



www.phoronix-test-suite.com

c7g.4xlarge

amazon testing on Amazon Linux 2 via the Phoronix Test Suite.

Test Systems:

c7g.4xlarge

Processor: ARMv8 Neoverse-V1 (16 Cores), Motherboard: Amazon EC2 c7g.4xlarge (1.0 BIOS), Chipset: Amazon Device 0200, Memory: 32GB, Disk: 21GB Amazon Elastic Block Store, Network: Amazon Elastic

OS: Amazon Linux 2, Kernel: 5.10.167-147.601.amzn2.aarch64 (aarch64) 20230214, Compiler: GCC 10.4.1 20221124, File-System: xfs, System Layer: amazon

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=aarch64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --program-prefix=gcc10- --with-as=/usr/bin/gcc10-as --with-gcc-major-version-only --with-isl --with-ld=/usr/bin/gcc10-ld --with-linker-hash-style=gnu
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + retbleed: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of CSV2 BHB + srbd: Not affected + tsx_async_abort: Not affected

c7g.4xlarge

BYTE Unix Benchmark - Dhrystone 2 (LPS)	46956391
Standard Deviation	0.3%
RAMspeed SMP - Add - Integer (MB/s)	103172
Standard Deviation	0%
RAMspeed SMP - Copy - Integer (MB/s)	106509
Standard Deviation	0%
RAMspeed SMP - Scale - Integer (MB/s)	52021
Standard Deviation	0.4%
RAMspeed SMP - Triad - Integer (MB/s)	99089
Standard Deviation	0%
RAMspeed SMP - Average - Integer (MB/s)	91636
Standard Deviation	3.2%
RAMspeed SMP - Add - Floating Point (MB/s)	103217
Standard Deviation	0%
RAMspeed SMP - Copy - Floating Point (MB/s)	106497
Standard Deviation	0%
RAMspeed SMP - Scale - Floating Point (MB/s)	99732
Standard Deviation	0%
RAMspeed SMP - Triad - Floating Point (MB/s)	43788
Standard Deviation	0%
RAMspeed SMP - Average - Floating Point (MB/s)	88308
Standard Deviation	0%
CacheBench - Read (MB/s)	9911
Standard Deviation	0%
CacheBench - Write (MB/s)	19631
Standard Deviation	0%
CacheBench - R.M.W (MB/s)	39204
Standard Deviation	0%
Hackbench - 1 - Thread (sec)	4.257
Standard Deviation	0.9%
Hackbench - 2 - Thread (sec)	6.040
Standard Deviation	0.4%
Hackbench - 4 - Thread (sec)	10.093
Standard Deviation	0.2%
Hackbench - 8 - Thread (sec)	19.099
Standard Deviation	2.2%
Hackbench - 1 - Process (sec)	3.895
Standard Deviation	0.5%
Hackbench - 16 - Thread (sec)	34.710
Standard Deviation	5.7%
Hackbench - 2 - Process (sec)	5.560
Standard Deviation	0.6%
Hackbench - 32 - Thread (sec)	63.513
Standard Deviation	1.9%
Hackbench - 4 - Process (sec)	10.195
Standard Deviation	0.4%
Hackbench - 8 - Process (sec)	19.085
Standard Deviation	0.5%
Hackbench - 16 - Process (sec)	35.909
Standard Deviation	4.2%
Hackbench - 32 - Process (sec)	74.577
Standard Deviation	6.7%

Parallel BZIP2 Compression - F.1.0.R.a.m.i.C (sec) 7.016
Standard Deviation 0.6%
OpenSSL - SHA256 (byte/s) 12901327630
Standard Deviation 0.2%
OpenSSL - SHA512 (byte/s) 8142102220
Standard Deviation 0%
OpenSSL - RSA4096 (sign/s) 2551
Standard Deviation 0%
OpenSSL - RSA4096 (verify/s) 178839
Standard Deviation 0.1%
OpenSSL - ChaCha20 (byte/s) 25860067420
Standard Deviation 0%
OpenSSL - AES-128-GCM (byte/s) 83623821767
Standard Deviation 0%
OpenSSL - AES-256-GCM (byte/s) 71173643653
Standard Deviation 0.1%
OpenSSL - ChaCha20-Poly1305 (byte/s) 18631197307
Standard Deviation 0%
x264 - Bosphorus 4K (FPS) 27.53
Standard Deviation 0.2%
x264 - Bosphorus 1080p (FPS) 113.10
Standard Deviation 0.4%
Smallpt - G.I.R.1.S (sec) 8.433
Standard Deviation 0.2%
Stockfish - Total Time (Nodes/s) 25086200
Standard Deviation 5%

