



# Git and Gerrit

## Lunch and Learn

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Presented by the Women of OpenStack



# Amy Marrich



## Linux Academy

You can find me at:

IRC – [spotz](#)

Twitter - [@spotzz\\_](#)

# Room Support

Jay Bryant



# Agenda

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- Pre-Requirements Review
- OpenStack Contribution Process
- Create, Triage, and Assign Documentation Bug
- Create, Commit, and Verify Patch
- Reference Materials

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# Pre-Requirements Review

# Git Installed?

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- Instructions for installing Git on MacOS, Linux and Windows:
  - <https://docs.openstack.org/contributors/common/git.html>
- Configuring Git
  - git config --global user.name "Firstname Lastname"
  - git config --global user.email "your\_email@youremail.com"

# Accounts Check-List

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✓ Joined OpenStack  
Community as Member

Sign up at:  
<https://www.openstack.org/join>  
Pick Account type either  
Community or  
Foundation Member  
Signed ICLA

# Accounts Check-List

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- ✓ Joined OpenStack Community as Member
- ✓ Created Ubuntu One Account

Go to

<https://storyboard.openstack.org>

or

<https://launchpad.net/openstack>

Click login

Select I am a new Ubuntu One user

# Accounts Check-List

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- ✓ Joined OpenStack Community as Member
- ✓ Created Ubuntu One Account
- ✓ Created Gerrit Account

Go to

<https://review.openstack.org>

Click sign in

Sign New Contributor Agreement

# Accounts Check-List

- ✓ Joined OpenStack Community as Member
- ✓ Created Ubuntu One Account
- ✓ Created Gerrit Account
- ✓ Uploaded Public SSH Key

Create an SSH key if you do not have one or want a new one

`ssh-keygen -C "emailaddress"`

`cat ~/.ssh/id_rsa.pub`

Got to

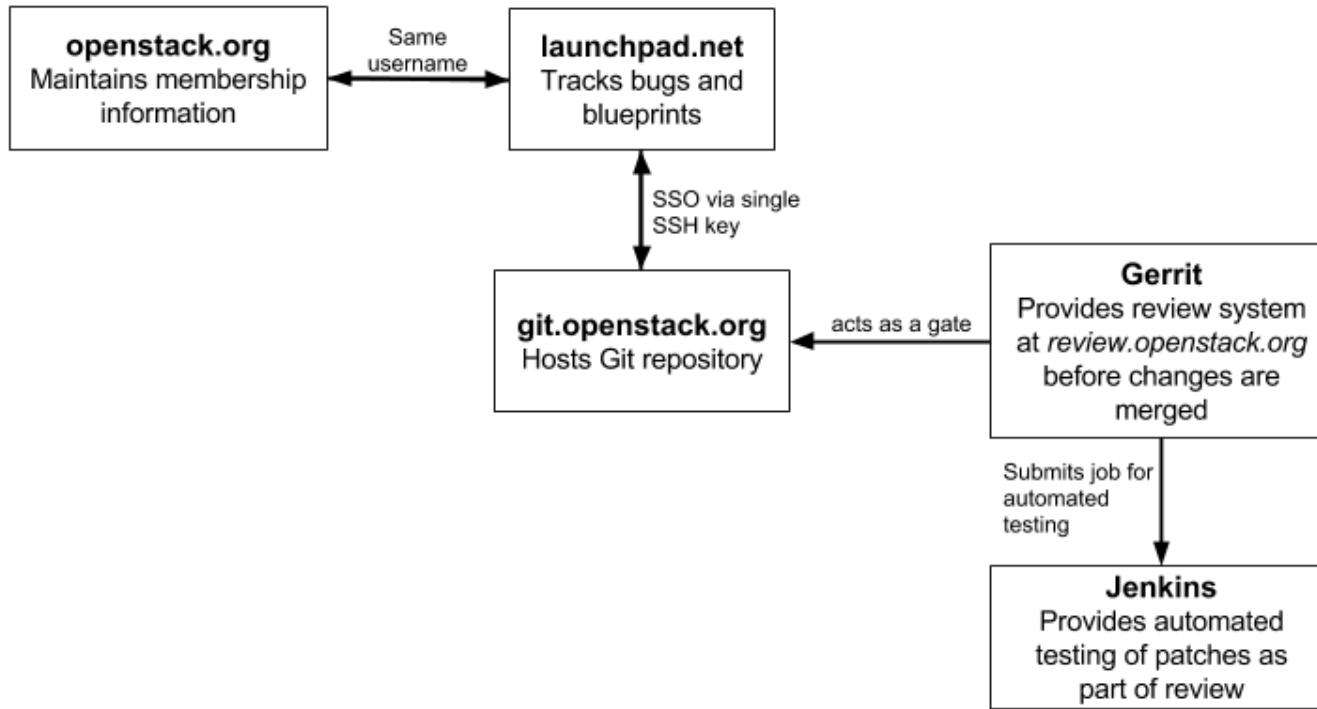
<https://review.openstack.org/#/settings/ssh-keys>

