CHAIRMAN’S NOTE

For many, the dawn of a new year prompts reflection and inspiration to make improvements. With the completion of the 2015 elections and the end of year Holidays, the OpenStack Board is refreshed and anxious to dive into the new year. Yet we recognize that now is a great time to reflect on 2014 and how we can continuously improve.

All that was accomplished in 2014 is truly amazing. The Foundation has a youthful strength and is in excellent health and growing. If you look at any of the latest statistics on community membership, contribution rates, new sponsors and the commercial ecosystem, it’s very apparent that OpenStack continues on its exponential rate of growth. For me that is a confirmation of the talent and commitment within our community. As a Board of Directors it is our goal to help ensure that the Foundation is on secure footing and strongly prepared to meet continued growth.
One of the fundamental benefits of our open source community is the wide range of ideas and opinions that permeate the community. It’s these ideas that help bring vitality and the expanding range of innovation that is demonstrated in the latest statistics.

While some ideas are easily adopted others can require refinement through passionate discussion and moulding. It is a refinement process which polishes them into a best fit for our community. However sometimes, ideas incur more effort and time than may have originally been believed. To some this can appear frustrating and inefficient. Consensus takes time. For an open source community like ours, consensus is of prime importance because it’s what helps build and bind the community.

And if you’ve ever attended a board meeting, you can appreciate our statement of “it takes time” to reach consensus. We have a very large board with varied talents, experience and insight. One lesson learned is that taking time to air the varied opinions helps us reach stronger consensus and the actions that best fit our community.

The Board has a strong desire to continue to improve and enhance communication and dialogue channels with all members of the community. This is evident by Directors’ individual outreach to community members through presentations at user group meetings, regional events and blogs. As a Board we are committed for 2015 to continue to improve communications through meeting reports, communications such as this, and through targeted meetings including the following:

- Joint face-to-face meetings with the Technical Committee
- Community “Lunch with the Board” events at the Summits
- Gold and Platinum member meetings
- Legal Affairs committee meetings
- Input from the User Committees efforts such as the surveys and Operator Meetups

The Board strives to turn decisions into actions. Some become short term efforts, some are business tasks, while others turn into long-term, ongoing strategic efforts. To give you some insight to the 2014 results and future aspirations this report provides a short synopsis of a variety of Board-initiated work efforts highlighting some of the milestones, successes and upcoming direction.

While many of these efforts include the Board, they are being heavily driven—and would not be successful—without the continued participation and contributions from numerous members of our community. We recognize that the Board is but a single factor in the community’s success. Each individual community member is needed and wanted. Share your talents and join the fun! We look forward to working with and for you in 2015!

Alan Clark
2014 BOARD OF DIRECTORS

Platinum Members
Alan Clark, SUSE (Chair)
Brian Stevens, Red Hat (January - October)
Chris C Kemp, Nebula
Eileen Evans, HP
John Zannos, Canonical
Mark McLoughlin, Red Hat (October - December)
Toby Ford, AT&T
Todd Moore, IBM
Van Lindberg, Rackspace

Gold Members
Boris Renski, Mirantis
Christopher MacGown, Piston (October - December)
Imad Sousou, Intel
Joshua McKenty, Piston (January - October)
Lew Tucker, Clisco (Vice Chair)
Mark McClain, Yahoo! (August - November)
Preeti Somal, Yahoo! (November - December)
Randy Bias, Cloudscaling & EMC (January - November)
Sean Roberts, Yahoo! & EMC/VMware (January - August, December)
Simon Anderson, DreamHost
Tristan Goode, Aptira

Individual Members
Alex Freedland, Mirantis
Mark McLoughlin, Red Hat (January - October)
Monty Taylor, HP
Rob Hirschfeld, Dell & RackN
Tim Bell, CERN
Troy Toman, Rackspace
Vishvananda Ishaya, Nebula
Yujie Du, 99Cloud
2014 was the year of the OpenStack user. As a Foundation staff, we focused all of our efforts on driving adoption and closing the gaps needed for enterprise and service provider deployments. Our team was able to make major strides this year by 1) launching the Marketplace and providing users a clear path to adoption, 2) establishing the Ops Summit and leading significant growth and maturity among the operations and user community, and 3) working with the Board to complete the first full DefCore specification, which is critical for user confidence in the OpenStack brand.

