

# OpenStack: future of the cloud

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<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

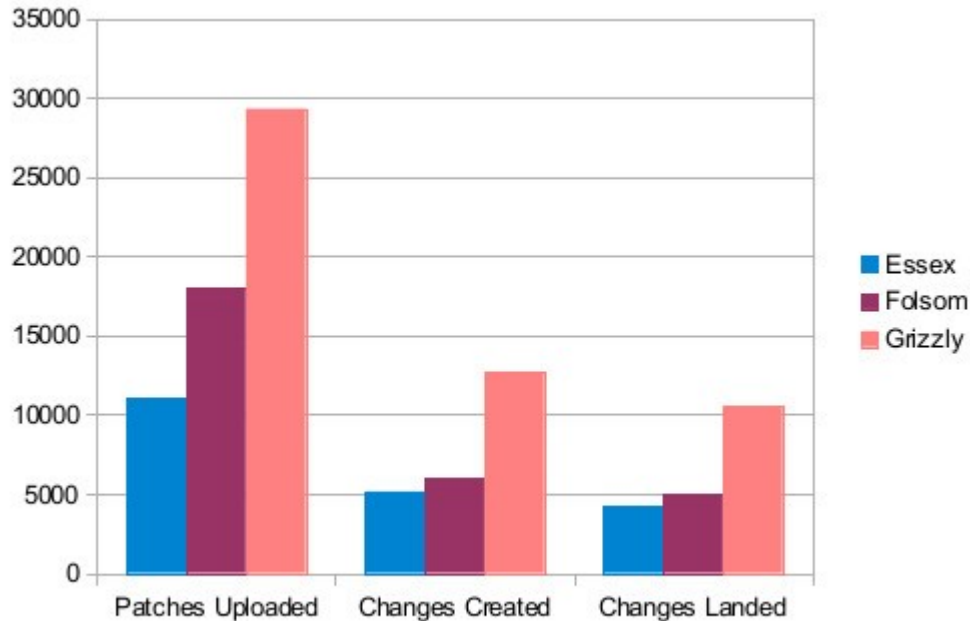
**2010**

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

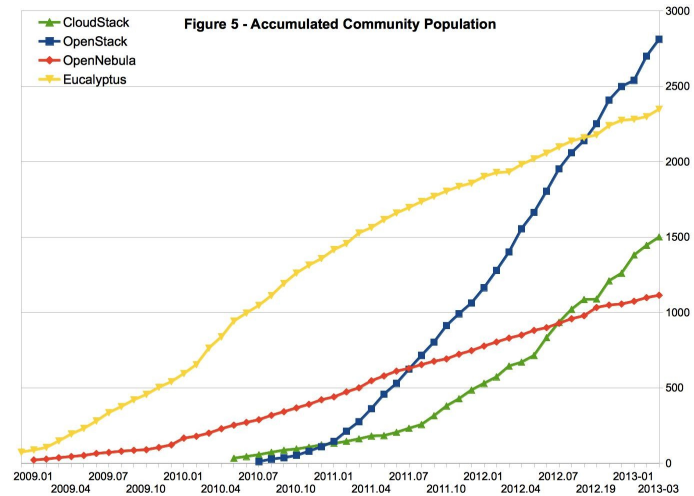
<http://www.zdnet.de/88146181/cloud-computing-ibm-setzt-auf-openstack-und-standards/>



