fengqi.asia
風 起 亞 洲

Benchmark Results of Fengqi.Asia

- Fengqi.Asia SmartOS SmartMachine vs. Popular Cloud Platforms (Part A)
- Fengqi.Asia VirtualMachine vs. Popular Cloud Platforms (Part B)

Prepared by
Fengqi.Asia

Summary of Benchmarking Results

fengqi.asia 風起亞洲

SM or SmartMachine: Fengqi.Asia SmartOS SmartMachine, a UNIX based OS optimized for high-load high-performance web applications that natively integrates with Fengqi.Asia cloud platform

VM or VirtualMachine: Fengqi.Asia Virtual Machine with guest OS loaded

Test No.	Category	Benchmark	fengqi.asia – outperforms			
			Part A. SmartMachine		Part B. VirtualMachine	
			AWS EC2	GrandCloud	AWS EC2	GrandCloud
1	Disk I/O Test	IOZone: Write	+589%	+392%	+92%	+37%
		IOZone: Read	+1513%	+1228%	+1013%	+816%
2	Memory I/O Test	RAMSpeed: Integer	+11%	+27%	+33%	+52%
		RAMSpeed: Floating Point	+32%	+18%	+42%	+28%
3	CPU Test	SciMark Sparse Matrix	+73%	+174%	+5%	+67%
		SciMark Dense Matrix	+53%	+131%	-13%	+31%

Part A. SmartMachine Benchmarks
Machines involved

fengqi.asia 風 起 亞 洲

Fengqi.Asia

- SmartOS
- SmartMachine
- 7G RAM
- 100GB Hard-disk
- Hong Kong

fengqi.asia 風 起 亞 洲

VS

Amazon AWS EC2 (m1.Large)

- RHEL6
- 2 EC2 Compute Units

(2 virtual cores with 2 compute units each)

- 7.5GB RAM
- 850GB Hard-disk
- US East

amazon web services™*

GrandCloud 盛大云 (Large)

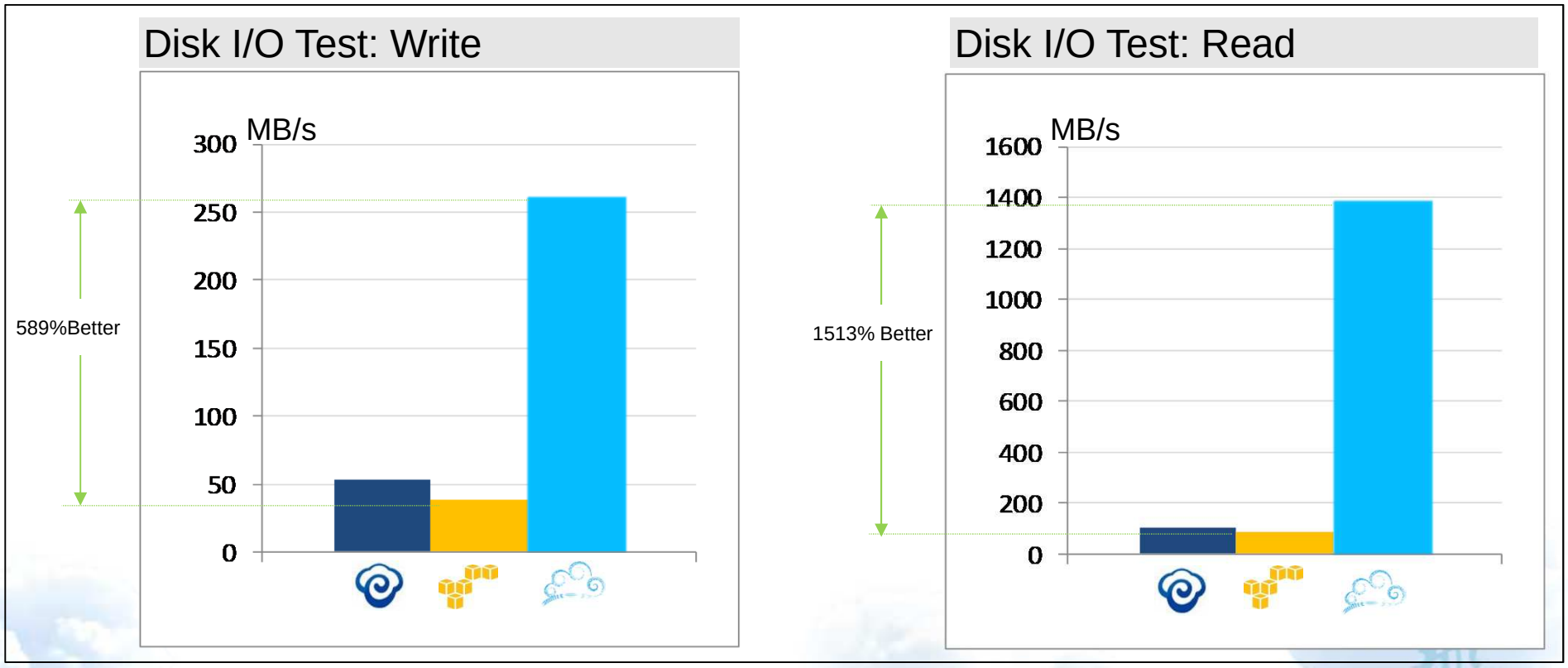
- CentOS 6
- 4 Core
- 8G RAM
- 120GB Hard-disk
- East China