Click Add Key and add the contents of your public key

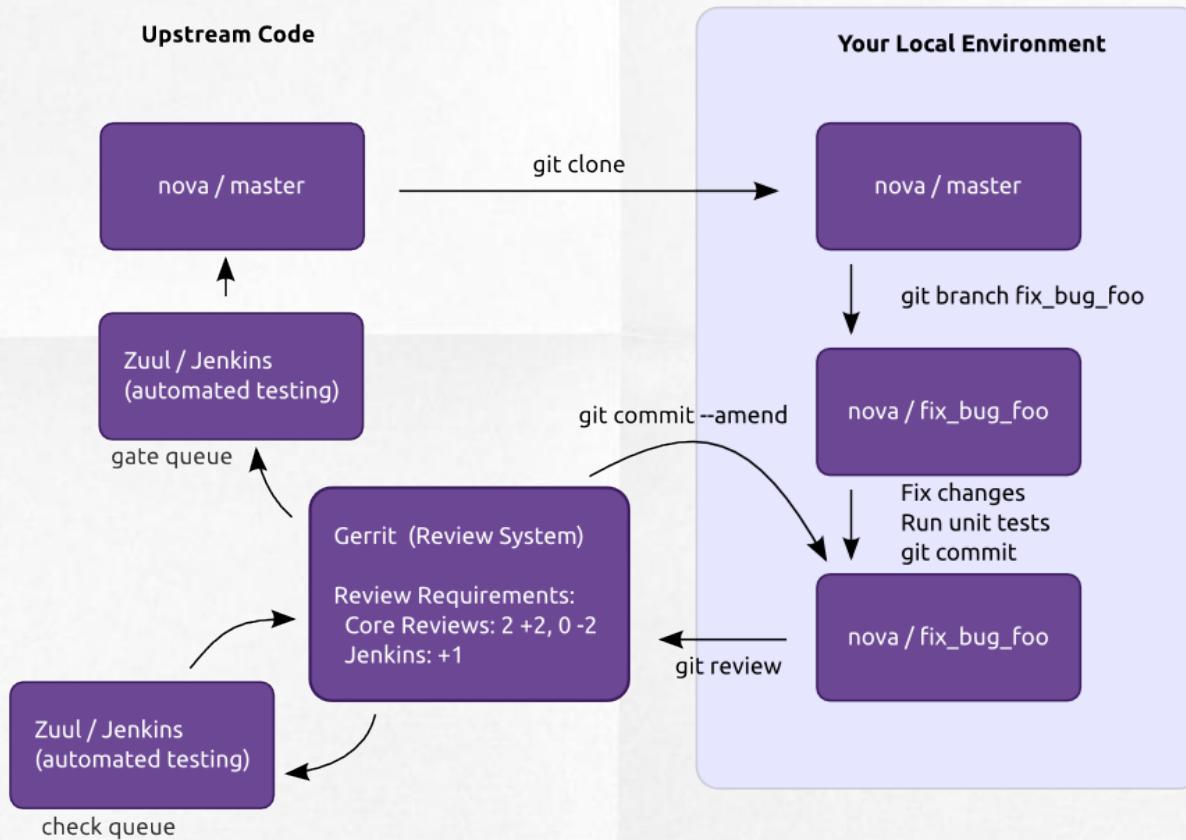
2.

