

The Cloud

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 - Regions and Groups
 - Images and Storage
 - Instance Types and Pricing
 - Network and Security
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 - Basics
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 - Example Application
- Basic AWS Usage

Rob Keizer
robert@keizer.ca

Systems Administrator

- AWS
- Rackspace
- Linode
- Bluebox
- Brightbox
- Cloudsigma
- CloudStack
- Dreamhost
- ElasticStack
- ElasticHosts
- Gandi
- GoGrid
- IBM SBC
- OpenStack
- RimuHosting
- Serverlove
- Slicehost
- Vcloud
- Voxel
- Ninefold
- OpenNebula
- SkaliCloud
- Softlayer
- Vpsnet
- Eucalyptus

What is it?

- All encompassing platform
 - Compute Resources EC2
 - Content Delivery CloudFront
 - NoSQL Database DynamoDB
 - Managed SQL RDS
 - In-Memory Cache ElastiCache
 - Map-Reduce Elastic MapReduce
 - Managed DNS Route53
 - Data storage S3

Why is it popular?

- Awesome catchphrase!
 - “Cloud It”
 - “I'm hosted in the cloud”
- Deceptively Low Pricing
 - Per usage
 - **Everything** costs some amount of money
- Off-site
- SLA
- Scalable

IT Considerations

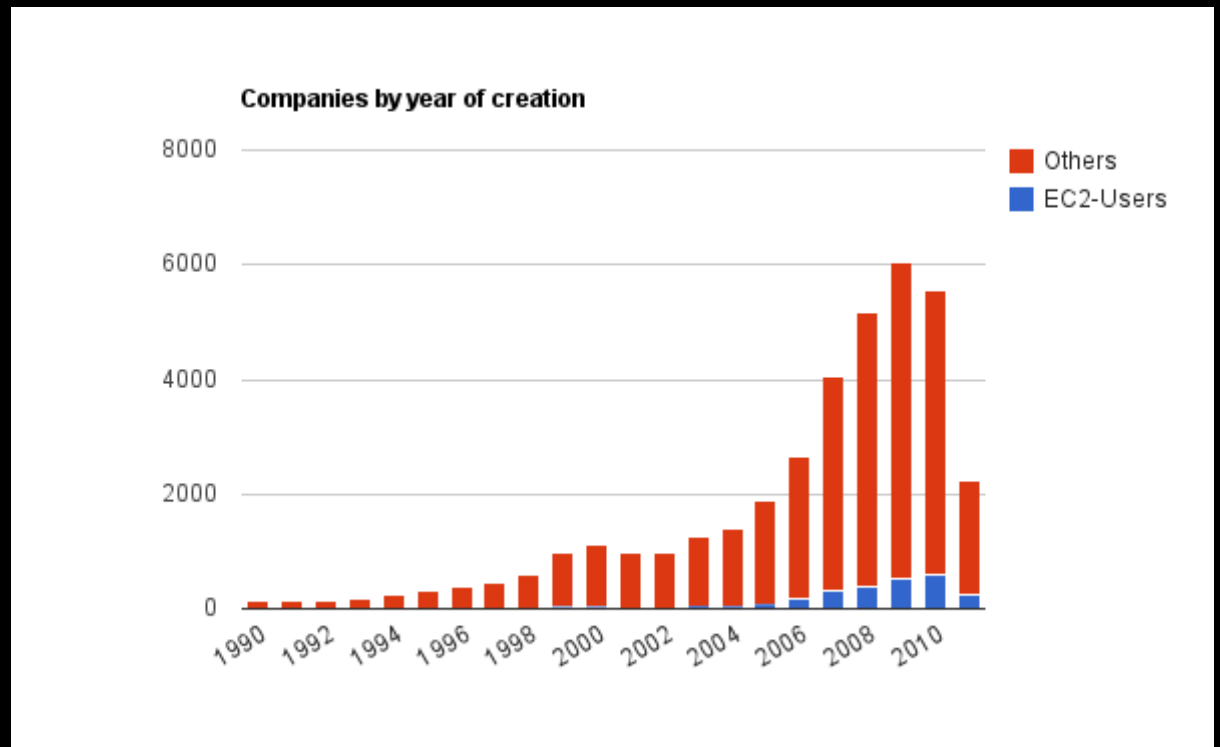
- Easy to administer
- Large internet pipes
- Off-site
- Scalable

- Per-Usage Billing
- Uncontrollable Infrastructure
 - Network, Disk, Power.
- Not Power-User Friendly

~\$115/month for Medium Instance
\$0.16 / hour
Doesn't Include Bandwidth

Utilization

- Netflix
- Twitter
- NYT
- WSJ
- Twilio
- Amazon
- Paypal
- IBM
- PBS



- elastic-security.com

Failure

Thursday's crash happened at Amazon's northern Virginia data center, located in one of its East Coast availability zones. In its status log, Amazon said that a "networking event" caused a domino effect across other availability zones in that region, in which many of its storage volumes created new backups of themselves. That filled up Amazon's available storage capacity and prevented some sites from accessing their data.

- CNN

Whats the IPv4 footprint of us-east-1?

- Usable: 581 152
- Total: 4 294 967 296
- 0.013 %

Whats the IPv4 footprint of MTS?

- Usable: 613 664
- Total: 4 294 967 296
- 0.014 %

Regions and Groups

us-east-1	A, B, C, D
us-west-1	A, C
us-west-2	A, B
eu-west-1	A, B, C
ap-southeast-1	A, B
ap-northeast-1	A, B
sa-east-1	A, B

Images and Storage

- AMI stands for Amazon Machine Image
- Public
- Paid RedHat, Canonical, Microsoft, Joe Schmo
- Shared Private and specific others
- S3 backed is split into series of 10Mb chunks
- XML manifest file

AMI, including name, version, architecture, default kernel id, decryption key and digests for all of the filesystem chunks.