



# OpenStack アップストリーム開発者が語る、 オープンソース開発の裏話

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masayukig on Freenode, GitHub, Twitter, LinkedIn

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[github.com/masayukig/oss-development-inside-story](https://github.com/masayukig/oss-development-inside-story)

# Agenda

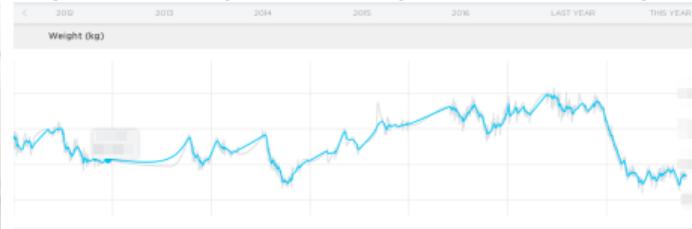
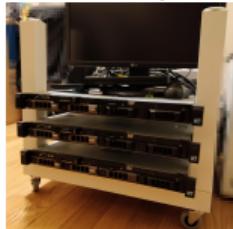
1. 自己紹介
2. 今日のゴール
3. OpenStack とは？
4. 開発ワークフロー
5. コミュニケーションツール
6. StoryBoard によるプロジェクト管理
7. Gerrit によるレビュー
8. Zuul による継続的インテグレーション
9. 開発裏話
10. まとめ

## DISCLAIMER

この内容は個人の見解であり、所属する組織・団体を代表するものではありません。

# Who I am?

- ▶ 所属企業：1998.4-2015.12 Traditional IT company in Japan, 2016.1-2017.3 HPE  
-> 2017.3- SUSE/Novell Japan -> 2019 ??? ("Further Independence for SUSE")
  - ▶ SUSE OpenStack Cloud QE(Quality Engineering) Team (日本人私一人だけ)  
["SUSE Acquires OpenStack IaaS and CF PaaS Talent and Tech Assets from HPE ..."](#)
- ▶ 仕事/肩書: Senior Software Engineer/Open Source Programmer (海外出張)
  - ▶ [OpenStack QA](#) Up/Downstream development, Core Reviewer  
(Tempest, OpenStack-Health, Subunit2SQL, Stackviz)
  - ▶ [stackalytics.com/?user\\_id=igawa](http://stackalytics.com/?user_id=igawa), [github.com/masayukig](https://github.com/masayukig)
- ▶ Books 
  - ▶ [OpenStack Cloud Integration](#) (OpenStack クラウドインテグレーション)
  - ▶ [Infra CI Pragmatic Guide - Ansible/GitLab](#) (インフラ CI 実践ガイド) (as a reviewer)
- ▶ Hobby: Bike(BMC SLR02), Diet(Low-carb), Clouds(OpenStack...), etc.

