scaling Factor: 1000 - Clients: 50 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

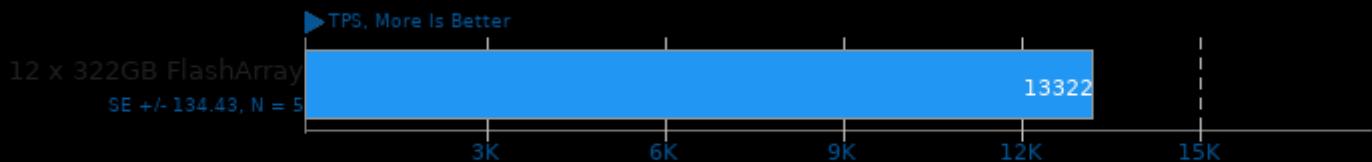
Scaling Factor: 1000 - Clients: 50 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

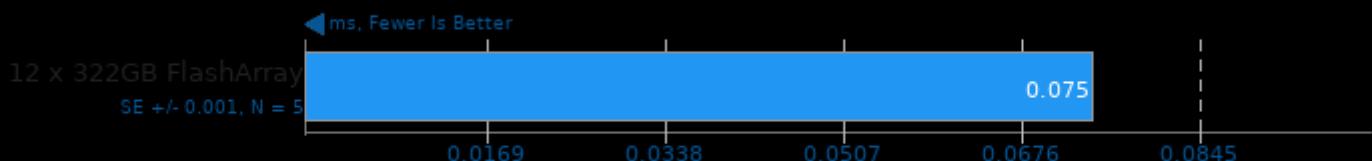
Scaling Factor: 10000 - Clients: 1 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

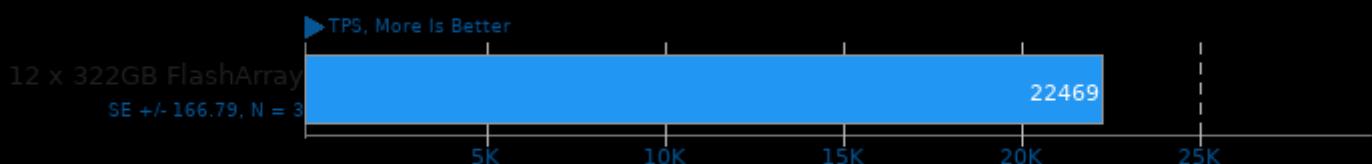
Scaling Factor: 10000 - Clients: 1 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

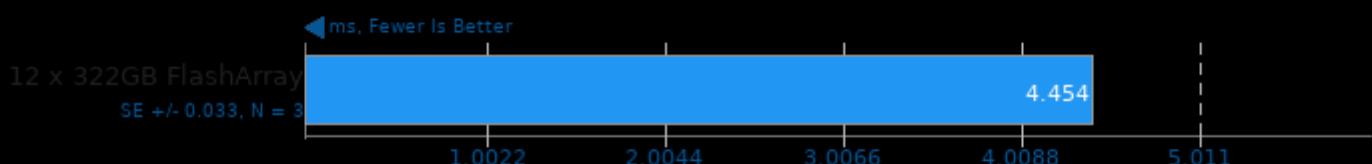
Scaling Factor: 100 - Clients: 100 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

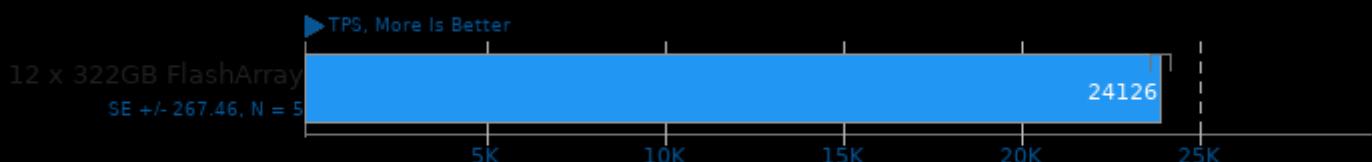
Scaling Factor: 100 - Clients: 100 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

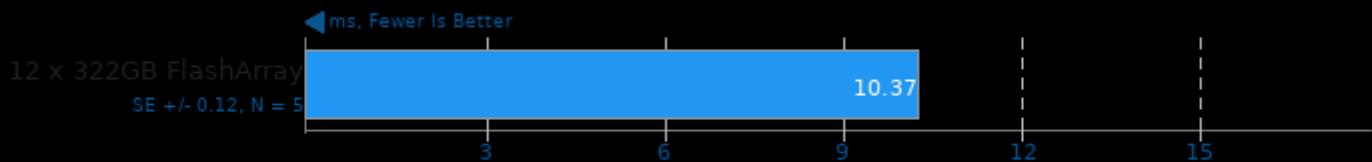
Scaling Factor: 100 - Clients: 250 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

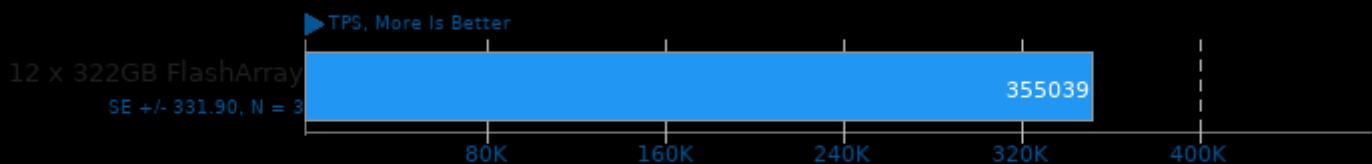
Scaling Factor: 100 - Clients: 250 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

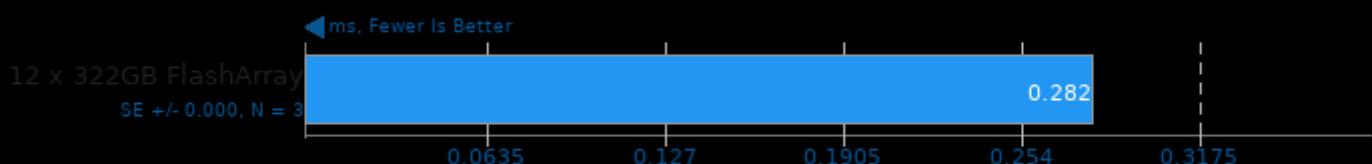
Scaling Factor: 1000 - Clients: 100 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

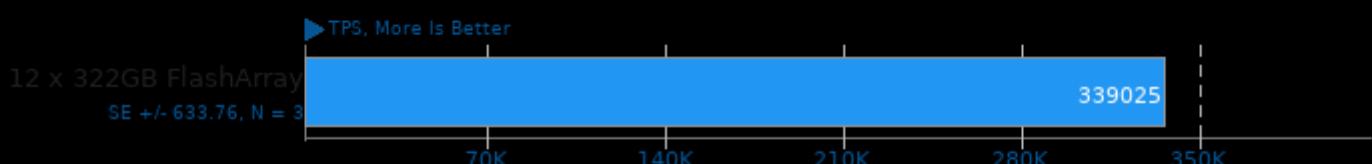
Scaling Factor: 1000 - Clients: 100 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

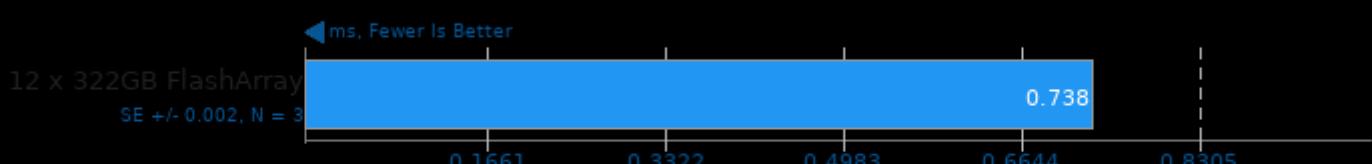
Scaling Factor: 1000 - Clients: 250 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