盛大云 Grand Cloud*

* Any trademarks or logos used throughout this presentation are the property of their respective owners

Part A. SmartMachine Benchmarks
Test 1. Disk I/O Test - IOZone

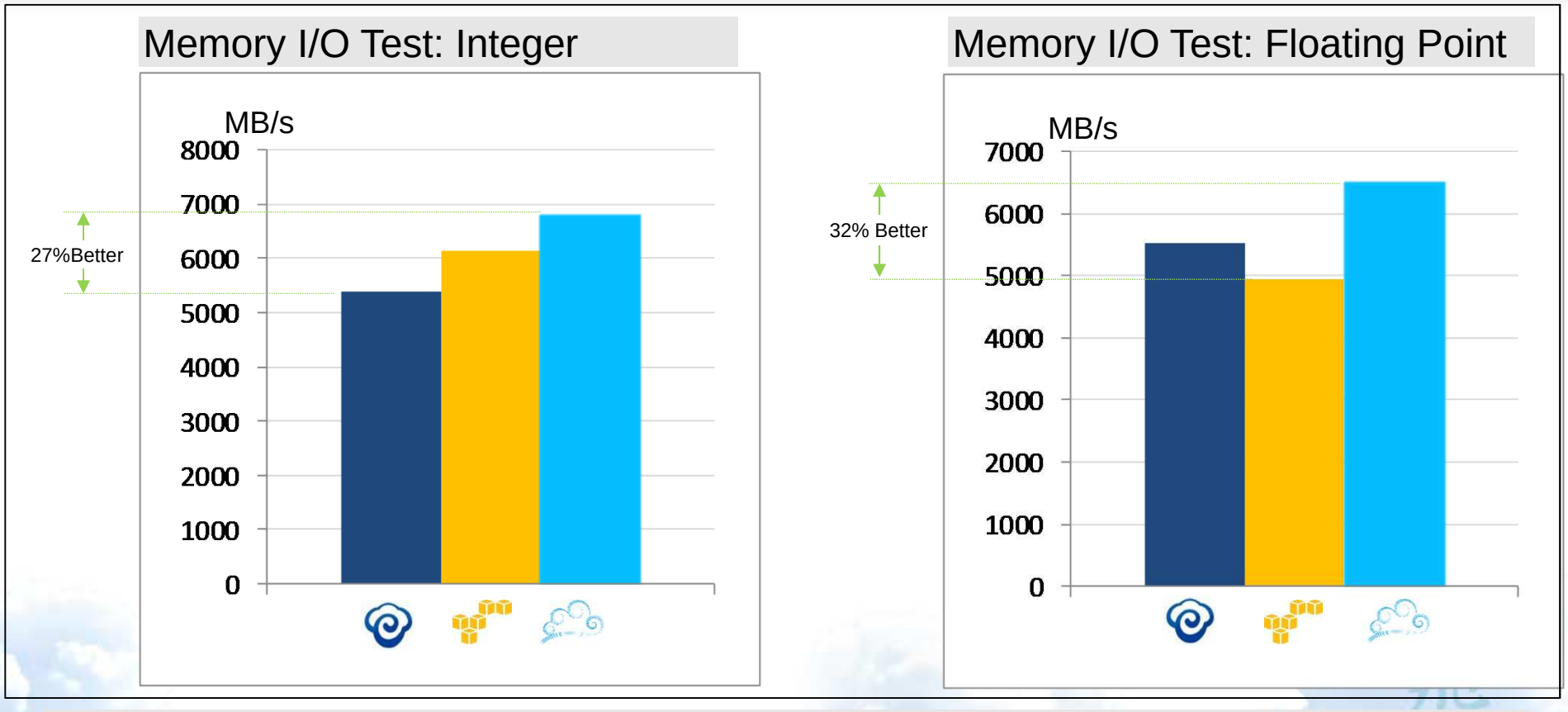
fengqi.asia 風起亞洲



The superior read/write performance is because Fengqi.Asia Unix gives a system-wide RAM cache for all disk I/O.

