

State of the OpenStack union, FOSDEM '13



about:me

- Release Manager for OpenStack
- Chair of OpenStack Technical Committee
- Python Software Foundation member

ttx @  freemote IRC

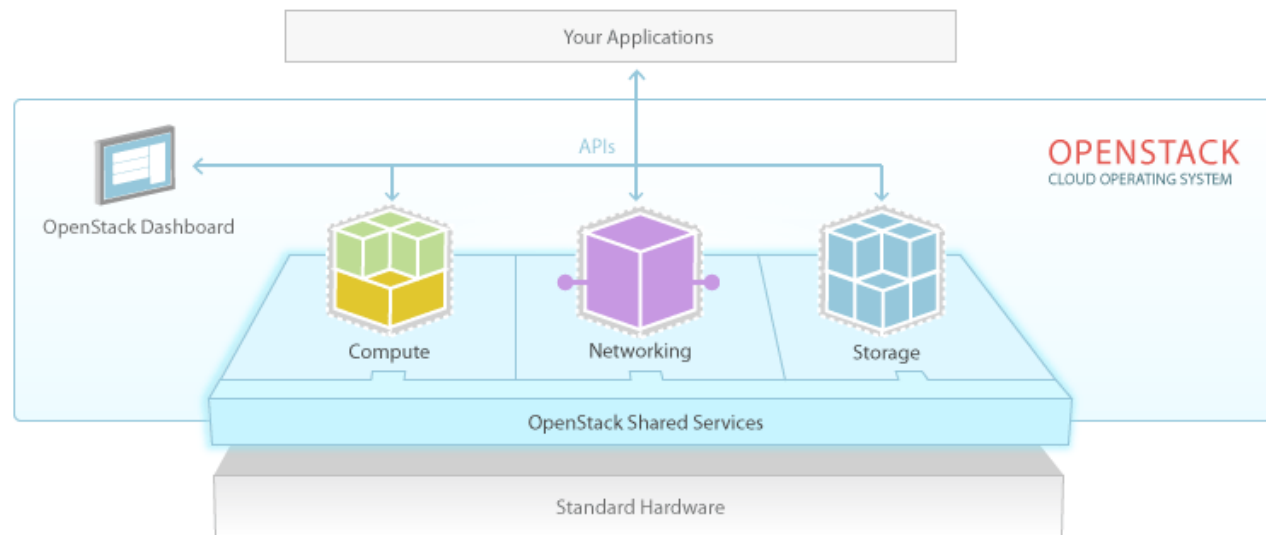
tcarrez @ 



openstack™
CLOUD SOFTWARE

OpenStack

- Software designed for IaaS providers
- Full IaaS stack (compute, network, storage)
- Can also be used to power « private » clouds





Open innovation

- ◆ Open development, open design
- ◆ Technical meritocracy
- ◆ Tech contributors make tech decisions
- ◆ Contributors elect their leaders

2012



Code size

- ♦ 528 → 992 KLOC (+88 %)
- ♦ 3 → 7 core projects
- ♦ 18600 commits over the last year

Contributors per month



(630 different contributors over last 12 months)



