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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

vps-comparison

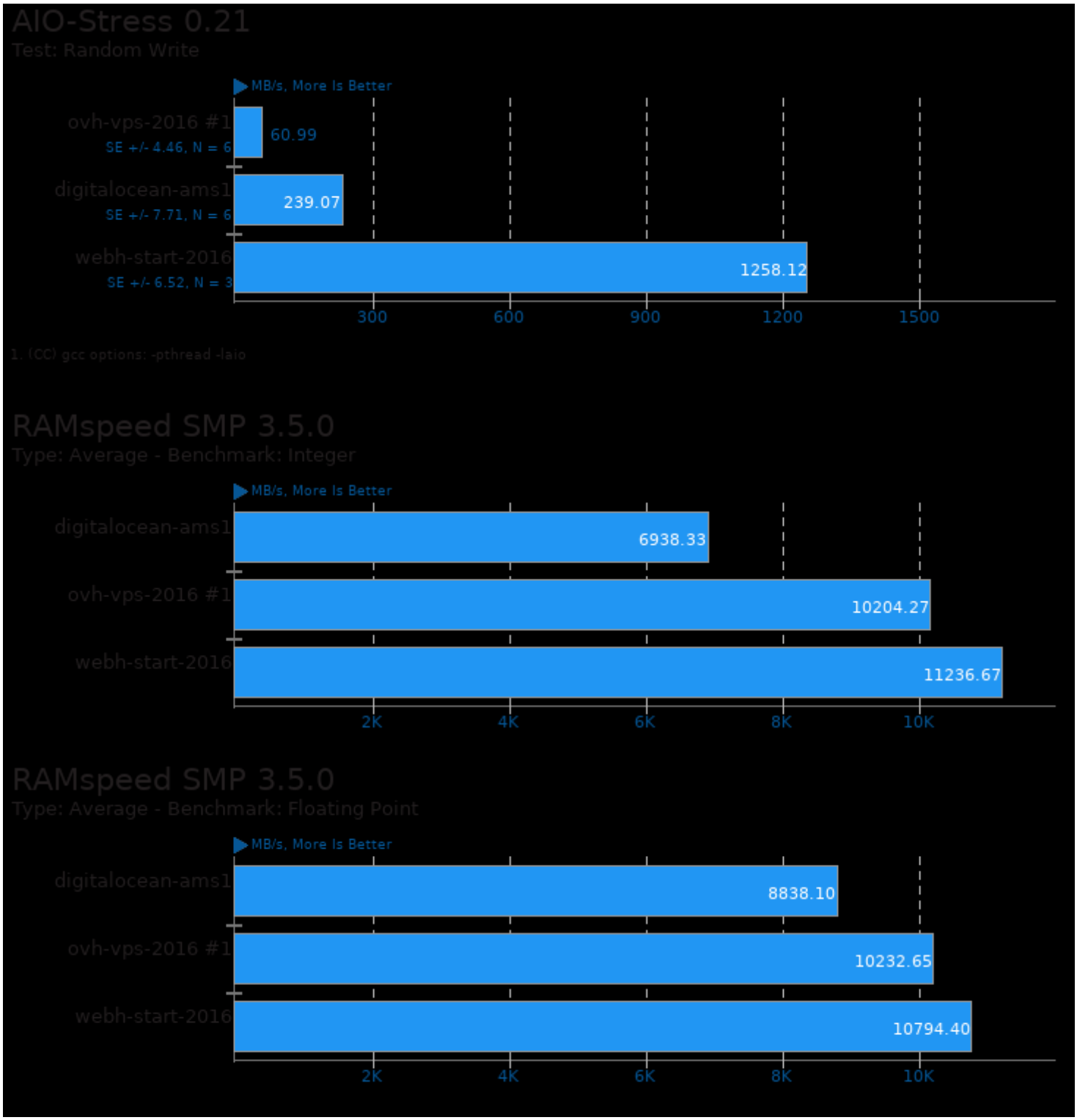
	digitalocean-ams1	ovh-vps-2016 #1	ovh-vps-2016 #2	ovh-vps-2016 #3	webh-start-2016
AIO-Stress - Rand Write (MB/s)	239.07	60.99			1258
Normalized	19%	4.85%			100%
Standard Deviation	7.9%	17.9%			0.9%
RAMspeed SMP - Average - Integer (MB/s)	6938	10204			11237
Normalized	61.75%	90.81%			100%
RAMspeed SMP - 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%
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%
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%
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%
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%

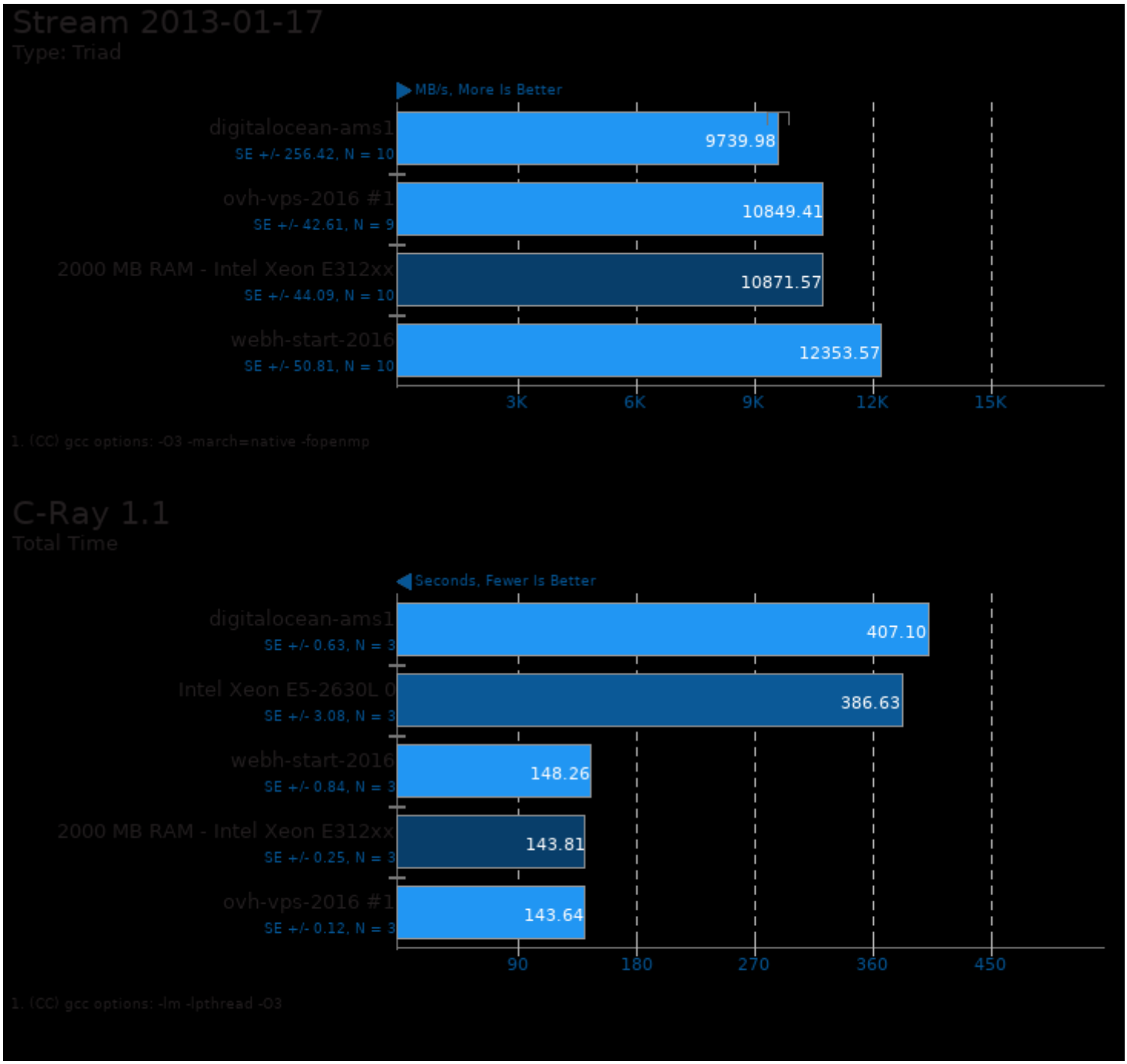
vps-comparison

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%
PostMark - D.T.P (TPS)	893	169	3731
Normalized	23.93%	4.53%	100%
Standard Deviation	5.3%	3.4%	1.5%
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%
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%
Gcrypt Library - C.E.C (us)	3882	2520	2453
Normalized	63.19%	97.34%	100%
Standard Deviation	8%	1.8%	1%
PHPBench - P.B.S (Score)	56201	96179	102343
Normalized	54.91%	93.98%	100%
Standard Deviation	0.9%	0.4%	1.4%
GraphicsMagick - HWB Color Space (Iterations/min)	49	95	99
Normalized	49.49%	95.96%	100%
Standard Deviation	2.9%	1.1%	1%
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%
John The Ripper - Blowfish (Real C/S)	500	701	898
Normalized	55.68%	78.06%	100%
Standard Deviation	3.4%	0.2%	4.3%
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%
Himeno Benchmark - P.P.S (MFLOPS)	867.39	1220	1436
Normalized	60.41%	84.96%	100%
Standard Deviation	3.2%	0.4%	0.6%
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

