Let's learn to contribute!

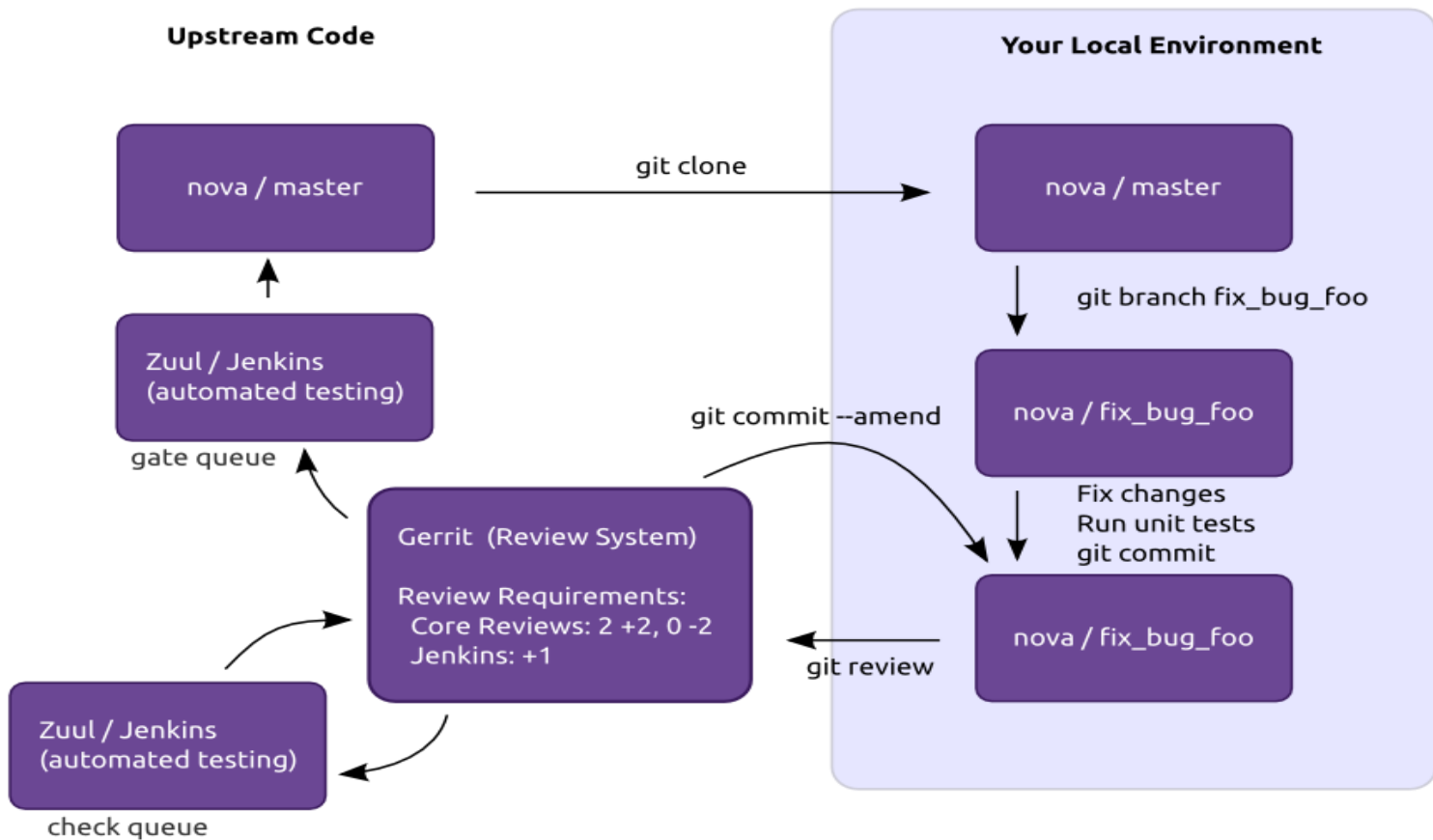- Mahati Chamarthy <mahati.chamarthy@intel.com>
- Amy Marrich <amy.marrich@rackspace.com>
- Tamara Johnston <tamara.Johnston@emc.com>