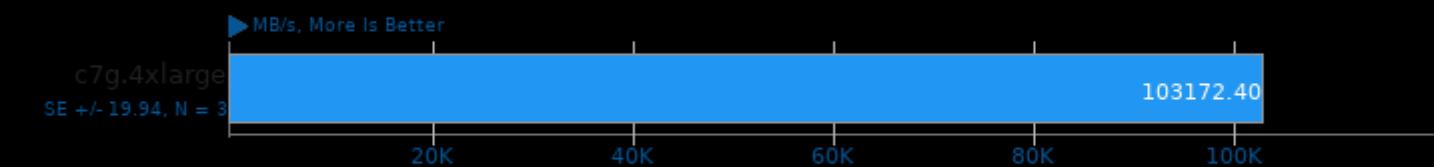
BYTE Unix Benchmark 3.6

Computational Test: Dhrystone 2



RAMspeed SMP 3.5.0

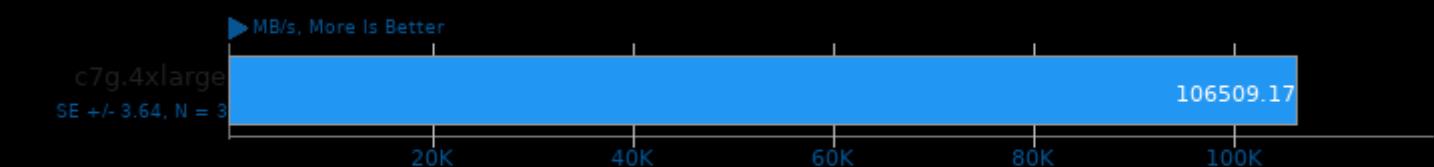
Type: Add - Benchmark: Integer



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

RAMspeed SMP 3.5.0

Type: Copy - Benchmark: Integer



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

RAMspeed SMP 3.5.0

Type: Scale - Benchmark: Integer



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

RAMspeed SMP 3.5.0

Type: Triad - Benchmark: Integer



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

RAMspeed SMP 3.5.0

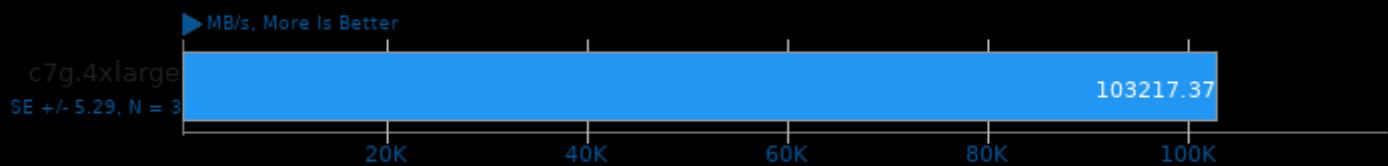
Type: Average - Benchmark: Integer



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

RAMspeed SMP 3.5.0

Type: Add - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

Type: Copy - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

Type: Scale - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

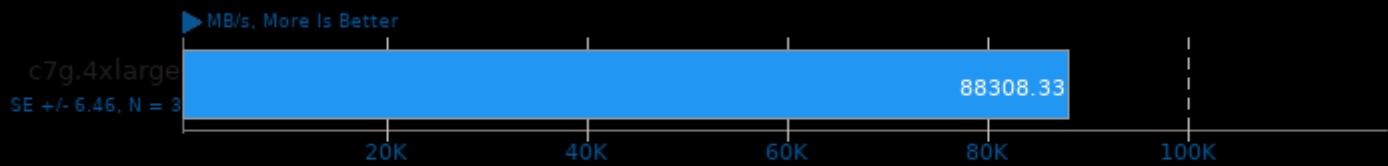
Type: Triad - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