vps-comparison

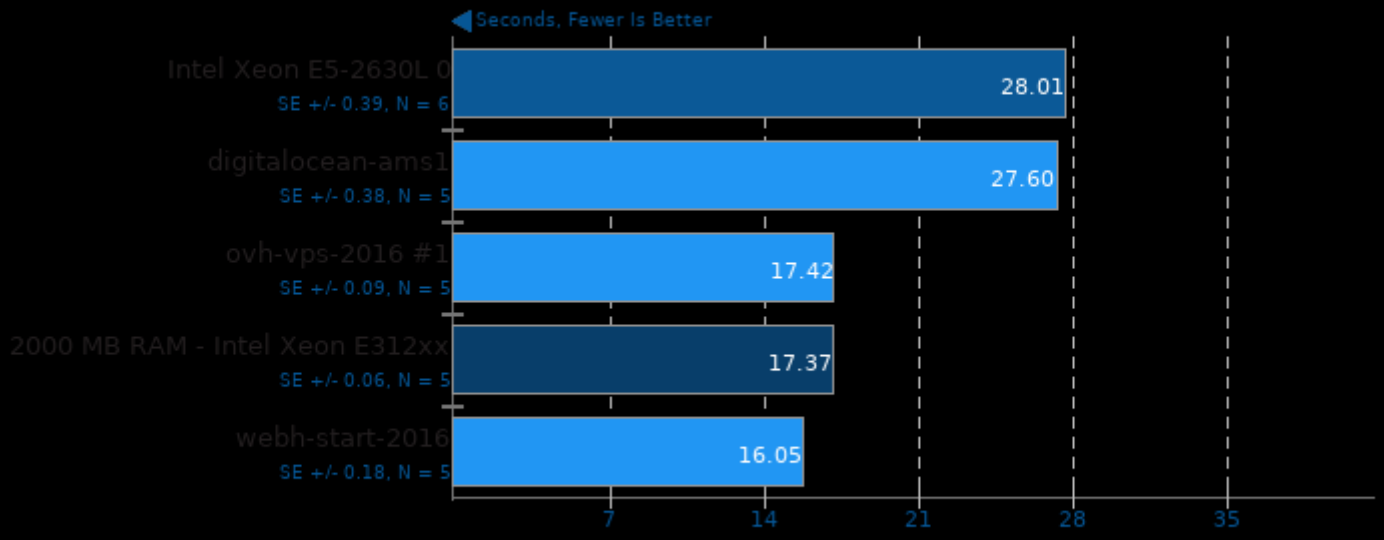
Normalized	51.28%	79.27%	100%
Standard Deviation	7.4%	2%	0%
Parallel BZIP2 Compression - 2.F.C (sec)	**142.45**	70.02	**61.97**
Normalized	43.5%	88.5%	100%
Standard Deviation	2%	3.4%	2.3%
Bullet Physics Engine - 3000 Fall (sec)	**13.40**	8.10	**6.88**
Normalized	51.34%	84.94%	100%
Standard Deviation	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%
NAS Parallel Benchmarks - LU.A (Mop/s)	**1638**	**2736**	2557
Normalized	59.86%	100%	93.45%
Standard Deviation	4.9%	0.2%	2%
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%


AIO-Stress 0.21
Test: Random Write
MB/s, More Is Better
ovh-vps-2016 #1
SE +/- 4.46, N = 6
60.99
digitalocean-ams1
SE +/- 7.71, N = 6
239.07
webh-start-2016
SE +/- 6.52, N = 3
1258.12
300
600
900
1200
1500
1. (CC) gcc options: -pthread -laio
RAMspeed SMP 3.5.0
Type: Average - Benchmark: Integer
MB/s, More Is Better
digitalocean-ams1
6938.33
ovh-vps-2016 #1
10204.27
webh-start-2016
11236.67
2K
4K
6K
8K
10K
RAMspeed SMP 3.5.0
Type: Average - Benchmark: Floating Point
MB/s, More Is Better
digitalocean-ams1
8838.10
ovh-vps-2016 #1
10232.65
webh-start-2016
10794.40
2K
4K
6K
8K
10K


Stream 2013-01-17
Type: Triad
MB/s, More Is Better
digitalocean-ams1
SE +/- 256.42, N = 10
9739.98
ovh-vps-2016 #1
SE +/- 42.61, N = 9
10849.41
2000 MB RAM - Intel Xeon E312xx
SE +/- 44.09, N = 10
10871.57
webh-start-2016
SE +/- 50.81, N = 10
12353.57
3K
6K
9K
12K
15K
1. (CC) gcc options: -O3 -march=native -fopenmp
C-Ray 1.1
Total Time
Seconds, Fewer Is Better
digitalocean-ams1
SE +/- 0.63, N = 3
407.10
Intel Xeon E5-2630L 0
SE +/- 3.08, N = 3
386.63
webh-start-2016
SE +/- 0.84, N = 3
148.26
2000 MB RAM - Intel Xeon E312xx
SE +/- 0.25, N = 3
143.81
ovh-vps-2016 #1
SE +/- 0.12, N = 3
143.64
90
180
270
360
450
1. (CC) gcc options: -lm -lpthread -O3

