

www.phoronix-test-suite.com

vps-comparison

VPS Comparison

Automated Executive Summary

webh-start-2016 had the most wins, coming in first place for 75% of the tests.

Based on the geometric mean of all complete results, the fastest (webh-start-2016) was 1.866x the speed of the slowest (digitalocean-ams1). 2000 MB RAM - Intel Xeon E312xx was 0.97x the speed of webh-start-2016, ovh-vps-2016 #1 was 0.996x the speed of 2000 MB RAM - Intel Xeon E312xx, Intel Xeon E5-2630L 0 was 0.566x the speed of ovh-vps-2016 #1, digitalocean-ams1 was 0.981x the speed of Intel Xeon E5-2630L 0.

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

IOzone (Record Size: 1MB - File Size: 4GB - Disk Test: Read Performance) at 38.265x
IOzone (Record Size: 4Kb - File Size: 4GB - Disk Test: Read Performance) at 30.874x
PostMark (Disk Transaction Performance) at 22.077x
OpenSSL (RSA 4096-bit Performance) at 5.529x
C-Ray (Total Time) at 2.834x
Timed HMMer Search (Pfam Database Search) at 2.621x
Bullet Physics Engine (Test: Convex Trimesh) at 2.407x
Parallel BZIP2 Compression (256MB File Compression) at 2.299x

GraphicsMagick (Operation: HWB Color Space) at 2.02x
Timed MAFFT Alignment (Multiple Sequence Alignment) at 1.858x.

Test Systems:

digitalocean-ams1

Processor: Intel Xeon E5-2630L 0 @ 2.00GHz (1 Core), Motherboard: Bochs, Chipset: Intel 440FX- 82441FX PMC, Memory: 1 x 512 MB RAM, Disk: 20GB, Graphics: Cirrus Logic GD 5446, Network: Red Hat Virtio device

OS: Debian 7.8, Kernel: 3.2.0-4-686-pae (i686), Compiler: GCC 4.7.2, File-System: ext4

Compiler Notes: --build=i486-linux-gnu --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-languages=c,c++,go,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-targets=all --enable-threads=posix --host=i486-linux-gnu --target=i486-linux-gnu --with-arch-32=i586 --with-tune=generic -v
Disk Mount Options Notes: barrier=1,data=ordered,errors=remount-ro,relatime,rw,user_xattr

ovh-vps-2016 #1

ovh-vps-2016 #2

ovh-vps-2016 #3

Processor: Intel Xeon E312xx @ 2.39GHz (1 Core), Motherboard: OpenStack Foundation Nova v2014.2.3, Memory: 1 x 2000 MB RAM, Disk: 10GB

OS: Debian 8.3, Kernel: 3.16.0-4-amd64 (x86_64), Compiler: GCC 4.9.2, File-System: ext3, System Layer: KVM

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i586 --with-arch-directory=amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Mount Options Notes: data=ordered,errors=remount-ro,relatime,rw

webh-start-2016

Processor: Intel Xeon E5-2643 v2 @ 3.50GHz (6 Cores), Memory: 2048MB, Disk: 20GB

OS: Ubuntu 14.04, Kernel: 2.6.32-042stab113.21 (x86_64), Compiler: GCC 4.8.4, File-System: ext2/ext3

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-libmudflap --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Mount Options Notes: grpquota,relatime,rw,usrquota

Phoronix Test Suite

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	digitalocean-ams1	ovh-vps-2016 #1	ovh-vps-2016 #2	ovh-vps-2016 #3	webh-start-2016
GraphicsMagick - HWB Color Space (Iterations/min)	49	95			99
Normalized	49.49%	95.96%			100%
Standard Deviation	2.9%	1.1%			1%
AIO-Stress - Rand Write (MB/s)	239.07	60.99			1258
Normalized	19%	4.85%			100%
Standard Deviation	7.9%	17.9%			0.9%
RAMspeed SMP - Average - Integer (MB/s)	6938	10204			11237
Normalized	61.75%	90.81%			100%
RAMspeed SMP - Average - Floating Point (MB/s)	8838	10233			10794
Normalized	81.88%	94.8%			100%
Stream - Triad (MB/s)	9740	10849			12354
Normalized	78.84%	87.82%			100%
Standard Deviation	8.3%	1.2%			1.3%
IOzone - 4GB - Write Performance (MB/s)	417.85				801.13
Normalized	52.16%				100%
Standard Deviation	16.3%				5%
IOzone - 4GB - Read Performance (MB/s)	525.07				3504
Normalized	14.99%				100%
Standard Deviation	16%				1.5%
Stream - Copy (MB/s)	9413	9792			12068
Normalized	78%	81.14%			100%
Standard Deviation	6%	2%			1.6%
Stream - Scale (MB/s)	9422	9463			11973
Normalized	78.69%	79.03%			100%
Standard Deviation	8.4%	1.5%			1.9%
Stream - Add (MB/s)	9725	10844			12290
Normalized	79.13%	88.24%			100%
Standard Deviation	8.7%	1.8%			1.2%
IOzone - 4Kb - 4GB - Read Performance (MB/s)		103.48			3195
Normalized		3.24%			100%
Standard Deviation		0.2%			4.8%
IOzone - 4Kb - 4GB - Write Performance (MB/s)		329.04			757.70
Normalized		43.43%			100%
Standard Deviation		3.5%			13%
IOzone - 1MB - 4GB - Read Performance (MB/s)		105.82			4049
Normalized		2.61%			100%
Standard Deviation		0.1%			2.9%
IOzone - 1MB - 4GB - Write Performance (MB/s)		322.44			838.97
Normalized		38.43%			100%
Standard Deviation		3.3%			8.2%

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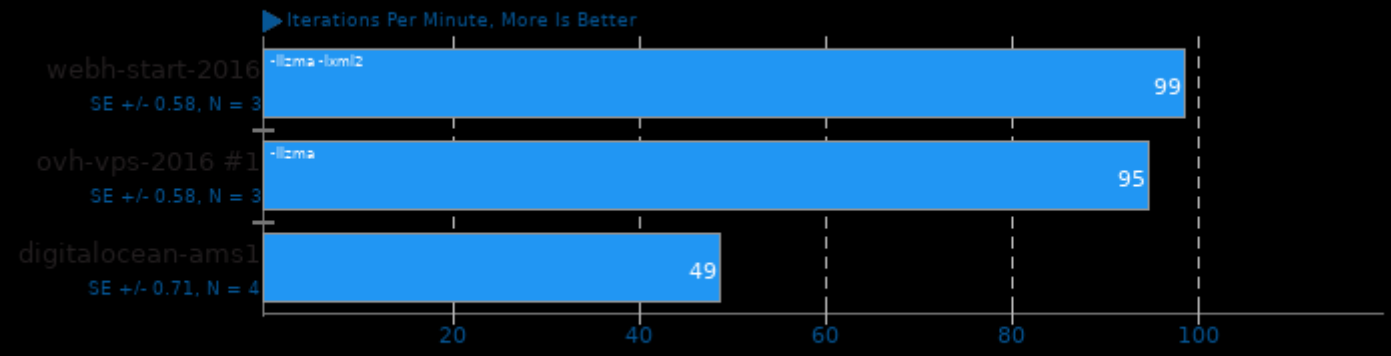
Himeno Benchmark - P.P.S (MFLOPS)	**867.39**	1220	**1436**
Normalized	60.41%	84.96%	100%
Standard Deviation	3.2%	0.4%	0.6%
John The Ripper - Blowfish (Real C/S)	**500**	701	**898**
Normalized	55.68%	78.06%	100%
Standard Deviation	3.4%	0.2%	4.3%
Apache Benchmark - S.W.P.S (Reqs/sec)	**4253**	5545	**5848**
Normalized	72.72%	94.81%	100%
Standard Deviation	1.4%	5.9%	0.6%
NGINX Benchmark - S.W.P.S (Reqs/sec)	**7135**	10147	**10157**
Normalized	70.25%	99.89%	100%
Standard Deviation	1.5%	2.3%	3.5%
PHPBench - P.B.S (Score)	**56201**	96179	**102343**
Normalized	54.91%	93.98%	100%
Standard Deviation	0.9%	0.4%	1.4%
OpenSSL - R.4.b.P (Signs/sec)	**19.40**	93.67	**107.27**
Normalized	18.09%	87.32%	100%
Standard Deviation	2.1%	0.3%	4.2%
NAS Parallel Benchmarks - LU.A (Mop/s)	**1638**	**2736**	2557
Normalized	59.86%	100%	93.45%
Standard Deviation	4.9%	0.2%	2%
PostMark - D.T.P (TPS)	893	**169**	**3731**
Normalized	23.93%	4.53%	100%
Standard Deviation	5.3%	3.4%	1.5%
Gcrypt Library - C.E.C (us)	**3882**	2520	**2453**
Normalized	63.19%	97.34%	100%
Standard Deviation	8%	1.8%	1%
C-Ray - Total Time (sec)	**407.10**	**143.64**	148.26
Normalized	35.28%	100%	96.88%
Standard Deviation	0.3%	0.1%	1%
LAME MP3 Encoding - WAV To MP3 (sec)	27.60	17.42	**16.05**
Normalized	58.15%	92.14%	100%
Standard Deviation	3.1%	1.2%	2.5%
FFmpeg - H.2.H.T.N.D (sec)	**55.70**	39.37	**32.58**
Normalized	58.49%	82.75%	100%
Standard Deviation	6.2%	2.4%	3.5%
GnuPG - 1.F.E (sec)	**18.18**	12.17	**8.84**
Normalized	48.62%	72.64%	100%
Standard Deviation	3.2%	10.9%	4.4%
Timed Apache Compilation - Time To Compile (sec)	**192.43**	**127.73**	134.18
Normalized	66.38%	100%	95.19%
Standard Deviation	5%	0.3%	1.5%
Timed PHP Compilation - Time To Compile (sec)	**185.18**	**138.27**	144.51
Normalized	74.67%	100%	95.68%
Standard Deviation	1.1%	1.8%	1.1%

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Timed MPlayer Compilation - Time To Compile (sec)	**308.29**	**265.28**	280.55
Normalized	86.05%	100%	94.56%
Standard Deviation	2.4%	1.9%	1.5%
Timed Linux Kernel Compilation - Time To Compile (sec)	**1147**	**811.63**	826.06
Normalized	70.74%	100%	98.25%
Standard Deviation	4.1%	1.2%	0.9%
Timed ImageMagick Compilation - Time To Compile (sec)	**467.83**	**316.52**	351.53
Normalized	67.66%	100%	90.04%
Standard Deviation	3.8%	0.6%	1.6%
POV-Ray - Total Time (sec)	**1531**	**890.49**	
Normalized	58.18%	100%	
Standard Deviation	1.4%	0.4%	
Crafty - Elapsed Time (sec)	**0.02**	**110.73**	92.03
Normalized	100%	0.02%	0.02%
Standard Deviation	36.5%	0.1%	1.3%
Timed MAFFT Alignment - M.S.A (sec)	**48.51**	**26.11**	26.32
Normalized	53.82%	100%	99.2%
Standard Deviation	1.6%	0.5%	2.3%
Timed HMMer Search - P.D.S (sec)	**138.55**	71.51	**52.87**
Normalized	38.16%	73.93%	100%
Standard Deviation	1.6%	1.4%	2.6%
FFmpeg - H.2.H.T.N.D (sec)	**57.70**	39.49	**31.71**
Normalized	54.96%	80.3%	100%
Standard Deviation	2.5%	4.5%	1.6%
LZMA Compression - 2.F.C (sec)	**750.37**	485.42	**384.80**
Normalized	51.28%	79.27%	100%
Standard Deviation	7.4%	2%	0%
Parallel BZIP2 Compression - 2.F.C (sec)	**142.45**	70.02	**61.97**
Normalized	43.5%	88.5%	100%
Standard Deviation	2%	3.4%	2.3%
Bullet Physics Engine - 3000 Fall (sec)	**13.40**	8.10	**6.88**
Normalized	51.34%	84.94%	100%
Standard Deviation	14.1%	1.5%	7.1%
Bullet Physics Engine - Convex Trimesh (sec)	**4.02**	2.08	**1.67**
Normalized	41.54%	80.29%	100%
Standard Deviation	0.5%	1.3%	1.7%

