CLOUD SERVICES



David Misshula @davidmisshula

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AGENDA

- Who am !?
- Joyent at Understoodit
- Why we switched to AWS
- Joyent vs AWS
- Other cloud services

ME!

- Understoodit
- http://understoodit.com/david
- Before Understoodit No DevOps with Node





Why we chose Doyent

- Node & Joyent
 - Ryan Dahl & Isaac Schlueter
- Performance
- Customer Support
- Auto Scale
- Data Analytics
 - New Relic, NodeFly, DTrace



- CHEAPER
 - \$120 vs \$40 per month, bring down machines
- We use other services on their network
 - Postgres Heroku, Cloudfront
- Multiple Locations
- SmartOS is not Ubuntu
 - HAProxy SSL, SysLog







PRICE

Free Tier*

As part of AWS's Free Usage Tier, new AWS customers can get started with Amazon EC2 for free. Upon sign-up, new AWS customers receive the following EC2 services each month for one year:

- 750 hours of EC2 running Linux/Unix Micro instance usage
- 750 hours of EC2 running Microsoft Windows Server Micro instance usage
- 750 hours of Elastic Load Balancing plus 15 GB data processing
- 30 GB of Amazon EBS Standard volume storage plus 2 million
 IOs and 1 GB snapshot storage
- 15 GB of bandwidth out aggregated across all AWS services
- 1 GB of Regional Data Transfer







PRICE

JOYENT CLOUD (SMARTOS OR LINUX) VS AMAZON EC2 (LINUX)*

SmartOS / Linux Joyent Machine**	PRICE/HR*	Linux AWS Instance Type	PRICE	/HR*
Extra Small (0.5GB / 1c / 15GB)	\$0.03	Micro (0.5GB / 1c / 15GB)	\$0.04	\$0.020 per Hour
Small (Default) (1GB / 1c / 30GB)	\$0.085	Small (Default) (1.7GB / 1c / 30GB)	\$0.10	\$0.060 per Hour
Large (8GB / 8c / 240GB)	\$0.36	Large (7.5GB / 2c / 240GB)	\$0.51	\$0.240 per Hour
Extra Large (16GB / 12c / 480GB)	\$0.64	Extra Large (15GB / 4c / 480GB)	\$0.86	\$0.480 per Hour
Hi-Memory SmartMachines		Hi-Memory On-Demand Instances		
Large (16GB / 12c / 480GB)	\$0.64	Extra Large (17GB / 2c / 480GB)	\$0.68	\$0.410 per Hour
XL (32GB / 16c / 760GB)	\$1.12	Double XL (34GB / 4c / 760GB)	\$1.17	\$0.820 per Hour
Triple XL (64GB / 16c / 1.5TB)	\$2.24	Quadruple XL (68GB / 8c / 1.5TB)	\$2.20	\$1.640 per Hour

^{*} Amazon EC2 estimates were calculated based on the AWS online calculator, using North America zones, and based on 100% utilization per month. 730 hours / month was used to calculate estimated hourly rates. Amazon pricing estimates include costs for bandwidth and support costs.







PRICE - BANDWIDTH

\$0 (up to 20TB)

Data Transfer OUT From Amazon EC2 To Internet		
First 1 GB / month	\$0.00 per GB	
Up to 10 TB / month	\$0.12 per GB	
Next 40 TB / month	\$0.09 per GB	
Next 100 TB / month	\$0.07 per GB	
Next 350 TB / month	\$0.05 per GB	
Next 524 TB / month	Contact Us	







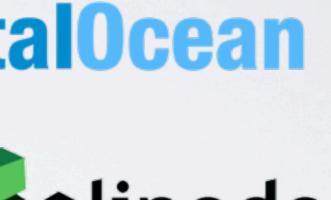
PERFORMANCE

	Joyent	AWS
Performance telemetry	0	8
Vertical CPU bursting	0	8
Automated horizontal scaling	0	0
Disk I/O protection	0	8
Persistent Storage	Local Software Driven	Distributed Network Driven
CPU Access	Direct	Virtual
Networking	20TB FREE	Pay per TB
SLA*	99.9999%	99.95%

