

OpenStack: future of the cloud

Muharem Hrnjadovic
@al_maisan

Rackspace International



<https://github.com/al-maisan/p/blob/master/paris-os-future.pdf>

tl;dr

IT → cloud → OpenStack → adopt → win!



<http://www.talend.com/sites/default/files/img/blog/uploads/2012/06/future.jpg>

“Linux of the cloud”

Linux

2013

94% of the world's top 500 supercomputers run Linux

15 million lines of code are contributed by 8,000 developers and 800 companies

2012

Linux-based Android leads the worldwide smartphone market

2000

IBM announces \$1B investment in Linux

1999

IBM announces an extensive Linux project

1998

IBM, Compaq and Oracle publicly announce support

1995

Broad hardware support rapidly ramps adoption

1993

More than 100 developers contribute code to Linux

1991

The Linux kernel is developed to access large UNIX servers independent of an operating system

OpenStack

2013

IBM unveils SmartCloud Orchestrator, a new private cloud offering based on OpenStack
Community of 8,200+ individual members representing 1,000 organizations
2013 predicted as the year of “OpenStack Services Firms”

2012

IBM, Rackspace, RedHat, AT&T and others establish the OpenStack Foundation
Leading cloud technology companies as well as large ISVs bet on OpenStack for their core business

2011

Head and shoulders above the rest with respect to contributors, members, followers and community

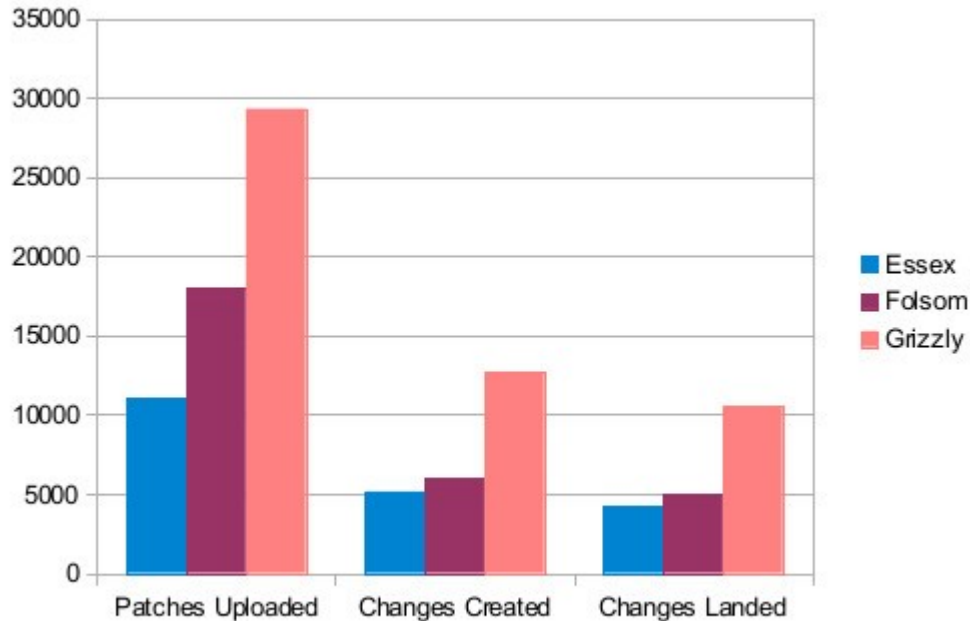
2010

One among many competing open solutions for cloud infrastructure
OpenStack comes out of the gate with favorable Apache license terms