GraphicsMagick 1.3.19

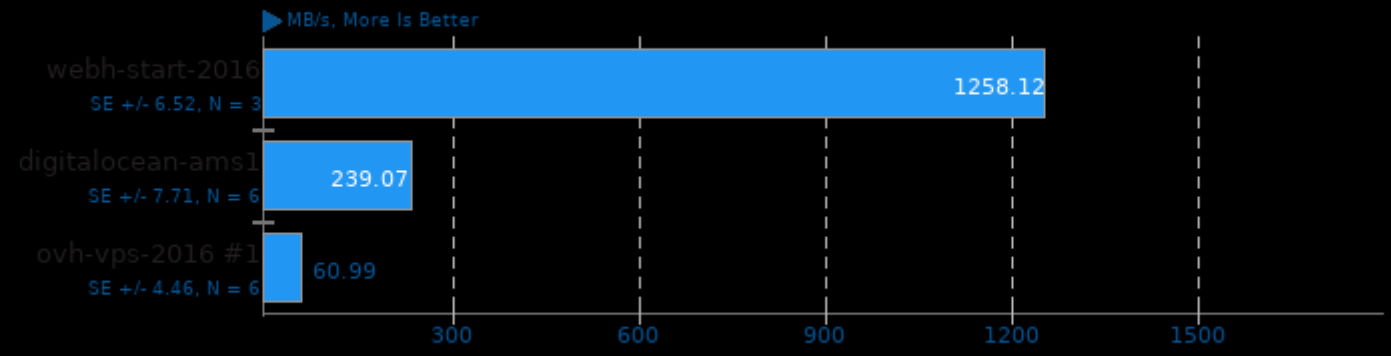
Operation: HWB Color Space



1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ljbig -ljpeg -lXext -lSM -lICE -lX11 -lz -lm -lgomp -lpthread