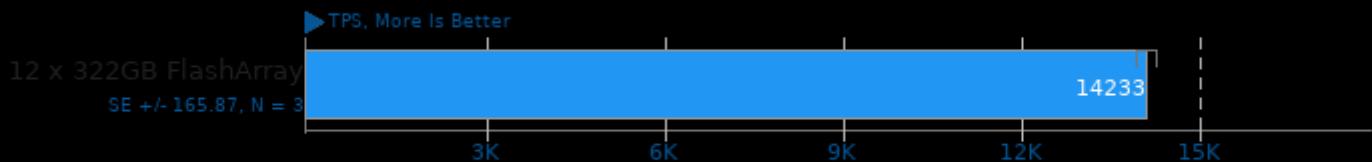
Scaling Factor: 1000 - Clients: 250 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

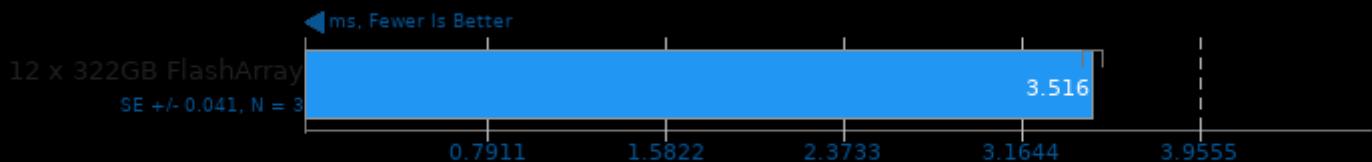
Scaling Factor: 1000 - Clients: 50 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

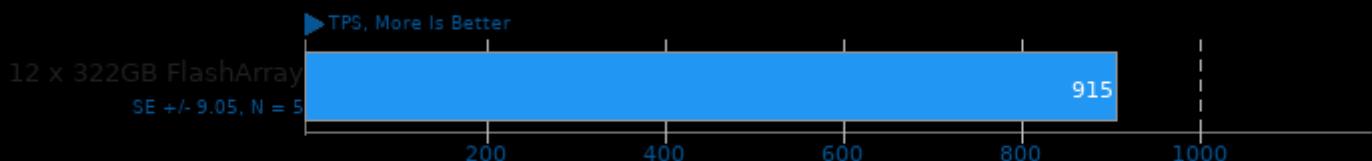
Scaling Factor: 1000 - Clients: 50 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

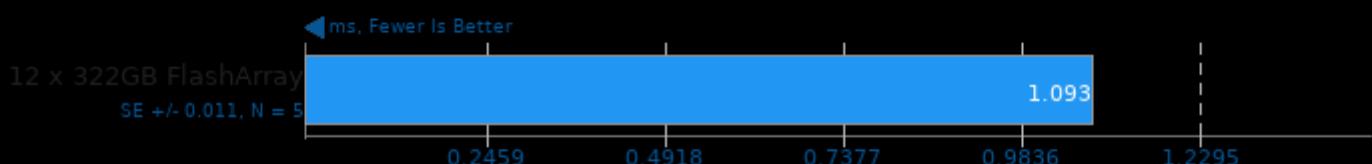
Scaling Factor: 10000 - Clients: 1 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

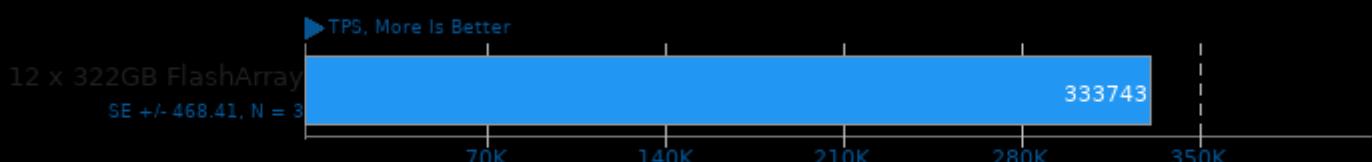
Scaling Factor: 10000 - Clients: 1 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

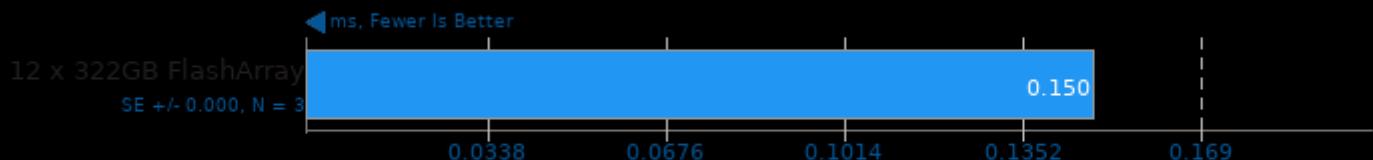
Scaling Factor: 10000 - Clients: 50 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

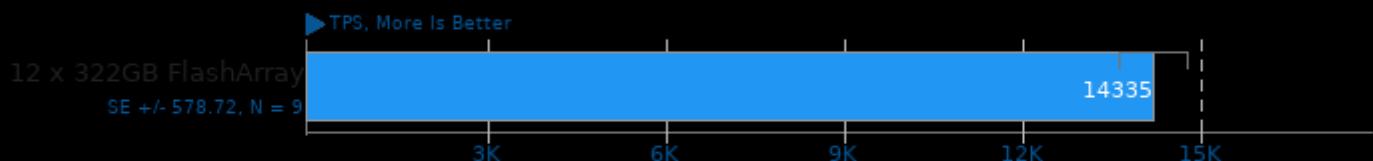
Scaling Factor: 10000 - Clients: 50 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

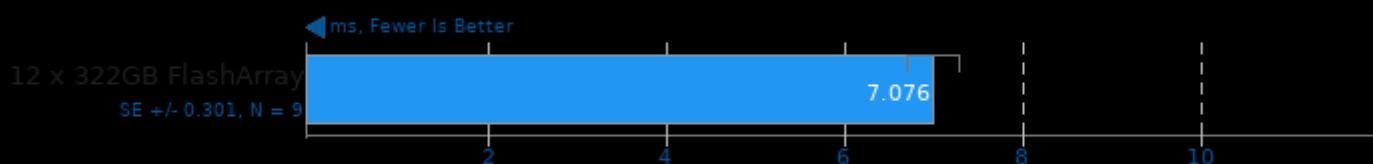
Scaling Factor: 1000 - Clients: 100 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

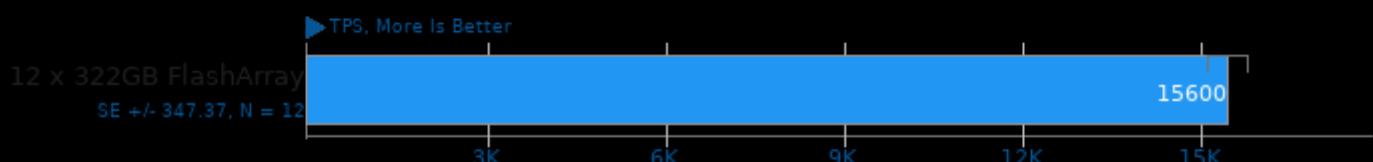
Scaling Factor: 1000 - Clients: 100 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

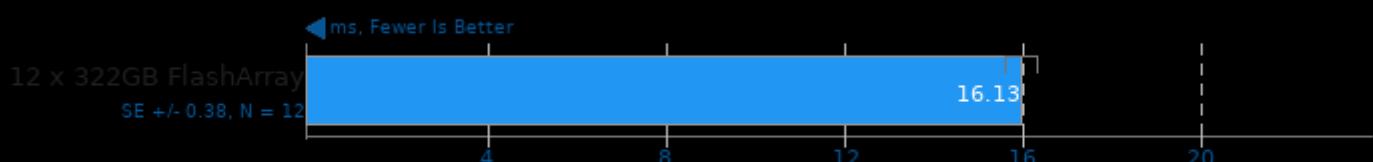
Scaling Factor: 1000 - Clients: 250 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

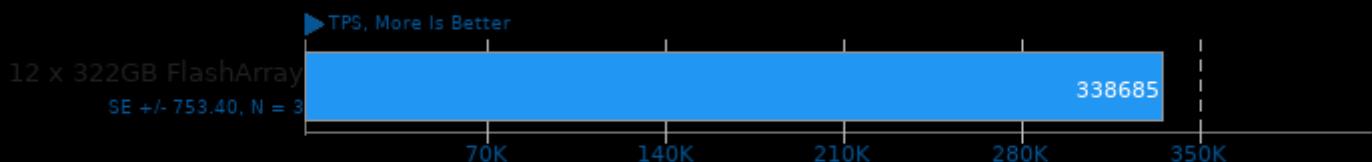
Scaling Factor: 1000 - Clients: 250 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