# OpenStack Contribution Process

# OpenStack Contribution Process



# OpenStack Contribution Workflow



# LaunchPad System Overview

- LaunchPad Example:

<https://bugs.launchpad.net/openstack-manuals/+bug/1663485>

- Login - Launchpad Account

- When to Open or Assign a Bug

- How Bugs Are Created

- Manually
- DocImpact Flag in Commit Message

- Bug Triaging

Tips



- Do not start work on a documentation bug until it is confirmed
- Do not use Launchpad Answers, use Ask OpenStack

# StoryBoard

← → 🔍 Secure | <https://storyboard.openstack.org/#/board/45>

 StoryBoard  Jump to...

**Launchpad to StoryBoard Migration**

A board to track various projects migrating to StoryBoard! Migration script excitement, list of projects on the VIP waiting list to migrate.... it will all happen here!

Due Dates

Category	Project	Owner
Untested Projects	Chef OpenStack	
Untested Projects	Dragonflow	
Untested Projects	EC2-API	
Untested Projects	Cinder	
Untested Projects	Horizon	
Untested Projects	Kuryr	
Untested Projects	Karbor	
Untested Projects	Masakari	
Untested Projects	Neutron	
Untested Projects	Murano	
Untested Projects	Mistral	
Untested Projects	Nova	
Untested Projects	OpenStack-Ansible	
Untested Projects	Powerstackers	
Tested & Failed Projects	Charms	Zara
Tested & Succeeded Projects	i18n	Zara
Tested & Succeeded Projects	Congress	Kendall Nelson
Tested & Succeeded Projects	Heat	Kendall Nelson
Tested & Succeeded Projects	Solum	Kendall Nelson
Tested & Succeeded Projects	Watcher	Zara
Tested & Succeeded Projects	Storlets	Kendall Nelson
Tested & Succeeded Projects	Tricircle	Zara
Tested & Succeeded Projects	Trove	Kendall Nelson
Tested, Contacted PTL	Designate	Kendall Nelson
Tested, Contacted PTL	Blazar	Kendall Nelson
Tested, Contacted PTL	Glance	Kendall Nelson
Tested, Contacted PTL	Barbican	Kendall Nelson
Tested, Contacted PTL	LOCI	Kendall Nelson
Tested, Contacted PTL	Kolla	Zara
Tested, Contacted PTL	Magnum	Kendall Nelson
Tested, Contacted PTL	OpenStack-Helm	Kendall Nelson
Migration Script Changes	migration script- some users' openids aren't added to db properly	
Other Migr	Update	remove
Other Migr	Launch	Kendall
Other Migr	Add St	project
Other Migr	Kendall	
Other Migr	Update	remove
Other Migr	Launch	Kendall

# Filing a Bug

- URL - <https://launchpad.net/gitandgerrittraining>
- Click “Report a Bug” 
- Enter Bug Summary (Brief Description) 
- Provide Further Information on the Bug 
- Extra Options
  - Status – New
  - Importance – Undecided 
  - Assign Bug to Yourself

# Configure Git and Git Review

```
$ git config --global user.name "Firstname Lastname"  
$ git config --global user.email "your_email@youremail.com"  
$ git config --global gitreview.username yourgerritusername  
$ git config --list
```

Tip



"We don't know where  
your gerrit is" Error? git  
remote add gerrit  
ssh://<username>@review  
.openstack.org:29418/ope  
nstack-dev/sandbox.git

# Cloning and Branching

```
$ git clone https://git.openstack.org/openstack-dev/sandbox.git
$ cd sandbox/
Setup git review
Mac/Ubuntu - $ git review -s
Windows - $ git review
$ git remote update
$ git checkout master
$ git pull --ff-only origin master
$ git checkout -b bug/bugID
```

## Tip

Commit Message Best Practices -  
<https://wiki.openstack.org/wiki/GitCommitMessages>