- Visualization and Real-time Analytics
- Temporary Performance Boost
- Storage
- Service Level Agreement
- Bryan Cantrill dtrace

OTHER OPTIONS







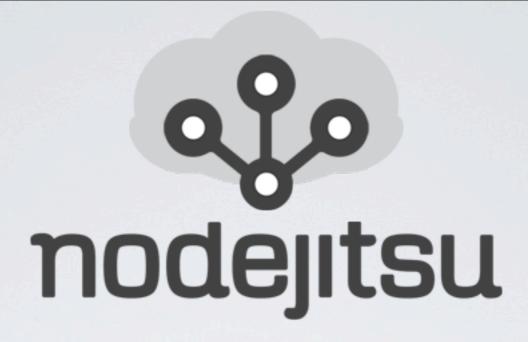
rackspace. Inode.com



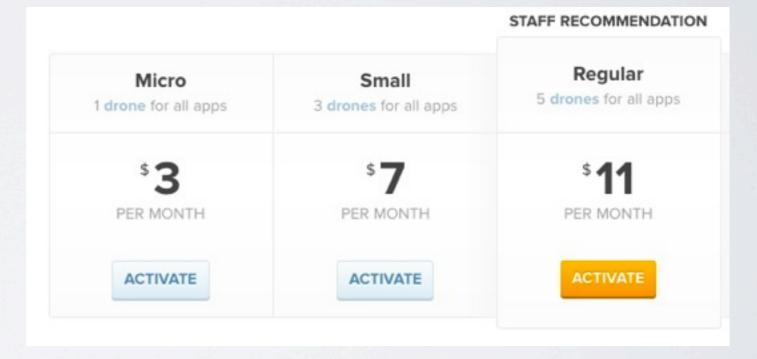




FARMS



- Who are they
- Easy deployment
- NPM jitsu
- Lack of complete control
- 30 days free
- External DB providers
- Europe and US
- · Websocket support, hands on support

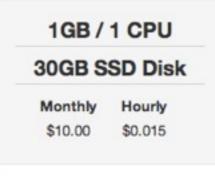


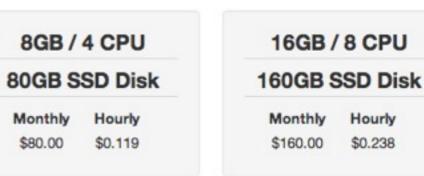


- · Cheap, cheap, cheap
- · SSD
- Fedora, Ubuntu, CentOS
- New York, Amsterdam
- Auto Backups









2GB / 2 CPU

40GB SSD Disk

Hourly

\$0.030

Monthly

\$20.00



- Operations as a service
- · "handholding"
- Toronto!

1GB VM

\$88/month

Fully Managed
Fully Redundant
Encrypted off-site back-ups
Monitoring and Trending
1024MB Memory
50GB Disk
2 CPU Cores

Sign Up Now!

2GB VM \$164/month

Fully Managed
Fully Redundant
Encrypted off-site back-ups
Monitoring and Trending
2048MB Memory
50GB Disk
4 CPU Cores

Sign Up Now!

4GB VM \$314/month

Fully Managed
Fully Redundant
Encrypted off-site back-ups
Monitoring and Trending
4096MB Memory
50GB Disk
4 CPU Cores

Sign Up Now!

TRADEOFFS

- What does it actually cost?
- Who uses them?
- Are they available to support?
- What is easiest?
- Does it just WORK?

THANKS!

- http://blog.davidmisshula.com
- http://joyent.com/products/joyent-cloud/pricing-comparison
- http://joyent.com/products/joyent-cloud/aws-comparison
- http://aws.amazon.com/free/
- http://jasonormand.com/2013/02/08/linode-vs-digitalocean-performance-benchmarks/
- http://mattconnolly.wordpress.com/2012/11/18/comparing-amazon-ec2-to-joyent-smartos/
- http://news.ycombinator.com/item?id=4802957
- http://joyent.com/content/05-developers/01-resources/43-a-framework-for-selecting-the-right-cloud-infrastructure-provider/121204-aws-whitepaper.pdf