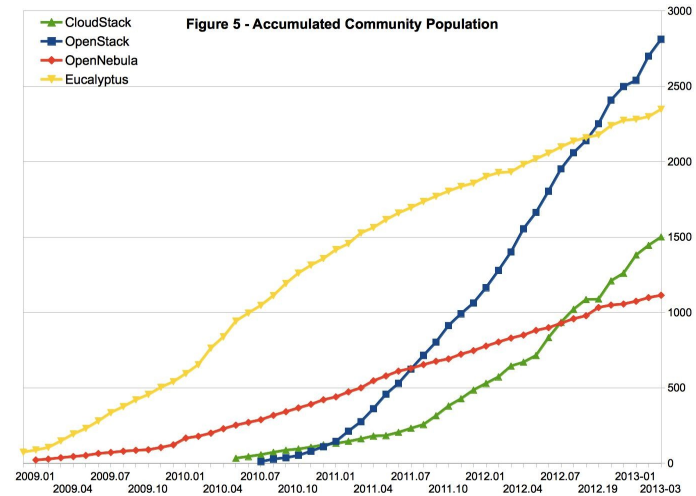
<http://www.zdnet.de/88146181/cloud-computing-ibm-setzt-auf-openstack-und-standards/>



Last cycle: 517 contributors



Source: <http://lists.openstack.org/pipermail/openstack-dev/2013-April/007189.html>

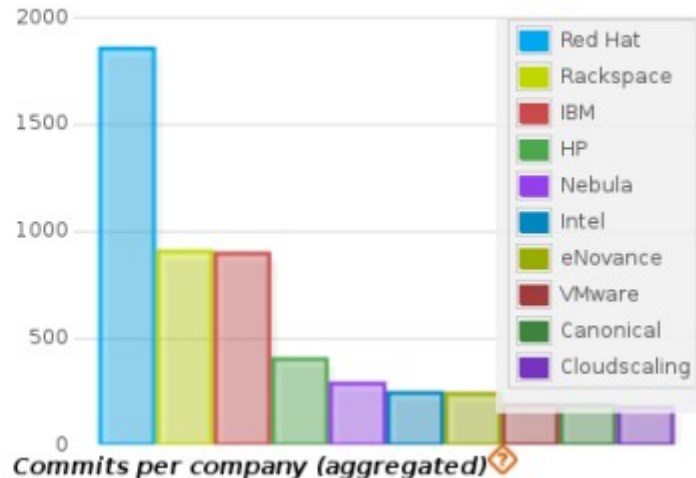
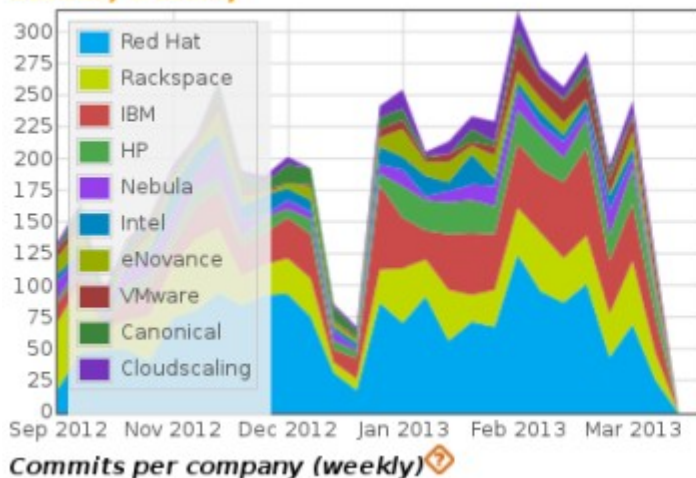


<http://www.qyjohn.net/?p=3120>



Where are these devs coming from?