Agenda

- Contribution flow

- Initial set up for contribution

- Configure SSH

- Set up git and 'git review'

- Working with OpenStack repositories

- Further assistance

Contribution flow

Initial set up for contribution

- Launchpad
  - *https://login.launchpad.net/*
  - Create a login
  - This is how Gerrit web interface identifies your login
- Gerrit
  - *https://review.openstack.org/*
  - Login with launchpad ID
  - Select a user name (create a new one or use launchpad name)

- Join OpenStack Foundation
  - *http://www.openstack.org/join*
  - Required for all code contributors
  - Sign ICLA; Grants privileges to vote and participate in elections amongst others

Configure SSH

- Generate SSH key

  - *$ ssh-keygen –t rsa*

- Password is optional; if entered you will need it to supply it every time you commit

- It asks for a path; Hitting Enter will store it at $HOME

- View and copy key: (copy everything)

  - *$ less ~/.ssh/id_rsa.pub*

Apps ☐ Windows 8.1 Help C... ☐ My Services - Instan...

openstack
CLOUD SOFTWARE

All   **My**   Projects   People   Documentation

Changes   Drafts   Draft Comments   Watched Changes   Starred Changes

Change #, SHA-1, tr:id or owner:email | Search | **Mahati Chamarthy** ▾

Settings

Profile
Preferences
Watched Projects
Contact Information
SSH Public Keys
HTTP Password
Identities
Groups
Agreements

	Status	Algorithm	Key	Comment
☐		ssh-rsa	AAAAB3NzaC1yc2EAAAADAQABAAABAQ...VqnIsVFKMH 📋	mahati@mahati-VirtualBox
☐		ssh-rsa	AAAAB3NzaC1yc2EAAAADAQABAAABAQ...5mMaEmIB/J 📋	mahati@ubuntu-VirtualBox
☐		ssh-rsa	AAAAB3NzaC1yc2EAAAADAQABAAABAQ...WozkIuTD3j 📋	mahati@mahati-VirtualBox

| Delete | Add Key ... |

Server Host Key

Fingerprint:
28:c6:42:b7:44:d2:48:64:c1:3f:31:d8:1b:6e:3b:63

Entry for ~/.ssh/known_hosts:
[review.openstack.org]:29418 ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQCfs...DIXYsy+TVH 📋

Server Host Key

Fingerprint:
6c:95:14:fd:8b:0f:de:d3:e3:10:77:5a:de:22:8a:5f

Entry for ~/.ssh/known_hosts:
[review.openstack.org]:29418 ssh-dss AAAAB3NzaC1kc3MAAACBAKoGrZO2t1ieB...3iDVqzqQ== 📋

Press '?' to view keyboard shortcuts | Powered by Gerrit Code Review (2.8.4-19-g4548330) | Report Bug

If you haven't already, quick steps to install 'git review'

- Mac/Linux

  – *$ sudo pip install git-review*

- Ubuntu

  – *$ sudo apt-get install git-review*

- Windows

  – curl http://pypi.python.org/packages/source/g/git-review/git-review-1.24.tar.gz -L > git-review.tar.gz

  – tar zxvf git-review.tar.gz

  – cd git-review-1.24

  – python setup.py install

Configure git and 'git review'

- *$ git config --global user.name "Firstname Lastname"*

- *$ git config --global user.email name@youremail.com*

- *$ git config --global gitreview.username yourgerritusername*
  - Find username on Gerrit settings page

- *$ git config --list*
  - To view git settings

Working with OpenStack repositories

- Clone a repo
  - *$ git clone* https://github.com/openstack-dev/sandbox.git
  - *$ cd sandbox*
- Set up git review in the same directory
  - For Mac/Ubuntu: *$ git review -s*
  - For Windows: *$ git-review*