Test details: IOzone - Record Size: 4Kb - File Size: 8GB - Disk Test: Write and Read Performance
Write: This test measures the performance of writing new files
Read: This test measures the performance of reading existing files
Reference: http://www.iozone.org/docs/IOzone_msword_98.pdf

Part A. SmartMachine Benchmarks
Test 2. Memory I/O Test - **RAMspeed SMP**

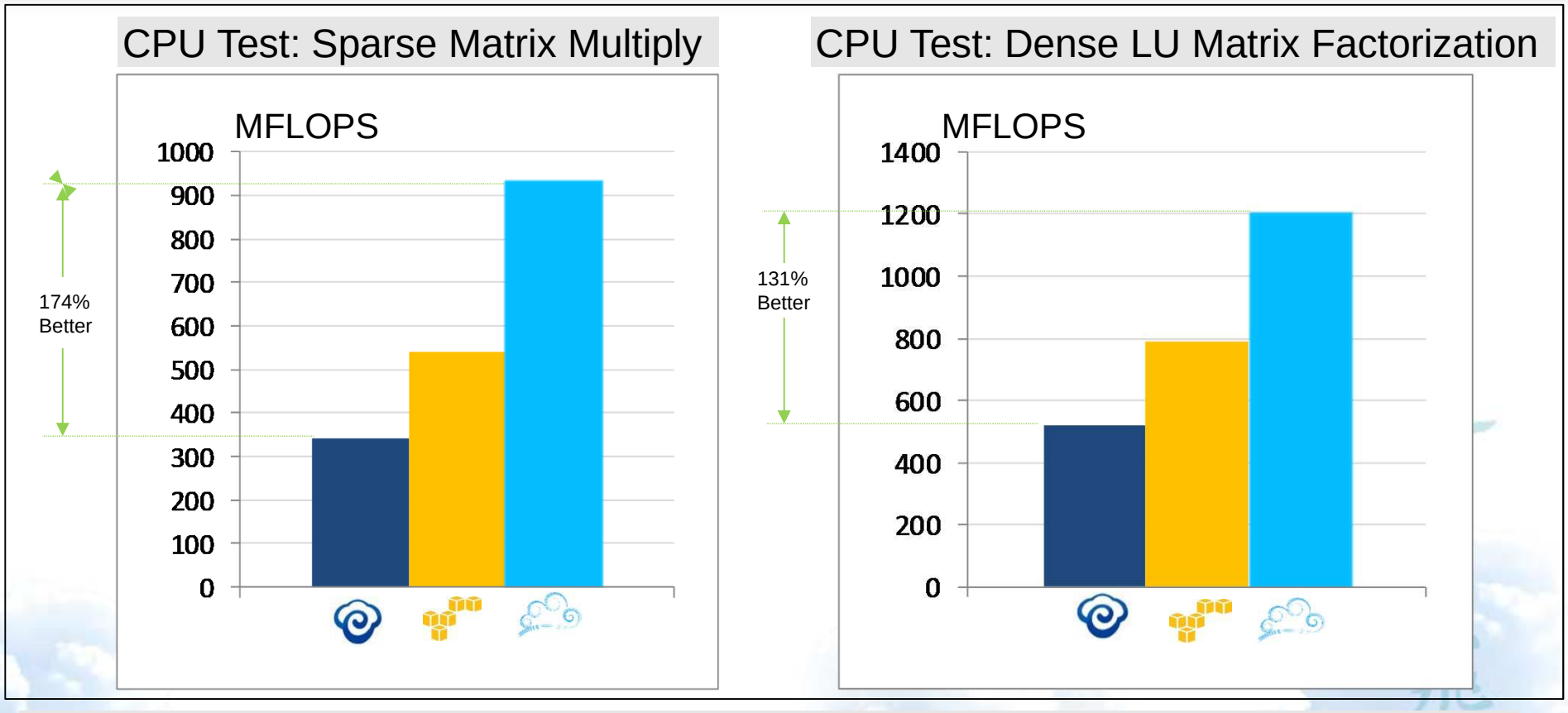


Test details: RAMspeed SMP - Type: Average - Benchmark: Integer and Floating Point
RAMspeed tests how fast are both cache and memory subsystems via allocating certain memory space and start either writing to or reading from it using continuous blocks

