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system nginx redis

AMD Ryzen 9 5900HX testing with a ASUS G513QY v1.0 (G513QY.311 BIOS) and ASUS AMD Cezanne 512MB on Ubuntu 21.10 via the Phoronix Test Suite.

Automated Executive Summary

2 had the most wins, coming in first place for 45% of the tests.

Based on the geometric mean of all complete results, the fastest (3) was 1.003x the speed of the slowest (1). 2 was 0.998x the speed of 3 and 1 was 0.999x the speed of 2.

Test Systems:

1

2

system nginx redis

3

Processor: AMD Ryzen 9 5900HX @ 3.30GHz (8 Cores / 16 Threads), Motherboard: ASUS G513QY v1.0 (G513QY.311 BIOS), Chipset: AMD Renoir/Cezanne, Memory: 16GB, Disk: 512GB SAMSUNG MZVLQ512HBLU-00B00, Graphics: ASUS AMD Cezanne 512MB (2600/1000MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: LQ156M1JW25, Network: Realtek RTL8111/8168/8411 + MEDIATEK Device 7961

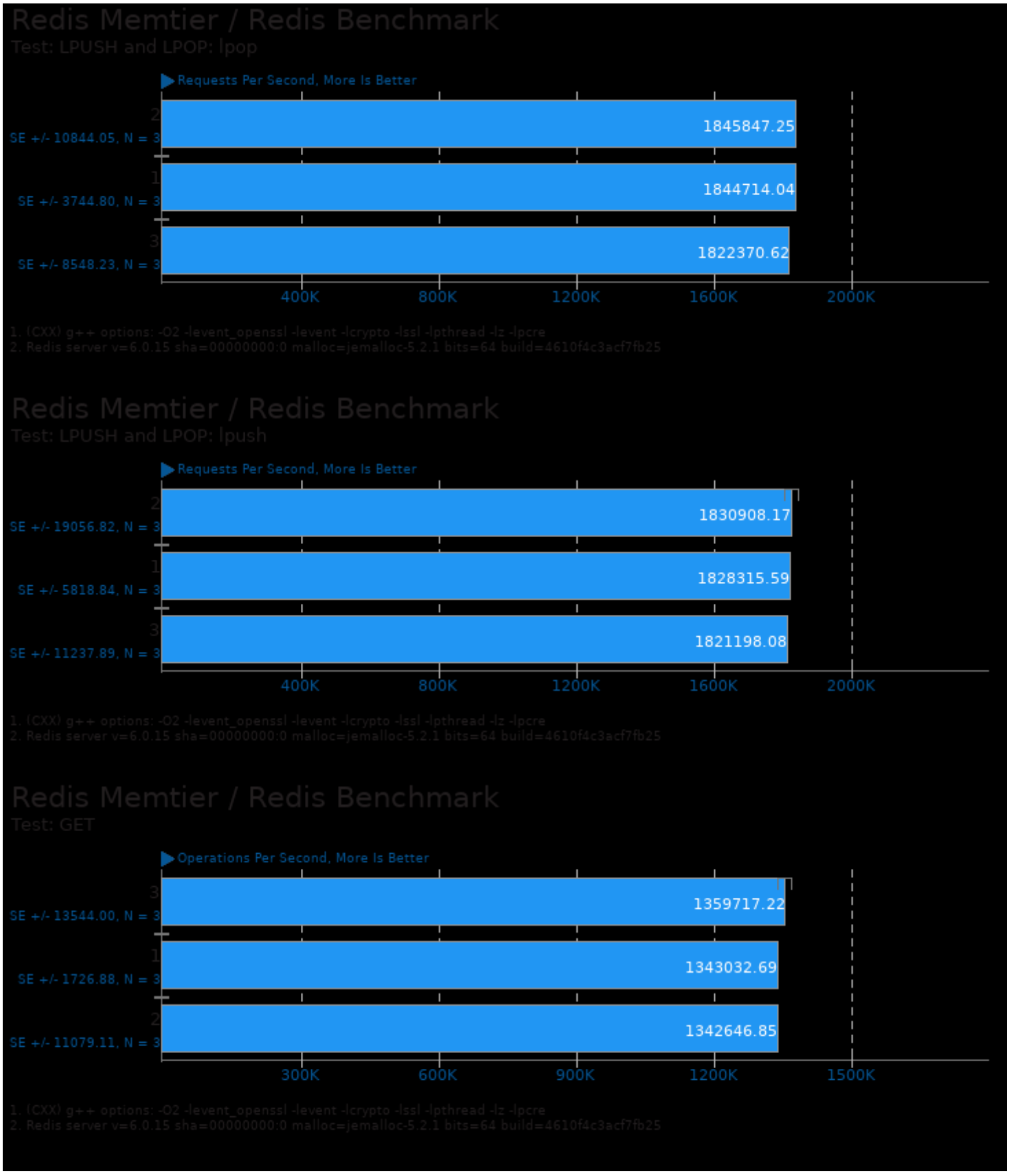
OS: Ubuntu 21.10, Kernel: 5.15.0-051500rc4daily20211005-generic (x86_64) 20211004, Desktop: GNOME Shell 40.5, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.3.0-devel (git-0a592db 2021-10-05 impish-oibaf-ppa) (LLVM 12.0.1), Vulkan: 1.2.193, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