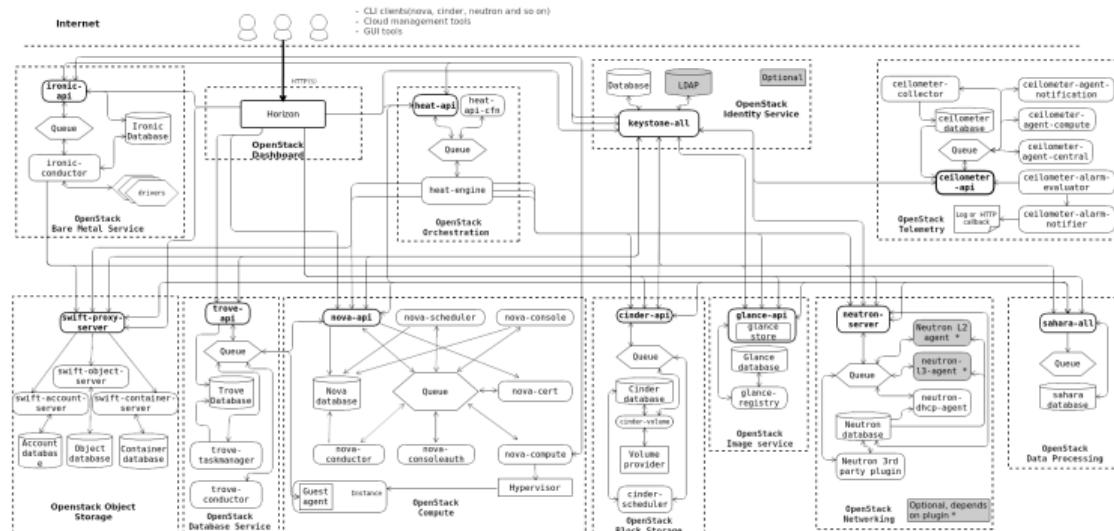


# 今日のゴール

- ▶ OpenStack/OSS 開発手法・使われているツールを理解する(ざっくりと)
- ▶ 開発上のハマりどころを理解する

# "OpenStack" とは?

- Open Source Cloud Operation System: Apache License Version 2.0
- Written in Python
- There are a lot of 'OpenStack' projects: [63 projects\(2018-10-23\)](https://www.openstack.org/user-stories/)
- Released every 6 month: Latest version is called 'Queens'
- Users: AT&T, AA, BBVA, Bloomberg, CERN, China Mobile, Gap, VEXXHOST, Volkswagen, WALMART, etc.. <https://www.openstack.org/user-stories/>



# OpenStack の開発ワークフロー

1. StoryBoard へストーリー登録 & 議論 (Option)
2. パッチ作成、Gerrit でパッチ登録
3. Zuul にて CI 自動実行
4. Gerrit 上でレビュー
5. CI再度実行後、メインリポジトリへマージ

# コミュニケーションツール

1. IRC on Freenode: `#openstack-*`(dev, nova, glance, cinder, keystone, qa, ...)  
<https://freenode.net/>
2. Mailing List:  
<http://lists.openstack.org/cgi-bin/mailman/listinfo/openstack-dev>
3. Gerrit: <https://review.openstack.org/>
4. StoryBoard: <https://storyboard.openstack.org/>
5. Launchpad: <https://launchpad.net>

# Storyboard によるプロジェクト管理 - StoryBoard とは？

1. OpenStack開発の標準タスク（≒バグ管理）ツール
2. スクラッチ作成
3. アーキテクチャ（Frontend: JS/Angular, Backend: Python/Pecan）
4. 100% open source (Apache2.0)

The screenshot shows the StoryBoard web application interface. The top navigation bar includes a logo, a 'Create New...' button, a search bar labeled 'Jump to...', and a user dropdown for 'Masayuki Igawa'. The main content area displays a list of tasks under the heading 'openstack-infra/storyboard'. On the left is a sidebar with navigation links: 'Search', 'Dashboard', 'Worklists & Boards', 'Project Groups', 'Projects' (which is selected), and 'Stories'. The task list has three filter buttons: 'Active', 'Merged', and 'Invalid'. Below these buttons is a table with 10 rows, each representing a task. The first row shows task ID 2004103 with the description 'unable to install mariadb on multinode architecture'. The last row shows task ID 2003554 with the description 'Unicode issue with (at least) reporter names in migration from Launchpad'. Each task row includes a 'Details' link, an 'Edit' button, and a 'Star' icon.

Task ID	Description	Actions
2004103	unable to install mariadb on multinode architecture	[Edit] [Star]
2004098	Create New fails to create stories	[Edit] [Star]
2004097	story lists in project view should only show stories with active tasks for that project	[Edit] [Star]
2003844	Auto populate assignee to task when review is pushed	[Edit] [Star]
2003886	Project Group Descriptions	[Edit] [Star]
2003719	BUG: Card links don't work in boards	[Edit] [Star]
2003701	Mixed Story & Task Automatic Worklist Error	[Edit] [Star]
2003698	Feature Request: Enforce flavor extended parameters	[Edit] [Star]
2003663	Browsing tasks on the search view sometimes gives an error	[Edit] [Star]
2003554	Unicode issue with (at least) reporter names in migration from Launchpad	[Edit] [Star]

# Gerrit レビューシステム - Gerrit とは？

1. Android 開発にて利用されている
2. 開発言語： Java
3. 100% open source
4. Pull Request 方式ではなく、中央リポジトリにパッチをレビューし、マージしていく
5. TODO: 写真を入れる