AIO-Stress 0.21

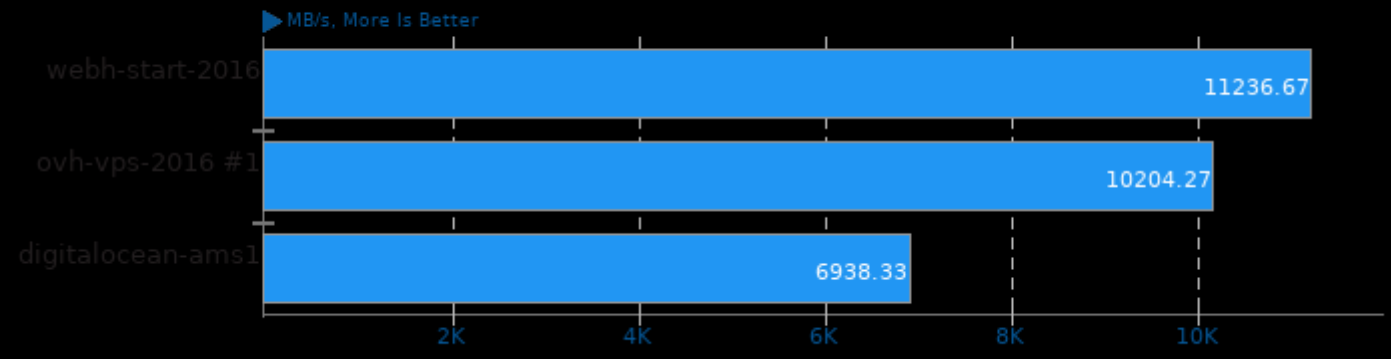
Test: Random Write

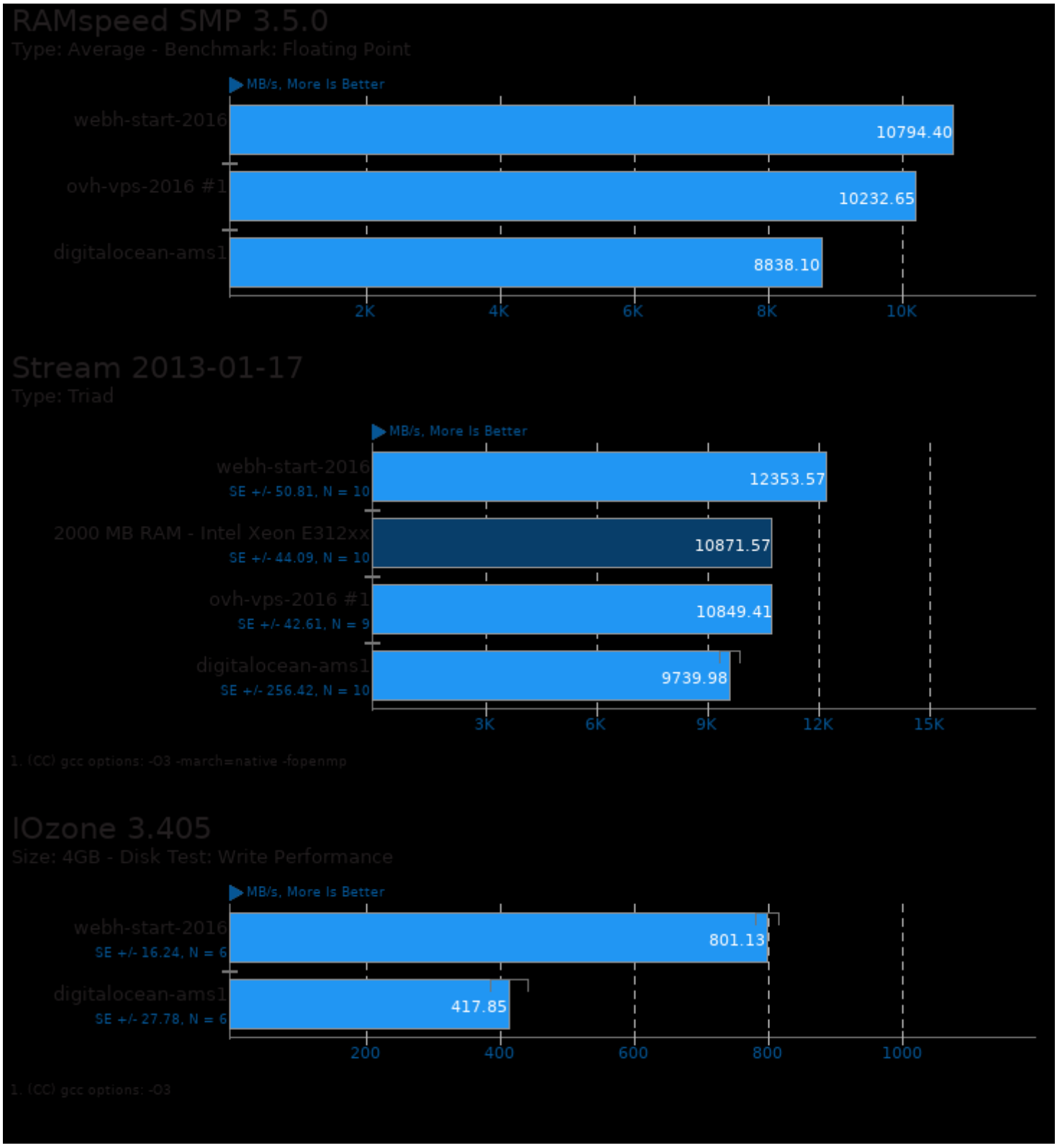


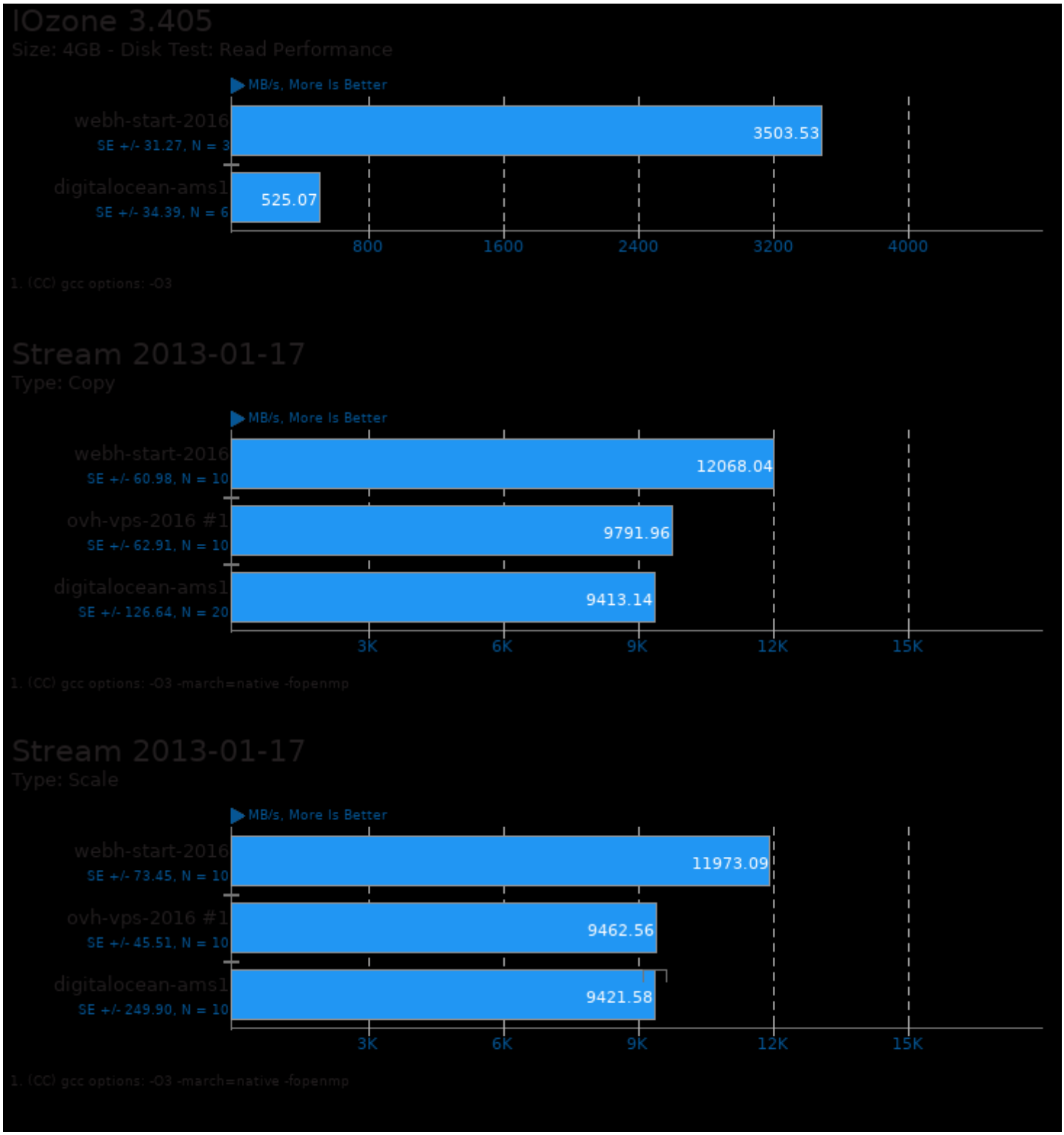
1. (CC) gcc options: -pthread -laio

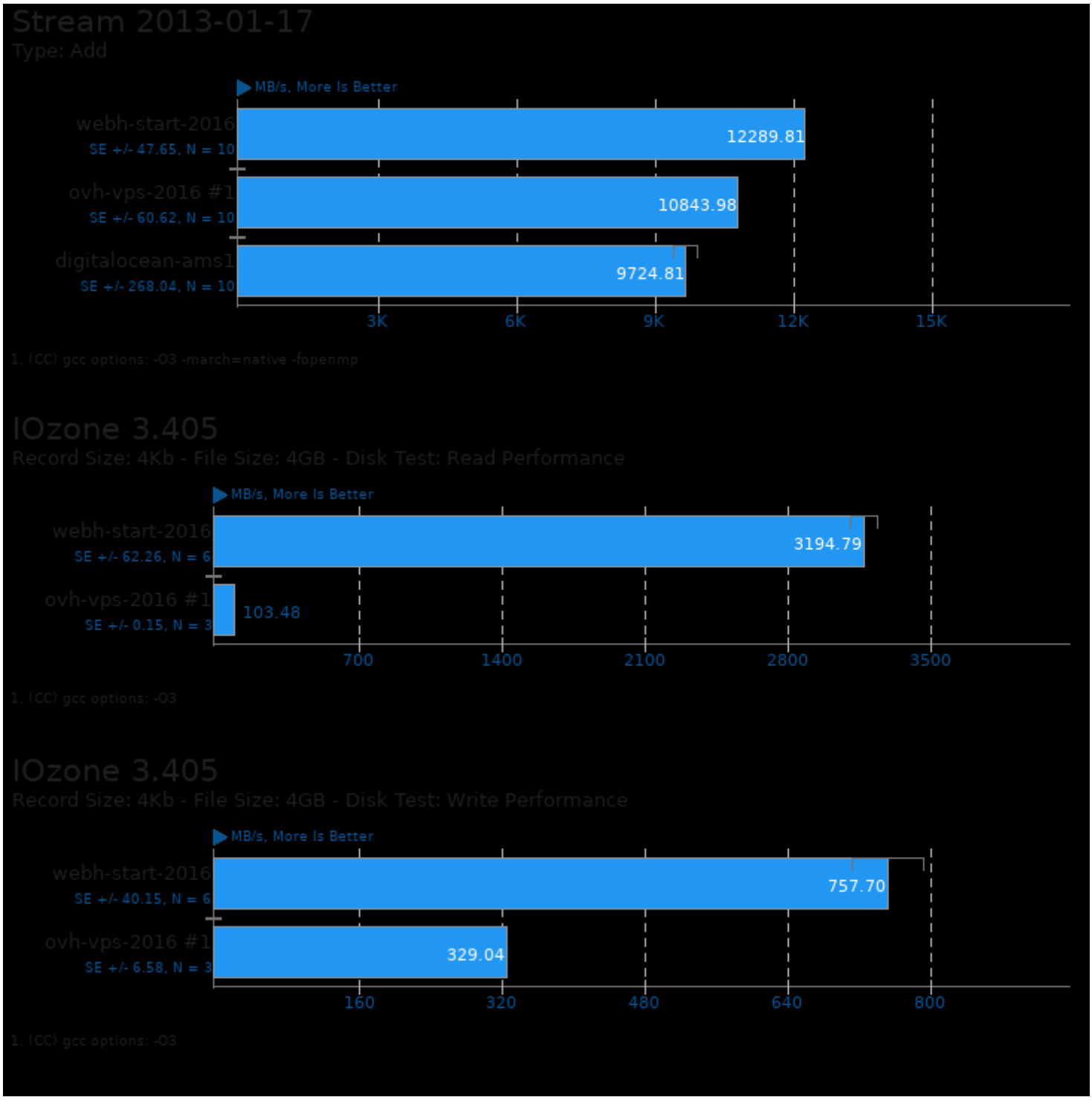
RAMspeed SMP 3.5.0

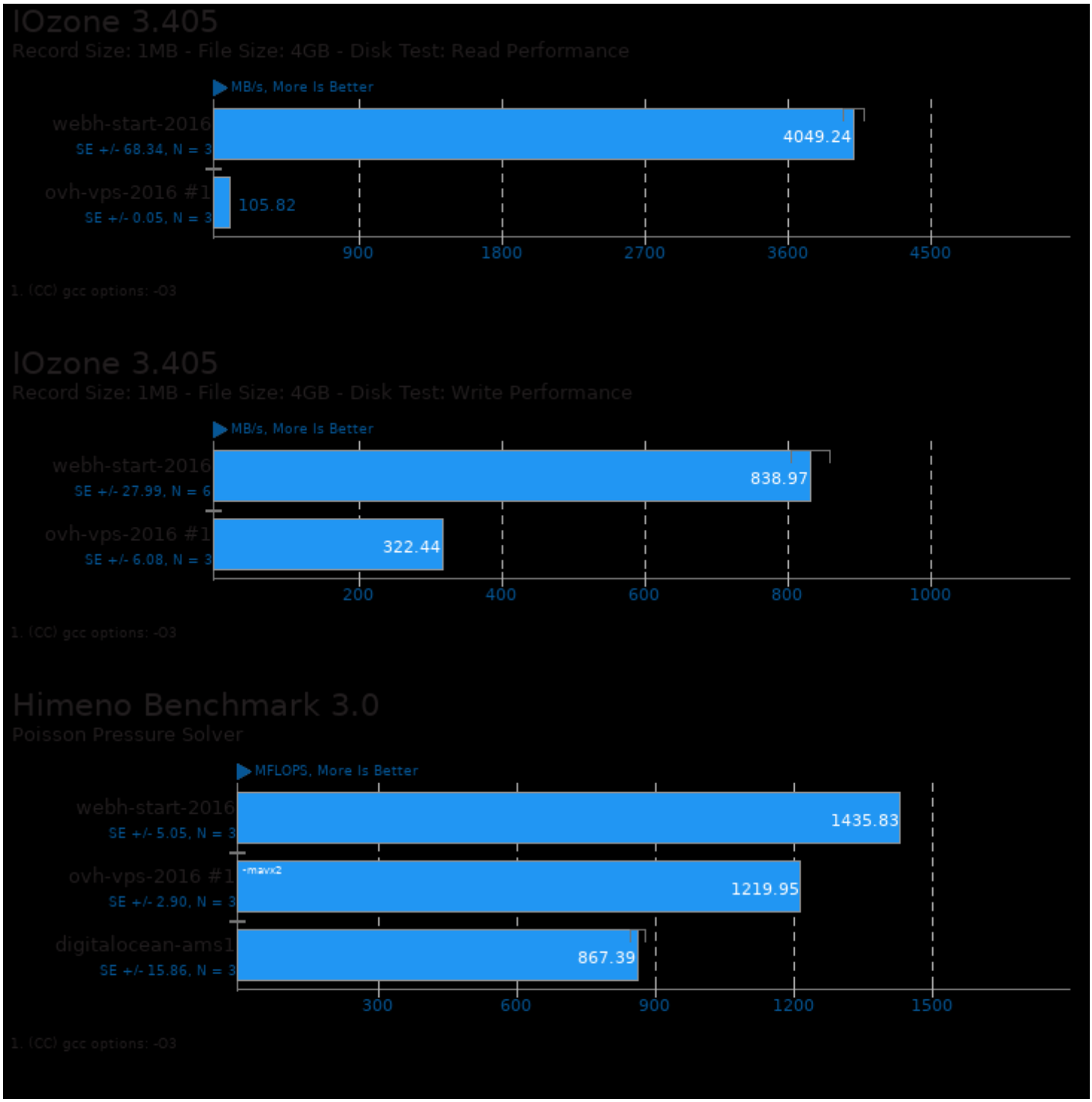
Type: Average - Benchmark: Integer




RAMspeed SMP 3.5.0
Type: Average - Benchmark: Floating Point
MB/s, More Is Better
webh-start-2016
10794.40
ovh-vps-2016 #1
10232.65
digitalocean-ams1
8838.10
2K
4K
6K
8K
10K
Stream 2013-01-17
Type: Triad
MB/s, More Is Better
webh-start-2016
SE +/- 50.81, N = 10
12353.57
2000 MB RAM - Intel Xeon E312xx
SE +/- 44.09, N = 10
10871.57
ovh-vps-2016 #1
SE +/- 42.61, N = 9
10849.41
digitalocean-ams1
SE +/- 256.42, N = 10
9739.98
3K
6K
9K
12K
15K
1. (CC) gcc options: -O3 -march=native -fopenmp
IOzone 3.405
Size: 4GB - Disk Test: Write Performance
MB/s, More Is Better
webh-start-2016
SE +/- 16.24, N = 6
801.13
digitalocean-ams1
SE +/- 27.78, N = 6
417.85
200
400
600
800
1000
1. (CC) gcc options: -O3