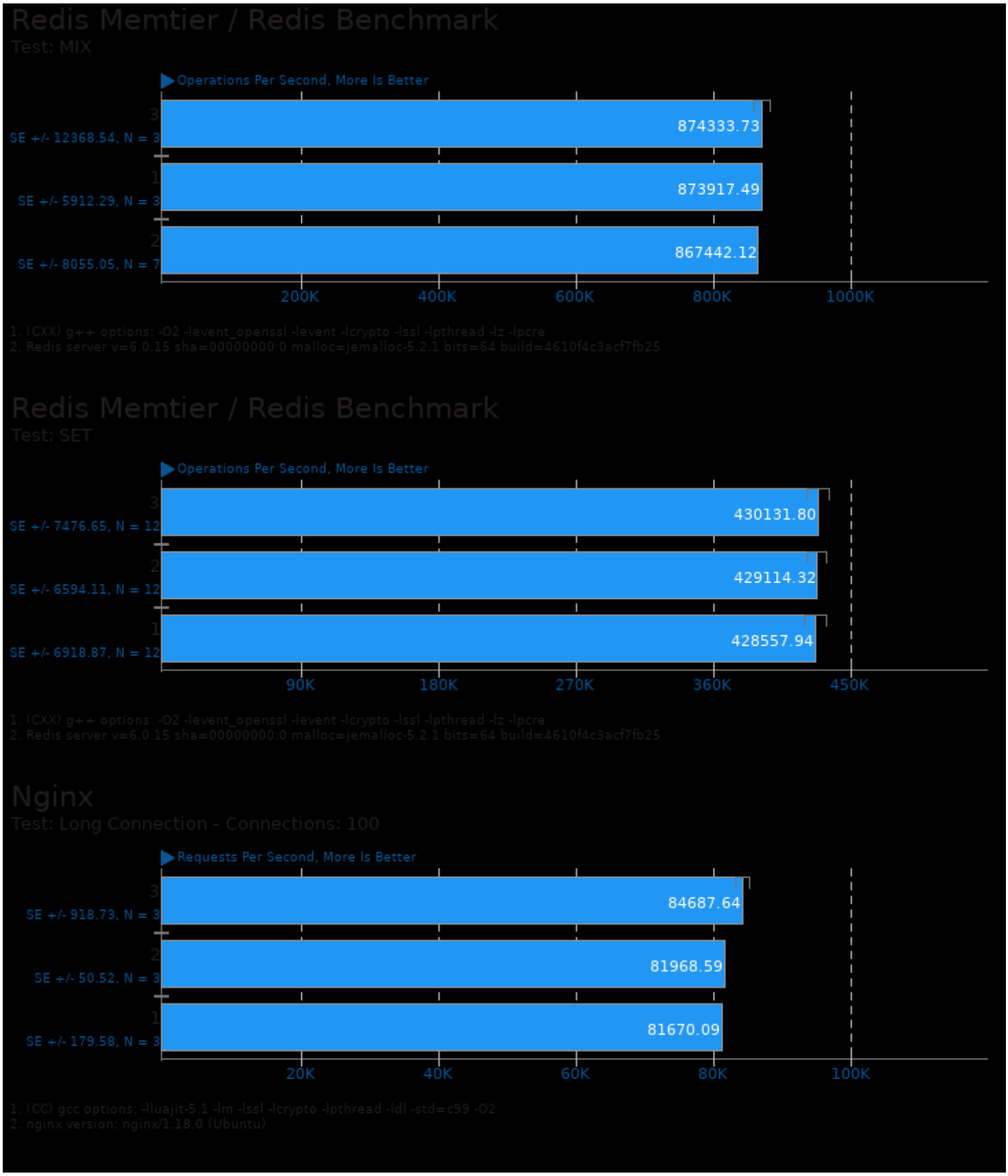
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-ZPT0kp/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-ZPT0kp/gcc-11-11.2.0/debian/tmp-gcn/usr --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-build-config=bootstrap-lto-lean --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: acpi-cpufreq schedutil (Boost: Enabled) - Platform Profile: balanced - CPU Microcode: 0xa50000c - ACPI Profile: balanced
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + 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 AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

