

# S3 / EC2



The Future



Why?



Why Not?

EC2

# Elastic Compute Cloud

# You Get

1.7 GHz x86 Processor

1.75 GB RAM

160 GB HD

250 Mb/s Pipe

Geo-Redundant

Xen

# You Pay

\$0.10 per instance-hour

\$0.20 per GB data transferred

Data transfer inside Amazon free



# Simple Scenario

Monthly Processing Job

10 Machines

20 hours total

# Dell Scenario

10 Dell Servers

\$1000 each

\$10K hardware investment

20 hours each month

Idle after that?

# EC2 Scenario

10 EC2 Instances

20 hours of usage

\$20

# EC2 on Rails

# Starting an Instance

# Configuration

# Getting EC2

# Command Line Tools

# Web Service API

# Elastic Applications



Power**set**  
NATURAL LANGUAGE SEARCH

S3

# Simple Storage Service

# You Get

Write, Read, and Delete objects

Object size - 1 byte to 5 GB

Unlimited objects

HTTP or BitTorrent access

# You Pay

\$0.15 per GB-month of storage

\$0.20 per GB data transferred



# Second Life Example

30 MB file

~38,000 downloads in 24 hrs

70 GB per hour at peak

900 GB transfered

\$180

# Three Components

Objects

Buckets

Keys

<http://s3.amazonaws.com/doc/2006-03-01/AmazonS3.wsdl>

bucket = 'doc'

key = '2006-03-01/AmazonS3.wsdl'

bucket + key = mapping to object

# Virtual Hosting

setup your domain as a CNAME

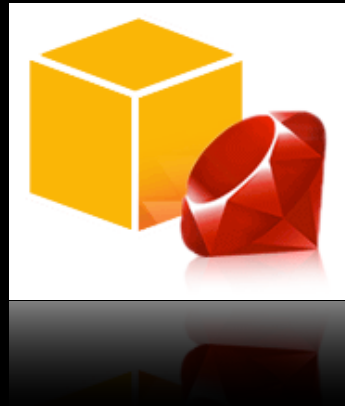
[www.derailed.com](http://www.derailed.com) > [s3.amazonaws.com](http://s3.amazonaws.com)

store content in a bucket named [www.derailed.com](http://www.derailed.com)

SOAP / REST

# ACLs and Logging

# S3 on Rails



**AWS::S3**

```
sudo gem i aws-s3
```

s3sh - the S3 shell

# S3 Demo

# Tools for S3

S3 Browser for OS X

attachment\_fu

Firefox Plugin

What's Next?

# EC2

Permanent storage

S3DFS

SDS

AWS::EC2

# S3

S3 2.0

Browser uploads via PUT

Better Statistics and Logging

# Resources

AWS - <http://aws.amazon.com>

S3 Browser - <http://tinyurl.com/2weeaw>

Duncan Davidson - <http://tinyurl.com/2rttzv>

AWS::S3 - <http://amazon.rubyforge.org/>

Beast - <http://beast.caboo.se>

AWS Blog - <http://aws.typepad.com>



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