- *$ git checkout -b testbranch*

- *$ cat > mytest_file << EOF*


```
mahati@ubuntu-VirtualBox:~$ cd sandbox/
mahati@ubuntu-VirtualBox:~/sandbox$ cat > mytest_file << EOF
> This is my first change in OpenStack
> EOF
mahati@ubuntu-VirtualBox:~/sandbox$ []
```

- *$ git status*

- *$ git add mytest_file*

- *$ git status*

```
mahati@ubuntu-VirtualBox:~/sandbox$ git status
On branch anothertest
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        mynew_file

nothing added to commit but untracked files present (use "git add" to track)
mahati@ubuntu-VirtualBox:~/sandbox$
```

- *$ git commit -a*

```
  GNU nano 2.2.6              File: /home/mahati/sandbox/.git/COMMIT_EDITMSG                    Modified

This is a test patch for training

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# On branch anothertest
# Changes to be committed:
#       new file:   mynew_file
#




^G Get Help     ^O WriteOut     ^R Read File    ^Y Prev Page    ^K Cut Text     ^C Cur Pos
^X Exit         ^J Justify      ^W Where Is     ^V Next Page    ^U UnCut Text   ^T To Spell
```

- At the bottom of edit screen

```
Save modified buffer (ANSWERING "No" WILL DESTROY CHANGES) ?
 Y Yes
 N No              ^C Cancel
```

```
File Name to Write: /home/mahati/sandbox/.git/COMMIT_EDITMSG
^G Get Help          M-D DOS Format        M-A Append        M-B Backup File
^C Cancel            M-M Mac Format        M-P Prepend
```

- *$ git review*

```
mahati@ubuntu-VirtualBox:~/sandbox$ git review
remote: Resolving deltas: 100% (1/1)
remote: Processing changes: new: 1, refs: 1, done
remote:
remote: New Changes:
remote:     https://review.openstack.org/236217
remote:
To ssh://Mahati@review.openstack.org:29418/openstack-dev/sandbox.git
 * [new branch]      HEAD -> refs/publish/master/newsecondtest
mahati@ubuntu-VirtualBox:~/sandbox$
```

openstack
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Ch

Change-Id:	I590d5593964eeac52b7253ecd941a2e3efd3c83f
Owner	Mahati Chamarthy
Project	🔍 openstack-dev/sandbox
Branch	master
Topic	test_topic
Uploaded	Oct 17, 2015 5:27 PM
Updated	Oct 17, 2015 5:35 PM
Submit Type	Merge if Necessary
Status	Review in Progress

☆ *Commit Message*　　　　　Permalink 📋📝

This is a test patch for training

Change-Id: I590d5593964eeac52b7253ecd941a2e3efd3c83f

Reviewer		Code-Review	Verified	Workflow
Pure Storage CI	☒			
EMC Isilon CI	☒			
Jenkins	☒		+1	
OpenvStorage CI			-1	
Nimble Storage CI			-1	
Fnst OpenStackTest CI	☒		+1	

- Need Verified
- Need Code-Review
- Need Workflow

Name or Email or Group	Add Reviewer

Jenkins check	*Oct 17, 2015 5:27 PM*
noop	SUCCESS
Pure Storage CI check	*Oct 17, 2015 5:27 PM*
PureISCSIDriver-tempest-dsvm-volume-multipath	NOT_REGISTERED
Nimble Storage CI check	*Oct 17, 2015 5:27 PM*
nimble-iscsi-driver-tempest-dsvm-volume	NOT_REGISTERED
EMC Isilon CI check (1 rechecks)	*Oct 17, 2015 5:29 PM*
noop-check-communication	NOT_REGISTERED
Fnst OpenStackTest CI check	*Oct 17, 2015 5:29 PM*
noop-check-communication	SUCCESS in 45s