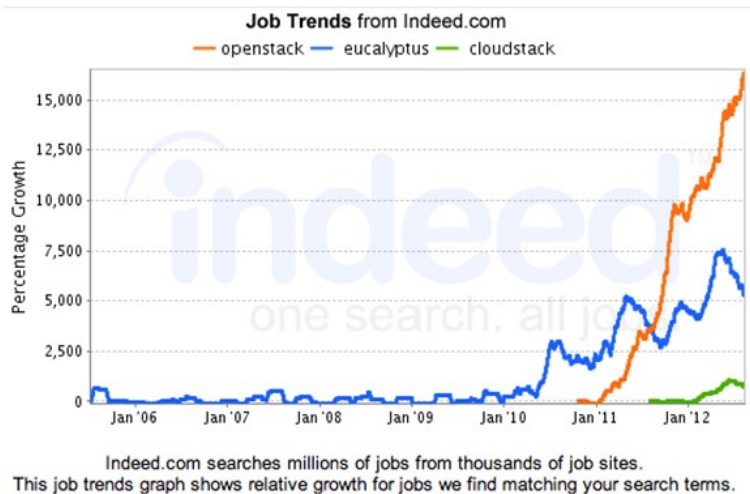
Summary of activity



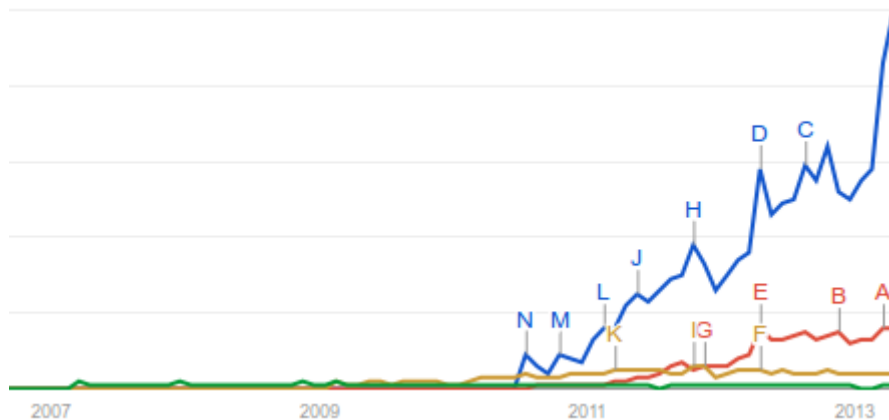
<http://blog.bitergia.com/2013/04/04/companies-contributing-to-openstack-grizzly-analysis/>



Momentum



<http://www.rackspace.com/blog/openstack-is-cr-eating-thousands-of-it-jobs/>



Pick Openstack!

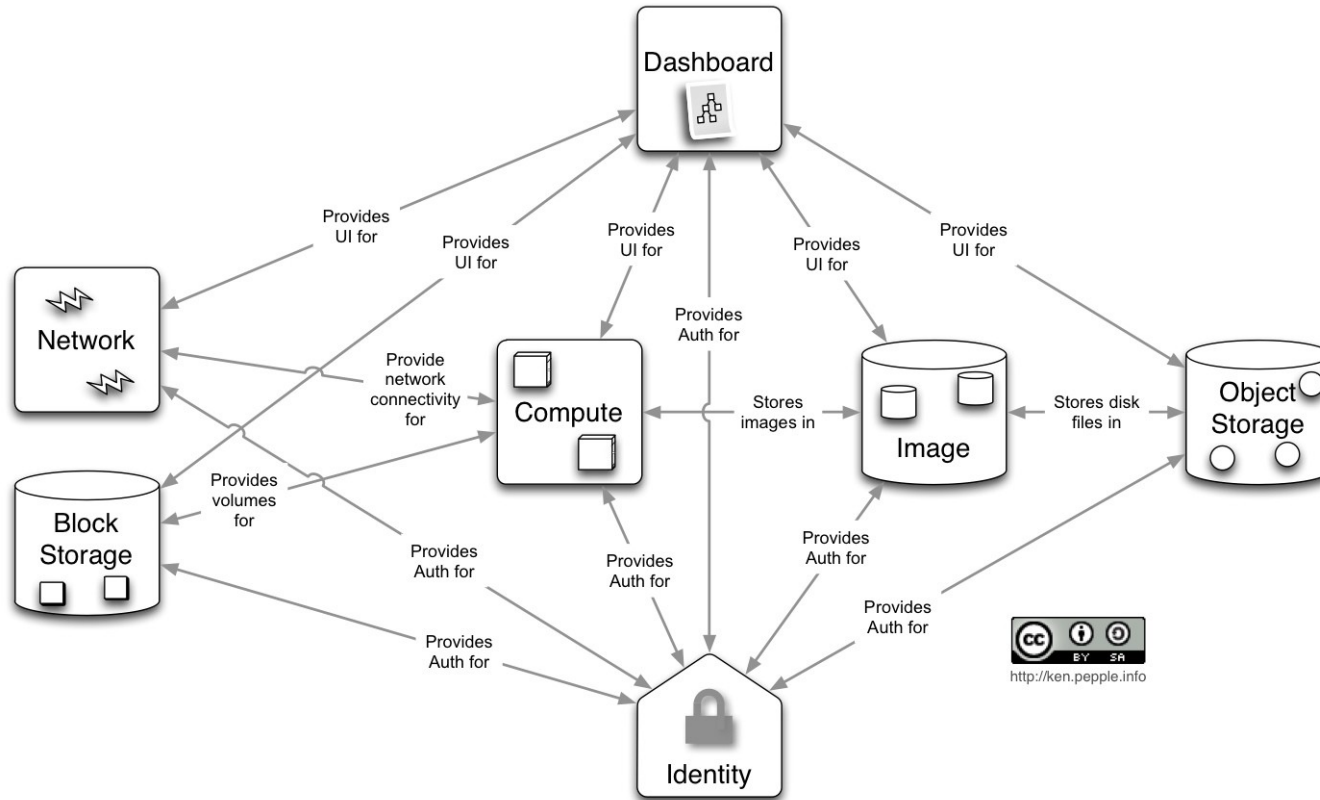
- Widely used (knowledge, staff, jobs)
- Versatile
 - 1 – 150,000 servers
 - public, private, hybrid
- Big, vibrant community
- Developed at fast clip (bug fixes, features)