# Last cycle: 517 contributors



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

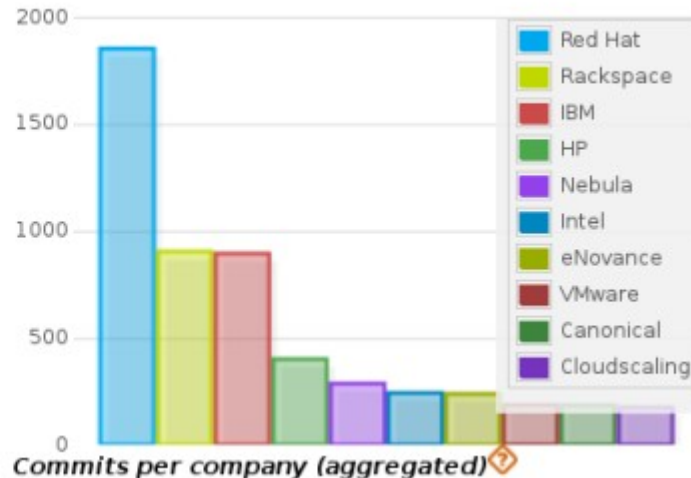
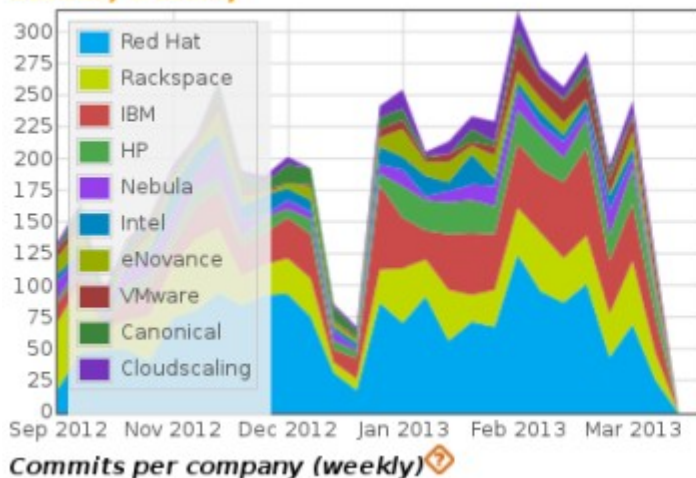


<http://www.qyjohn.net/?p=3120>



# Where are these devs coming from?

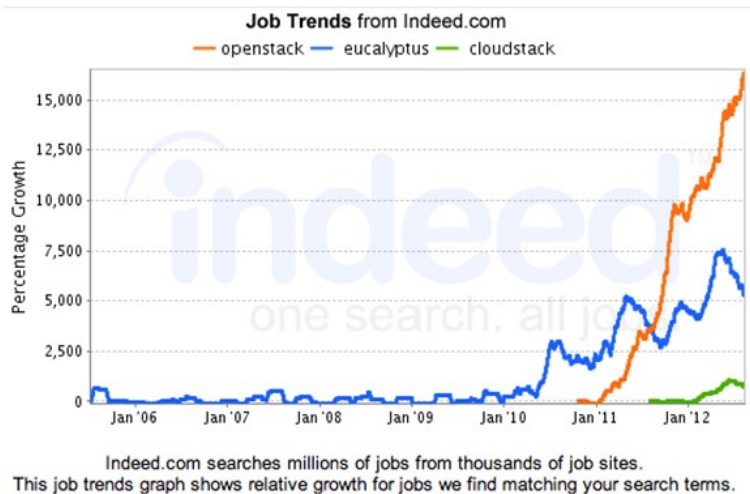
Summary of activity



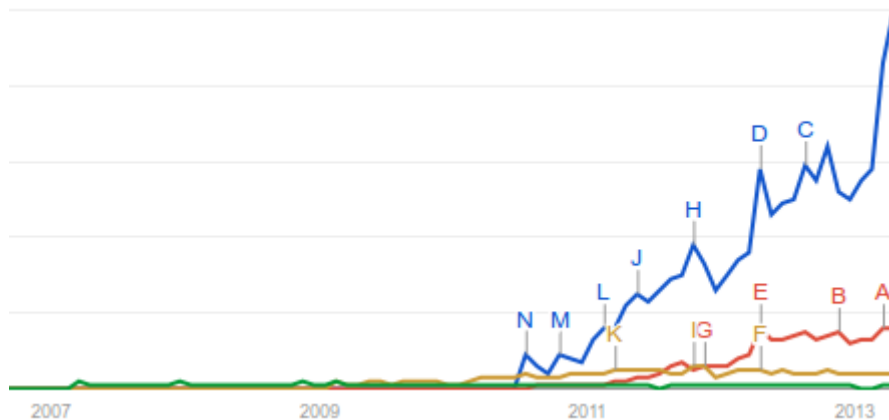
<http://blog.bitergia.com/2013/04/04/companies-contributing-to-openstack-grizzly-analysis/>