Reference: http://alasir.com/software/ramspeed/

Part A. SmartMachine Benchmarks
Test 3. CPU Test - **SciMark Computational**

fengqi.asia 風起亞洲



Test details: SciMark - Computational Test: Sparse Matrix Multiply and Dense LU Matrix Factorization
SciMark tests computational kernels and reports a composite score in approximate Mflops (Millions of floating point operations per second)

Reference: http://math.nist.gov/scimark2/

Part B. VirtualMachine Benchmarks
Machines involved

Fengqi.Asia VM (Large)

- CentOS 6
- 2-Core
- 8G RAM
- 160GB Hard-disk
- Hong Kong

VS

Amazon AWS EC2 (m1.Large)

- RHEL6
- 2 EC2 Compute Units

(2 virtual cores with 2 compute units each)

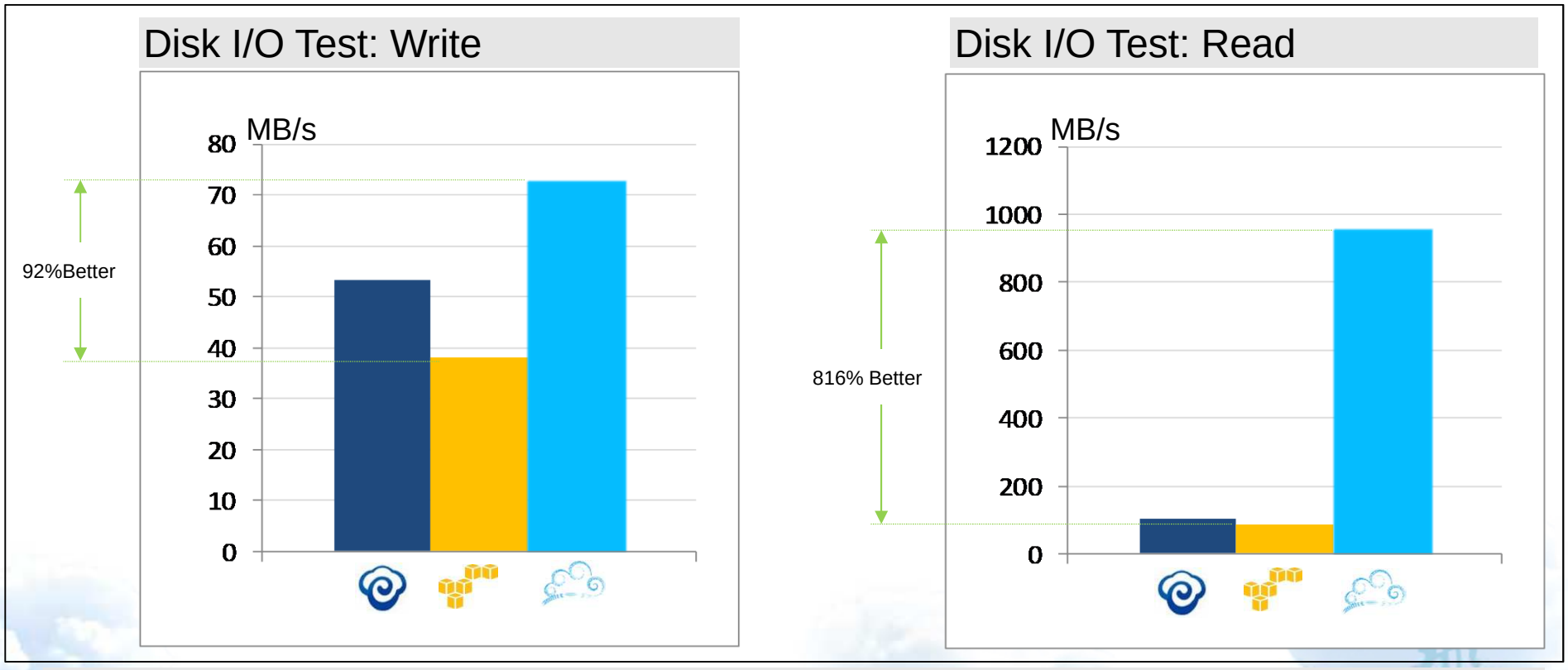
- 7.5GB RAM
- 850GB Hard-disk
- US East

GrandCloud 盛大云 (Large)