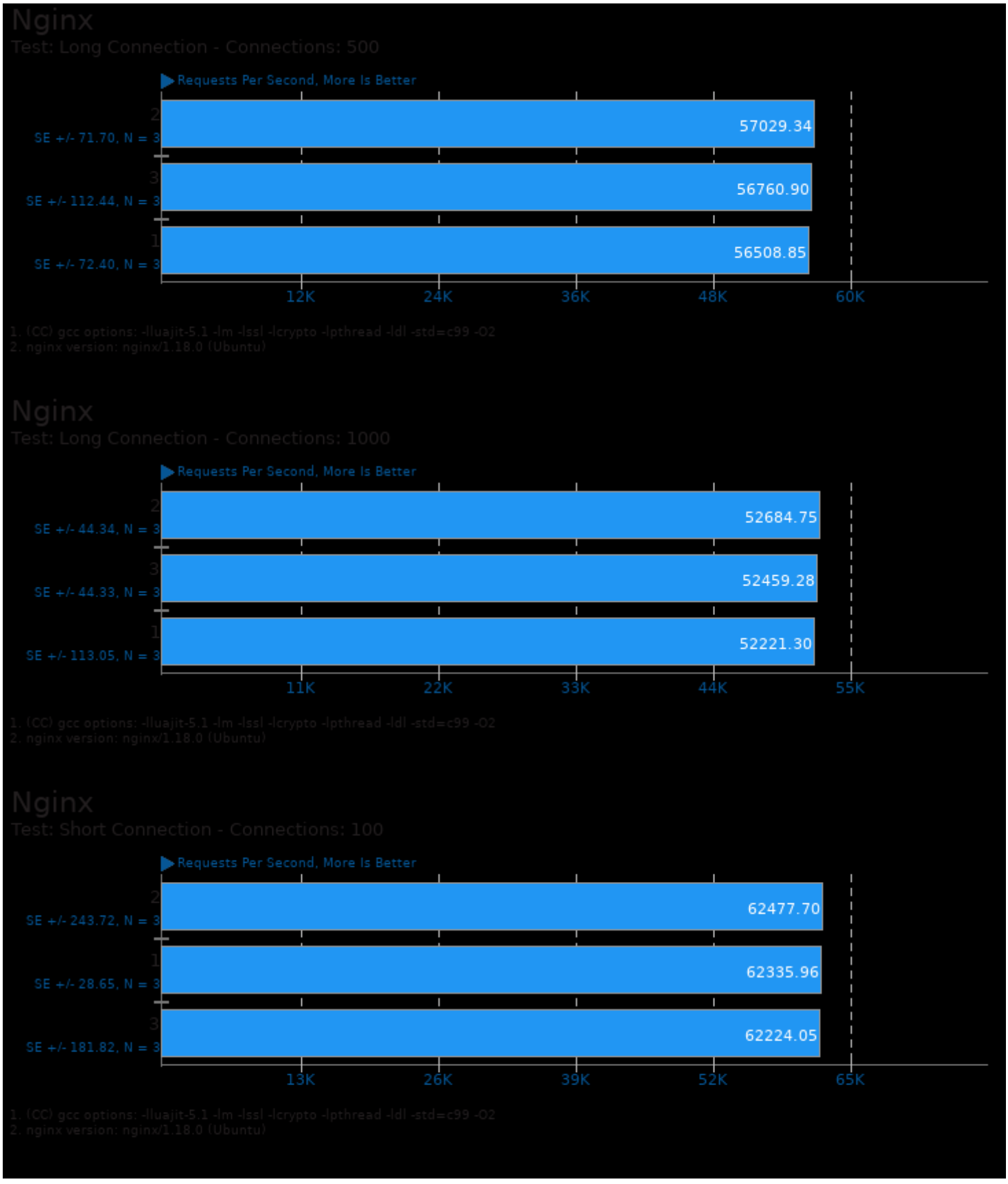
	1	2	3
Redis Memtier / Redis Benchmark - L.a.L.l (Reqs/sec)	1844714	**1845847**	**1822371**
Normalized	99.94%	100%	98.73%
Standard Deviation	0.4%	1%	0.8%
Redis Memtier / Redis Benchmark - L.a.L.l (Reqs/sec)	1828316	**1830908**	**1821198**
Normalized	99.86%	100%	99.47%
Standard Deviation	0.6%	1.8%	1.1%
Redis Memtier / Redis Benchmark - GET (Operations/sec)	1343033	**1342647**	**1359717**
Normalized	98.77%	98.74%	100%
Standard Deviation	0.2%	1.4%	1.7%
Redis Memtier / Redis Benchmark - MIX (Operations/sec)	873917	**867442**	**874334**
Normalized	99.95%	99.21%	100%
Standard Deviation	1.2%	2.5%	2.5%
Redis Memtier / Redis Benchmark - SET (Operations/sec)	**428558**	429114	**430132**
Normalized	99.63%	99.76%	100%
Standard Deviation	5.6%	5.3%	6%
Nginx - Long Connection - 100 (Reqs/sec)	**81670**	81969	**84688**
Normalized	96.44%	96.79%	100%
Standard Deviation	0.4%	0.1%	1.9%
Nginx - Long Connection - 500 (Reqs/sec)	**56509**	**57029**	56761
Normalized	99.09%	100%	99.53%
Standard Deviation	0.2%	0.2%	0.3%
Nginx - Long Connection - 1000 (Reqs/sec)	**52221**	**52685**	52459
Normalized	99.12%	100%	99.57%