Type: Average - Benchmark: Floating Point



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

CacheBench

Test: Read



1. (CC) gcc options: -lrt

CacheBench

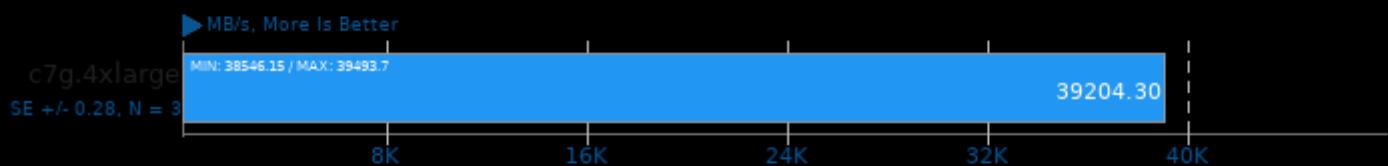
Test: Write



1. (CC) gcc options: -lrt

CacheBench

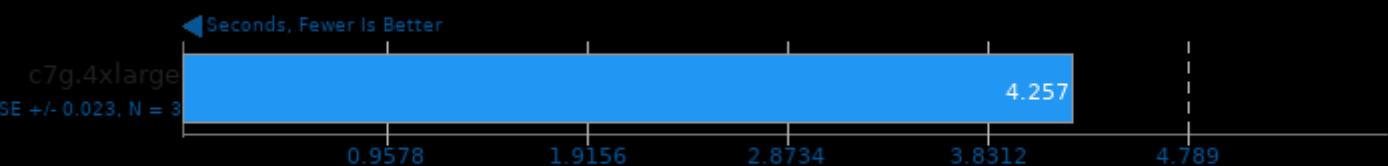
Test: Read / Modify / Write



1. (CC) gcc options: -lrt

Hackbench

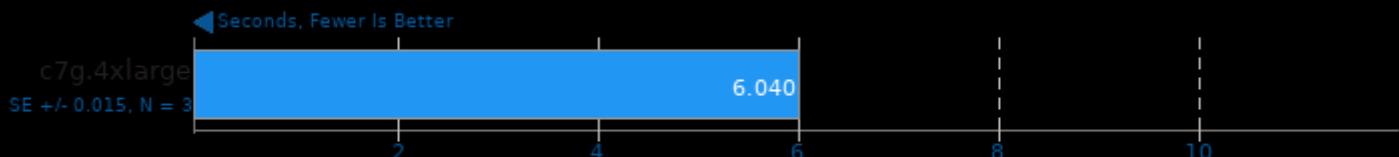
Count: 1 - Type: Thread



1. (CC) gcc options: -lpthread

Hackbench

Count: 2 - Type: Thread



1. (CC) gcc options: -lpthread

Hackbench

Count: 4 - Type: Thread



1. (CC) gcc options: -lpthread

Hackbench

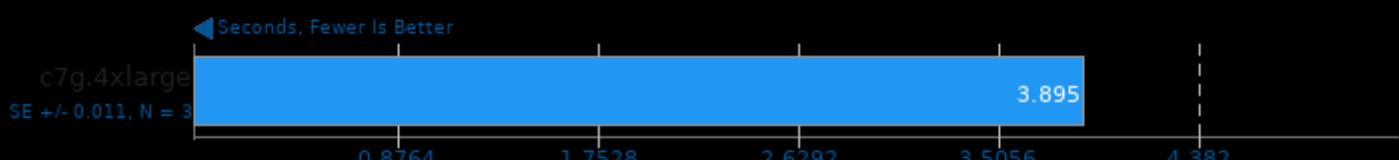
Count: 8 - Type: Thread



1. (CC) gcc options: -lpthread

Hackbench

Count: 1 - Type: Process



1. (CC) gcc options: -lpthread

Hackbench

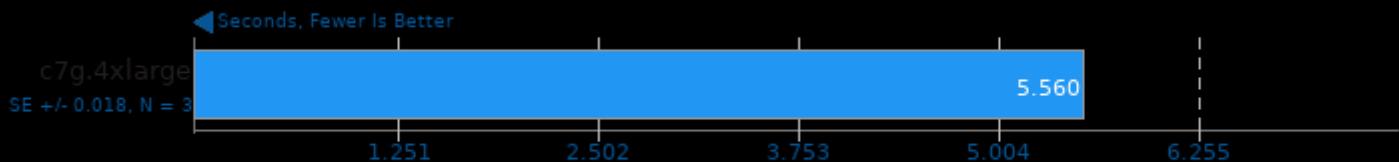
Count: 16 - Type: Thread



1. (CC) gcc options: -lpthread

Hackbench

Count: 2 - Type: Process



1. (CC) gcc options: -lpthread

Hackbench

Count: 32 - Type: Thread



1. (CC) gcc options: -lpthread

Hackbench

Count: 4 - Type: Process



1. (CC) gcc options: -lpthread

Hackbench

Count: 8 - Type: Process



1. (CC) gcc options: -lpthread

Hackbench

Count: 16 - Type: Process



1. (CC) gcc options: -lpthread

Hackbench

Count: 32 - Type: Process



1. (CC) gcc options: -lpthread

Parallel BZIP2 Compression 1.1.13

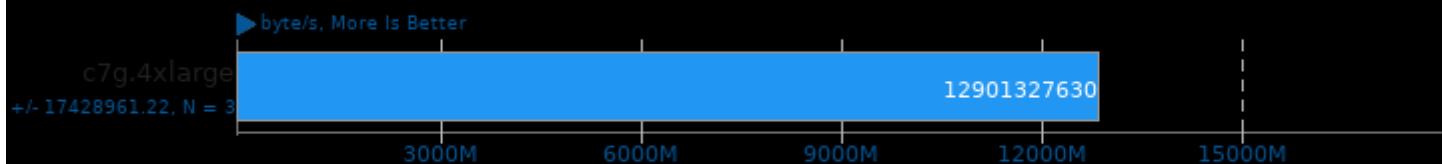
FreeBSD-13.0-RELEASE-amd64-memstick.img Compression



