Moving to the Cloud with NYTimes.com

Ben Gerst
Vadim Jelezniakov
OSCON 2010
Vanilla AWS - Do Everything Yourself

Choose / Build Images

‘Slice’ Your Resources

Store Meta Data

Define Process

etc.
Great For Start-Ups

Nothing to Lose, Everything to Gain
Difficult for Grown-Ups
Difficult for Grown-Ups

Like a 150 y.o. Newspaper with a 14 y.o. Web Site and a 3 y.o. building that the guy on the right climbed in 2008
But First...
Why Move?

Ben talks about Community Calls at 6PM on Friday and Beer
What is UGC @nytimes?
Comments on Articles and Blogs

READERS' COMMENTS

Hot Weather in a Warming Climate
A look at how more hot extremes might, or might not, spur climate and energy action.

Share your thoughts.

Back to Blog Post »

114 Readers' Comments

Post a Comment »

1. Gary Peters
   California
   July 9th, 2010
   1:38 am

   Over the last decade or so I've made it a habit to talk with anyone I met who had lived for a substantial time in higher latitudes. Virtually all of them, no matter what they did for a living or what political leanings that might have, could cite numerous examples of how the climate of their area was warming up--warmer winters, less snow fall, earlier flowering of plants, etc. Though anecdotal, these reports are so consistent that they clearly support the idea that "the times they are a'changing."
Rate and Review for Movies, Theater, Dining and Travel

**Star Trek** ☀️ NYT Critics' Pick

Alternate Title Star Trek: Corporate Headquarters, Star Trek - LSF, Star Trek Prequel, Star Trek: Starfleet Academy, Star Trek XI, Star Trek 11

![Trailer](https://example.com/trailer.png)

**Overview**

**New York Times Review**

**Cast, Credits & Awards**

**Readers’ Reviews (254)**

**Trailers & Clips**

**Box Office Top 5**

More Box Office Data »

**TimesPulse**

The most popular movies among NYTtimes.com readers.

Expanded List » | What's This?

**Average Reader Rating**

Rate it

0 | 0 | 0 | 0 | 0

4 rating, 1770 votes

**254 Readers’ Reviews**

Review This Movie »

1. **Honest work, a smart reboot of the Star Trek franchise**

I have seen the movie a few days ago in Paris at the movie's premiere for France.

While I like the sci-fi genre very much in general and Star Trek in particular, I am a far cry from your Trekkie cultist.

So I was very curious to see how the directing team would manage to fulfill what seemed to me a tall (and contradictory) order:

Satisfy the Trekkie fan base in terms of respecting the Star Trek "canon"...but STILL

make a movie that would entertain the rest of the audience and
once upon a time...
hmm...

• need to be able to scale quickly on demand

• we don’t like calls from systems at 6pm on Fridays
buy more hardware

You've been down there, Neo. You already know that road. You know exactly where it ends.
move to the cloud
traffic spikes - add capacity
traffic spikes - add capacity
nytimes.com community architecture circa. 2007
gap analysis

• load balancing?

• how do we manage communication between instances? what about talking back to the datacenter?

• how do we scale up and back?

• how do we secure the instances?
• elastic ip points to nginx which handles all of our traffic

• nginx has the rules which determine where to send requests
communication & scaling

- host files
- monit
security groups

production

cmty

cmty-fe  cmty-api  cmty-cache  cmty-mysql
monitoring

Nagios

MUNIN
development instances!
Grown-Ups: Existing Organization

- Software Developers
- QA Specialists
- Management
- Infrastructure Engineers
- System Administrators
Grown-Ups: Existing Process

- Development
- QA
- Staging
- Production
- Security / Compliance
Grown-Ups: Existing Infrastructure

Authentication
Source Control
Monitoring
Network Security
Other Cloud Managers

No Auth Hooks

No Slices (Subaccounts)*

No Monitoring Hooks

Expensive*
Nimbul
Light Cloud Manager
http://github.com/nimbul/nimbul

Emissary
Fast AMQP Messaging
http://github.com/nimbul/emissary

CloudSource
Simple SVN Deployment
http://github.com/nimbul/cloudsource
based on ServerMattic developed by WordPress
Nimbul

Meta Data Store

Configuration Management

Access Control

Publishers

Sane Auto-Scaling UI

F2WW
Nimbul Cloud

Providers
   ( EC2 )

Provider Accounts
   ( Dev, Staging, Production )

Clusters ("Slices")
   ( UGC Staging, WWW Production )

Server Profiles
   ( UGC FrontEnd, UGC MySQL Master )

Instances
Nimbul Users

Nimbul Admins
( Full Access, can’t read keys )

Provider Account Admins
( Control Users, Resources, Env Vars, Startup Scripts, etc )

Cluster ("Slice") Admins
( Control Users, Resources, Env Vars, Startup Scripts, etc )

SSH Users
( Can be granted SSH access to any running instance )

Before Nimbul

After Nimbul
Extending Existing Infrastructure to the Cloud
CloudSource

SVN + bash

Role in SVN:
  files/
    etc/
      my.cnf
        <svn:external opt/nyt/app>
    scripts/
      install.sh

Deploy:
  role.sh apply role1,role2,role3

Update:
  role.sh update role
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