# 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)

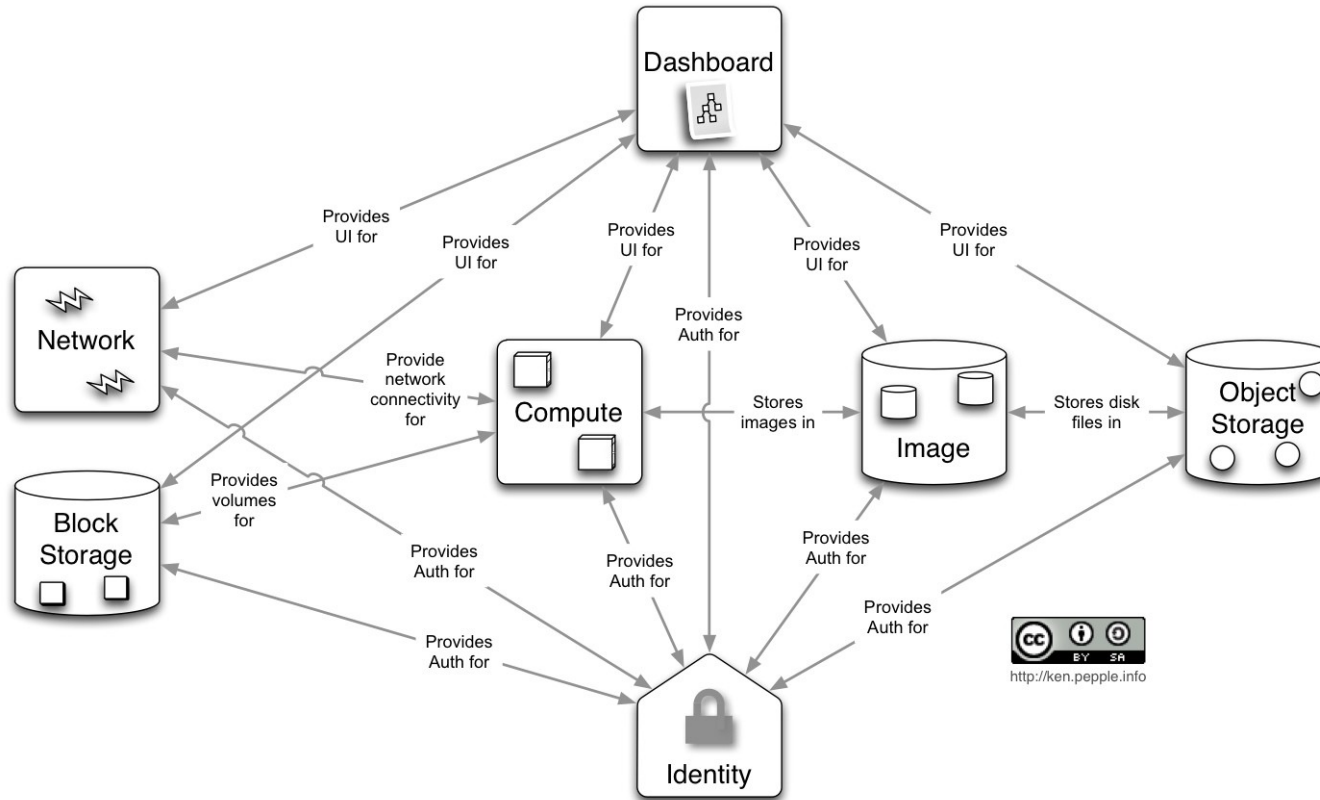




<http://www.bauder.co.uk/media-centre/hot-project>



# ~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

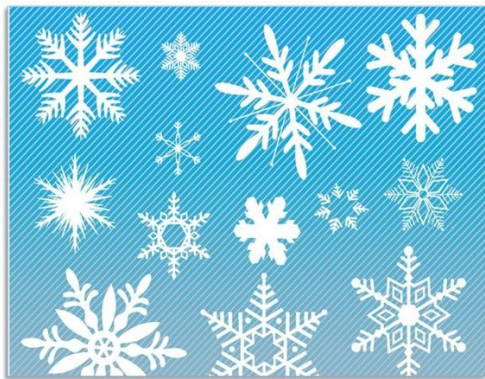
- Equalizer
- Disruptor
- New possibilities