As a result, we have had hundreds of thousands of visitors view products and services offered by our ecosystem in the OpenStack Marketplace, hundreds of operators participate in the Ops Meetups (with participation on the operator’s mailing list increasing 250% percent from 850 to over 2,200), and we showcased prominent new OpenStack users from a broad set of industries including global brands like Wells Fargo, Disney, Sony, BMW, BBVA, Expedia and Time Warner Cable. Combined summit attendance topped 9,000, with 60 countries represented at the Paris Summit.

The Foundation staff hit its stride in 2014 across many of our key functions from event production to community management, and education to ecosystem development. OpenStack Summits in Atlanta and Paris both exceeded attendance and revenue projections with 4,500 attendees in Atlanta and 4,600 in Paris. These summits featured critical new content like the Enterprise IT Strategies, Telco and Ops Summit tracks. Our relentless pursuit of users allowed us to present major brands from diverse industries in our keynotes. Other marketing and community development highlights for the year include:

- Launched the OpenStack Marketplace in May. It now includes 15 training companies (hundreds of courses), 17 distros, 19 public providers (27 locations), 12 hosted private cloud providers (35 cities), 16 services companies (80 cities) and 107 drivers. Almost 100,000 visits per month to the online Marketplace.
- Launched new website design with more flexible navigation, mobile compatibility, and a new homepage.
- Secured and announced locations for 2015 Summits in Vancouver, BC and Tokyo, Japan.
- Invested in analyst relations, including regular briefings and interactions with key analysts, with the support of the analyst relations community team. Executed analyst events at each Summit with very positive feedback from analyst attendees. Worked with 451 group on market research to produce a market value estimate and a comprehensive survey of the OpenStack ecosystem. Reports across all major analyst firms had a more positive tone by the end of the year.
• Launched new content channels like the enterprise case studies section highlighting the Top 10 Automaker whitepaper (http://www.openstack.org/enterprise), Superuser publication (superuser.openstack.org) and continued “OpenMic” series, recognizing contributions from developers and operators, and building up a library of case studies and how-to articles.

• Launched version one of new groups portal to organize global user group meetings and help new attendees find a local home (groups.openstack.org)

• Coordinated popular upstream training sessions and reviewer training at each Summit. Supported the coordination, attended and spoke at global community events across EMEA and APAC regions.

• Implemented new trademark usage tracking process in coordination with our trademark legal team, improving our use of monitoring services and resulting in more effective enforcement of our trademark rules and better protection for the OpenStack brand.

• Recruited 43 new member and sponsor companies to support Foundation efforts. Implemented first sponsor satisfaction survey with an NPS score of 31.

• The Staff was heavily involved in supporting the efforts and helping drive various community working groups and committees, including the Technical Committee, User Committee, Application Ecosystem working group and Win the Enterprise. Infrastructure engineers on staff were also heavily involved in critical community efforts to improve testing and streamline the contribution process. During our second full year, we also focused on maturity of operations and systems and launched the OpenStackID project, allowing integration of identity across community and Foundation systems in 2015. We continue to see strong growth in all of our key metrics and progress in important initiatives for the software and the community.

In 2014, the leadership team at the Foundation focused on organizing our staff and contractors to maximize the resources we have and position ourselves for growth of the community. This included making key hires:

Allison Price – marketing coordinator focused on social media, communications and user stories
Chris Hoge – interop engineer focused on implementing product testing as defined by DefCore policy
Clark Boylan – infrastructure engineer contributing to the community infrastructure team
Scott Raschke – finance and operations manager focused on operational maturity
Thierry Carrez – previously a contractor for the Foundation and OpenStack Release Manager, came on board full time in a leadership role as director of engineering

Jonathan Bryce, Executive Director

To see the full list of staff members, visit openstack.org/staff.
COMMUNITY STATS & HIGHLIGHTS

Individual Members: 18,387
Countries Represented: 148
Global User Groups: 78

Top 10 Countries:
1. United States
2. India
3. China
4. United Kingdom
5. France
6. Russia
7. Canada
8. Germany
9. Japan
10. Australia

Community Investment:
• GNOME Outreach Program for Women
  - 4 interns sponsored by Foundation
  - 12 interns sponsored by community to work on OpenStack
• OpenStack Summit Upstream training
  - Atlanta: 25 people trained, $5,000 USD invested
  - Paris: 75 people trained, $20,000 USD invested
• OpenStack Summit Travel Support Program
  - Atlanta: 21 people sponsored from 8 countries
    $40,000 USD invested
  - Paris: 20 people sponsored from 10 countries
    $54,000 USD invested
OPENSTACK SUMMIT HIGHLIGHTS