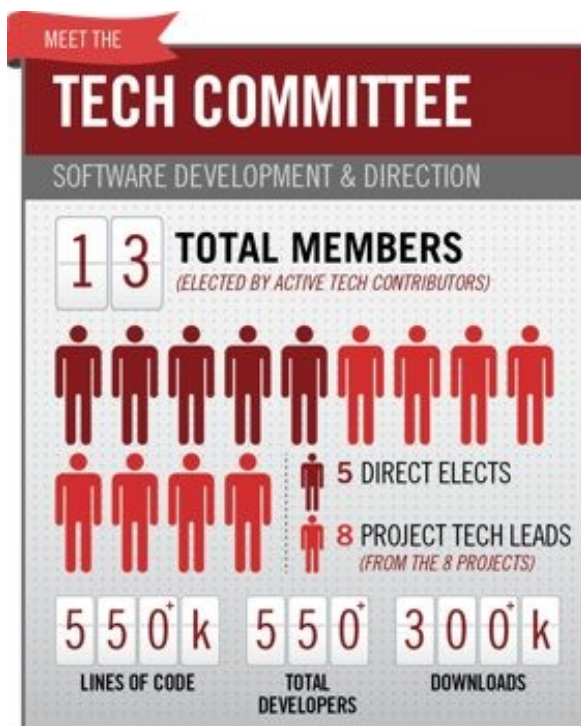
Adoption

- ♦ 1400+ people at our last Summit
- ♦ Public (Rackspace, HP, Dreamhost, Cloudwatt...)
- ♦ Private (Webex, MercadoLibre, OVH, SINA...)

Governance



Governance





Technical Committee

- ◆ 8 PTLs + 5 directly-elected members
- ◆ Decides on cross-project issues
- ◆ Ultimate technical appeals board
- ◆ Orients use of common resources
- ◆ Accepts new projects in incubation



Incubation

- ◆ Ceilometer (metering, metrics)
- ◆ Heat (orchestration of resources)



Essex release (April 2012)

- ♦ New : Keystone (common identity)
- ♦ New : Horizon (web dashboard)
- ♦ Integration with Keystone
- ♦ Stability, included in Ubuntu 12.04 LTS



Folsom release (Sept. 2012)

- ◆ New : Cinder (block storage)
- ◆ New : Quantum (networking)
- ◆ Versioned objects in Swift
- ◆ Return of Hyper-V support in Nova
- ◆ PKI support in Keystone



Grizzly

ETA: April 4, 2013



Nova (Compute)

- ◆ Cells
- ◆ Bare-metal provisioning ?
- ◆ Instance actions history
- ◆ Hypervisor support improvements
- ◆ Config options cleanup
- ◆ No-DB compute (nova-conductor)
- ◆ Database improvements



Glance (Image service)

- ◆ Multiple image locations
- ◆ Image sharing
- ◆ Property protection ?



Cinder (Block storage)

- ◆ Direct volume cloning
- ◆ Volume scheduler
- ◆ EMC, HP 3PAR, FibreChannel drivers



Quantum (Networking)

- ♦ Closing the gap with nova-network :
 - ♦ Support for Security Groups
 - ♦ Multihost DHCP/NAT mode
- ♦ Advanced services : Load Balancing
- ♦ Plugin updates & new backend plugins



Keystone (Identity)

- ◆ v3 API (domains)
- ◆ ActiveDirectory LDAP backend
- ◆ Pre-authenticated tokens (trusts)
- ◆ User groups



Horizon (Dashboard)

- ◆ Admin-specific dashboard views
- ◆ File uploads (Glance, multi-file)
- ◆ Improved Quantum support
- ◆ Theming support ?



Swift (Object storage)

- ◆ Custom log handlers
- ◆ Multi-range GETs
- ◆ Bulk import/delete



openstack-common → Oslo

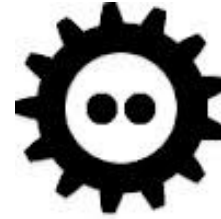
- ◆ Common code
- ◆ Managed code copy while in incubator
- ◆ Turn into library when API stabilizes



Oslo Grizzly plans

- ◆ oslo-config library
- ◆ Common, versioned RPC
- ◆ Common service infrastructure
- ◆ Common rootwrap
- ◆ Common database code ?

OpenStack today at



10:00 (Chavanne) : Mark McLoughlin

OpenStack: 21st Century App Architecture and Cloud Ops

11:30 (K.3.401, Python devroom) : Thierry Carrez

Get a Python job, work on OpenStack

15:00 (Chavanne) : Rob Clark

Security Priorities for Cloud Developers

15:30 (Chavanne) : Tomas Sedovic

Orchestrating complex deployments on OpenStack using Heat


16:30 (Chavanne) : Nick Barcet, Eoghan Glynn & Julien Danjou

Measuring OpenStack: the Ceilometer Project

A decorative header consisting of a grid of small, light gray squares that tapers off to the right.

Thank you !

Questions ?

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