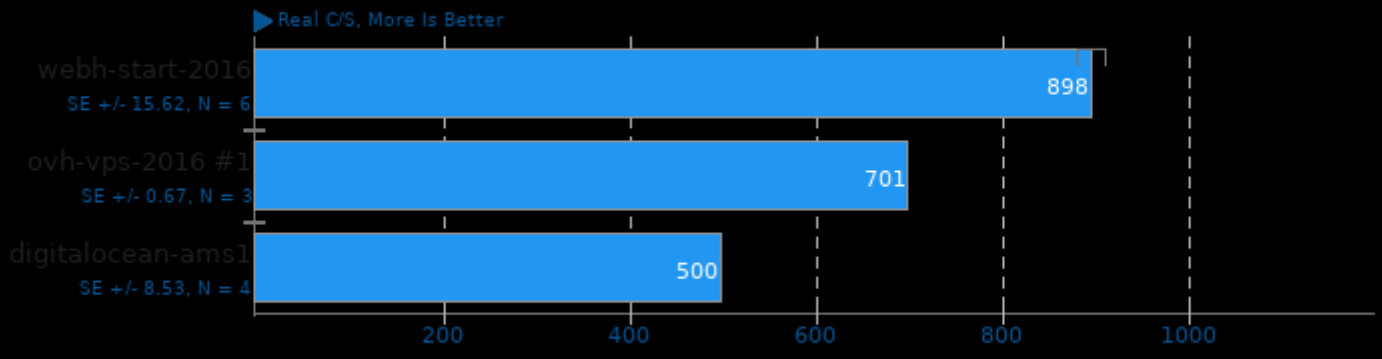

IOzone 3.405
Size: 4GB - Disk Test: Read Performance
MB/s, More Is Better
webh-start-2016
SE +/- 31.27, N = 3
3503.53
digitalocean-ams1
SE +/- 34.39, N = 6
525.07
800
1600
2400
3200
4000
1. (CC) gcc options: -O3
Stream 2013-01-17
Type: Copy
MB/s, More Is Better
webh-start-2016
SE +/- 60.98, N = 10
12068.04
ovh-vps-2016 #1
SE +/- 62.91, N = 10
9791.96
digitalocean-ams1
SE +/- 126.64, N = 20
9413.14
3K
6K
9K
12K
15K
1. (CC) gcc options: -O3 -march=native -fopenmp
Stream 2013-01-17
Type: Scale
MB/s, More Is Better
webh-start-2016
SE +/- 73.45, N = 10
11973.09
ovh-vps-2016 #1
SE +/- 45.51, N = 10
9462.56
digitalocean-ams1
SE +/- 249.90, N = 10
9421.58
3K
6K
9K
12K
15K
1. (CC) gcc options: -O3 -march=native -fopenmp


Stream 2013-01-17
Type: Add
MB/s, More Is Better
webh-start-2016
SE +/- 47.65, N = 10
12289.81
ovh-vps-2016 #1
SE +/- 60.62, N = 10
10843.98
digitalocean-ams1
SE +/- 268.04, N = 10
9724.81
3K
6K
9K
12K
15K
1. (CC) gcc options: -O3 -march=native -fopenmp
IOzone 3.405
Record Size: 4Kb - File Size: 4GB - Disk Test: Read Performance
MB/s, More Is Better
webh-start-2016
SE +/- 62.26, N = 6
3194.79
ovh-vps-2016 #1
SE +/- 0.15, N = 3
103.48
700
1400
2100
2800
3500
1. (CC) gcc options: -O3
IOzone 3.405
Record Size: 4Kb - File Size: 4GB - Disk Test: Write Performance
MB/s, More Is Better
webh-start-2016
SE +/- 40.15, N = 6
757.70
ovh-vps-2016 #1
SE +/- 6.58, N = 3
329.04
160
320
480
640
800
1. (CC) gcc options: -O3


IOzone 3.405
Record Size: 1MB - File Size: 4GB - Disk Test: Read Performance
MB/s, More Is Better
webh-start-2016
SE +/- 68.34, N = 3
4049.24
ovh-vps-2016 #1
SE +/- 0.05, N = 3
105.82
900
1800
2700
3600
4500
1. (CC) gcc options: -O3
IOzone 3.405
Record Size: 1MB - File Size: 4GB - Disk Test: Write Performance
MB/s, More Is Better
webh-start-2016
SE +/- 27.99, N = 6
838.97
ovh-vps-2016 #1
SE +/- 6.08, N = 3
322.44
200
400
600
800
1000
1. (CC) gcc options: -O3
Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
webh-start-2016
SE +/- 5.05, N = 3
1435.83
ovh-vps-2016 #1
SE +/- 2.90, N = 3
-mavx2
1219.95
digitalocean-ams1
SE +/- 15.86, N = 3
867.39
300
600
900
1200
1500
1. (CC) gcc options: -O3