<http://www.bauder.co.uk/media-centre/hot-project>

~332,387 lines of code



Wait! There's more

- **heat** - orchestration
- **ceilometer** - metering & monitoring
- **Marconi** - queuing as a service
- **reddwarf** - database as a service
- **moniker** - dns as a service



Why is it cool?

- Free
- Open source
- Great community
- Fast pace
- Python!



What's in for you?

- developer
 - Open source, great community, cool technology
- user
 - Lots of buzz & mind share
 - Architect for the cloud, learn the services and APIs
- admin
 - Deploy & operate the cloud

<http://www.openstack.org/community/jobs/>



Early warning signs

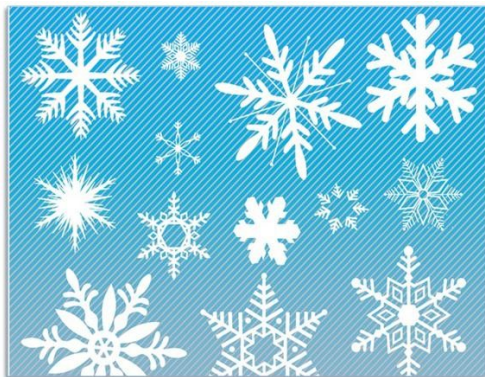
- Equalizer
- Disruptor
- New possibilities



REVOLUTION

Be on the winning side :)

- Scale up **out**
- Gazillions of “machines” → automation
- No more snow flakes (*sniff*), pets vs. cattle