LAME MP3 Encoding 3.99.3

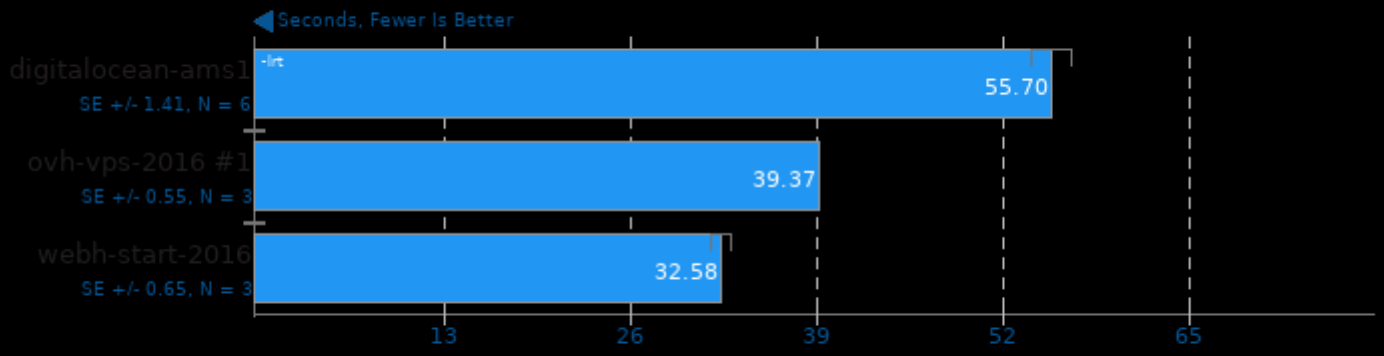
WAV To MP3



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

FFmpeg 2.1.1

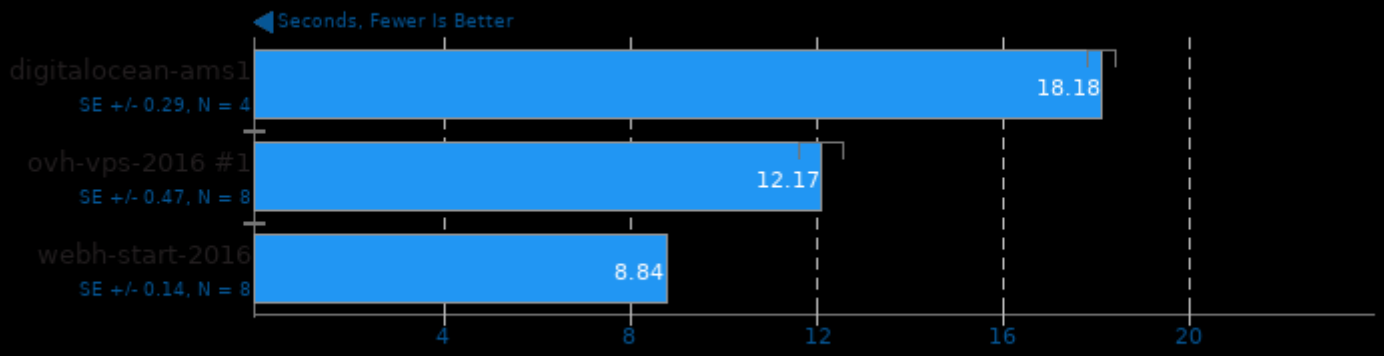
H.264 HD To NTSC DV



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

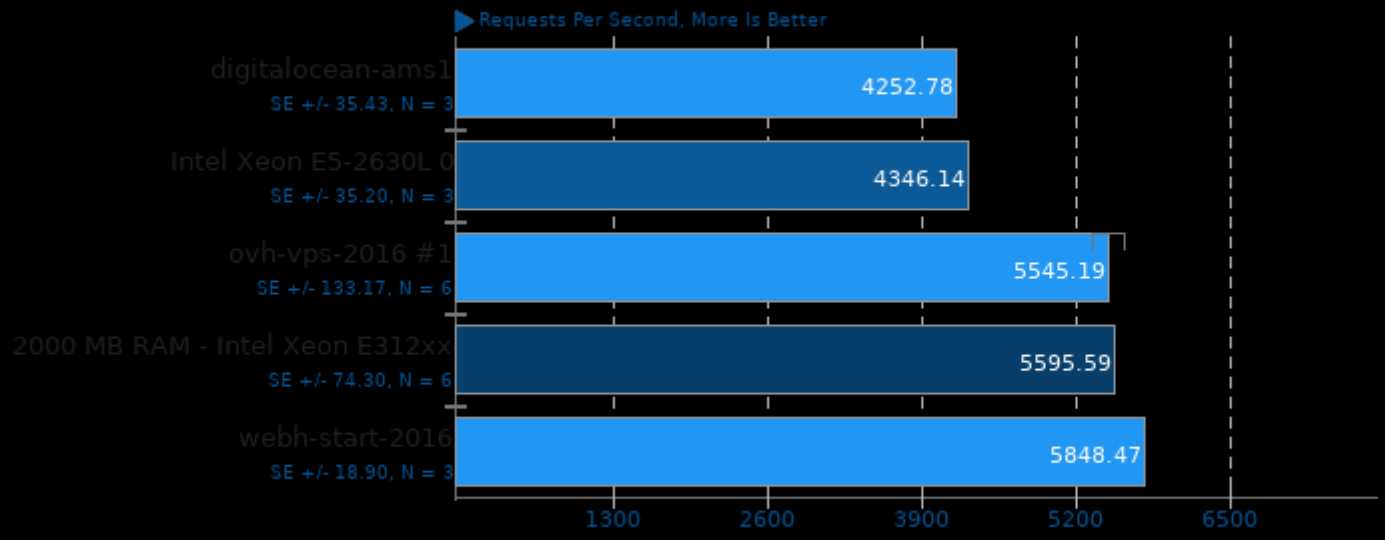
1GB File Encryption



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

Apache Benchmark 2.4.7

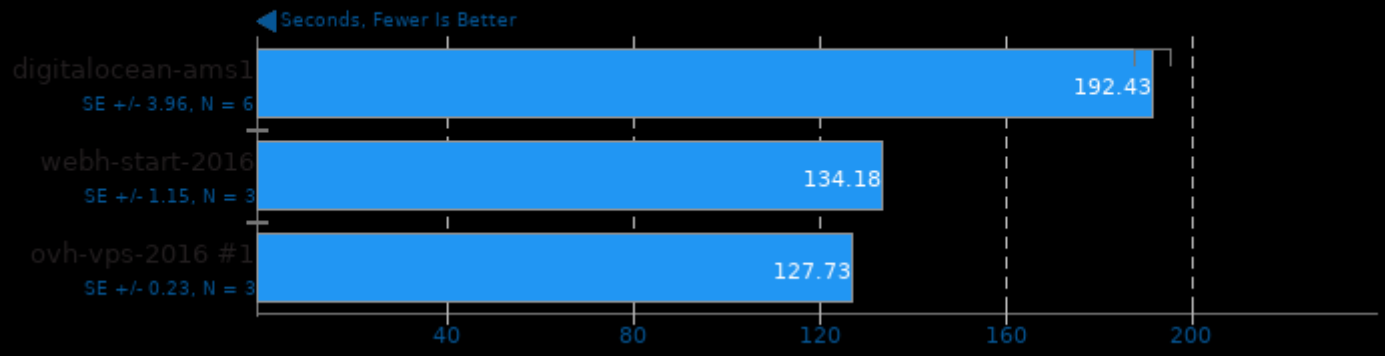