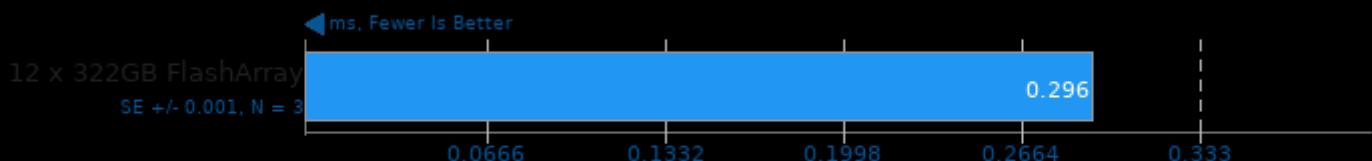
Scaling Factor: 10000 - Clients: 100 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

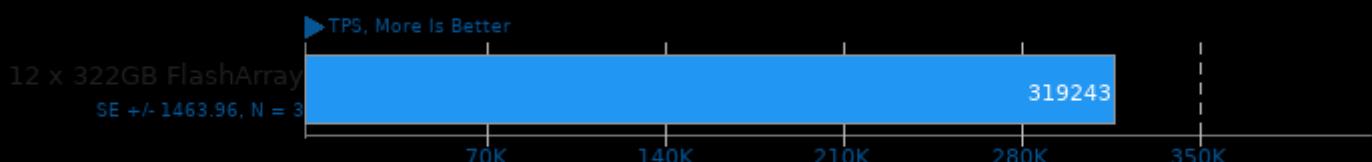
Scaling Factor: 10000 - Clients: 100 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

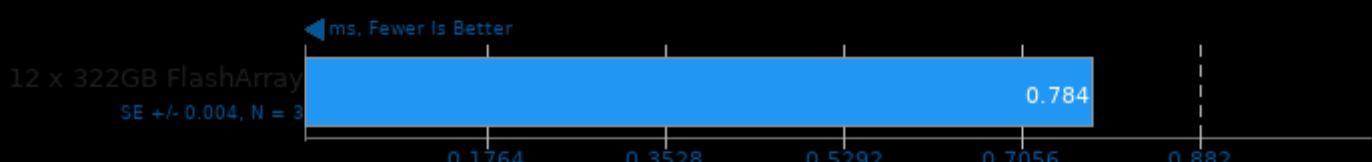
Scaling Factor: 10000 - Clients: 250 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

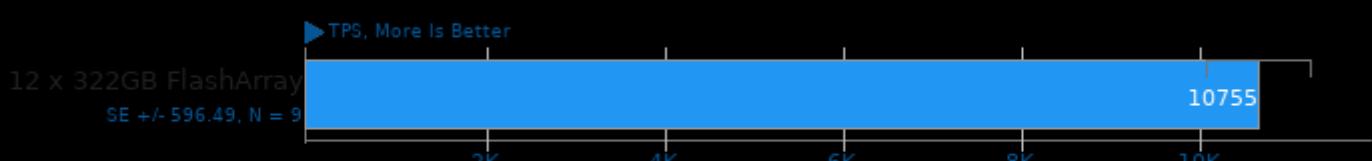
Scaling Factor: 10000 - Clients: 250 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

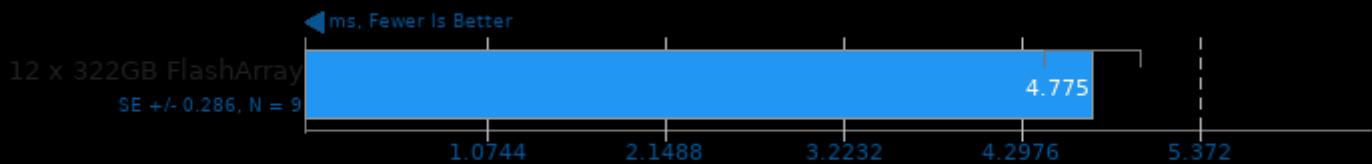
Scaling Factor: 10000 - Clients: 50 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

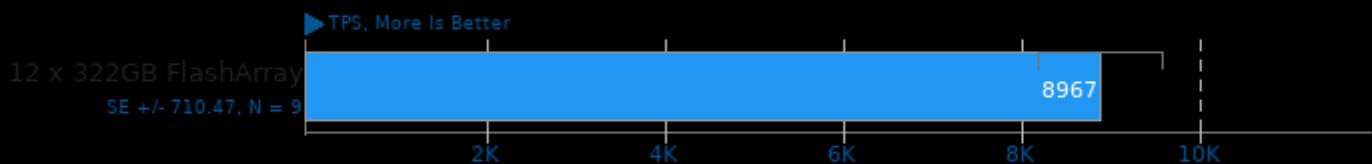
Scaling Factor: 10000 - Clients: 50 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

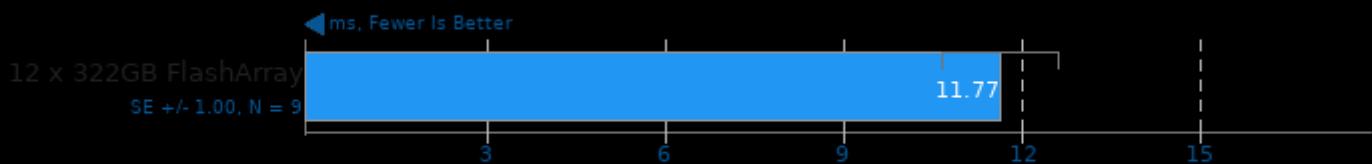
Scaling Factor: 10000 - Clients: 100 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

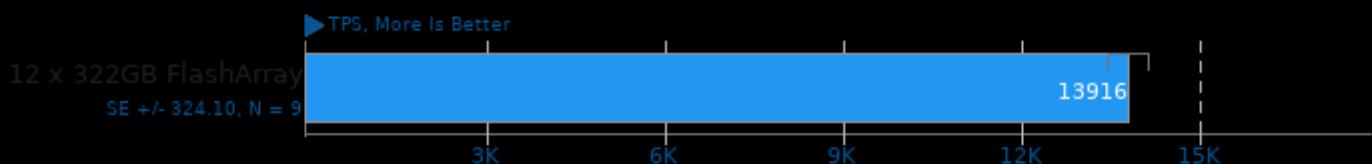
Scaling Factor: 10000 - Clients: 100 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

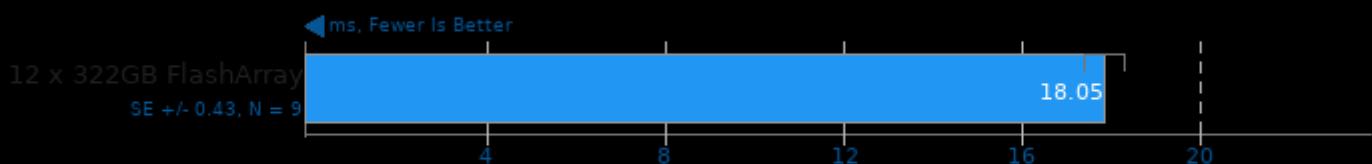
Scaling Factor: 10000 - Clients: 250 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

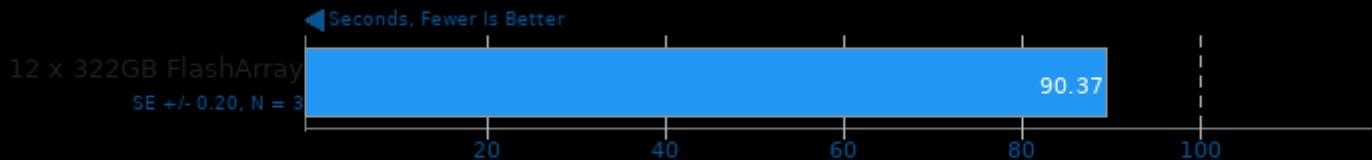
Scaling Factor: 10000 - Clients: 250 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpq -pthread -lrt -ldl -lm