John The Ripper 1.8.0

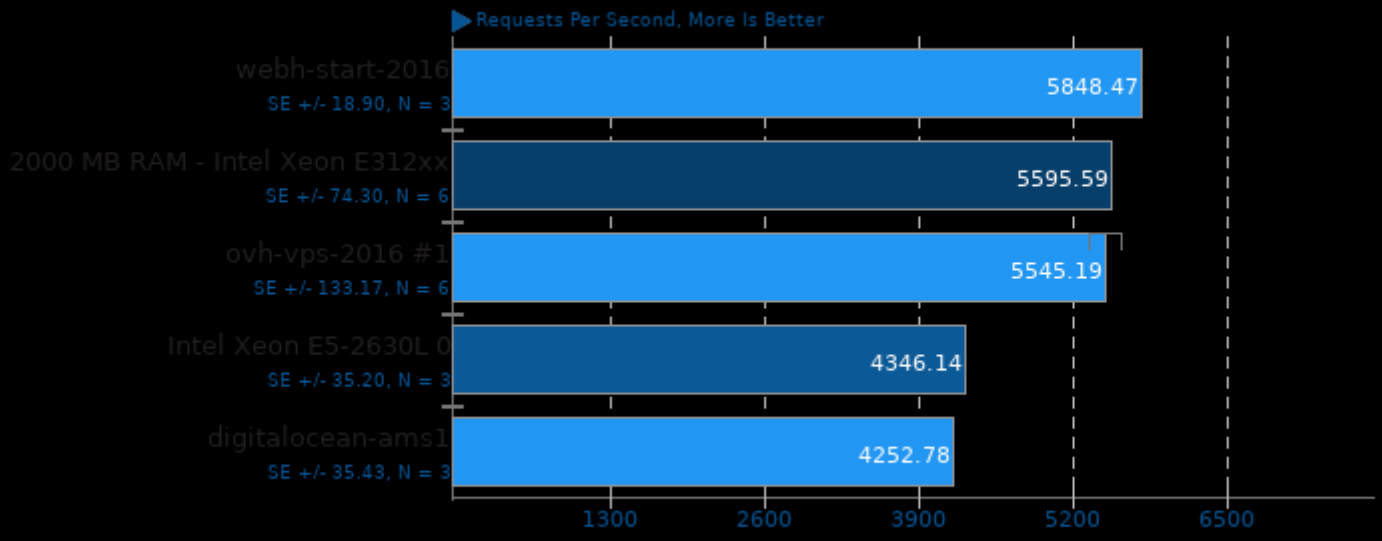
Blowfish



1. (CC) gcc options: -fopenmp -lcrypt

Apache Benchmark 2.4.7

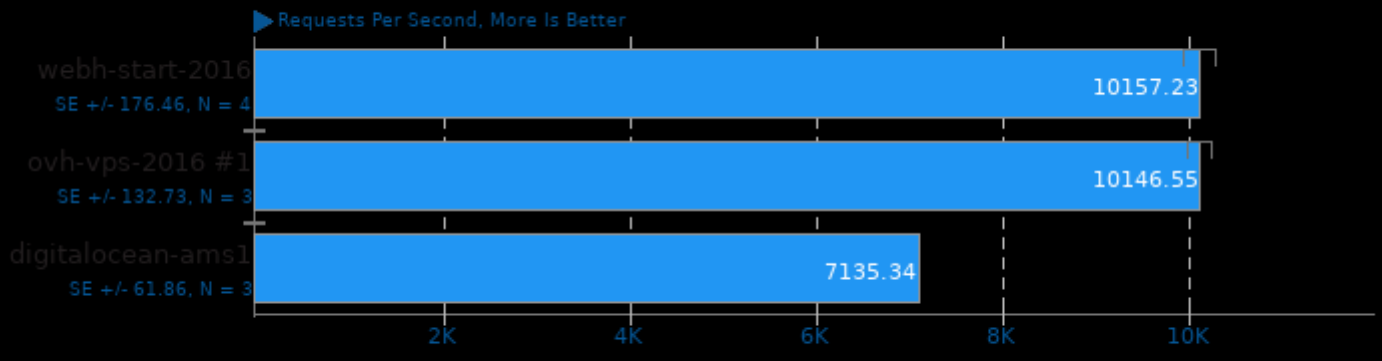
Static Web Page Serving



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

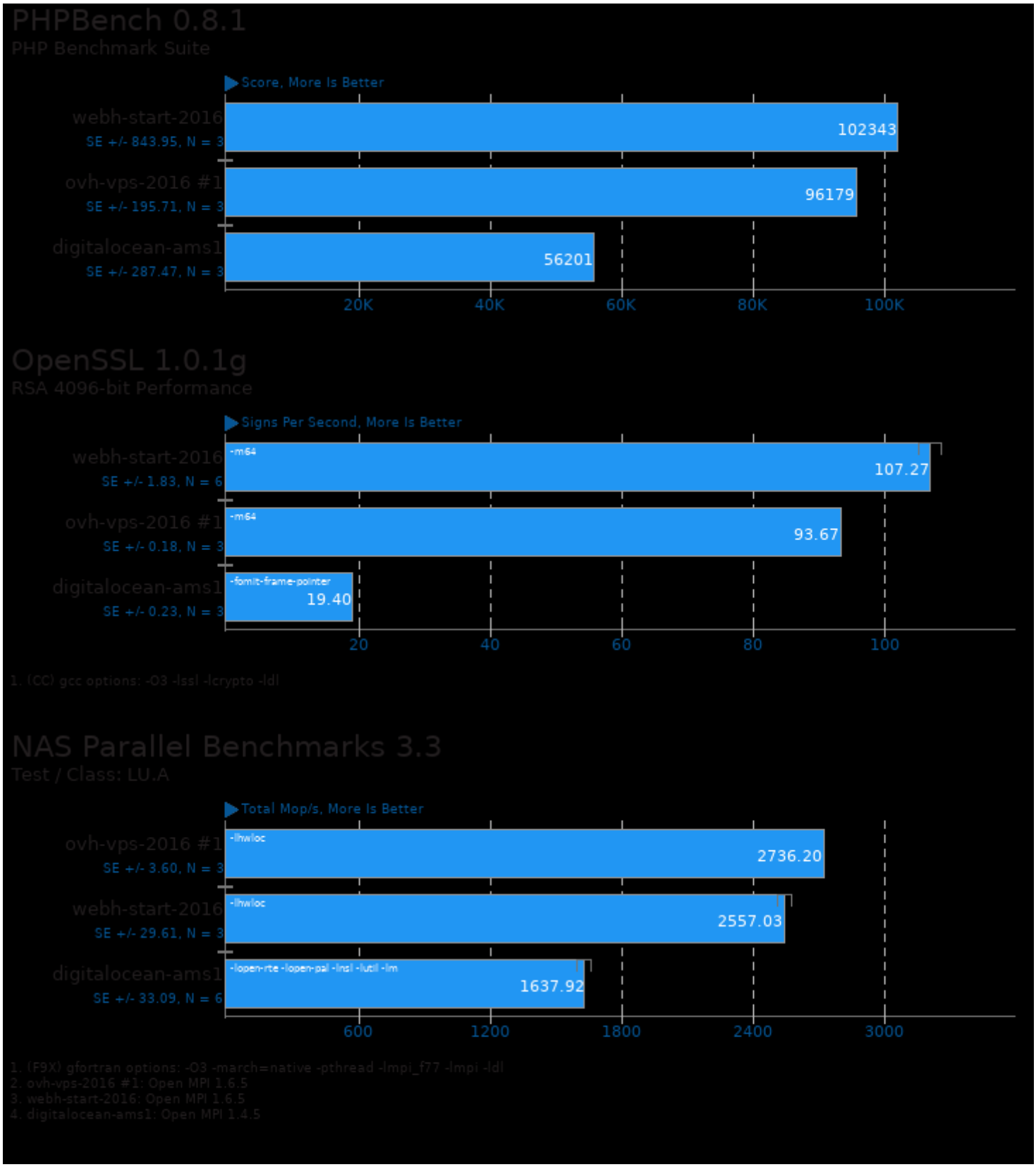
NGINX Benchmark 1.0.11

Static Web Page Serving



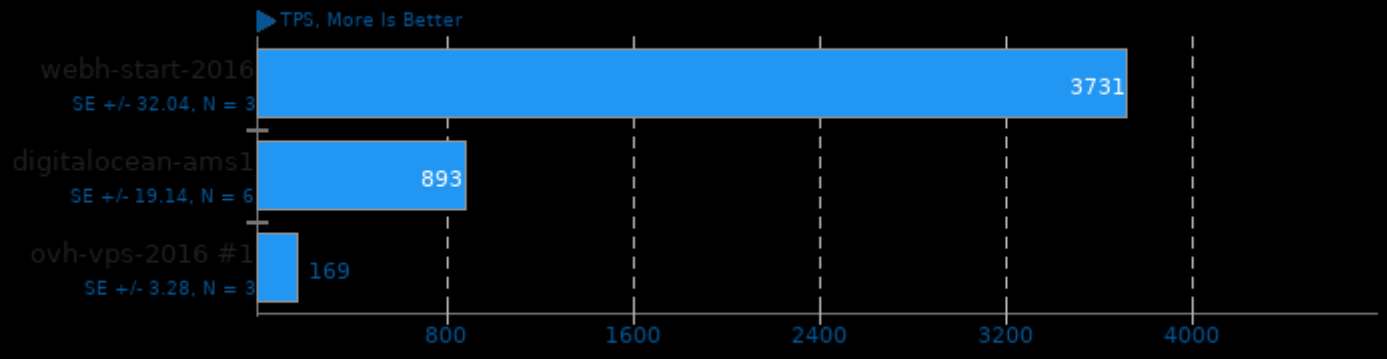
1. (CC) gcc options: -lpthread -lcrypt -lcrypto -lz -pipe