# Zuul による継続的インテグレーション - Zuul とは？

1. 自動テストによるゲートを設けて、常に正しく動作するコードのみがマージされるようとする
2. Ansible による CI/CD
3. プロジェクトをまたがった依存関係もテストすることができる

The screenshot shows the Zuul web interface with several pipeline sections:

- check [118]**: Newly uploaded patchsets enter this pipeline to receive an initial +/-1 Verified vote.
- gate [15]**: Changes that have been approved by core reviewers are enqueued in order in this pipeline, and if they pass tests, will be merged. Queue items are identified by the abbreviated hash (git log --format=hh) of the merge commit.
  - Queue: openstack/tripleo-heat-templates
    - openstack/tripleo-heat-templates 612249.1
    - openstack/tripleo-heat-templates 612316.1
    - openstack/tripleo-heat-templates 612601.1
    - openstack/tripleo-heat-templates 612602.1 (0 min, 3 hr 51 min)
  - Queue: openstack/networking-ovn
    - openstack/networking-ovn 608252.4 (0 min, 3 hr 50 min)
  - Queue: openstack/mistral
    - openstack/mistral 610461.12 (0 min, 2 hr 54 min)
- post [0]**: This pipeline runs jobs that operate after each change is merged. Queue items are identified by the abbreviated hash (git log --format=hh) of the merge commit.
- promote [0]**: This pipeline runs jobs that operate after each change is merged in order to promote artifacts generated in the gate pipeline.
- pre-release [0]**: When a commit is tagged with a pre-release tag, this pipeline runs jobs that publish archives and documentation.
- release [0]**: When a commit is tagged as a release, this pipeline runs jobs that publish archives and documentation.
- periodic [0]**: Jobs in this queue are triggered on a timer.
- release-post [0]**: This pipeline runs release-process-critical jobs that operate after specific changes are merged.
- tag [0]**: This pipeline runs jobs in response to any tag event.
- periodic-stable [0]**: Periodic checks of the codebase.

# 開発裏話

1. パッチがなかなかマージされない！その理由とは？
  - 1.1 プロジェクト規模≒ステークホルダの数
  - 1.2 コミュニケーション不足
  - 1.3 レビュー者数の不足
  - 1.4 TODO: レビュー者数推移のグラフを入れる
2. 不安定なCI
  - 2.1 CIも完璧ではない
  - 2.2 迅速な対応が必要
  - 2.3 CIで動いてないものは腐ってくる
  - 2.4 TODO: recheckの話、elastic-recheckの話recheck推移のグラフ？
3. コミュニケーションスキル・英語(世界標準)の重要性
  - 3.1 議論
  - 3.2 職探し（日本で開発者(プログラマ)職困難）
  - 3.3 楽しさ（健康には気をつけましょう！（笑））

# コミュニケーションスキル・英語(世界標準)の重要性



Masayuki Igawa @ @masayukig

#aftersoc #afterstack #OpenStackSummit  
#openstack #suse



1:45 PM - 26 May 2018

12 Likes



Kendall Nelson  
@knelson92

Following

Kicking off the #OpenStackSummit early with #OpenStackUpstreamInstitute! 19 attendees and 14 mentors made it today :)  
@tonybrends @jungleboyj @IldikoVancsa @vkmc @kmarc @marton\_kiss @spotzz\_ @ghanshyammann @masayukig



6:59 AM - 20 May 2018

7 Retweets 31 Likes



# Conclusion

- ▶ Gerrit, StoryBoard, Zuul 等様々なOSSは、オープンソース開発以外でも利用可能です！
- ▶ 英語重要
- ▶ OSS 開発は（大変なこともあるけど）楽しい！皆さん参加しましょう！

## Appendix

- ▶ Slides: <https://github.com/masayukig/oss-development-inside-story>
- ▶ Contact info: masayukig on [Freenode](#), [GitHub](#), [Twitter](#), [LinkedIn](#)
- ▶ StoryBoad:  
<https://docs.openstack.org/infra/system-config/storyboard.html>
- ▶ Gerrit: <https://www.gerritcodereview.com/>
- ▶ Zuul: <https://zuul-ci.org/>
- ▶ Non-native English speakers in Open Source communities:  
<http://bit.ly/esl-yvr>