SQLite Speedtest 3.30

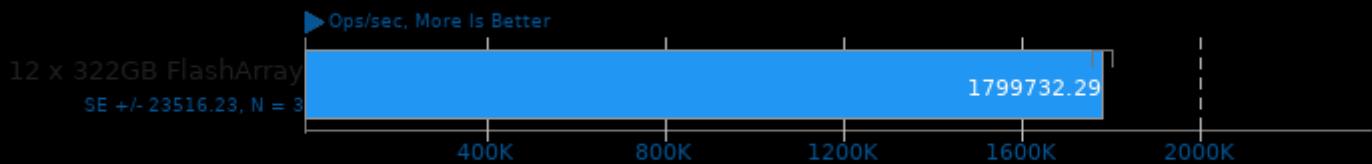
Timed Time - Size 1,000



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

Memtier_benchmark 1.2.17

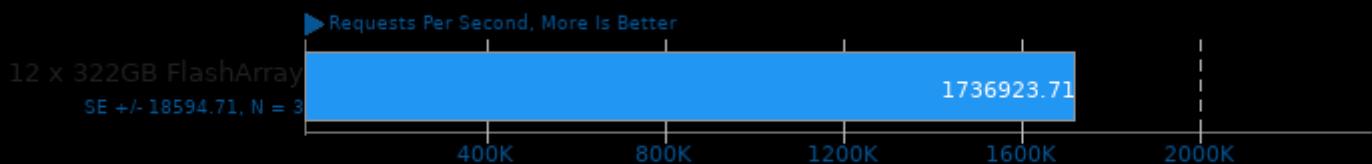
Protocol: Redis



1. (CXX) g++ options: -O2 -levent -lpthread -lz -lpcre

Redis 6.0.9

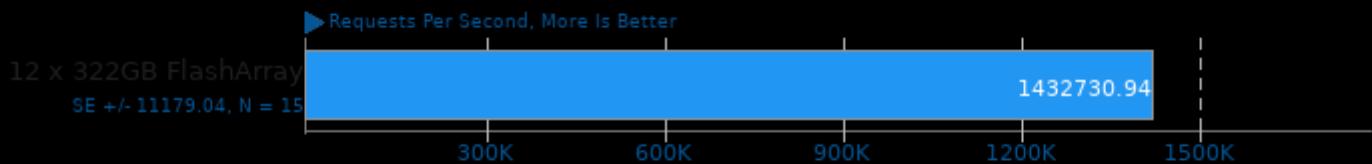
Test: LPOP



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

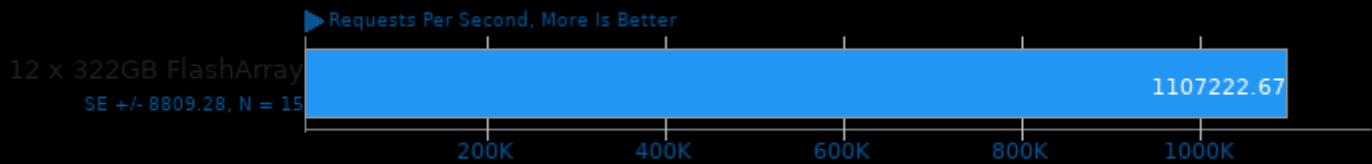
Test: SADD



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

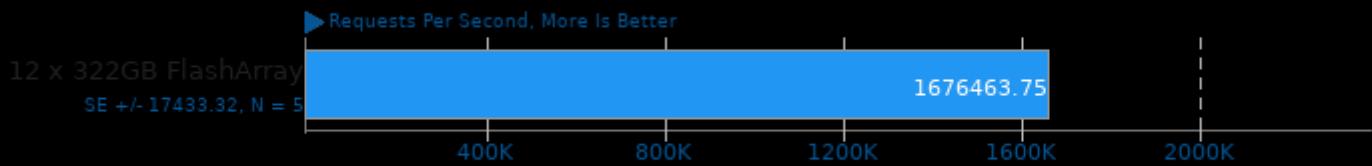
Test: LPUSH



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

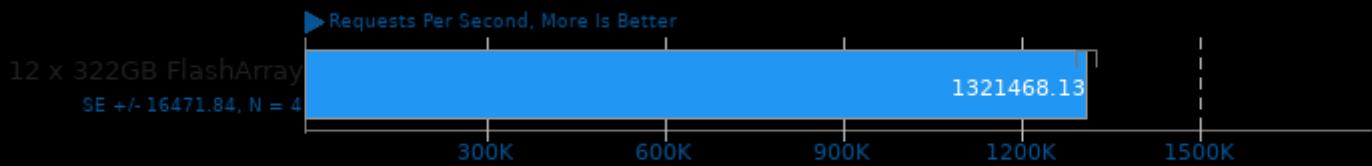
Test: GET



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

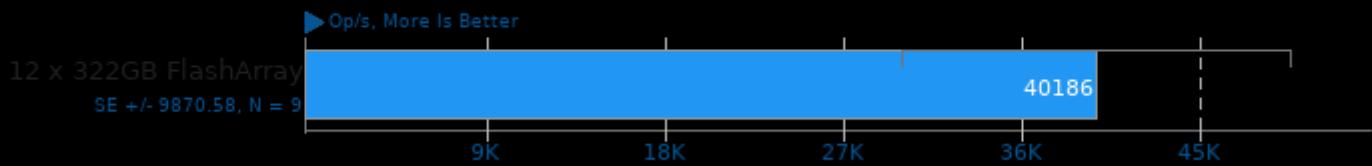
Test: SET



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

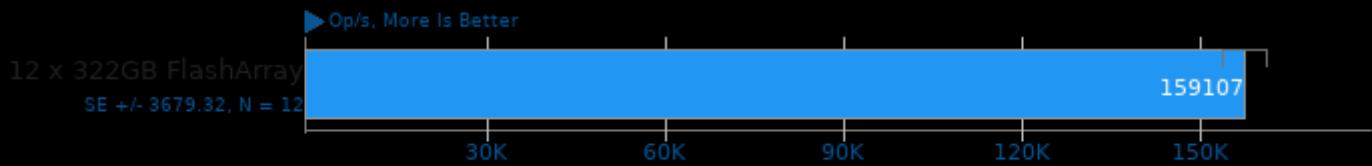
Apache Cassandra 3.11.4

Test: Reads



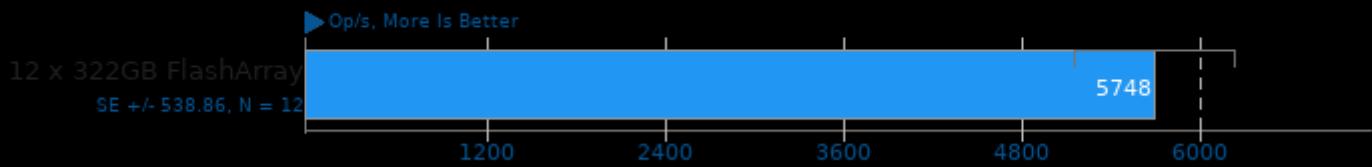
Apache Cassandra 3.11.4

Test: Writes



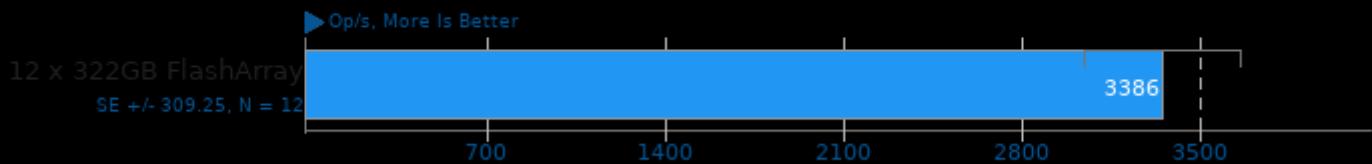
Apache Cassandra 3.11.4

Test: Mixed 1:1



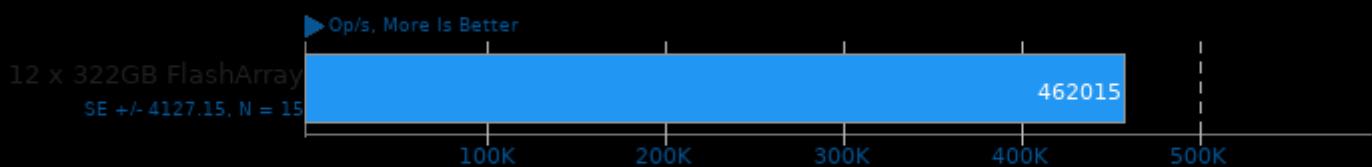
Apache Cassandra 3.11.4

Test: Mixed 1:3



Facebook RocksDB 6.3.6

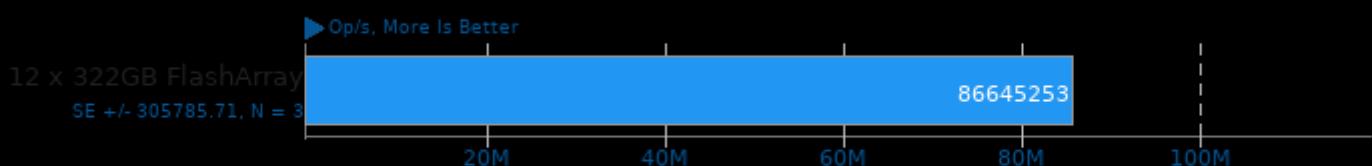
Test: Random Fill



```
1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-built-in-memcmp -O2 -fno-rtti -rdynamic -lgflags -lpthread
```