vps-comparison



PostMark 1.51

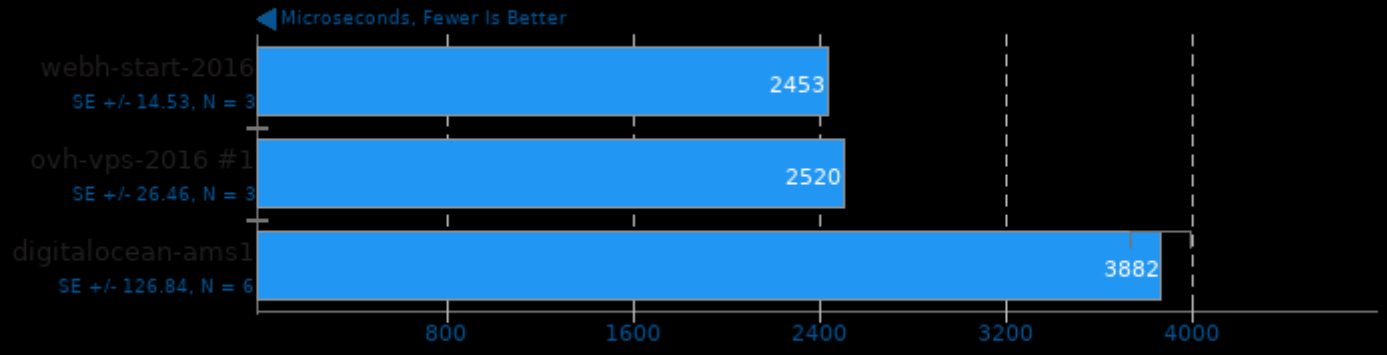
Disk Transaction Performance



1. (CC) gcc options: -O3

Gcrypt Library 1.4.4

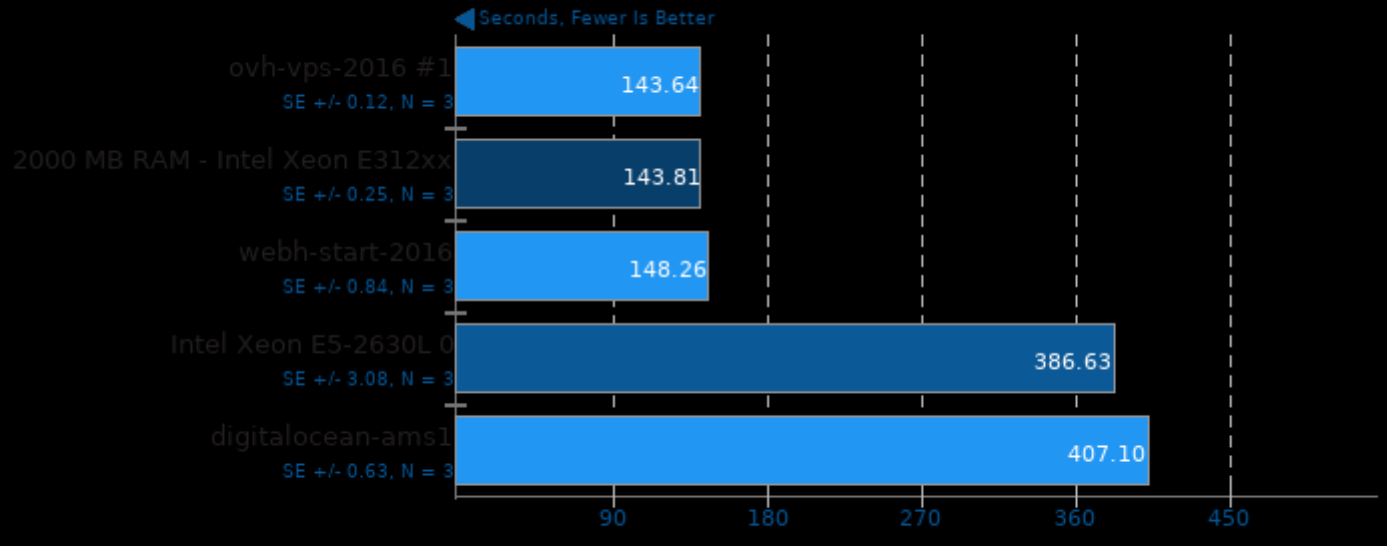
CAMELLIA256-ECB Cipher



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

C-Ray 1.1

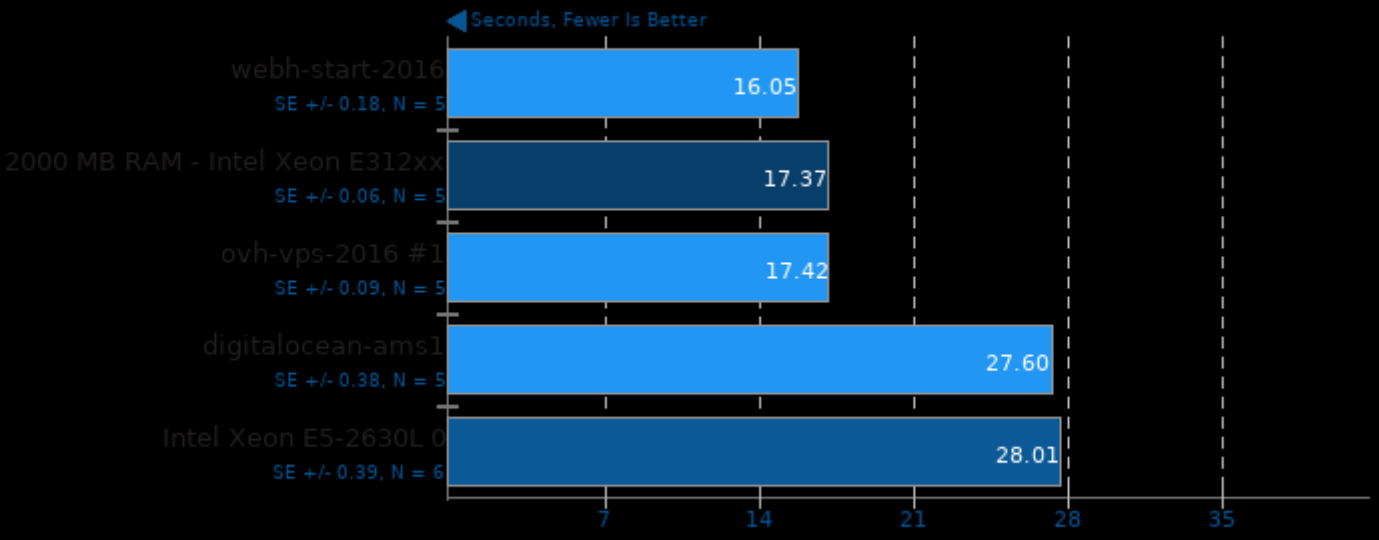
Total Time



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

LAME MP3 Encoding 3.99.3

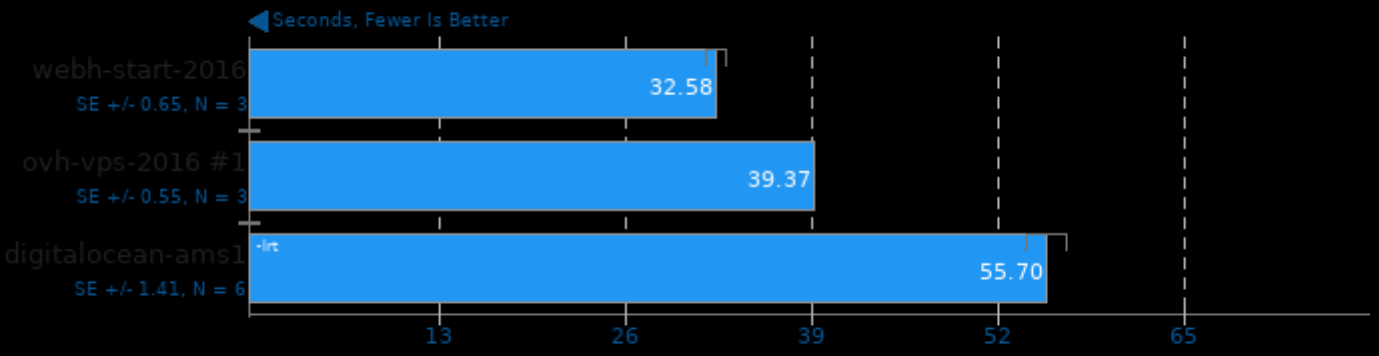
WAV To MP3



1. (CC) gcc options: -O3 -fomit-frame-pointer -ffast-math -pipe -lm

FFmpeg 2.1.1

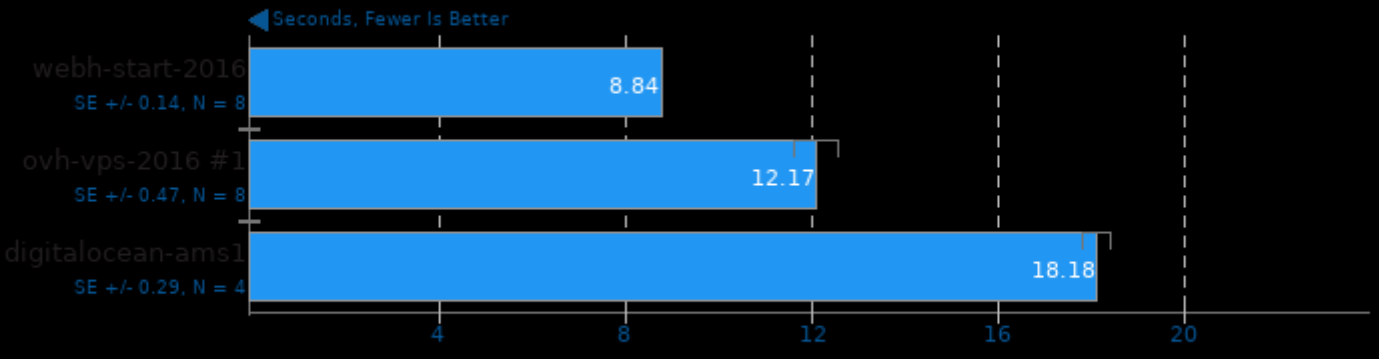
H.264 HD To NTSC DV



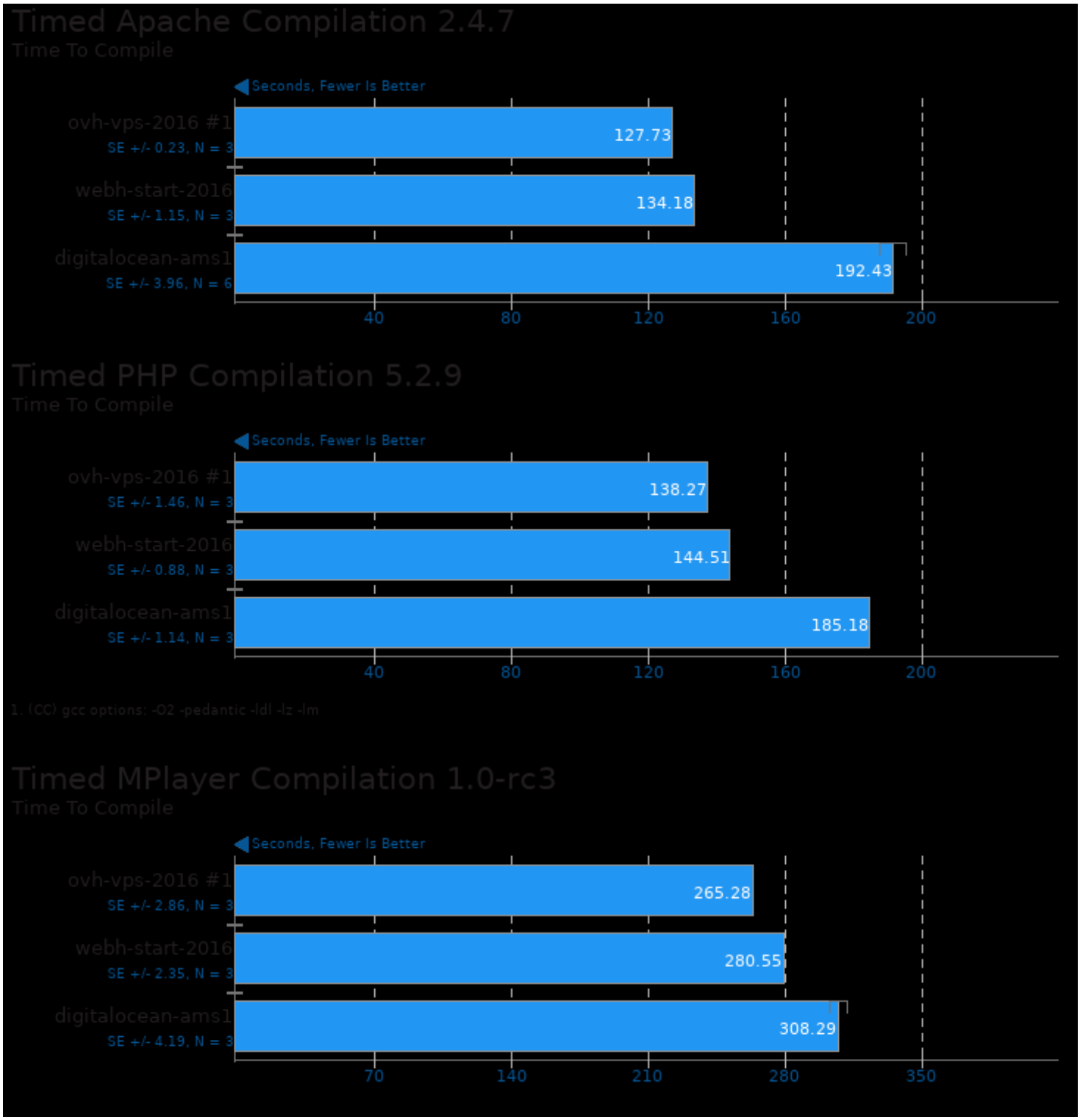
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -ldl -lm -pthread -std=c99 -fomit-frame-pointer -O3 -fno-mat

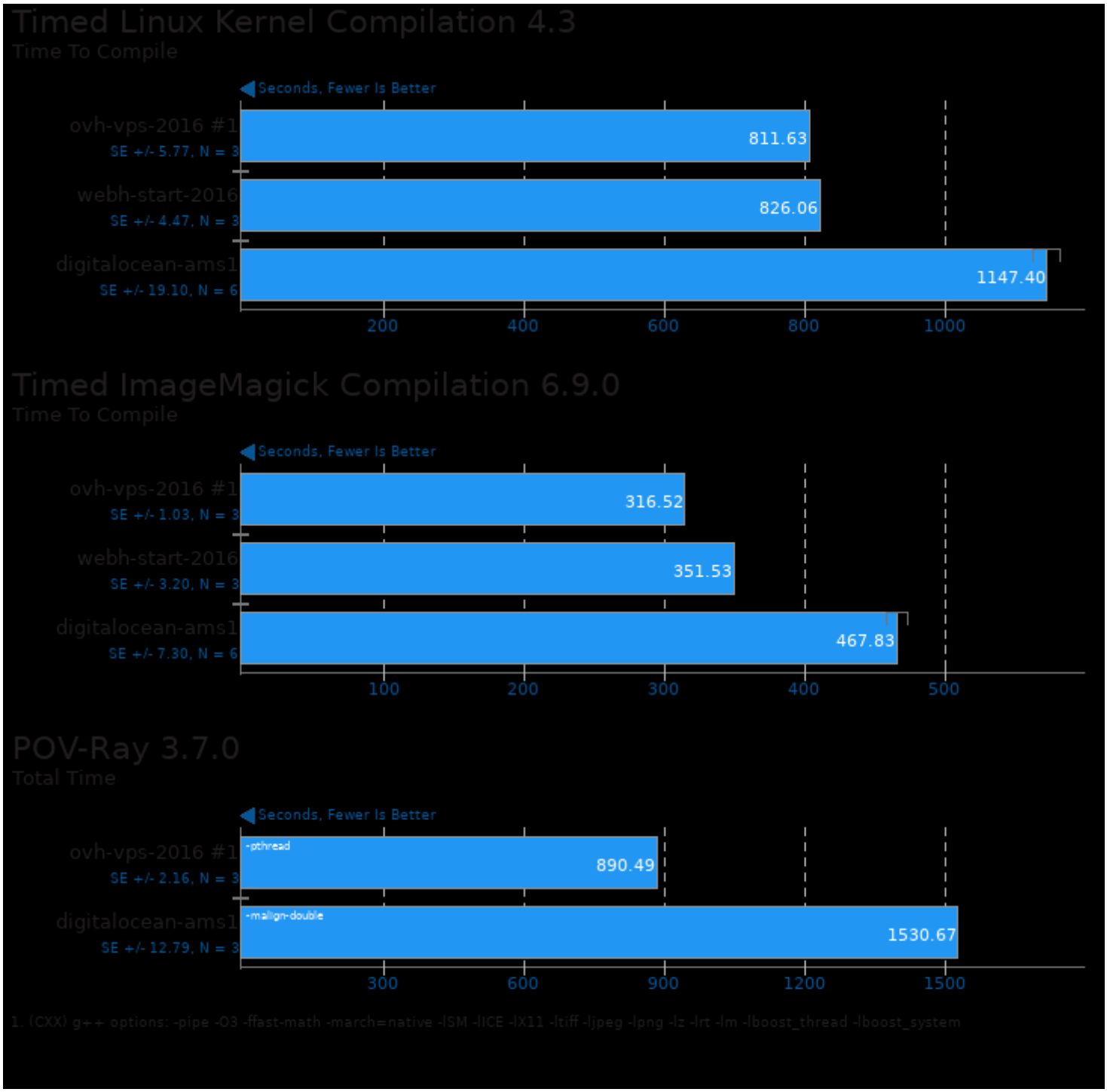
GnuPG 1.4.10

1GB File Encryption



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

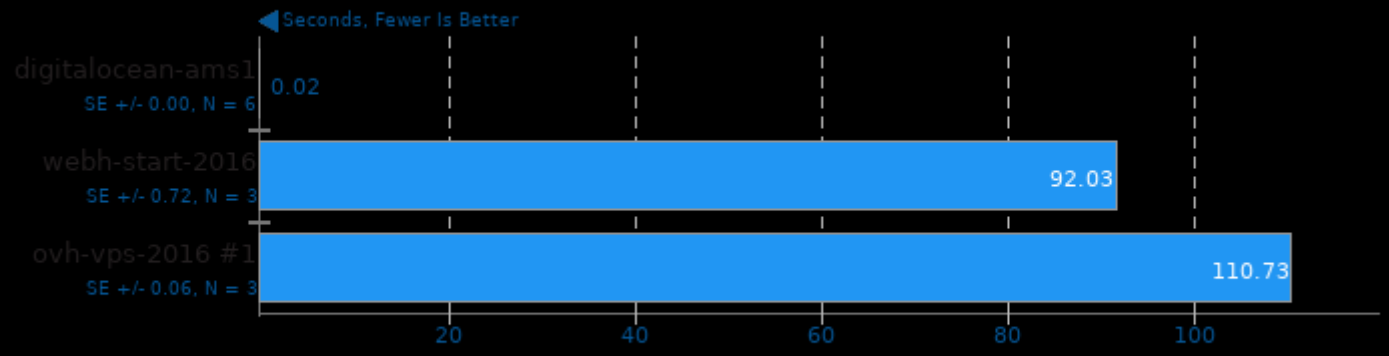

Timed Apache Compilation 2.4.7
Time To Compile
Seconds, Fewer Is Better
ovh-vps-2016 #1
SE +/- 0.23, N = 3
127.73
webh-start-2016
SE +/- 1.15, N = 3
134.18
digitalocean-ams1
SE +/- 3.96, N = 6
192.43
40
80
120
160
200
Timed PHP Compilation 5.2.9
Time To Compile
Seconds, Fewer Is Better
ovh-vps-2016 #1
SE +/- 1.46, N = 3
138.27
webh-start-2016
SE +/- 0.88, N = 3
144.51
digitalocean-ams1
SE +/- 1.14, N = 3
185.18
40
80
120
160
200
1. (CC) gcc options: -O2 -pedantic -ldl -lz -lm
Timed MPlayer Compilation 1.0-rc3
Time To Compile
Seconds, Fewer Is Better
ovh-vps-2016 #1
SE +/- 2.86, N = 3
265.28
webh-start-2016
SE +/- 2.35, N = 3
280.55
digitalocean-ams1
SE +/- 4.19, N = 3
308.29
70
140
210
280
350