# Create, Commit and Verify a Patch

```
$ cat > mytestfile << EOF  
    Add text unique to your file  
$ git status  
$ git add mytestfile  
$ git status  
$ git commit -a  
$ git commit --amend  
$ git show  
$ git review
```

Tip



Commit Message Best Practices -  
<https://wiki.openstack.org/wiki/GitCommitMessages>

# Gerrit and Zuul Workflow

- Gerrit -

<https://review.openstack.org/#/c/<ID>>

- Example patch:

<https://review.openstack.org/#/c/438328/>

- Gate Checking -

<http://status.openstack.org/zuul/>

# Gerrit Review

Screenshot of a Gerrit Review interface showing a merged change.

**Change 438328 - Merged**

**[Install] Document Nova cells and placement API**

With the Octa release, Nova requires a basic cell\_v2 setup and the Placement API service.

**Change-Id:** I3ad1a53ea072f79cbc356248b0b800ddaabd5038  
**Closes-Bug:** #1663485  
**Closes-Bug:** #1669163

**Owner:** Brian Moss  
**Reviewers:** Alexandra Settle, Amy Marrich (spotz), Jenkins, Jens Rosenboom, Lana Brindley, Nicolas Bock, caoyuan, Alexander Chadic, Chris Dent, D G Lee, Darren Chan, Jay Pipes, John Garbutt, Matt Riedemann, Olena Logvinova, Oliver Walsh, Petr Kovar, Roger Luethi, Sean McGinnis, chen.xing, melanie.witt

**Project:** openstack/openstack-manuals  
**Branch:** master  
**Topic:** bug/1663485  
**Updated:** 2 days ago

**Code-Review +2**: Alexandra Settle, Lana Brindley, Amy Marrich (spotz), Jenkins, Jens Rosenboom, Nicolas Bock, caoyuan, Jenkins +2, Jenkins +1

**Verified +1**: Jenkins

**Workflow +1**: Alexandra Settle

**Jenkins check**: Mar 21 8:36 PM  
gate-openstack-manuals-tox-checkniceness-ubuntu-xenial: SUCCESS in 3m 07s  
gate-openstack-manuals-tox-doc-publish-checkbuild: SUCCESS in 7m 23s

**Jenkins gate**: Mar 22 7:17 AM  
gate-openstack-manuals-tox-checkniceness-ubuntu-xenial: SUCCESS in 3m 41s  
gate-openstack-manuals-tox-doc-publish-checkbuild: SUCCESS in 7m 25s

**Files**: Open All | Diff against: Base

**File Path**: Commit Message, doc/common/get-started-compute.rst, doc/install-guide/source/environment-security.rst, doc/install-guide/source/nova-compute-install.rst, doc/install-guide/source/nova-controller-install.rst, doc/install-guide/source/nova-verify.rst

**Comments Size**:

Author	Comments
Alexandra Settle	4
Brian Moss	2
caoyuan	61
Jenkins	198
Lana Brindley	57
Nicolas Bock	+287, -35

**History**: Expand All

**Brian Moss**: Uploaded patch set 1. **Feb 27 12:03 AM**  
**Brian Moss**: Patch Set 1: Workflow-1. **Feb 27 12:03 AM**  
**Alexandra Settle**: Patch Set 1:  
(2 comments)  
Minor stuff :) But you're still WIP.  
doc/install-guide/source/nova-controller-install.rst  
Line 498: "nova\_cell0"  
Line 523: "woah this is hard to read"  
**Amry Marrich (spotz)**: Patch Set 1:  
(3 comments)  
added a few notes from an install I have in progress  
doc/install-guide/source/nova-compute-install.rst  
Line 470: also mention list\_cells to verify  
nova-manage cell\_v2 list\_cells

# Zuul Status

[openstack](#)<sup>®</sup>  
CLOUD SOFTWARE

Status [Zuul](#) Rechecks Reviews Bugday OpenStack-Health

## Zuul Status

Zuul is a pipeline oriented project gating and automation system. Each of the sections below is a separate pipeline configured to automate some portion of the testing or operation of the OpenStack project. For more information, please see the Zuul reference manual.