Static Web Page Serving



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

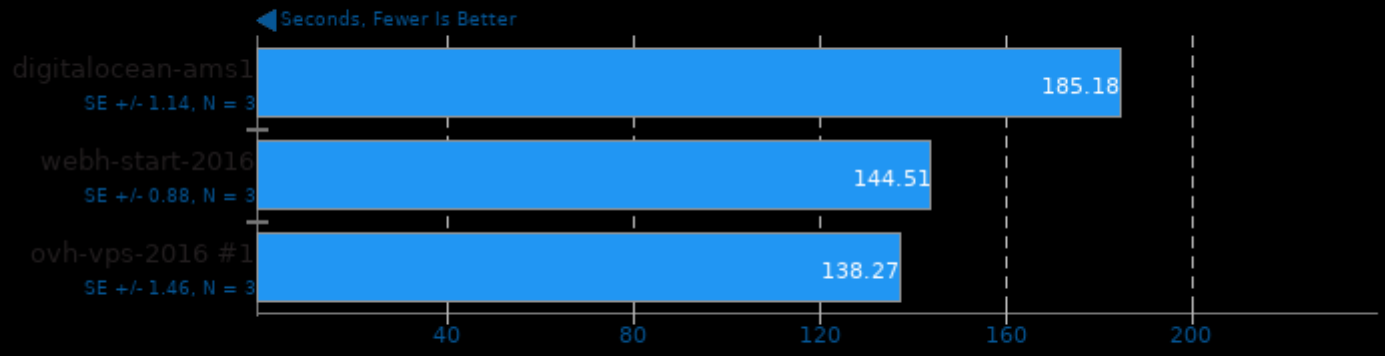
Timed Apache Compilation 2.4.7

Time To Compile

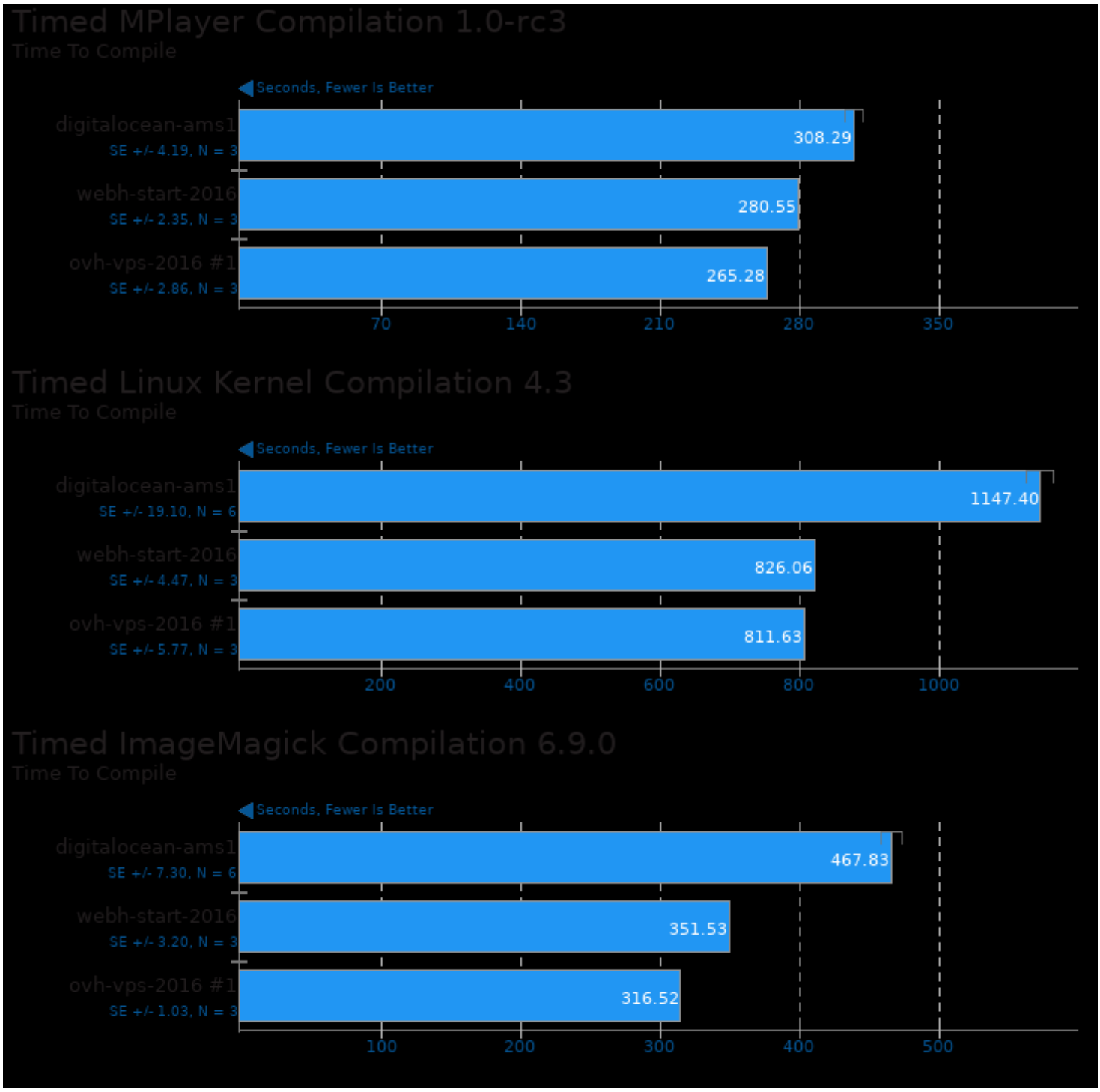


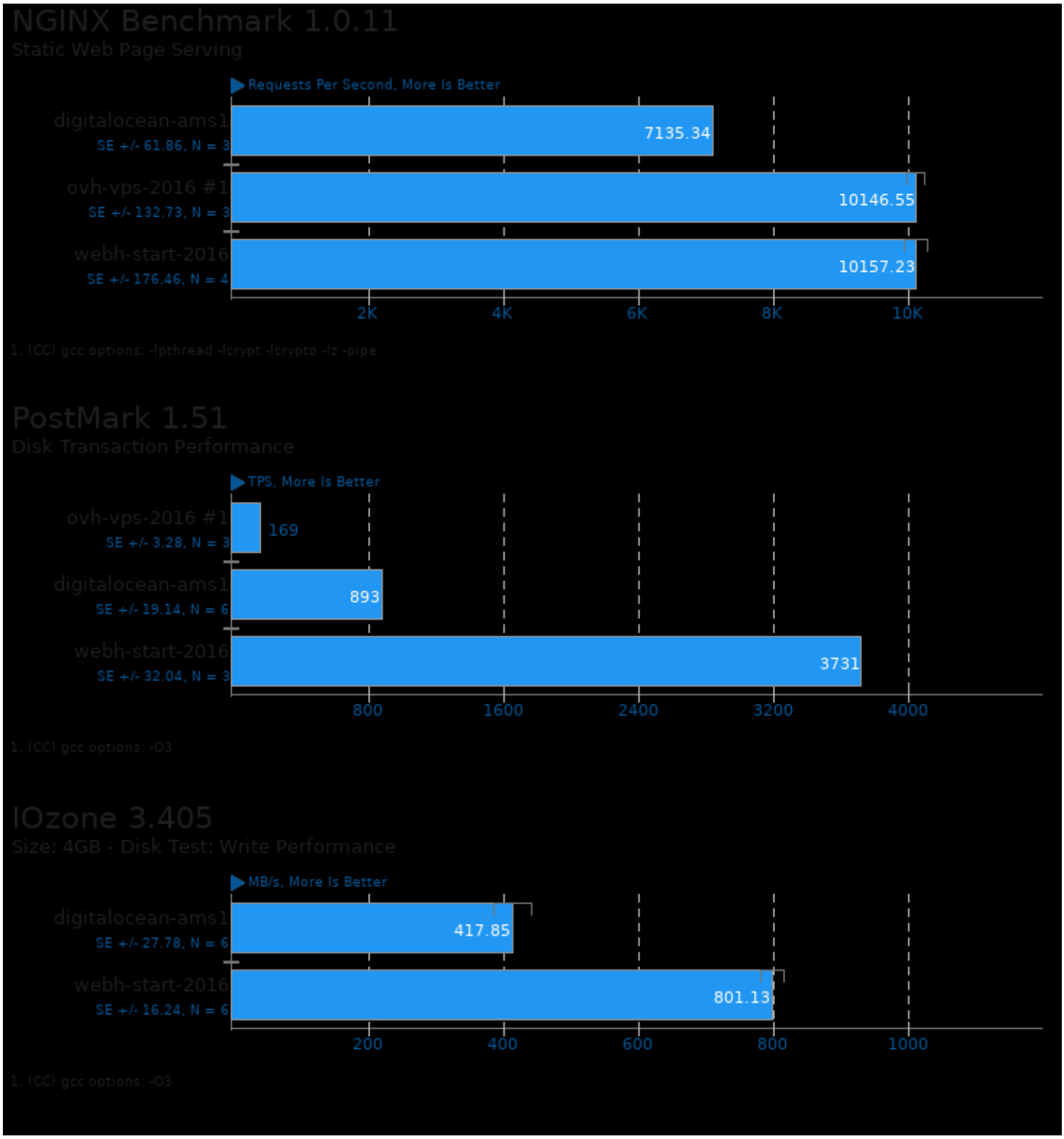
Timed PHP Compilation 5.2.9

Time To Compile

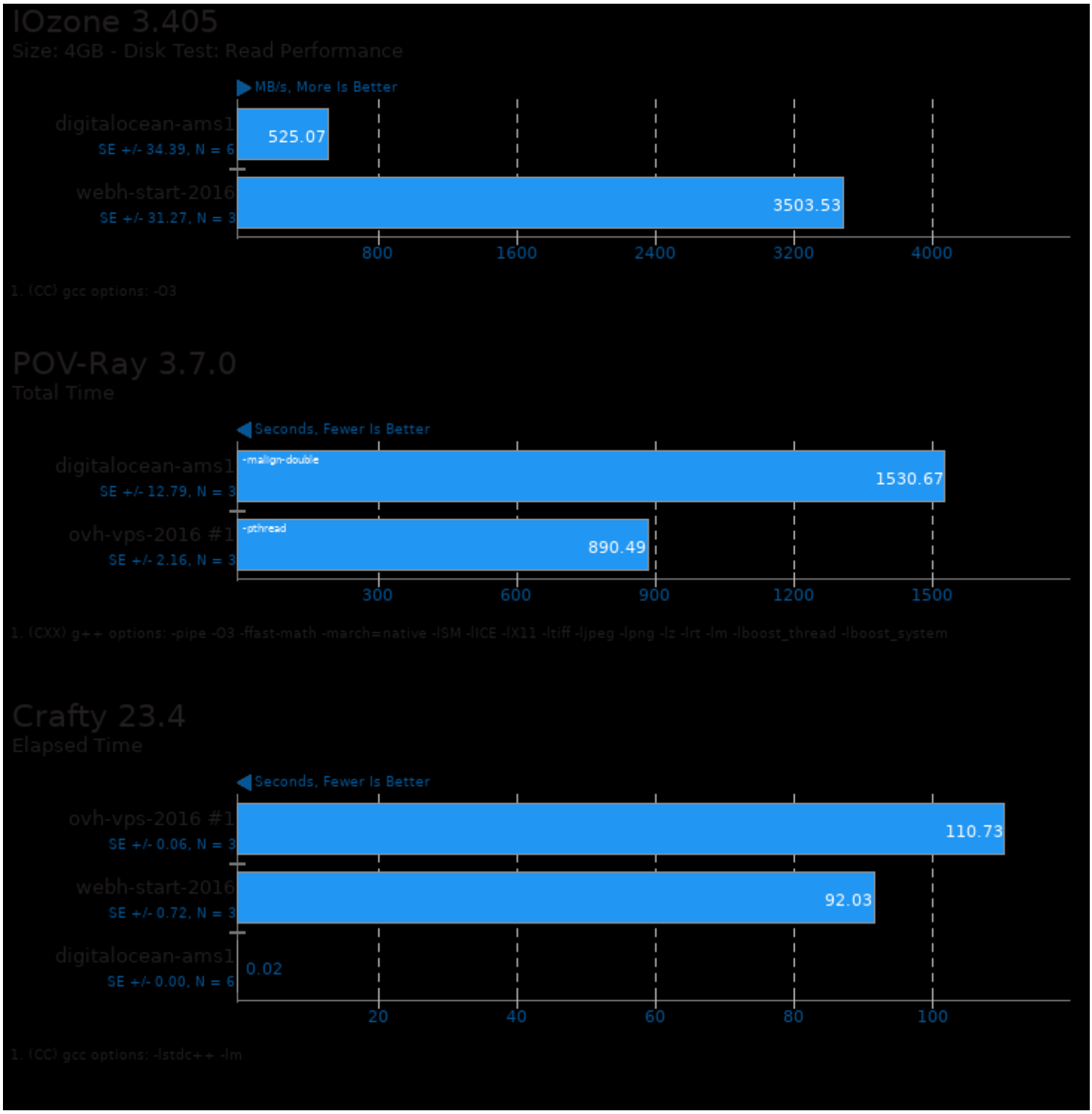


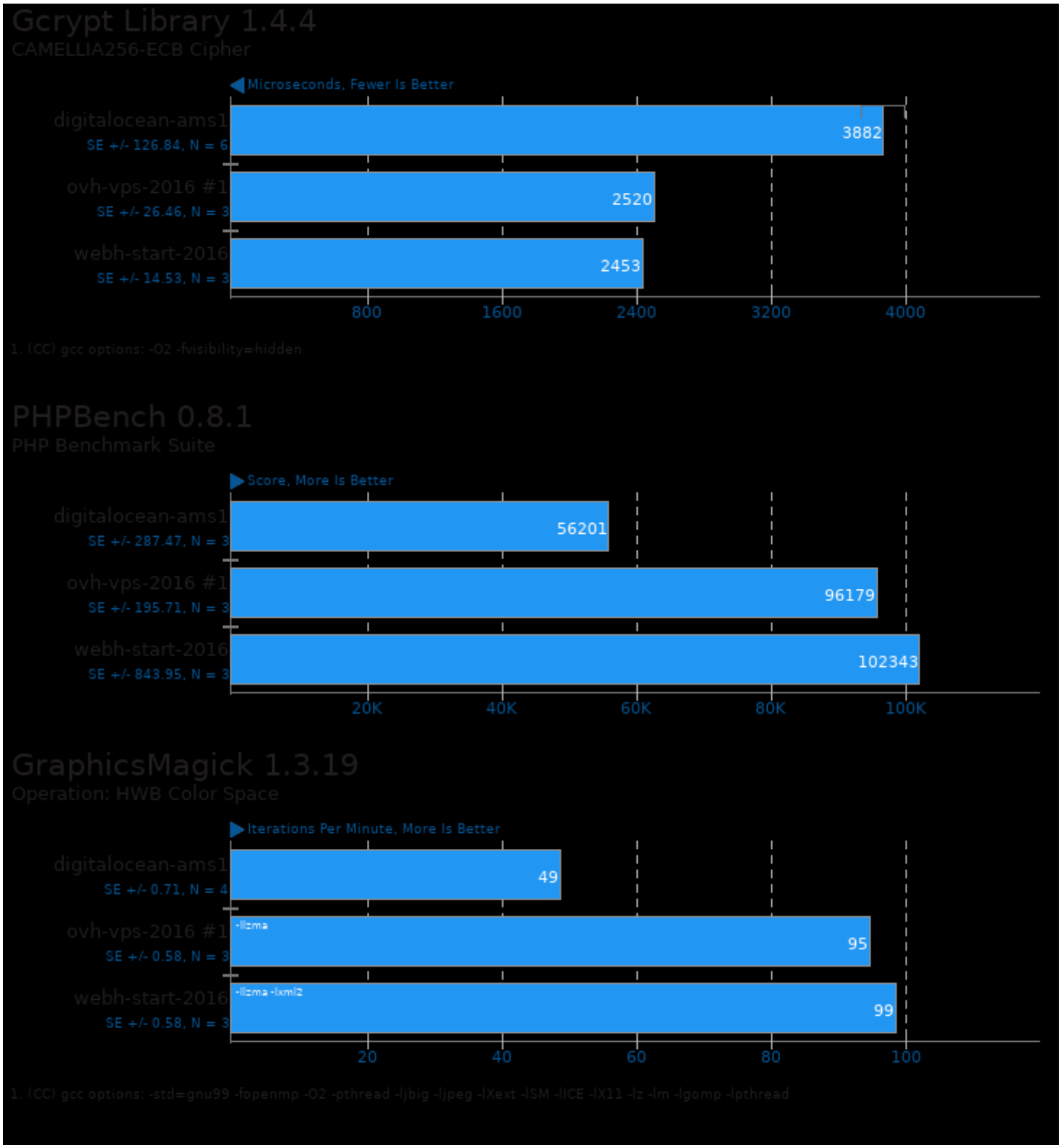
1. (CC) gcc options: -O2 -pedantic -ldl -lz -lm