- CentOS 6
- 4-Core
- 8G RAM
- 120GB Hard-disk
- East China

* Any trademarks or logos used throughout this presentation are the property of their respective owners

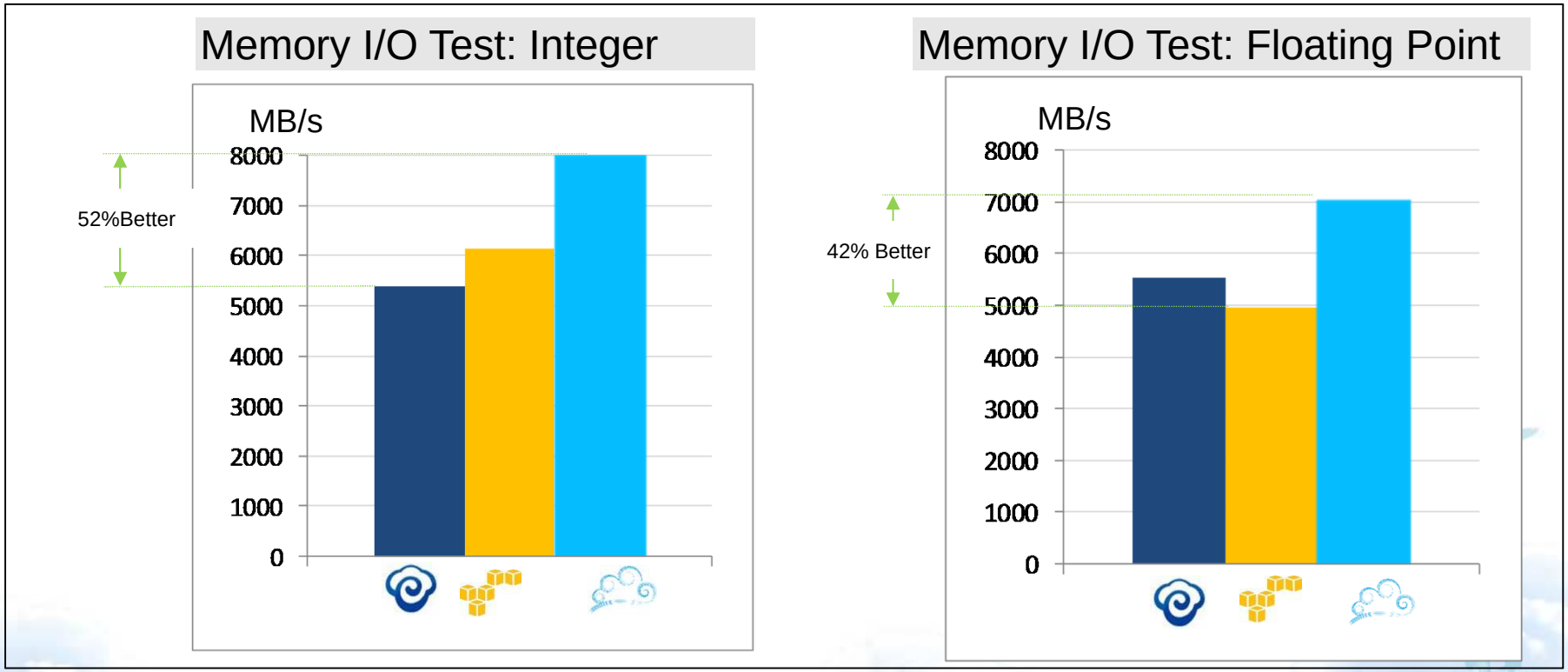
Part B. VirtualMachine Benchmarks
Test 1. Disk I/O Test - IOZone



Test details: IOzone - Record Size: 4Kb - File Size: 8GB - Disk Test: Write and Read Performance
Write: This test measures the performance of writing a new file
Read: This test measures the performance of reading an existing file