Queue lengths: 0 events, 0 results. Filters:  Expand by default:

[check](#) (194) [gate](#) (13) [post](#) (107)

Newly uploaded patchsets enter this pipeline to receive an initial +/-1 Verified vote from Jenkins.

Changes that have been approved by core developers are enqueued in order in this pipeline, and if they pass tests in Jenkins, will be merged.

This pipeline runs jobs that operate after each change is merged.

Change queue: [integrated](#)

- openstack/nova 304714,2 0 min 2 hr 2 min
- openstack/nova 282442,22 0 min 1 hr 59 min
- openstack/nova 282442,22 0 min 1 hr 58 min
- openstack/nova 281945,30 0 min 1 hr 58 min
- Change queue: [openstack/manila](#)
- openstack/manila 305189,2 4 min 1 hr 54 min
- Change queue: [openstack/neutron](#)
- openstack/nova 305079,3 14 min 1 hr 50 min

Change queue: [integrated](#)

- openstack/nova 305204,2 16 min 1 hr 44 min
- openstack/nova 301213,3 16 min 1 hr 18 min
- openstack/horizon 304805,2 39 min 1 hr 18 min
- openstack/neutron 305605,1 39 min 57 min
- openstack/neutron 274023,10 39 min 49 min
- openstack/neutron 303563,2 39 min 44 min
- Change queue: [openstack/fuel-web](#)
- openstack/fuel-web 304438,4 3 min 13 min

Change queue: [openstack/kolla](#)

- openstack/kolla 1791612 unknown 3 hr 48 min

Change queue: [openstack/python-tripleclient](#)

- openstack/python-tripleclient 092adc unknown 3 hr 35 min

Change queue: [openstack/tripleo-heat-templates](#)

- openstack/tripleo-heat-templates 2b15978 unknown 3 hr 34 min

Change queue: [openstack/openstack-ansible](#)

- openstack/openstack-ansible dbe6808 unknown 3 hr 34 min

Change queue: [openstack-infra/project-config](#)

- openstack-infra/project-config 27025c6 unknown 3 hr 34 min

Change queue: [openstack/aodh](#)

- openstack/aodh 3b030c4 unknown 3 hr 32 min

3.

# Additional Exercises

## Edit a Patch

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- Edit File
- \$ git add filename
- \$ git commit -a --amend
- \$ git review

## Create a Patch Dependency and Rebase

- `git pull origin master`
  - (updates your local version of the master branch)
- `$ git checkout <your_branch>`
- `$ git rebase -i master`
- `$ git rebase --continue`

## Abandon Commit

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```
ssh -l YOUR_GERRIT_USERNAME>\  
  -p 29418 \  
  review.openstack.org 'gerrit review' \  
  --project openstack-dev/sandbox.git \  
  --abandon THE_CHANGE_ID,2
```

## Where to Find Help

- Ask OpenStack - <https://ask.openstack.org>
- IRC
  - <https://wiki.openstack.org/wiki/IRC>
  - <https://docs.openstack.org/contributors/common/irc.html>
- Mail Lists -  
[https://wiki.openstack.org/wiki/Mailing\\_Lists](https://wiki.openstack.org/wiki/Mailing_Lists)

# Reference Materials

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- Contributors Guide -  
<https://docs.openstack.org/contributors/code-and-documentation/index.html>
- First Time Contributors QuickStart Guide -  
<https://docs.openstack.org/doc-contrib-guide/quickstart/first-timers.html>
- Documentation Bugs -  
<http://docs.openstack.org/contributor-guide/doc-bugs.html>
- Learn The Gerrit Workflow in the Sandbox -  
<http://docs.openstack.org/infra/manual/sandbox.html>

# Reference Materials

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- Commit Messages -  
<https://wiki.openstack.org/wiki/GitCommitMessages>
- Testing - <https://wiki.openstack.org/wiki/Testing>
- Setup and Learn Git -  
<https://docs.openstack.org/contributors/common/git.html>

# Thanks!



Any questions?

You can find me at:  
spotz  
@spotzz\_