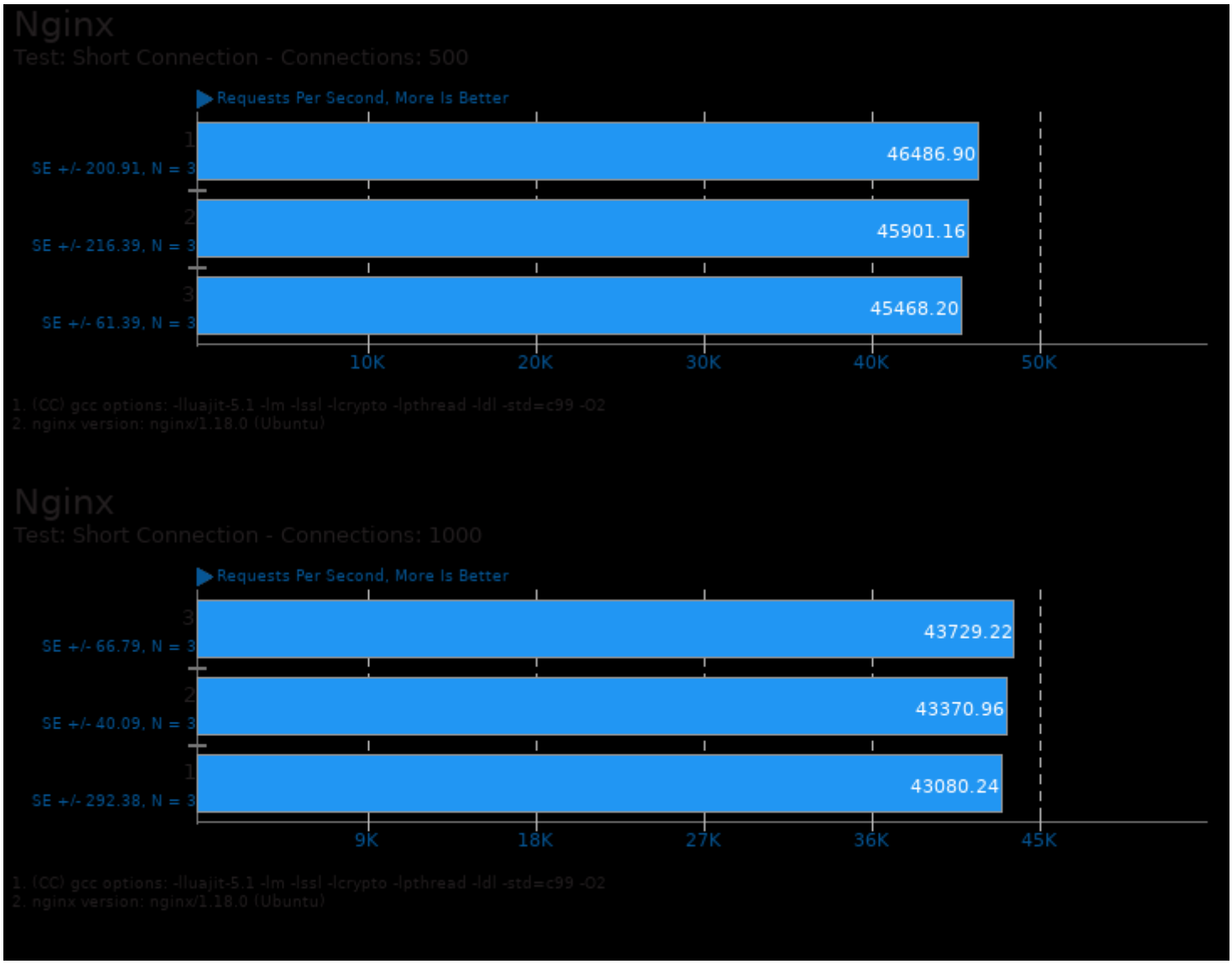
system nginx redis

Standard Deviation	0.4%	0.1%	0.1%
Nginx - Short Connection - 100 (Reqs/sec)	62336	**62478**	**62224**
Normalized	99.77%	100%	99.59%
Standard Deviation	0.1%	0.7%	0.5%
Nginx - Short Connection - 500 (Reqs/sec)	**46487**	45901	**45468**
Normalized	100%	98.74%	97.81%
Standard Deviation	0.7%	0.8%	0.2%
Nginx - Short Connection - 1000 (Reqs/sec)	**43080**	43371	**43729**
Normalized	98.52%	99.18%	100%
Standard Deviation	1.2%	0.2%	0.3%


Redis Memtier / Redis Benchmark
Test: LPUSH and LPOP: lpop
Requests Per Second, More Is Better
2
1845847.25
SE +/- 10844.05, N = 3
1
1844714.04
SE +/- 3744.80, N = 3
3
1822370.62
SE +/- 8548.23, N = 3
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.15 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=4610f4c3acf7fb25
Redis Memtier / Redis Benchmark
Test: LPUSH and LPOP: lpush
Requests Per Second, More Is Better
2
1830908.17
SE +/- 19056.82, N = 3
1
1828315.59
SE +/- 5818.84, N = 3
3
1821198.08
SE +/- 11237.89, N = 3
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.15 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=4610f4c3acf7fb25
Redis Memtier / Redis Benchmark
Test: GET
Operations Per Second, More Is Better
3
1359717.22
SE +/- 13544.00, N = 3
1
1343032.69
SE +/- 1726.88, N = 3
2
1342646.85
SE +/- 11079.11, N = 3
300K
600K
900K
1200K
1500K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.15 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=4610f4c3acf7fb25


Redis Memtier / Redis Benchmark
Test: MIX
Operations Per Second, More Is Better
3
SE +/- 12368.54, N = 3