Reference: http://www.iozone.org/docs/IOzone_msword_98.pdf

Part B. VirtualMachine Benchmarks
Test 2. Memory I/O Test - RAMspeed SMP

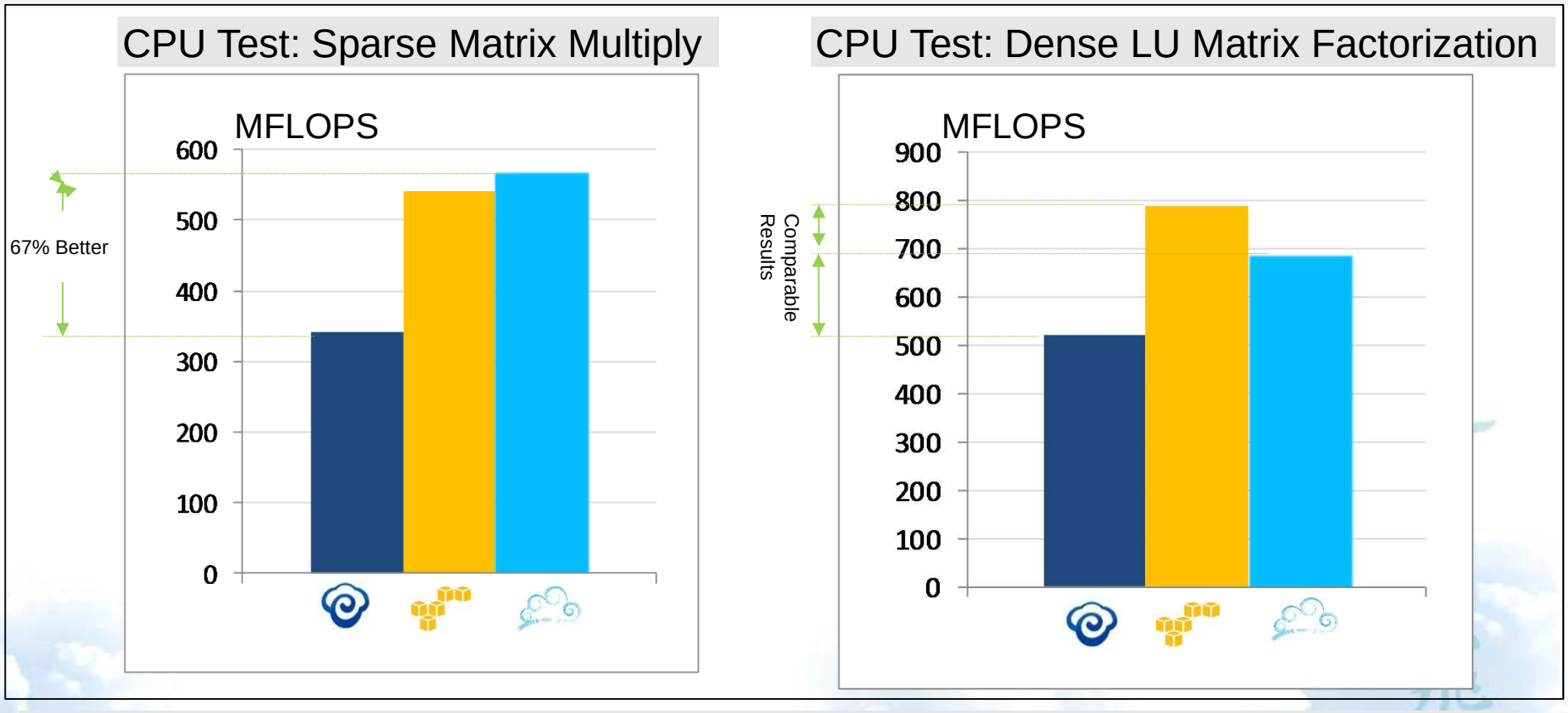


Test details: RAMspeed SMP - Type: Average - Benchmark: Integer and Floating Point
RAMspeed tests how fast are both cache and memory subsystems via allocating certain memory space and start either writing to or reading from it using continuous blocks

Reference: http://alasir.com/software/ramspeed/

Part B. VirtualMachine Benchmarks
Test 3. CPU Test - **SciMark Computational**

fengqi.asia 風起亞洲



Test details: SciMark - Computational Test: Sparse Matrix Multiply and Dense LU Matrix Factorization
SciMark tests computational kernels and reports a composite score in approximate Mflops (Millions of floating point operations per second)

Reference: http://math.nist.gov/scimark2/

Q & A

fengqi.asia 風起亞洲

Contact us	**cloud@fengqi.asia**
Request a free trial	**www.fengqi.asia/free-trial.html**
Get started	**portal.fengqi.asia**
More info	**www.fengqi.asia**

Note:

The tests were conducted by Cluster Technology Limited, whose registered office is suited at Units 211-213, Lakeside1, No.8 Science Park West Avenue, HKSTP, Shatin, N.T. Hong Kong.

Tests dates:

Fengqi.Asia – Jan 2012
Amazon EC2 – Jan 2012
GrandCloud – Apr 2012