▶ **Dependencies**

Reference Version: Base ▼

▼ **Patch Set 1**　　19301d8158558a81d9cb654dbae15eeb42d1ab81　(gitweb)

Author	Mahati Chamarthy <mahati.chamarthy@gmail.com> Oct 17, 2015 5:25 PM
Committer	Mahati Chamarthy <mahati.chamarthy@gmail.com> Oct 17, 2015 5:27 PM

Commit Message

Correct exception raised in few db APIs

This patch corrects wrong exception raised in below
db APIs:
1. get_rcs_by_bay_uuid
2. get_services_by_bay_uuid

Co-Authored-By: Vilobh Meshram <vilobhmm@yahoo-inc.com>

Closes-bug: #1475556
Change-Id: I7c3307747f6ae905a9eecc2e755e5c7d6ddde91d

► Dependencies

Reference Version: [Base ▼]

▼ Patch Set 1   19301d8158558a81d9cb654dbae15eeb42d1ab81   (gitweb)

Author	Mahati Chamarthy <mahati.chamarthy@gmail.com> Oct 17, 2015 5:25 PM
Committer	Mahati Chamarthy <mahati.chamarthy@gmail.com> Oct 17, 2015 5:27 PM
Parent(s)	1bf64909a48852d52c1fac57d90315af770e9938 Switch libvirt get_cpu_info method over to use config APIs
Download	checkout	pull	cherry-pick	patch Anonymous HTTP	SSH	HTTP
	git fetch https://review.openstack.org/openstack-dev/sandbox refs/changes/13/236213/1 && git checkout FETCH_HEAD

[Review]   [Cherry Pick To]   [Abandon Change]

	File Path	Comments	Size	Diff		Reviewed
▶	Commit Message			Side-by-Side	Unified	
A	mytest_file		1 line	Side-by-Side	Unified	
			+1, -0	All Side-by-Side	All Unified	

Comments   Expand Recent | Expand All | Collapse All

Mahati Chamarthy   5:27 PM

Uploaded patch set 1.

[Add Comment]

- Edit your mytest_file, save it
  - *$ git add mytest_file*
  - *$ git commit --amend*
    - To create a patchset (and not a new patch review)
  - *$ git review*

Dependency patches and rebase

- *$ git review -d <patch_number>*

  – This will download patch changes and checks out the review branch

- *$ git checkout <your_branch>*

- *$ git rebase -i <patch_number_branch>*

```
mahati@ubuntu-VirtualBox:~/sandbox$ git review -d 236217
Downloading refs/changes/17/236217/1 from gerrit
Switched to branch "review/mahati_chamarthy/newsecondtest"
mahati@ubuntu-VirtualBox:~/sandbox$ git checkout anothertest
Switched to branch 'anothertest'
mahati@ubuntu-VirtualBox:~/sandbox$ git rebase -i review/mahati_chamarthy/newsecondtest
Successfully rebased and updated refs/heads/anothertest.
mahati@ubuntu-VirtualBox:~/sandbox$
```

- If there are conflicts, rebase will stop and ask you to resolve them.
  - *$ git status*
    - It shows if the same file is modified in both patches
- Resolve conflicts by looking for *"<<<HEAD commit…"*
  - *$ git add <modified_files>*
  - *$ git rebase --continue*

Further assistance

- https://wiki.openstack.org/wiki/How_To_Contribute

    - Mailing lists; IRC

- https://wiki.openstack.org/wiki/GitCommitMessages

- https://wiki.openstack.org/wiki/Bugs

- https://wiki.openstack.org/wiki/Blueprints

- http://docs.openstack.org/infra/manual/developers.html

COMPANIES	
502	
INDIVIDUAL MEMBERS	
27,398	
TOTAL DEVELOPERS	AVERAGE MONTHLY CONTRIBUTORS
3,654	**>600**

Thank you!

Questions?