Timed MPlayer Compilation 1.0-rc3
Time To Compile
Seconds, Fewer Is Better
digitalocean-ams1
SE +/- 4.19, N = 3
308.29
webh-start-2016
SE +/- 2.35, N = 3
280.55
ovh-vps-2016 #1
SE +/- 2.86, N = 3
265.28
70
140
210
280
350
Timed Linux Kernel Compilation 4.3
Time To Compile
Seconds, Fewer Is Better
digitalocean-ams1
SE +/- 19.10, N = 6
1147.40
webh-start-2016
SE +/- 4.47, N = 3
826.06
ovh-vps-2016 #1
SE +/- 5.77, N = 3
811.63
200
400
600
800
1000
Timed ImageMagick Compilation 6.9.0
Time To Compile
Seconds, Fewer Is Better
digitalocean-ams1
SE +/- 7.30, N = 6
467.83
webh-start-2016
SE +/- 3.20, N = 3
351.53
ovh-vps-2016 #1
SE +/- 1.03, N = 3
316.52
100
200
300
400
500

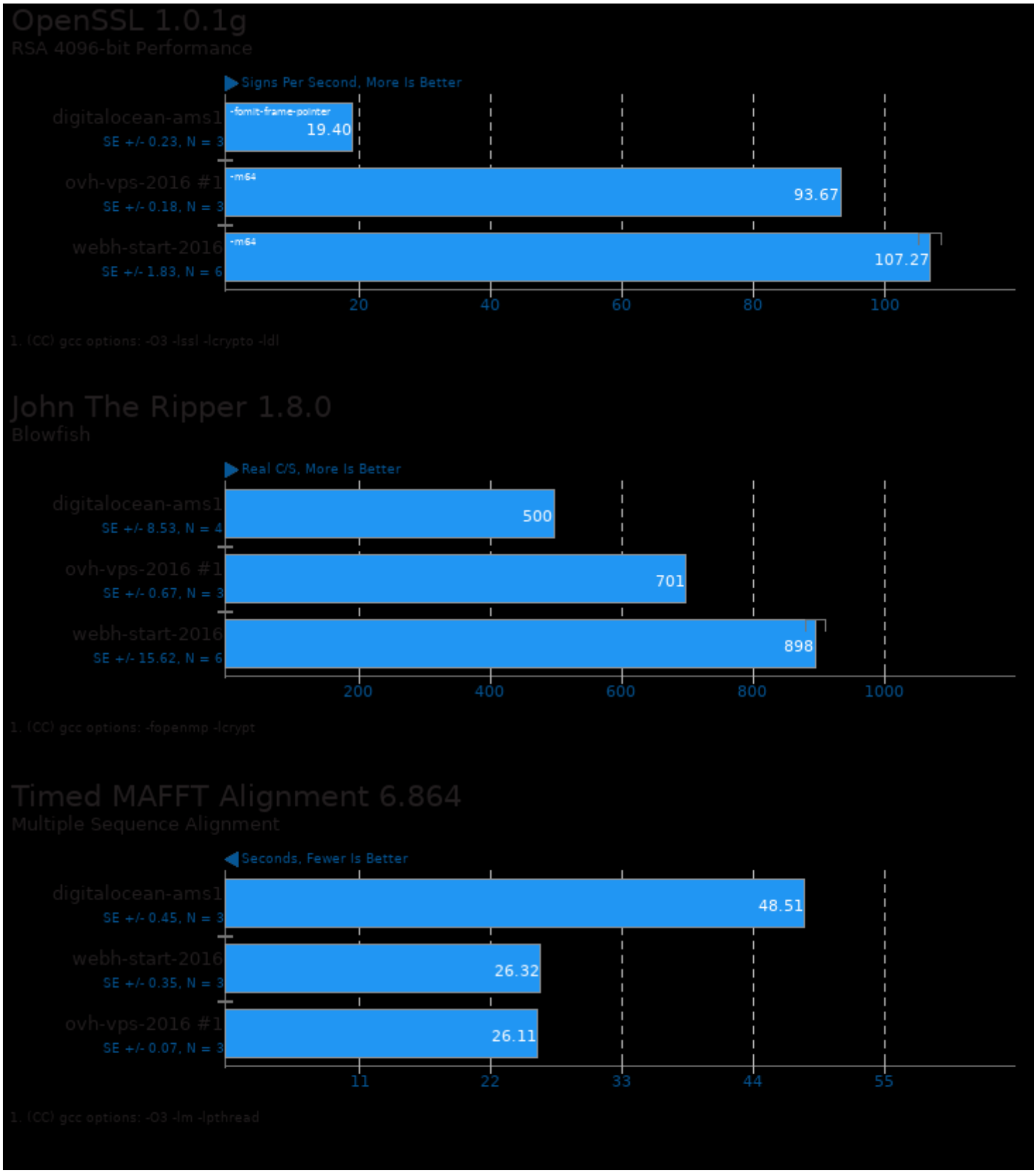

NGINX Benchmark 1.0.11
Static Web Page Serving
Requests Per Second, More Is Better
digitalocean-ams1
SE +/- 61.86, N = 3
7135.34
ovh-vps-2016 #1
SE +/- 132.73, N = 3
10146.55
webh-start-2016
SE +/- 176.46, N = 4
10157.23
2K
4K
6K
8K
10K
1. (CC) gcc options: -lpthread -lcrypt -lcrypto -lz -pipe
PostMark 1.51
Disk Transaction Performance
TPS, More Is Better
ovh-vps-2016 #1
SE +/- 3.28, N = 3
169
digitalocean-ams1
SE +/- 19.14, N = 6
893
webh-start-2016
SE +/- 32.04, N = 3
3731
800
1600
2400
3200
4000
1. (CC) gcc options: -O3
IOzone 3.405
Size: 4GB - Disk Test: Write Performance
MB/s, More Is Better
digitalocean-ams1
SE +/- 27.78, N = 6
417.85
webh-start-2016
SE +/- 16.24, N = 6
801.13
200
400
600
800
1000
1. (CC) gcc options: -O3

