State of the OpenStack union,
FOSDEM '13
about:me

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

**MEET THE TECH COMMITTEE**
Software Development & Direction

- **13** total members (elected by active tech contributors)
- **550k** lines of code
- **550k** total developers
- **300k** downloads
- **5** direct elects
- **8** project tech leads (from the 8 projects)

**MEET THE BOARD OF DIRECTORS**
Protect, Promote, & Empower

- **8** appointed
- **8** elected
- **8** elected
- **Platinum** (out of 8 members)
- **Gold** (out of 13 members)
- **Individual** (out of 5,600 members)

**MEET THE USER COMMITTEE**
User Advocacy and Feedback

- **5,600** individual members
- **850** organizations

Representing 36 global user groups
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
- Themeing 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
Thank you !
Questions?

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