874333.73
1
SE +/- 5912.29, N = 3
873917.49
2
SE +/- 8055.05, N = 7
867442.12
200K
400K
600K
800K
1000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.15 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=4610f4c3acf7fb25
Redis Memtier / Redis Benchmark
Test: SET
Operations Per Second, More Is Better
3
SE +/- 7476.65, N = 12
430131.80
2
SE +/- 6594.11, N = 12
429114.32
1
SE +/- 6918.87, N = 12
428557.94
90K
180K
270K
360K
450K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.15 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=4610f4c3acf7fb25
Nginx
Test: Long Connection - Connections: 100
Requests Per Second, More Is Better
3
SE +/- 918.73, N = 3
84687.64
2
SE +/- 50.52, N = 3
81968.59
1
SE +/- 179.58, N = 3
81670.09
20K
40K
60K
80K
100K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)


Nginx
Test: Long Connection - Connections: 500
Requests Per Second, More Is Better
2
SE +/- 71.70, N = 3
57029.34
3
SE +/- 112.44, N = 3
56760.90
1
SE +/- 72.40, N = 3
56508.85
12K
24K
36K
48K
60K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)
Nginx
Test: Long Connection - Connections: 1000
Requests Per Second, More Is Better
2
SE +/- 44.34, N = 3
52684.75
3
SE +/- 44.33, N = 3
52459.28
1
SE +/- 113.05, N = 3
52221.30
11K
22K
33K
44K
55K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)
Nginx
Test: Short Connection - Connections: 100
Requests Per Second, More Is Better
2
SE +/- 243.72, N = 3
62477.70
1
SE +/- 28.65, N = 3
62335.96
3
SE +/- 181.82, N = 3
62224.05
13K
26K
39K
52K
65K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 09:43.