Facebook RocksDB 6.3.6

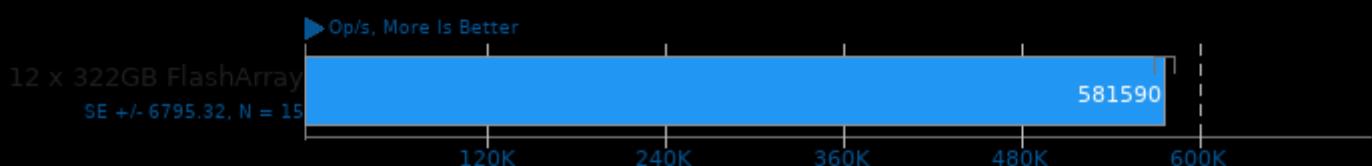
Test: Random Read



```
1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-built-in-memcmp -O2 -fno-rtti -rdynamic -lgflags -lpthread
```

Facebook RocksDB 6.3.6

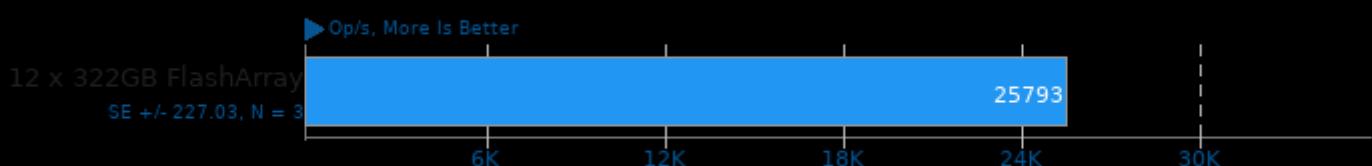
Test: Sequential Fill



```
1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-built-in-memcmp -O2 -fno-rtti -rdynamic -lgflags -lpthread
```

Facebook RocksDB 6.3.6

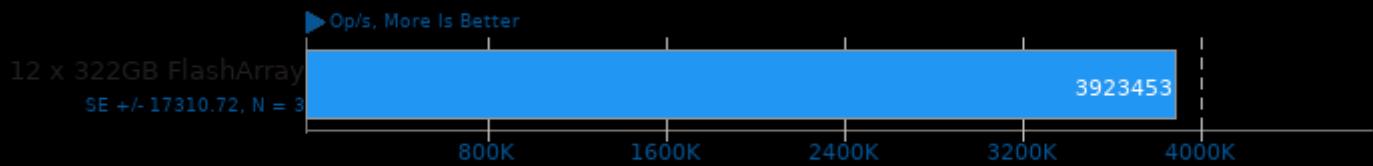
Test: Random Fill Sync



```
1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-built-in-memcmp -O2 -fno-rtti -rdynamic -lgflags -lpthread
```

Facebook RocksDB 6.3.6

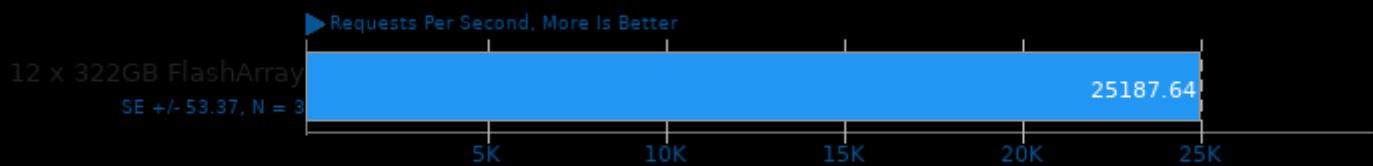
Test: Read While Writing



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-built-in-memcmp -O2 -fno-rtti -rdynamic -lgflags -lpthread