Timed Linux Kernel Compilation 4.3
Time To Compile
Seconds, Fewer Is Better
ovh-vps-2016 #1
SE +/- 5.77, N = 3
811.63
webh-start-2016
SE +/- 4.47, N = 3
826.06
digitalocean-ams1
SE +/- 19.10, N = 6
1147.40
200
400
600
800
1000
Timed ImageMagick Compilation 6.9.0
Time To Compile
Seconds, Fewer Is Better
ovh-vps-2016 #1
SE +/- 1.03, N = 3
316.52
webh-start-2016
SE +/- 3.20, N = 3
351.53
digitalocean-ams1
SE +/- 7.30, N = 6
467.83
100
200
300
400
500
POV-Ray 3.7.0
Total Time
Seconds, Fewer Is Better
ovh-vps-2016 #1
SE +/- 2.16, N = 3
-pthread
890.49
digitalocean-ams1
SE +/- 12.79, N = 3
-malign-double
1530.67
300
600
900
1200
1500
1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -ISM -lICE -lX11 -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system

vps-comparison

Crafty 23.4

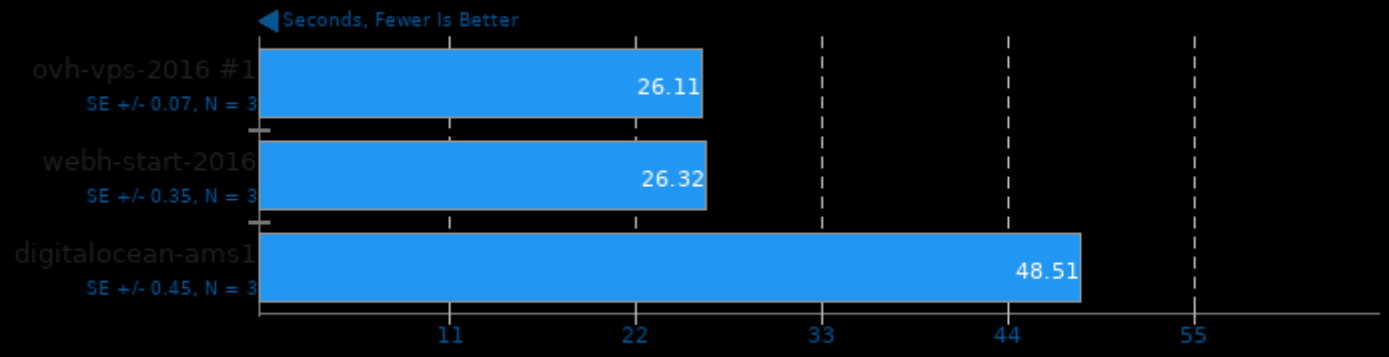
Elapsed Time



1. (CC) gcc options: -lstdc++ -lm

Timed MAFFT Alignment 6.864

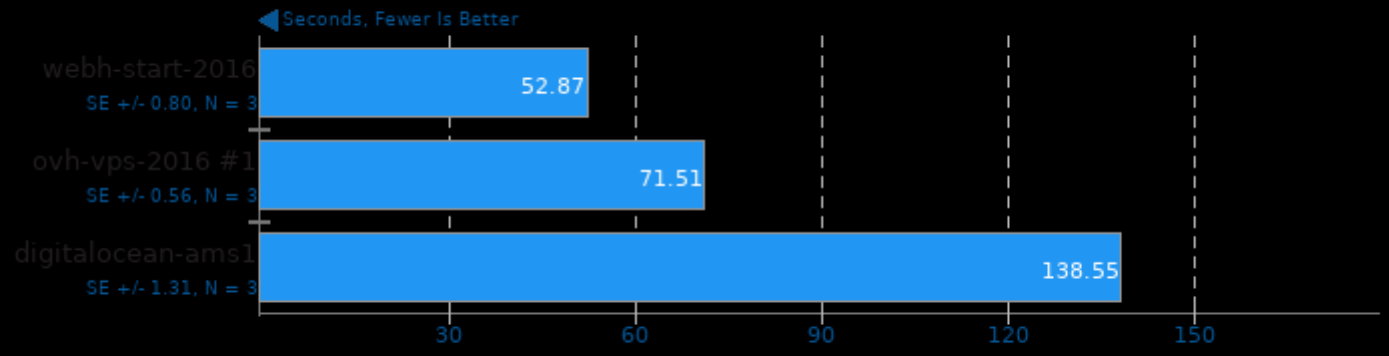
Multiple Sequence Alignment



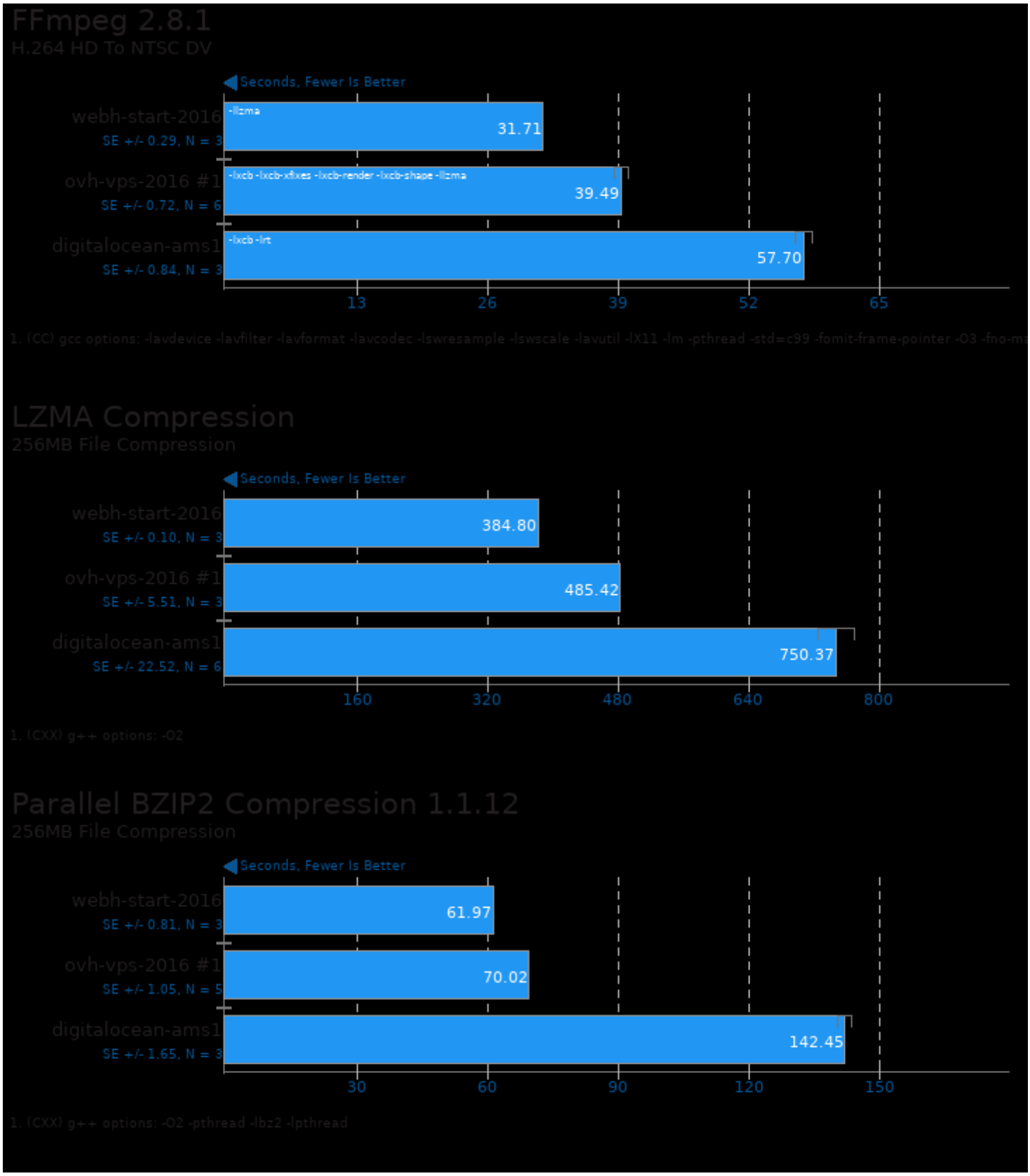
1. (CC) gcc options: -O3 -lm -lpthread

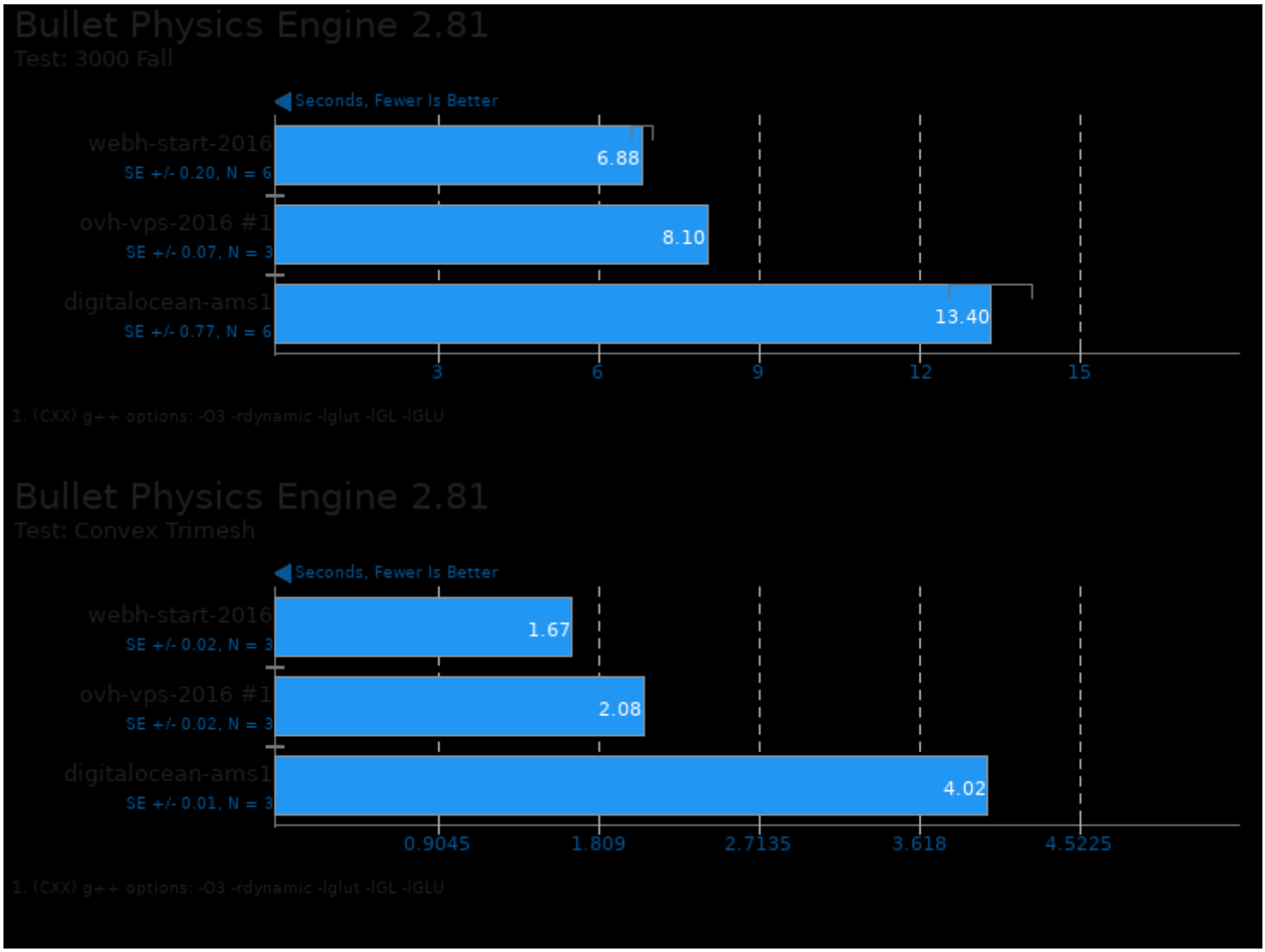
Timed HMMer Search 2.3.2

Pfam Database Search

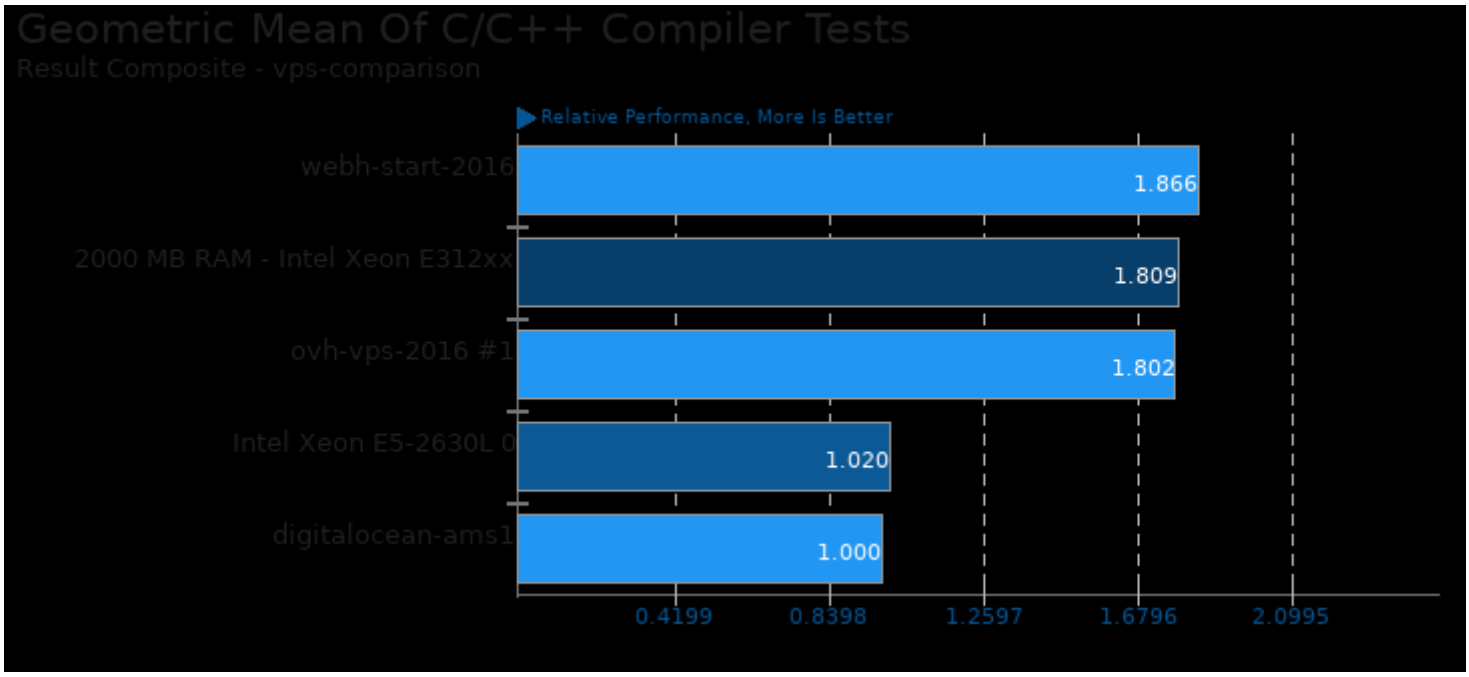


1. (CC) gcc options: -O2 -pthread -lhmmer -lsquid -lm

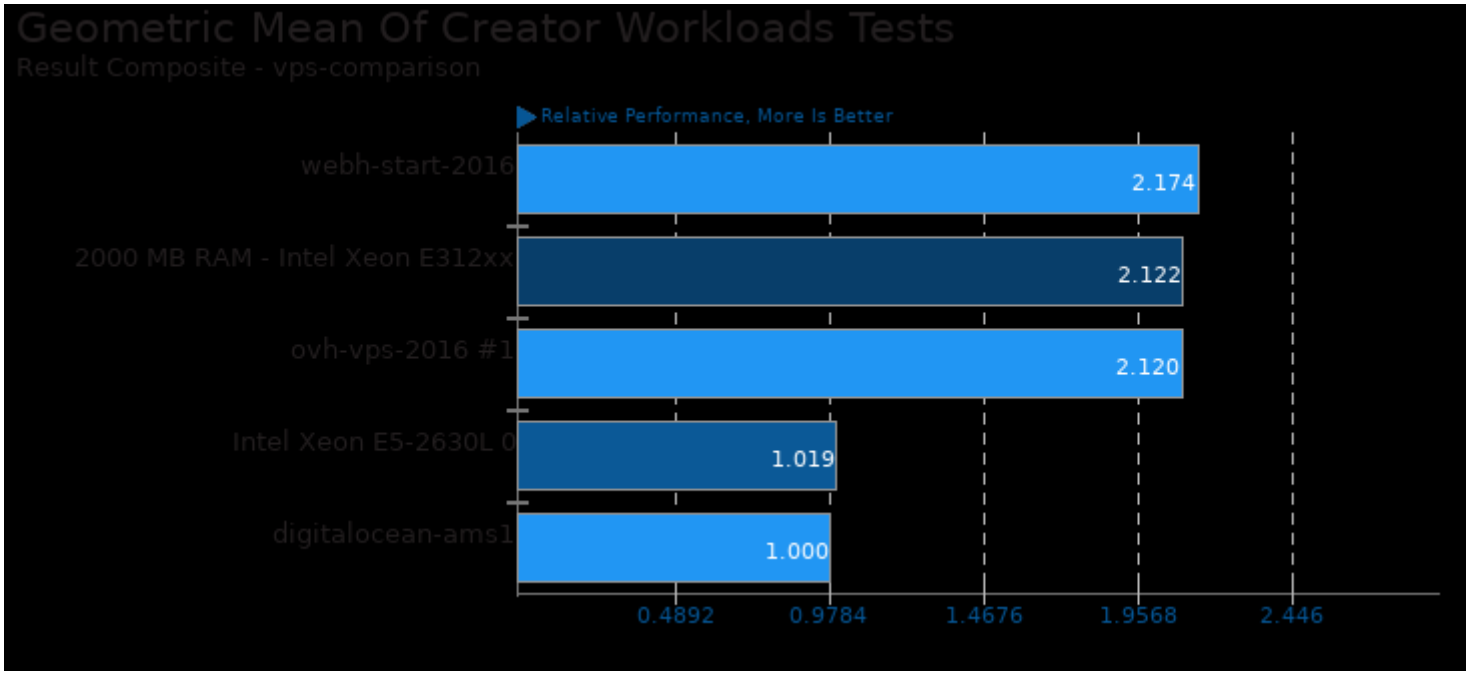

FFmpeg 2.8.1
H.264 HD To NTSC DV
Seconds, Fewer Is Better
webh-start-2016
SE +/- 0.29, N = 3
-llzma
31.71
ovh-vps-2016 #1
SE +/- 0.72, N = 6
-lxcb -lxcb-xfixes -lxcb-render -lxcb-shape -llzma
39.49
digitalocean-ams1
SE +/- 0.84, N = 3
-lxcb -lrt
57.70
13
26
39
52
65