November 2014 Paris OpenStack Summit Metrics:

- Total Summit attendees: 4,600+
- Press & Analysts in attendance: 80
- Sponsoring companies: 91
- Companies represented by attendees: 876
- Countries represented by the most attendees, top 10 in descending order: (62 Countries represented)
  1) USA
  2) France
  3) United Kingdom
  4) Germany
  5) China
  6) Japan
  7) India
  8) Canada
  9) Italy
  10) Switzerland
- Percent of people attending an OpenStack Summit for their first time: 58%

May 2014 Atlanta OpenStack Summit Metrics:

- Total Summit attendees: 4,500
- Press & Analysts in attendance: 63
- Sponsoring companies: 91
- Companies represented by attendees: 910
- Countries represented by the most attendees, top 10 in descending order: (55 Countries represented)
  1) USA
  2) Canada
  3) Japan
  4) France
  5) United Kingdom
  6) China
  7) India
  8) Israel
  9) Russia
  10) Germany
- Percent of people attending an OpenStack Summit for their first time: 65%
COMMUNITY INSIGHTS

In 2015, the Foundation engaged independent research firm Bitergia to analyze contributor data and online conversations in order to share better insights on development activities and online conversations and to extrapolate efficiency metrics, identify progress and areas we need to improve across software cycles.

**Coders community keeps growing**
The mean number of developers active in a given month peaked at 569 people during the third quarter (the highest number in 2013 was 391). The total number of “Core” contributors increased during 2014, but not as dramatically: the highest number in 2014 was 191 people, reached in third quarter (in 2013 the highest was 161 in fourth quarter). “Regular” contributors went from a max of 245 in 2013 to 369 in 2014.

**Lead time to merge code is improving**
Mean and median time to merge patches decreased for the first time after growing two years in a row. This is a good sign since many contributors have expressed frustration over lengthy waits. The time to wait for reviewers has decreased two quarters in a row (reviewers are getting faster) while original submitters are still much slower to respond to comments.

**“Ask OpenStack” Q&A site gains popularity**
With around 10,000 emails sent per quarter during 2014, the mailing lists seem to have reached a plateau while Ask OpenStack continues to gain in popularity. In 2014 there were regularly over 1,500 questions asked per quarter with a corresponding number of answers given. The most frequently asked questions seem to be around OVS and Neutron. The mailing lists saw conversations about Nova automatic evacuation taking a lot of time. This quarter, we saw changes in Nova and Neutron core reviewers, formation of the API Working Group, a first step to foster a new community of consumers of OpenStack API and more changes in Third-Party Working Group.

**Infrastructure Team**
Zuul and other tools developed by OpenStack’s infrastructure team are getting used by more projects (over 500) outside of OpenStack realm and receiving more contributions. During the Juno development cycle alone (April - October), 19,675 changes were merged to the 440 projects hosted by the infrastructure (56% of which aren’t officially managed projects). In service of that, our official test infrastructure ran 1,776,065 jobs storing and analyzing 18 terabytes of log data.

**Storyboard**
Storyboard is the next-generation bugs, blueprints and task management tool developed inside the OpenStack community. It is being used by the Infrastructure project within OpenStack and getting ready to be adopted more widely within the first half of 2015.
COMMITTEE REPORTS

Technical Committee Update
Thierry Carrez

In 2014 the Technical Committee supervised the production of two OpenStack releases, Icehouse in April and Juno in October. The Committee was partially renewed with elections in April and October, with the departure of Robert Collins and Mark McLoughlin, replaced by Devananda van der Veen and Jay Pipes. We added 47 new code repositories to existing official programs (mostly new Olso libraries and Infrastructure projects), and three new programs were approved: key management service, DNS services, and shared file systems. Two graduations from incubation were decided: the data processing service Sahara was integrated in the Juno release, and the bare metal service Ironic will be integrated in the Kilo release in April 2015.

One of the main efforts in 2014 was to refine the requirements we had for incubation and graduation to the integrated release, and then review existing projects against those requirements. For each project a gap analysis was performed, with a clear plan to address identified gaps by the Juno release. That said, that effort revealed the limits of the single “integrated release” concept, which means different things to different groups of people, and which binary nature renders exclusive. In August we started a long discussion on the issues with the current project structure and solutions to reform it. By December the Technical Committee approved a specification for a project structure reform, to be implemented in 2015.