NGINX Benchmark 1.9.9

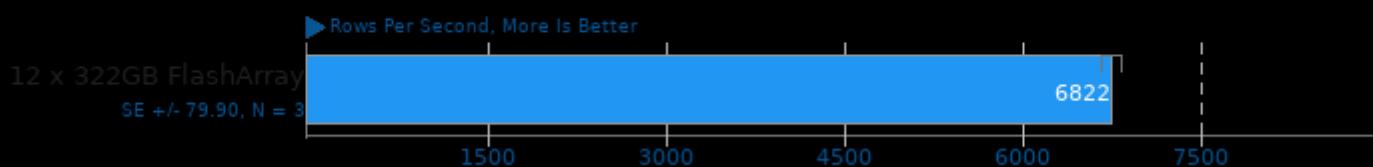
Static Web Page Serving



1. (CC) gcc options: -lpthread -lcrypt -lcrypto -lz -O3 -march=native

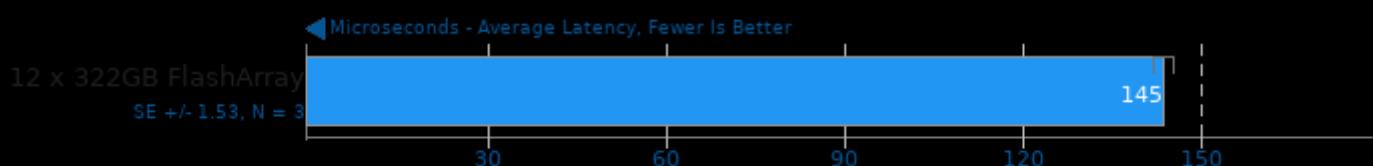
Apache HBase 2.2.3

Test: Increment - Clients: 1



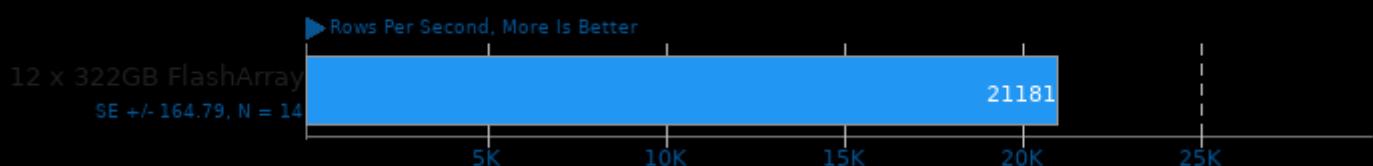
Apache HBase 2.2.3

Test: Increment - Clients: 1



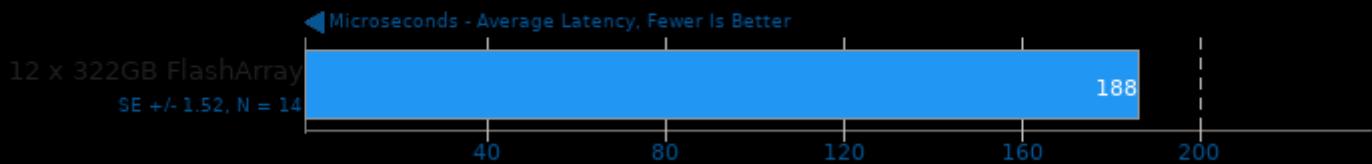
Apache HBase 2.2.3

Test: Increment - Clients: 4



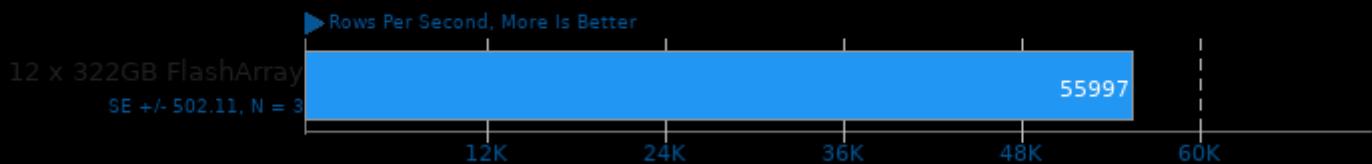
Apache HBase 2.2.3

Test: Increment - Clients: 4



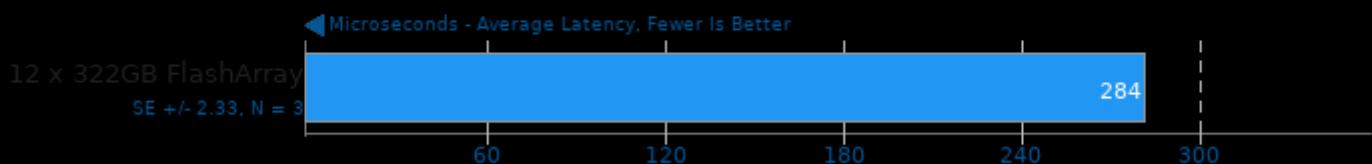
Apache HBase 2.2.3

Test: Increment - Clients: 16



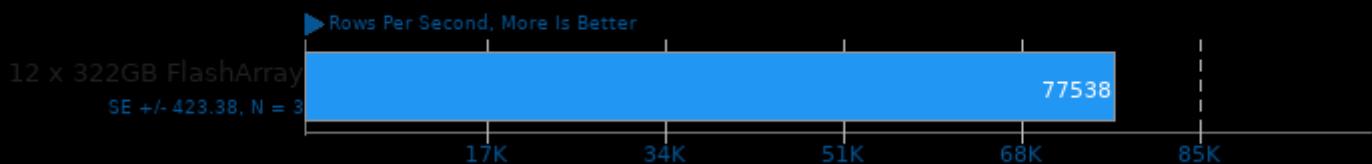
Apache HBase 2.2.3

Test: Increment - Clients: 16



Apache HBase 2.2.3

Test: Increment - Clients: 32



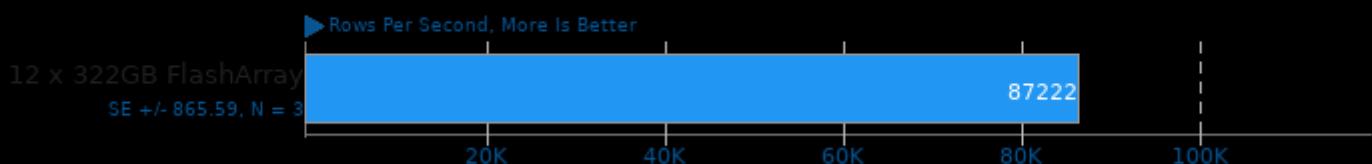
Apache HBase 2.2.3

Test: Increment - Clients: 32



Apache HBase 2.2.3

Test: Increment - Clients: 64



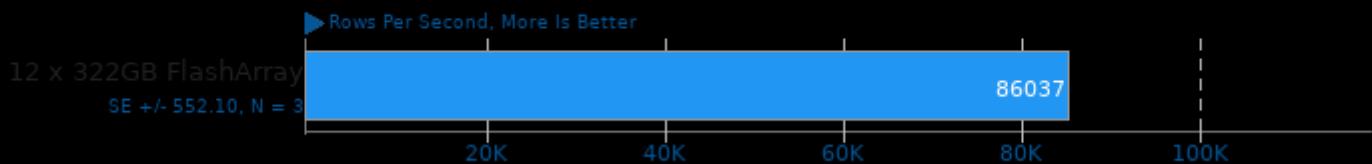
Apache HBase 2.2.3

Test: Increment - Clients: 64



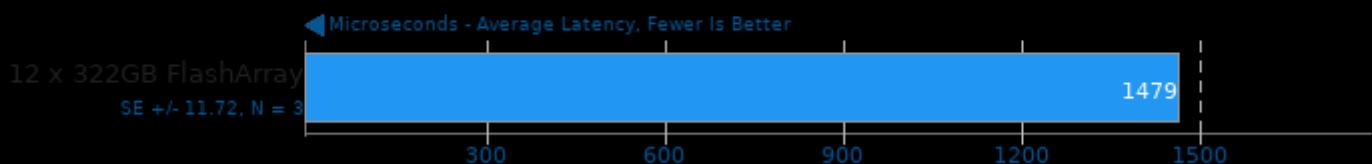
Apache HBase 2.2.3

Test: Increment - Clients: 128



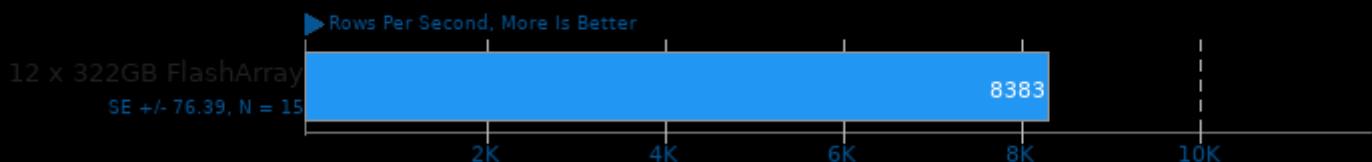
Apache HBase 2.2.3

Test: Increment - Clients: 128



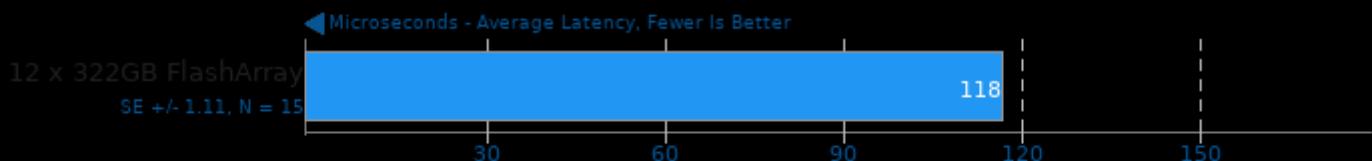
Apache HBase 2.2.3

Test: Random Read - Clients: 1