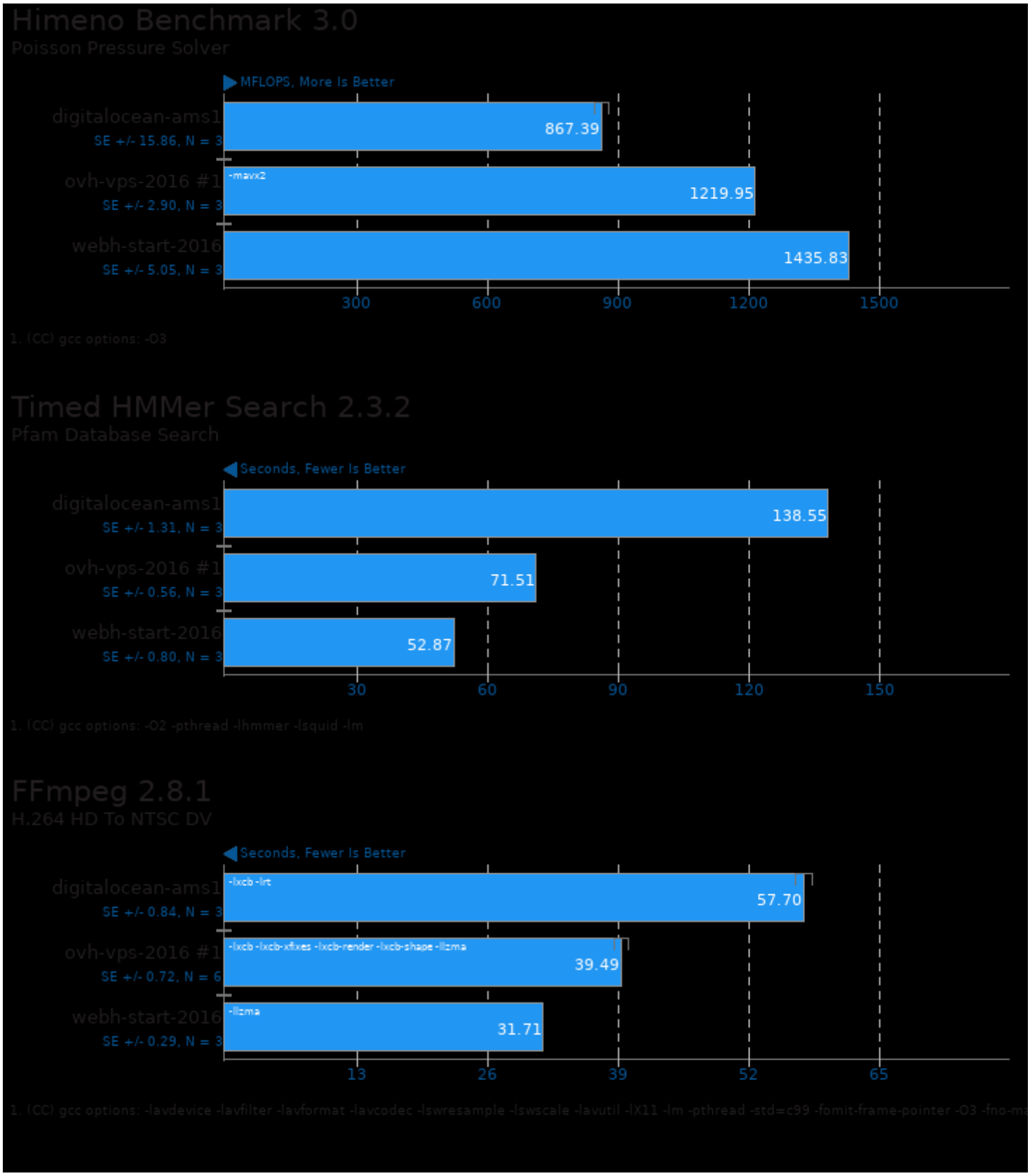
vps-comparison




Gcrypt Library 1.4.4
CAMELLIA256-ECB Cipher
Microseconds, Fewer Is Better
digitalocean-ams1
SE +/- 126.84, N = 6
3882
ovh-vps-2016 #1
SE +/- 26.46, N = 3
2520
webh-start-2016
SE +/- 14.53, N = 3
2453
800
1600
2400
3200
4000
1. (CC) gcc options: -O2 -fvisibility=hidden
PHPBench 0.8.1
PHP Benchmark Suite
Score, More Is Better
digitalocean-ams1
SE +/- 287.47, N = 3
56201
ovh-vps-2016 #1
SE +/- 195.71, N = 3
96179
webh-start-2016
SE +/- 843.95, N = 3
102343
20K
40K
60K
80K
100K
GraphicsMagick 1.3.19
Operation: HWB Color Space
Iterations Per Minute, More Is Better
digitalocean-ams1
SE +/- 0.71, N = 4
49
ovh-vps-2016 #1
SE +/- 0.58, N = 3
-llzma
95
webh-start-2016
SE +/- 0.58, N = 3
-llzma -lxml2
99
20
40
60
80
100
1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ljbig -ljpeg -lXext -lSM -lICE -lX11 -lz -lm -lgomp -lpthread

vps-comparison

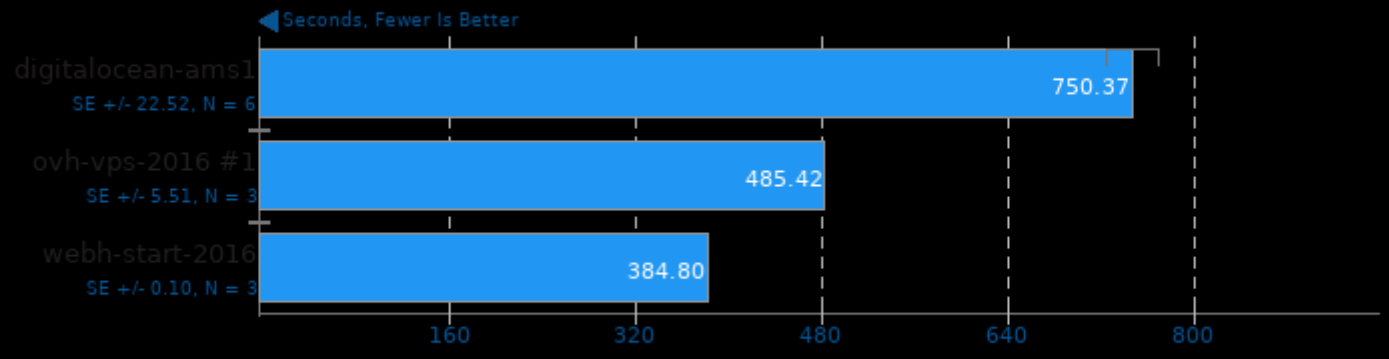



Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
digitalocean-ams1
SE +/- 15.86, N = 3
867.39
ovh-vps-2016 #1
SE +/- 2.90, N = 3
-mavx2
1219.95
webh-start-2016
SE +/- 5.05, N = 3
1435.83
300
600
900
1200
1500
1. (CC) gcc options: -O3
Timed HMMer Search 2.3.2
Pfam Database Search
Seconds, Fewer Is Better
digitalocean-ams1
SE +/- 1.31, N = 3
138.55
ovh-vps-2016 #1
SE +/- 0.56, N = 3
71.51
webh-start-2016
SE +/- 0.80, N = 3
52.87
30
60
90
120
150
1. (CC) gcc options: -O2 -pthread -lhmmer -lsquid -lm
FFmpeg 2.8.1
H.264 HD To NTSC DV
Seconds, Fewer Is Better
digitalocean-ams1
SE +/- 0.84, N = 3
-lxcb -lrt
57.70
ovh-vps-2016 #1
SE +/- 0.72, N = 6
-lxcb -lxcb-xfixes -lxcb-render -lxcb-shape -llzma
39.49
webh-start-2016
SE +/- 0.29, N = 3
-llzma
31.71
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-m