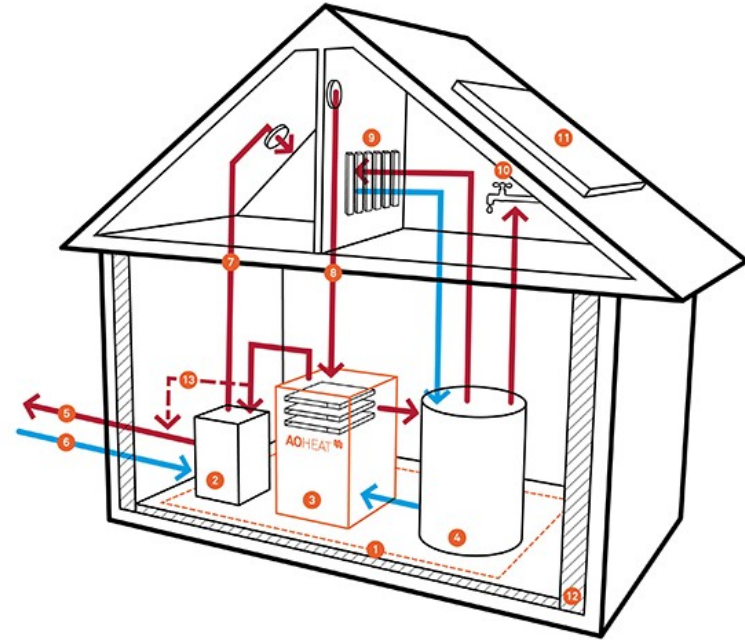
Learn how to..

- leverage industrial strength systems (linux)
- automate (**Chef**, **puppet**)
- program (**python**)



Crazy stuff!!

- AOTERRA
- Heater systems
- Green energy, ecology
- Crowd funding: 750,000 EUR
- OpenStack





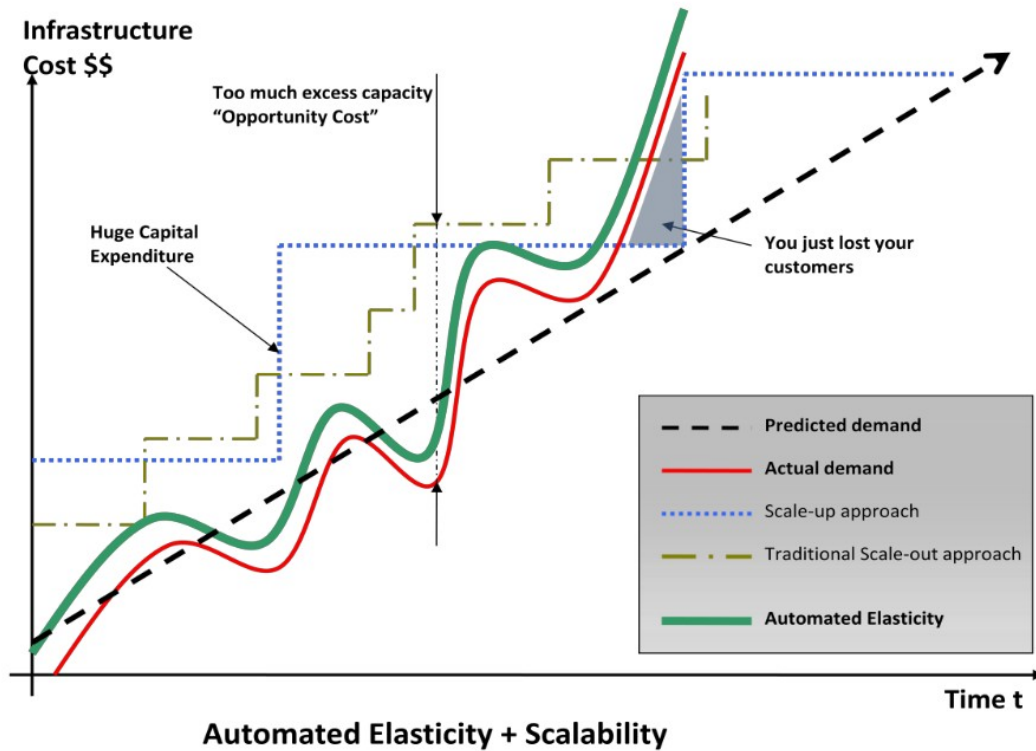
cloud → IT → upside down



<http://www.photosfan.com/images/view-upside-down-from-inside-an-airplane1.jpg>



Perspective



http://media.amazonwebservices.com/AWS_Cloud_Best_Practices.pdf

cloud drivers

- “infinite” scale & elasticity
- Pay as you go (capex → opex)
- Self service
- Minimal time to resource (business agility)
- Automation

Data centre with an API