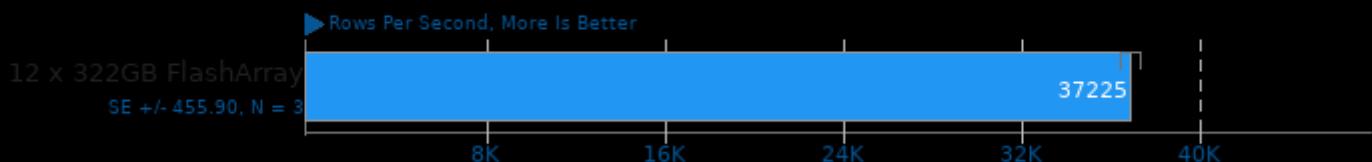
Apache HBase 2.2.3

Test: Random Read - Clients: 1



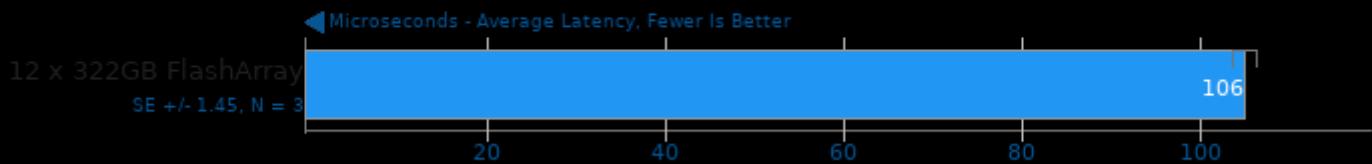
Apache HBase 2.2.3

Test: Random Read - Clients: 4



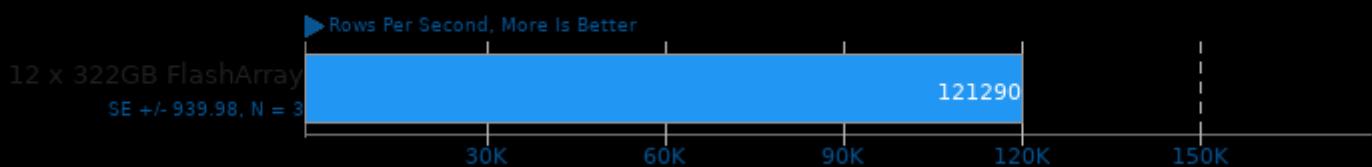
Apache HBase 2.2.3

Test: Random Read - Clients: 4



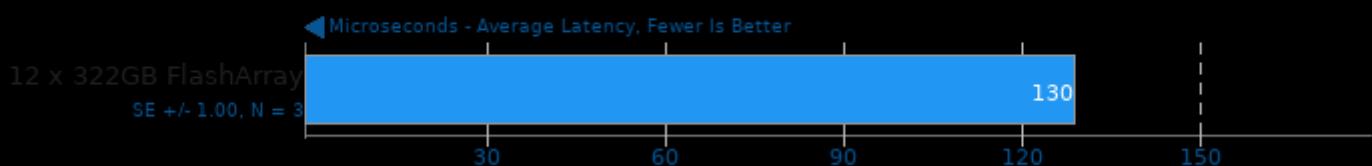
Apache HBase 2.2.3

Test: Random Read - Clients: 16



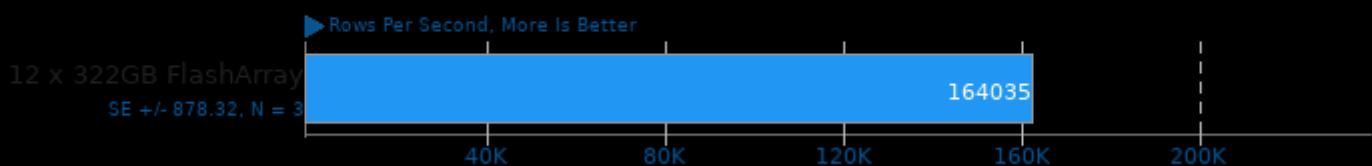
Apache HBase 2.2.3

Test: Random Read - Clients: 16



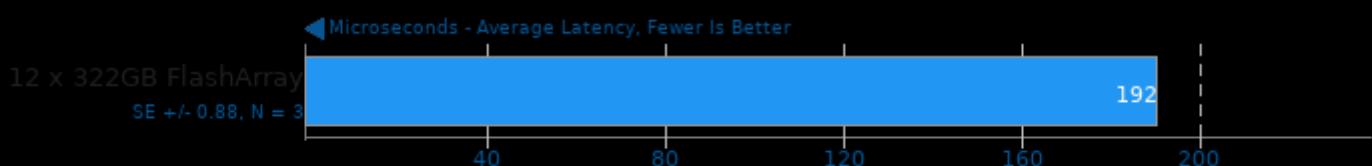
Apache HBase 2.2.3

Test: Random Read - Clients: 32



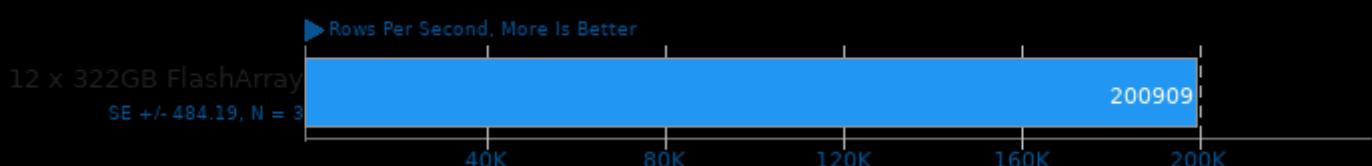
Apache HBase 2.2.3

Test: Random Read - Clients: 32



Apache HBase 2.2.3

Test: Random Read - Clients: 64



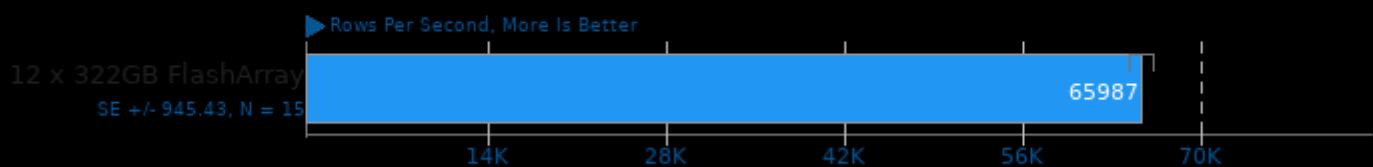
Apache HBase 2.2.3

Test: Random Read - Clients: 64



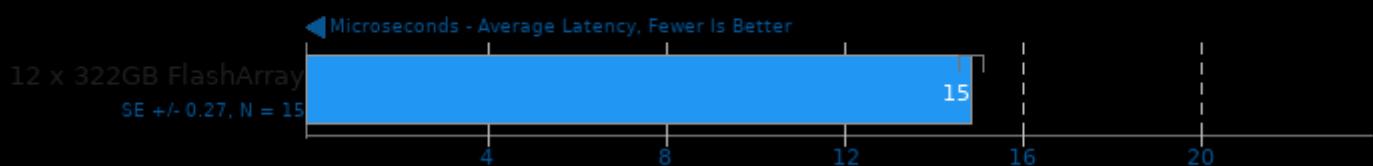
Apache HBase 2.2.3

Test: Random Write - Clients: 1



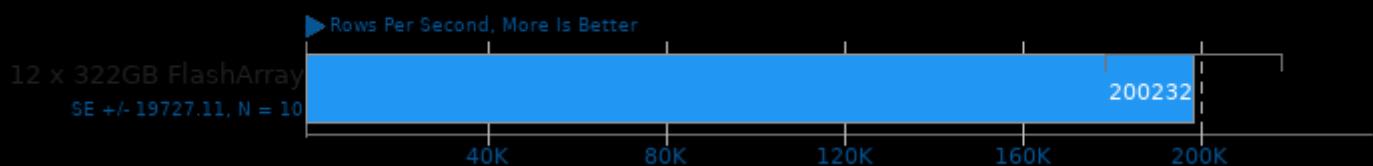
Apache HBase 2.2.3

Test: Random Write - Clients: 1



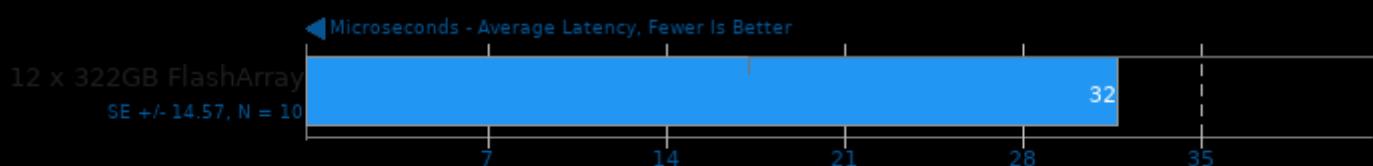
Apache HBase 2.2.3

Test: Random Write - Clients: 4



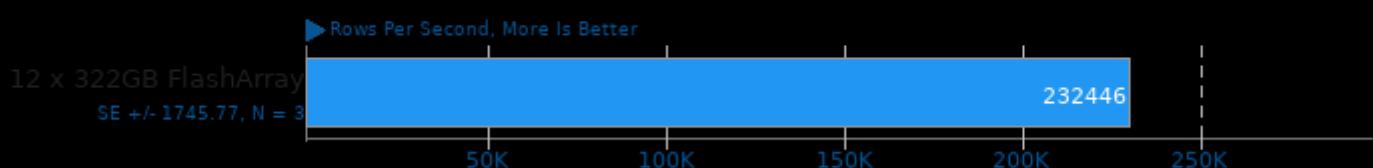
Apache HBase 2.2.3

Test: Random Write - Clients: 4



Apache HBase 2.2.3

Test: Random Read - Clients: 128