vps-comparison

LZMA Compression

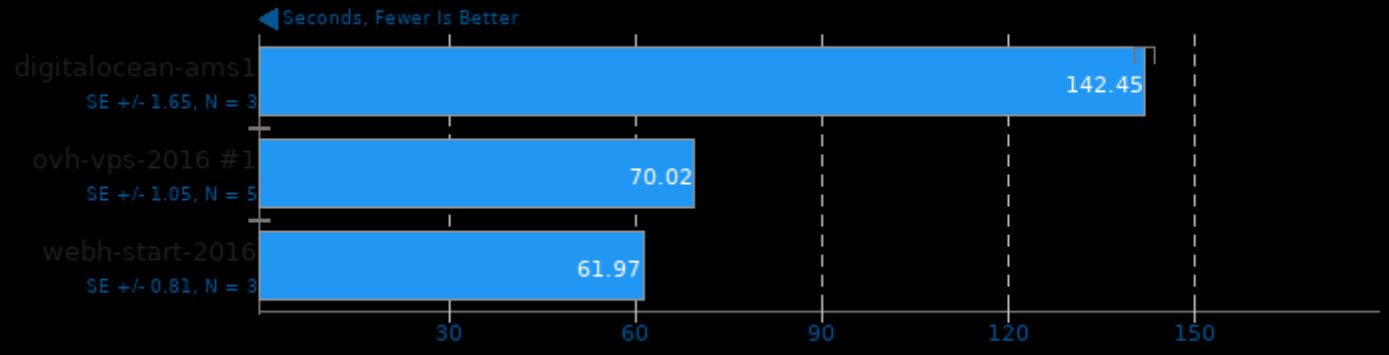
256MB File Compression



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

Parallel BZIP2 Compression 1.1.12

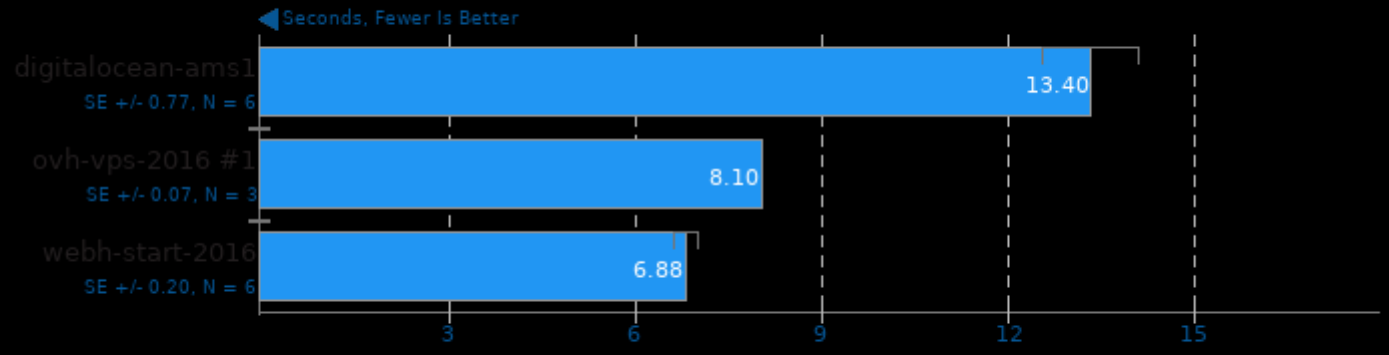
256MB File Compression



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

Bullet Physics Engine 2.81

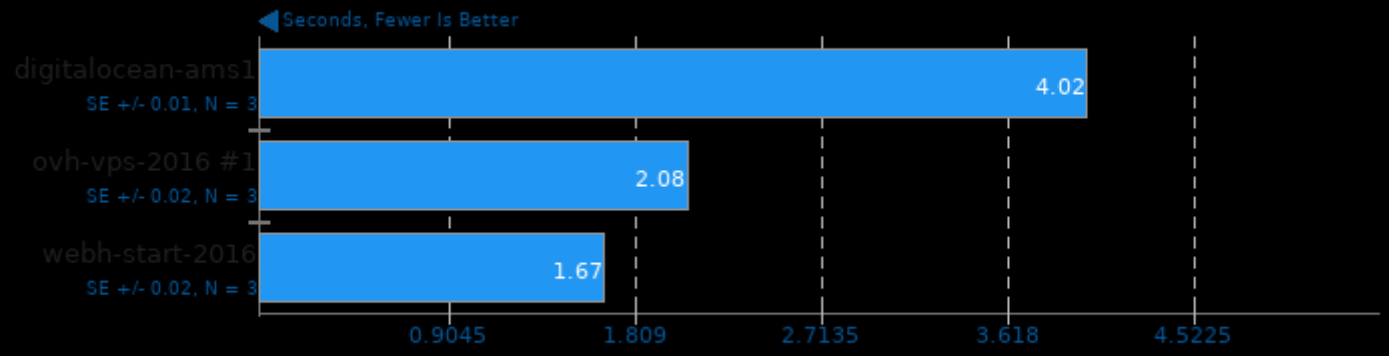
Test: 3000 Fall



1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

Bullet Physics Engine 2.81

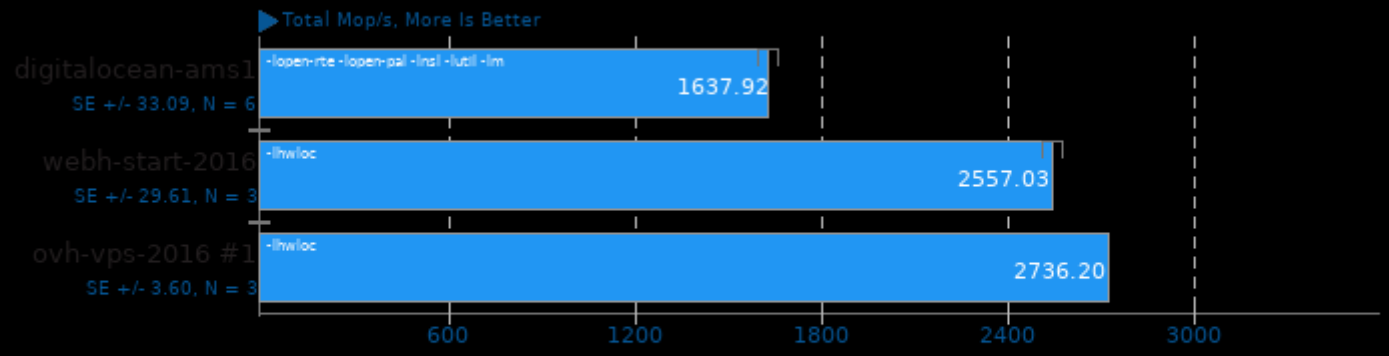
Test: Convex Trimesh



1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

NAS Parallel Benchmarks 3.3

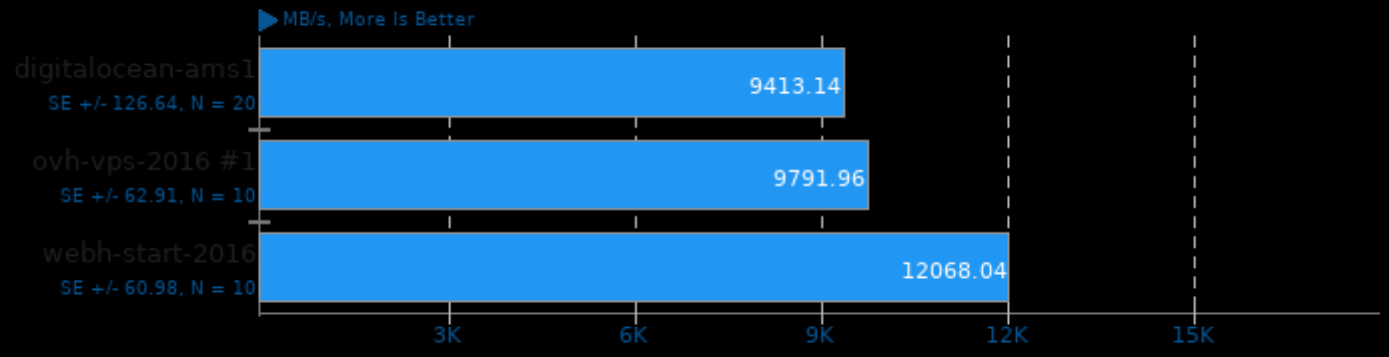
Test / Class: LU.A



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_f77 -lmpi -ldl
2. digitalocean-ams1: Open MPI 1.4.5
3. webh-start-2016: Open MPI 1.6.5
4. ovh-vps-2016 #1: Open MPI 1.6.5