The other main effort in 2014 was to provide assistance to the DefCore committee as it worked to define the core capabilities and code requirements for downstream OpenStack products and services. This included providing precise scoring for the Icehouse capabilities. We also approved a formal recommendation to the Board of Directors to adopt the DCO as CLA. Finally, we passed resolutions to document the project testing interface, clarify expected election behavior and define a process for programs where we end up with no PTL candidate.

Last but not least, we started to address the issue of Technical Committee invisibility. We published regular reports on the OpenStack blog. We also implemented automatic publication of the Technical Committee governance documents to a reference website (http://governance.openstack.org) for easier consumption by the general public.

On the upstream side, we encouraged projects to set up a specific repository to track specifications, to get them reviewed and formally approved. This is part of an effort to facilitate inclusion of operators feedback, and generally to avoid code changes to be rejected late in the process because the whole design is flawed. We also recognized issues with the review backlog and took steps to address it. Over last two quarters we saw a decrease in the time to merge code for the first time in two years.
User Committee Update

Tim Bell

The user committee welcomed the new members Subbu Allamaraju (eBay) and Jon Proulx (MIT). We’d like to thank Ryan Lane and JC Martin for their help over the past two years in establishing the user committee. In March, we ran the first Operator summit which brought together over 50 operators of OpenStack clouds to share experiences, best practices and recommendations for focus areas. These sessions were continued at the OpenStack summits in Atlanta and Paris along with a further dedicated session in San Antonio in August, growing to over 100 attendees and parallel sessions. Key results of these sessions were the blueprint specification process which has enabled operators to easily review upcoming changes before code is developed and the cross project meetings at the OpenStack Summits where proposals for improvements can be discussed between deployers and implementation teams.

Two user surveys were run during 2014 which polled the Foundation membership on their use of OpenStack, including a new dedicated section for people developing applications on top of OpenStack clouds. The overall trends were for a significant move from proof of concept to production across industries along with growth in the size of deployments. To reduce the effort to prepare the survey, the fall report was prepared with the assistance of an external company and this will be repeated for the next survey in February.

A number of working groups have been established to examine improvements, consolidate proposals and feedback to the community. Additional working groups are in preparation covering areas such as large deployments, NFV and telco operators, monitoring and logging standardisation.

The API Working Group was formed to propose, discuss, review, and advocate for API guidelines for all OpenStack Programs to follow. The working group was formed towards the end of 2014, but is already quite active. It has created a number of API guidelines and reviewed API-facing code. The plan is to come up with a much more complete set of guidelines and release that, with final approval from the Technical Committee, for general consumption.

The Application Ecosystem Working Group commenced with an overview session and a 90-minute working session at the Paris summit. The working session was attended by approximately 50 people and resulted in a robust discussion pertaining to how we can better support an ecosystem of services, platforms and applications running on top of OpenStack. The most important action at this stage is ensuring that we reach out to and include some of the key application developers that are targeting OpenStack as a platform. We are developing an agenda for a mid-cycle meet-up in Philadelphia and plan to support another working session in Vancouver.
Win the Enterprise Working Group
Carol Barrett

The Win The Enterprise initiative, focused on accelerating enterprise IT adoption of OpenStack, was kicked-off by the Board in April 2014 and launched in the community in May at the Atlanta Summit. A broad range of community members (75 members representing 25 companies in total) including OpenStack vendors, enterprise IT managers and others came together to define categories of barriers that were preventing enterprise IT teams from deploying OpenStack, and eight teams formed (Application Availability, Manageability, Security & Compliance, Service Availability, Cattle & Pets, Monitoring, Deployment and Marketing/Business). The technical teams focused on defining use cases and developing blueprints and community support ahead of the Kilo Design Summit in Paris. At the Summit, team members collaborated on 12 blueprints covering several different projects. The teams also identified documentation issues and upstreamed the required content, most notably providing significant revisions to the Security Guide. The Marketing and Business team defined the primary awareness and perception issues impacting Enterprise adoption and defined content/messaging and a roadmap of proof points to influence them.

At the Paris Summit, we expanded community participation and gained members from both operators and vendors. The teams participated in multiple Operator Summit and other working group meetings to gather new requirements and find collaborative community efforts.