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lX11 -lm -pthread -std=c99 -fomit-frame-pointer -O3 -fno-ma
LZMA Compression
256MB File Compression
Seconds, Fewer Is Better
webh-start-2016
SE +/- 0.10, N = 3
384.80
ovh-vps-2016 #1
SE +/- 5.51, N = 3
485.42
digitalocean-ams1
SE +/- 22.52, N = 6
750.37
160
320
480
640
800
1. (CXX) g++ options: -O2
Parallel BZIP2 Compression 1.1.12
256MB File Compression
Seconds, Fewer Is Better
webh-start-2016
SE +/- 0.81, N = 3
61.97
ovh-vps-2016 #1
SE +/- 1.05, N = 5
70.02
digitalocean-ams1
SE +/- 1.65, N = 3
142.45
30
60
90
120
150
1. (CXX) g++ options: -O2 -pthread -lbz2 -lpthread


Bullet Physics Engine 2.81
Test: 3000 Fall
Seconds, Fewer Is Better
webh-start-2016
SE +/- 0.20, N = 6
6.88
ovh-vps-2016 #1
SE +/- 0.07, N = 3
8.10
digitalocean-ams1
SE +/- 0.77, N = 6
13.40
3
6
9
12
15
1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU
Bullet Physics Engine 2.81
Test: Convex Trimesh
Seconds, Fewer Is Better
webh-start-2016
SE +/- 0.02, N = 3
1.67
ovh-vps-2016 #1
SE +/- 0.02, N = 3
2.08
digitalocean-ams1
SE +/- 0.01, N = 3
4.02
0.9045
1.809
2.7135
3.618
4.5225
1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

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



Geometric mean based upon tests: pts/mafft, pts/graphics-magick, pts/himeno, pts/hmmer, pts/build-php, pts/build-imagemagick, pts/c-ray, pts/bullet, pts/encode-mp3, pts/apache, pts/john-the-ripper, pts/openssl, pts/nginx, pts/build-apache and pts/build-mplayer



Geometric mean based upon tests: pts/c-ray, pts/povray, pts/ffmpeg, pts/encode-mp3 and pts/graphics-magick

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:13.