Stream 2013-01-17

Type: Copy

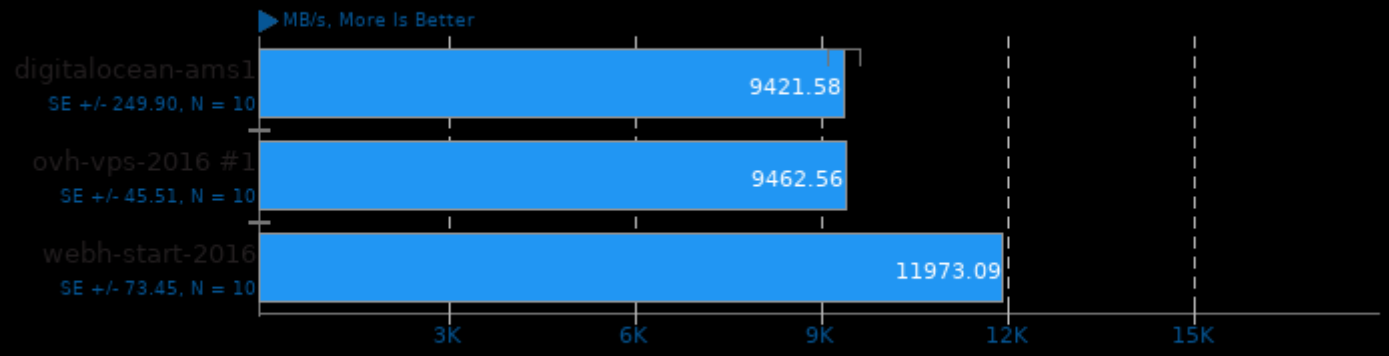


1. (CC) gcc options: -O3 -march=native -fopenmp

vps-comparison

Stream 2013-01-17

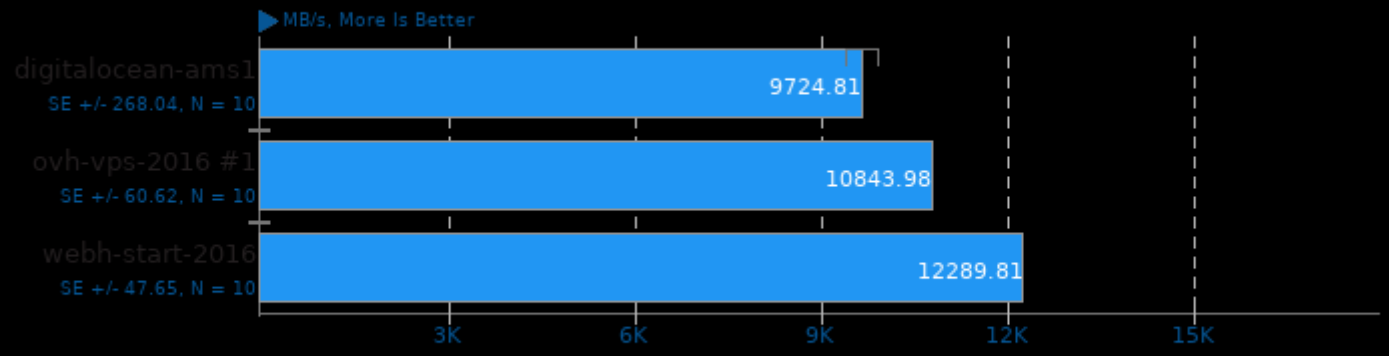
Type: Scale



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

Stream 2013-01-17

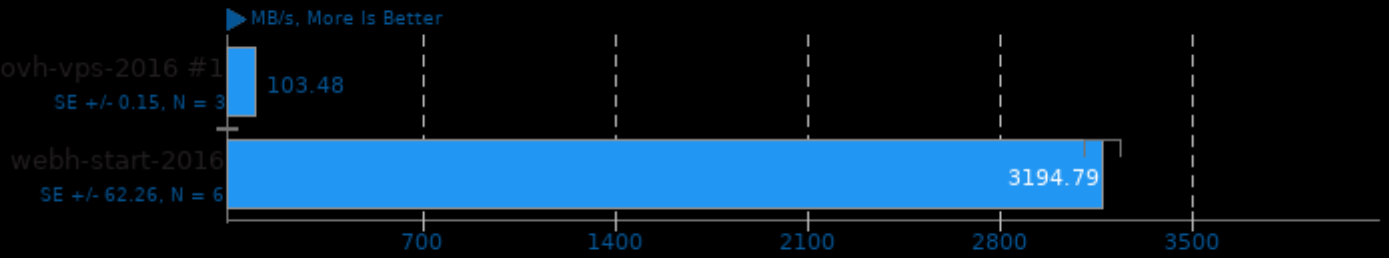
Type: Add



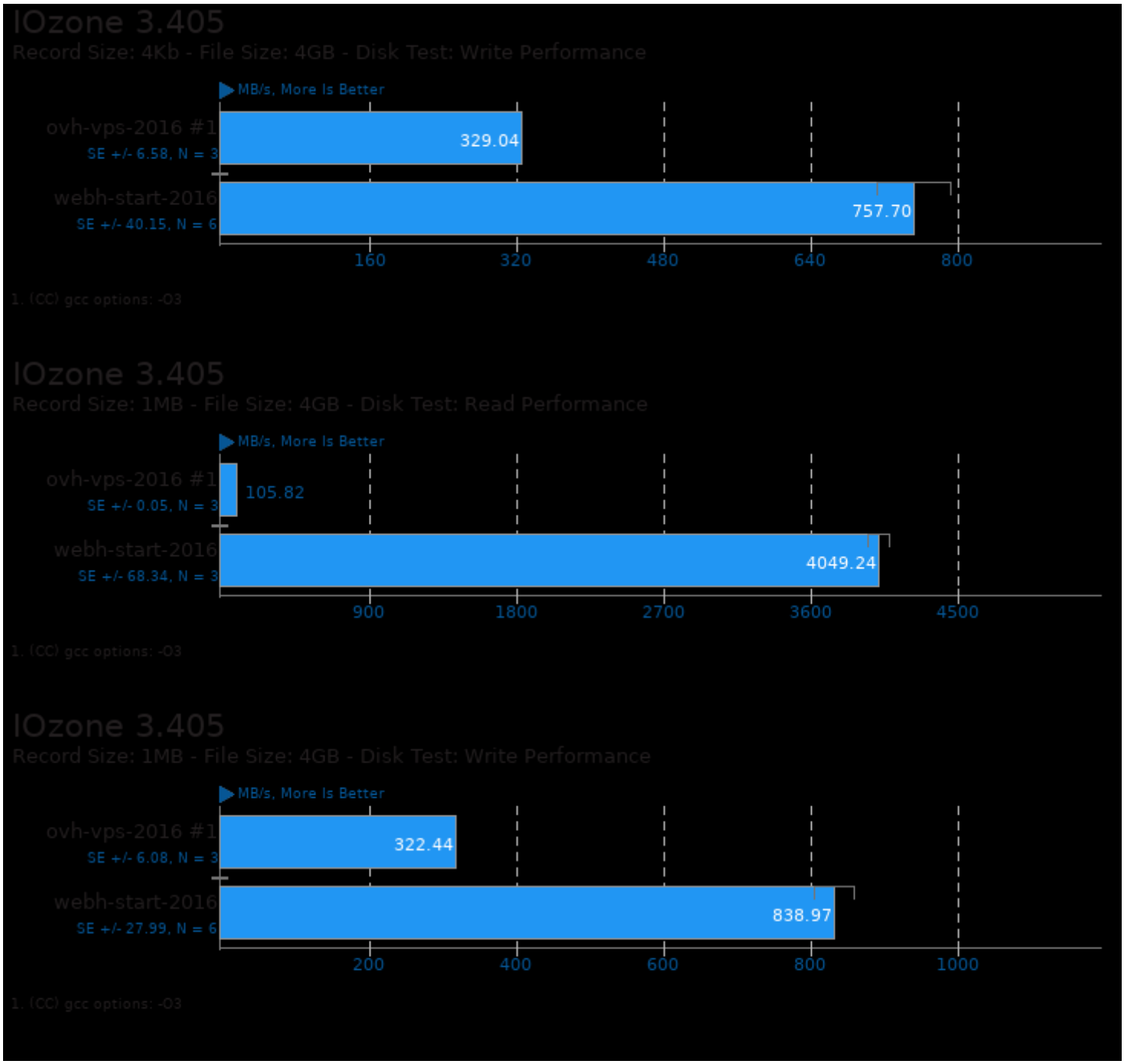
1. (CC) gcc options: -O3 -march=native -fopenmp

IOzone 3.405

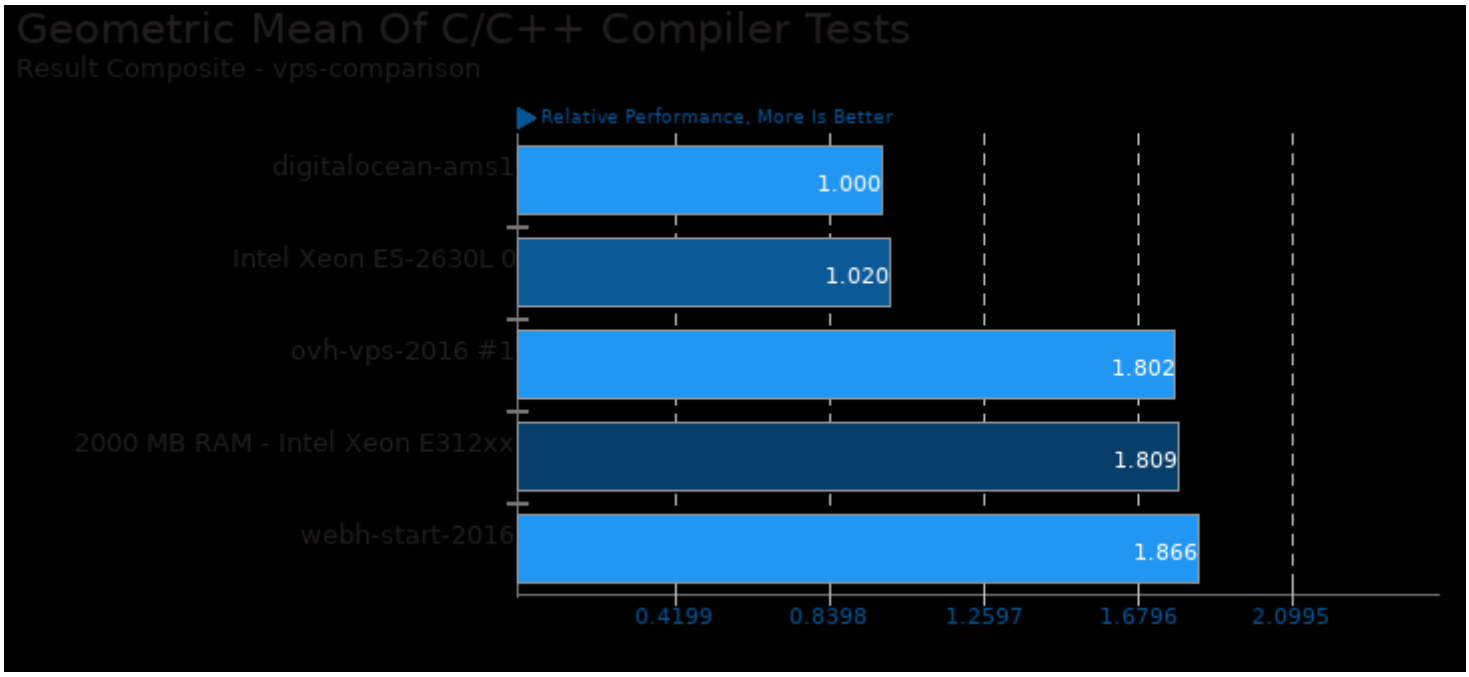
Record Size: 4Kb - File Size: 4GB - Disk Test: Read Performance



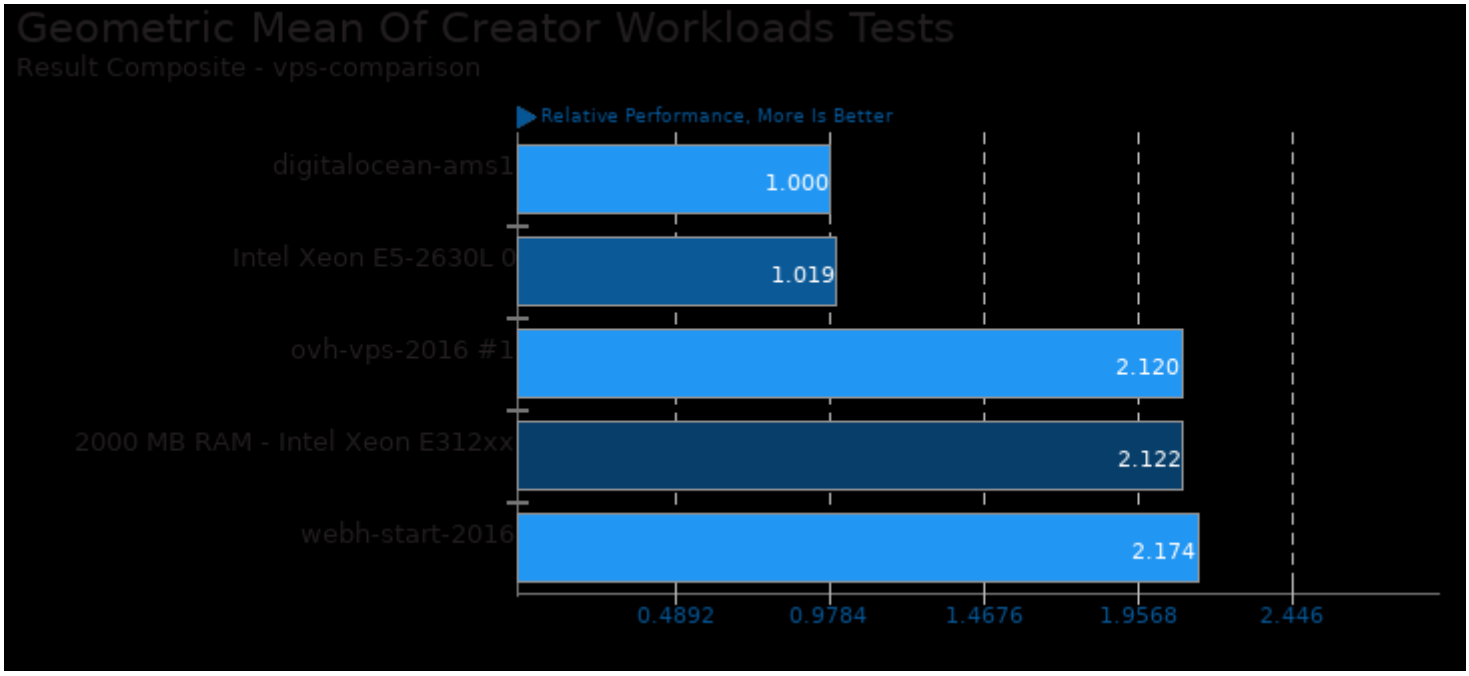
1. (CC) gcc options: -O3


IOzone 3.405
Record Size: 4Kb - File Size: 4GB - Disk Test: Write Performance
MB/s, More Is Better
ovh-vps-2016 #1
SE +/- 6.58, N = 3
329.04
webh-start-2016
SE +/- 40.15, N = 6
757.70
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
ovh-vps-2016 #1
SE +/- 0.05, N = 3
105.82
webh-start-2016
SE +/- 68.34, N = 3
4049.24
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
ovh-vps-2016 #1
SE +/- 6.08, N = 3
322.44
webh-start-2016
SE +/- 27.99, N = 6
838.97
200
400
600
800
1000
1. (CC) gcc options: -O3

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



Geometric mean based upon tests: pts/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 06:59.