The themes that have emerged from the teams include:
1. Primary barriers are installation, rolling upgrades, live migration, stability & reliability
2. There is a strong need for detailed customer case studies, reference architectures and operational best practices.
3. It’s challenging to get new capabilities integrated into OpenStack when they touch multiple projects.

It will take the combined collaboration from the Technical Committee, the Board of Directors, and the operator and developer communities to address these issues.

Finance Committee
Alex Freedland

For many in the community Foundation finance would be considered the ‘boring’ aspect to the Foundation. But be assured that the Board spends much time and effort in this area to ensure the long term viability and value of the Foundation to the community. Towards that end, the Board has established committees to set and regularly review the financial position of the Foundation, to ensure that the financial reporting, procedures and processes are sufficient and accurate, to help design, establish and improve investment and reserve policies, to approve yearly Foundation budgets, and to review annual independent audits. The Finance Committee meets monthly to review and report an appropriate use and allocation of Foundation funds. 2014 revenue exceeded $17.5 million (52% increase from 2013) with more than $2.5 million added to our reserves.

The Foundation staff and legal team invested significant time in the application process for tax exempt status without a conclusive result. Their efforts will continue in 2015.
**New member Gold and Platinum Committee**

*Simon Anderson*

Another great sign of the health of the community is that corporate interest in becoming Gold and Platinum members continues to be strong. The ongoing work performed by the Potential Gold and Platinum Member committee has been key to the success for new members in 2014. The committee assisted the potential members prepare their applications, and this effort resulted in several new members for 2014, including Intel as a new Platinum member, Nebula and Symantec as Gold members. Additional potential members are already preparing for 2015.

**DefCore Committee**

*Rob Hirschfeld*

At the December 2014 OpenStack Board meeting, we completed laying the foundations for the DefCore process that we started April 2013 in Portland. These are a set of principles explaining how OpenStack will select capabilities and code required for vendors using the name OpenStack. We also published the application of these governance principles for the Havana release.

1. The OpenStack Board approved DefCore principles to explain the landscape of core including test driven capabilities and designated code (approved Nov 2013)
2. the twelve criteria used to select capabilities (approved April 2014)
3. the creation of component and framework layers for core (approved Oct 2014)
4. the ten principles used to select designated sections (approved Dec 2014)
5. formally setup DefCore to have co-chairs with alternating terms (approved Dec 2014)
6. tweak governance to appoint a secretary to be filled by Foundation Staff (DefCore Dec 2014)

To test these principles, we’ve applied them to Havana and expressed the results in JSON format: Havana Capabilities and Havana Designated Sections. We’ve attempted to keep the process transparent and community focused by keeping these files as text and using the standard OpenStack review process.

DefCore’s work is not done. In fact, we are just transitioning from design to execution. As we kick off 2015, there are a number of high priority activities the DefCore committee is undertaking:

1. Appoint a new co-chair and officially appoint our secretary
2. Vote about Bylaws changes to fully enable DefCore (change from projects defining core to capabilities)
3. Work out ongoing process for updating capabilities and sections for each release (once authorized by the bylaws, must be approved by Board and TC)
4. Bring Havana work forward to Ice House and Juno.
5. Help drive Refstack process to collect data from the field
Legal Affairs Committee
Nissa Strottman

The Legal Affairs Committee is an advisory committee to the Board on intellectual property matters for the OpenStack Project. This committee does not serve as legal counsel for the Foundation, but does provide great insight into current IP topics within our industry and Cloud. The committee continues to be a great asset of the community. Led by Van Lindberg, they worked on a number of issues in 2014. These included reviewing proposed changes to the Foundation’s Bylaws as well as discussing matters relating to Contributor License Agreements (“CLAs) and the Developer Certificate of Origin (“DCO”).
SUMMARY

With the ground work laid in 2014, the next year presents us with the opportunity to realize the promise of OpenStack as an engine for a global footprint of compatible clouds. We will need to quickly identify the DefCore capabilities and designated sections for the post-Havana releases of OpenStack and implement the testing validation technology framework. This tested footprint will allow us to attract and integrate new application developers and allow innovative tools and functionality to be built on top of the OpenStack platform, enhancing the value of OpenStack to deployers and end users.

Finally, thank you to all of our corporate members and sponsors who funded these important activities:

Platinum Members:

[Logos of Platinum Members]

Gold Members:

[Logos of Gold Members]

Thank you to all of our corporate members and sponsors who funded these important activities: http://www.openstack.org/foundation/companies