1. (CXX) g++ options: -O2 -pthread -lbz2 -lpthread

OpenSSL 3.1

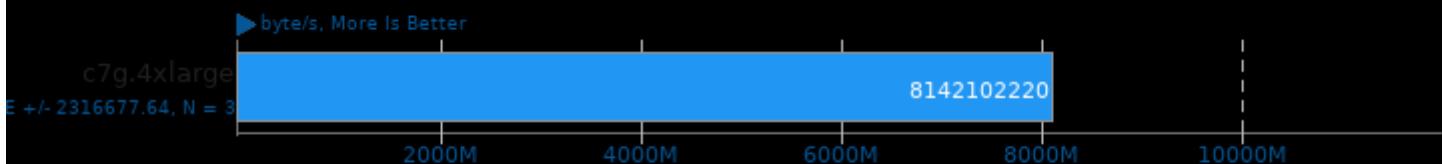
Algorithm: SHA256



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

OpenSSL 3.1

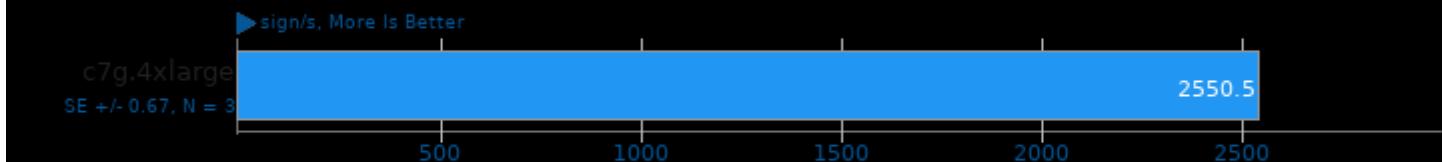
Algorithm: SHA512



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

OpenSSL 3.1

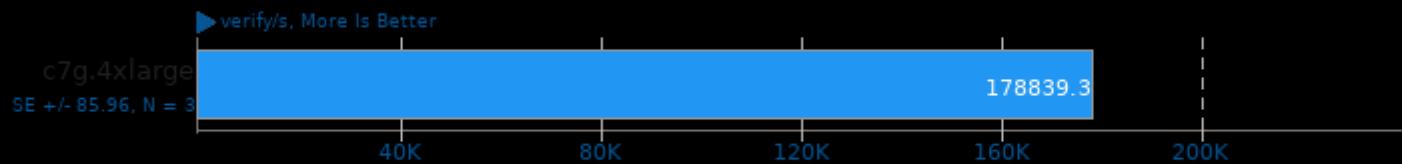
Algorithm: RSA4096



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

OpenSSL 3.1

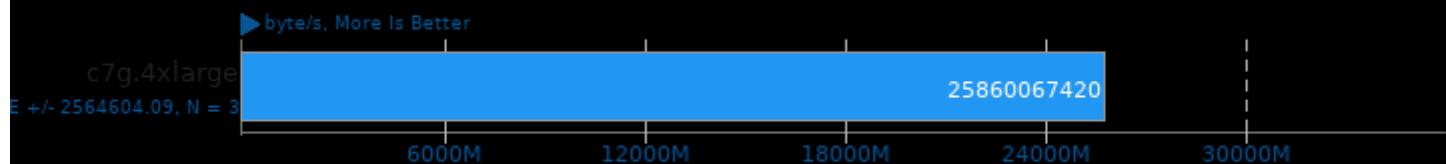
Algorithm: RSA4096



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

OpenSSL 3.1

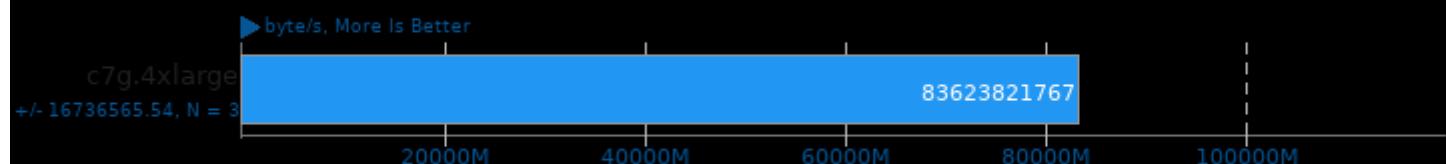
Algorithm: ChaCha20



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

OpenSSL 3.1

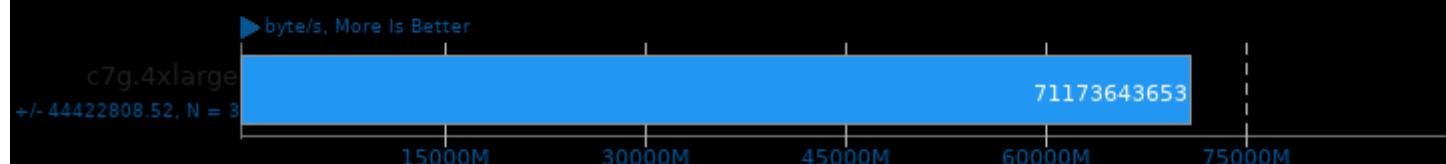
Algorithm: AES-128-GCM