**REVOLUTION**

# Be on the winning side :)

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





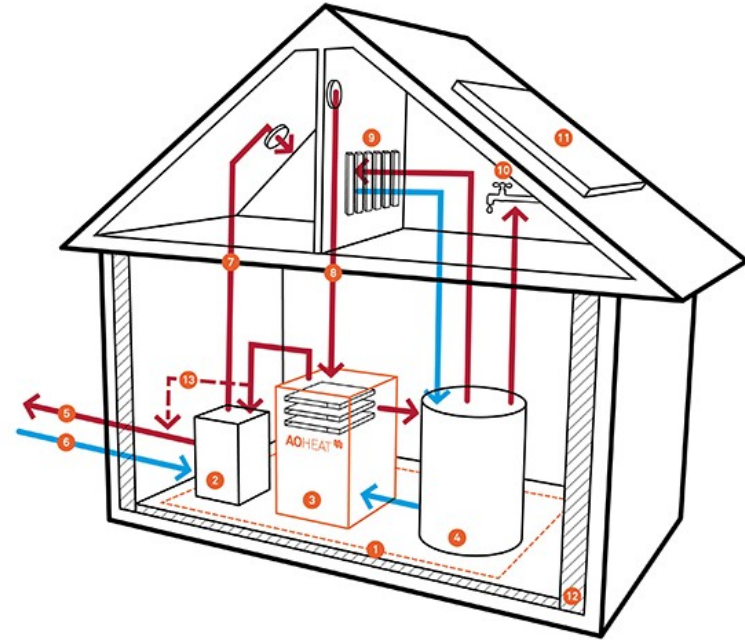
# Learn how to..

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



# Crazy stuff!!

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







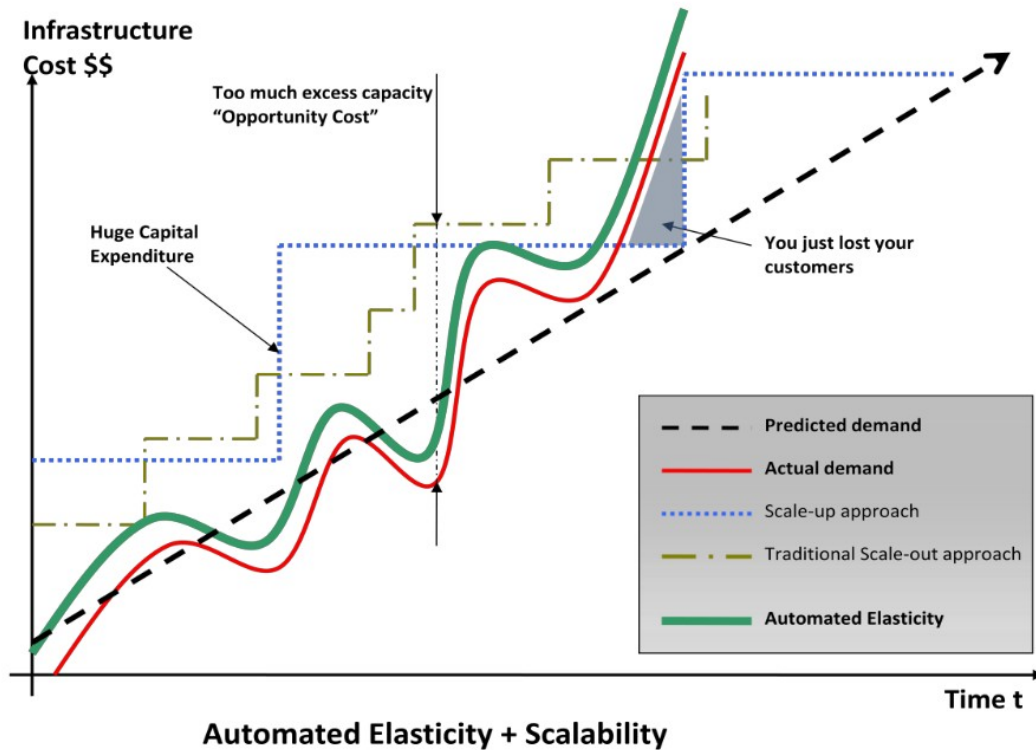
# cloud → IT → upside down



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



# Perspective



[http://media.amazonwebservices.com/AWS\\_Cloud\\_Best\\_Practices.pdf](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