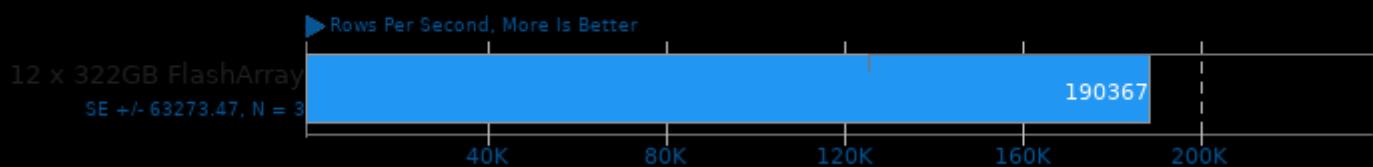
Apache HBase 2.2.3

Test: Random Read - Clients: 128



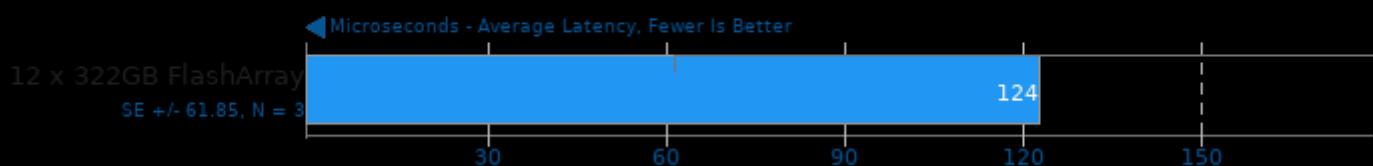
Apache HBase 2.2.3

Test: Random Write - Clients: 16



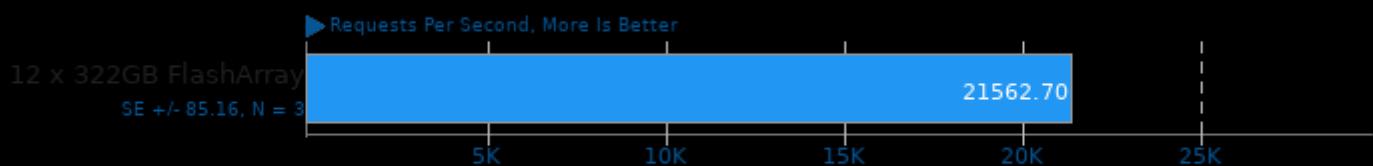
Apache HBase 2.2.3

Test: Random Write - Clients: 16



Apache Benchmark 2.4.29

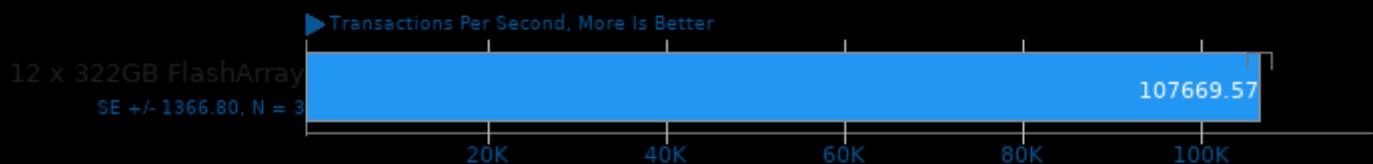
Static Web Page Serving



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

Apache Siege 2.4.29

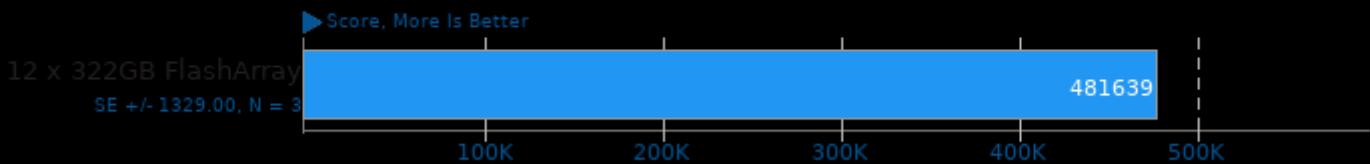
Concurrent Users: 250



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

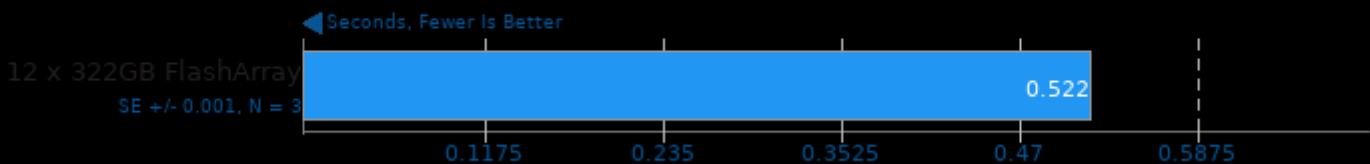
PHPBench 0.8.1

PHP Benchmark Suite



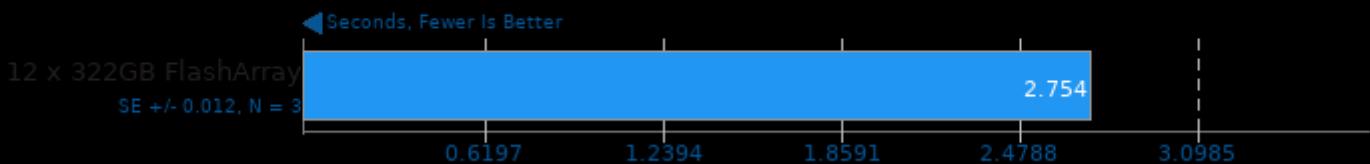
PHP Micro Benchmarks

Test: Zend bench



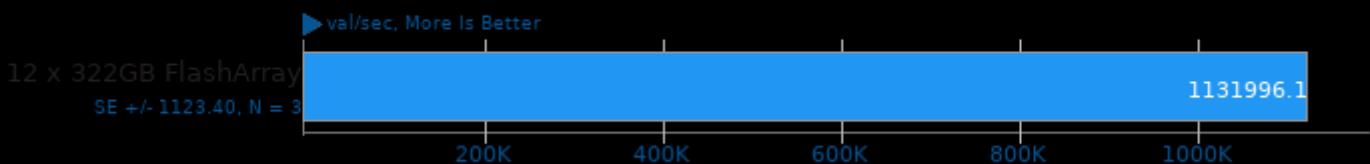
PHP Micro Benchmarks

Test: Zend micro_bench



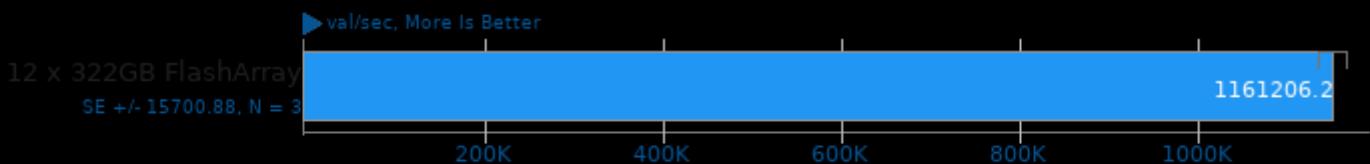
InfluxDB 1.8.2

Concurrent Streams: 4 - Batch Size: 10000 - Tags: 2,5000,1 - Points Per Series: 10000



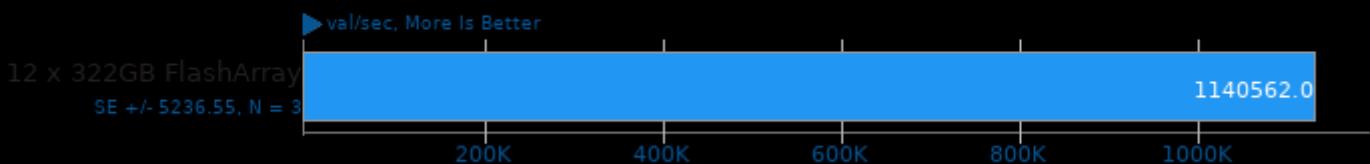
InfluxDB 1.8.2

Concurrent Streams: 64 - Batch Size: 10000 - Tags: 2,5000,1 - Points Per Series: 10000



InfluxDB 1.8.2

Concurrent Streams: 1024 - Batch Size: 10000 - Tags: 2,5000,1 - Points Per Series: 10000



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

05:39.