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

OpenSSL 3.1

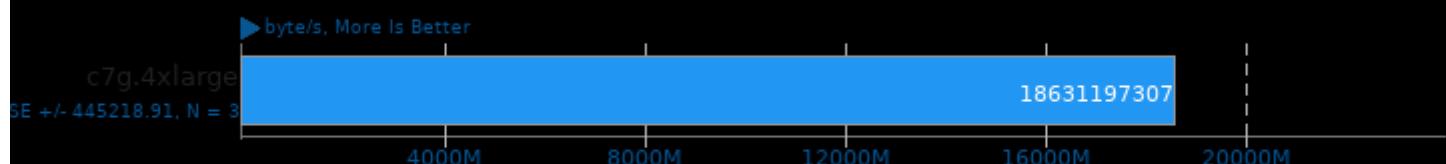
Algorithm: AES-256-GCM



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

OpenSSL 3.1

Algorithm: ChaCha20-Poly1305



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

x264 2022-02-22

Video Input: Bosphorus 4K



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

x264 2022-02-22

Video Input: Bosphorus 1080p



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

Smallpt 1.0

Global Illumination Renderer; 128 Samples



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

Stockfish 15

Total Time



1. (CXX) g++ options: -lgcov -lpthread -fno-exceptions -std=c++17 -fno-peel-loops -fno-tracer -pedantic -O3 -fipa -fipa=jobserver

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 09:39.