OpenStack-Health dashboard and Dealing with Data from the Gate

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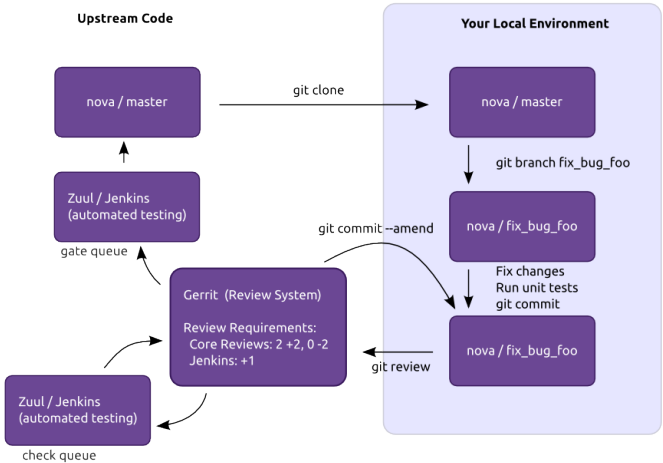
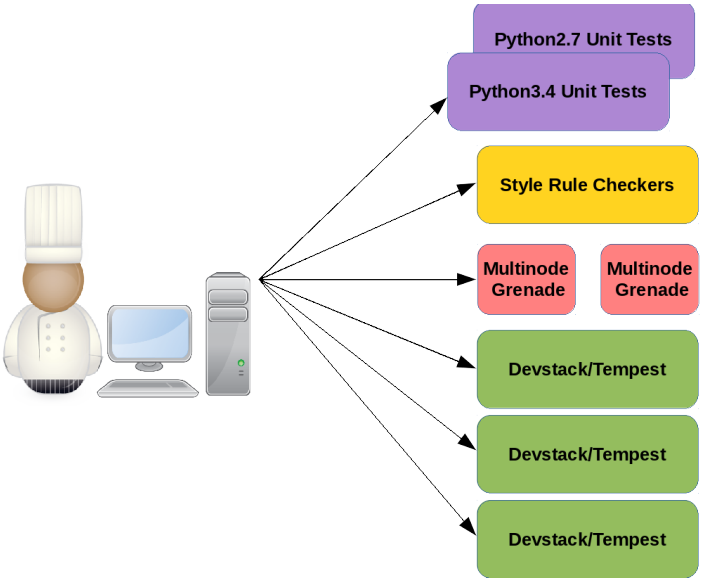
https://github.com/mtreinish/openstack-health-presentation

The OpenStack Gate



What Happens when you push a change?



TODO add zuul status image

The Size of the Gate

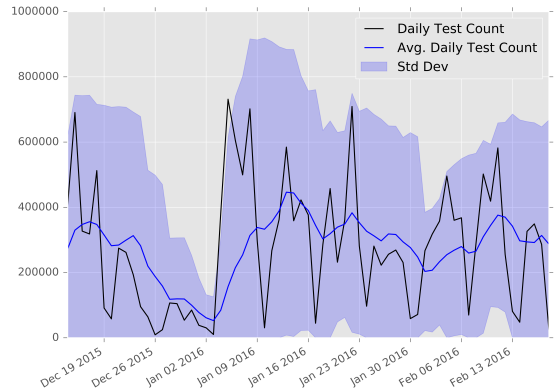
One Proposed Change Generates:

- 5–25 Devstacks
- ~10,000 integration tests (roughly 1.5k per devstack)

In aggregate:

- ~12,500 jobs run in check and gate daily
- ~0.01% individual tempest test failure rate
- ~.77% tempest run failure rate

Number of Tempest Tests per Day in the Gate Queue:

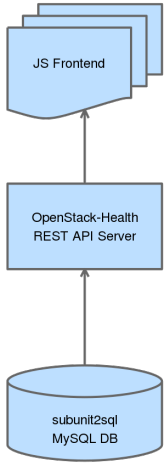


Existing Data Sources

- Log Server: http://logs.openstack.org/
- elasticsearch, logstash, and kibana
- graphite and grafana
- elastic-recheck
- subunit2sql

What is OpenStack-Health

OpenStack-Health Architecture



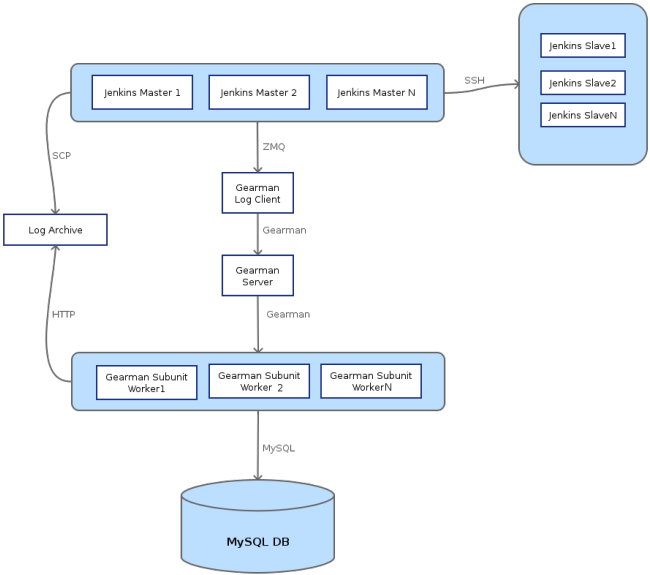
API Server

- Wraps subunit2sql DB API using flask
- Runs at http://health.openstack.org
- Continously Deployed on every commit
- Not intended for external consumption (Read as: it will change on you)
- Built with the intent to incorporate additional data sources when ready

subunit2sql

- A utility for storing and interacting with test results in a SQL DB
- Setups a DB schema and provides a sqlalchemy based DB API for storing test results
- CLI utilities for storing and retrieving results in the DB as subunit v2
- A public database of everything with subunit output from gate and periodic run in OpenStack-Infra

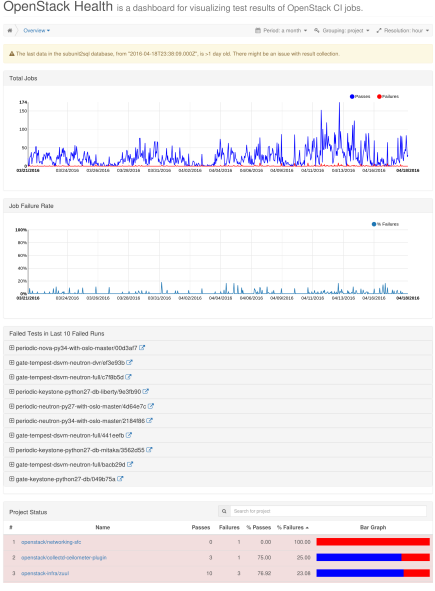
subunit2sql Data Collection



Frontend

- Built using AngularJS and NVD3
- Calls API server for data and renders in browser
- Located at: http://status.openstack.org/openstack-health
- Continously Deployed on Every Commit

Using OpenStack Health



Current Limitations

- Only data from gate and periodic queues
- Only catches failures without subunit data (or that occur before or after subunit generation)
- Failures outside of what's covered by subunit aren't counted
- Jobs that don't have subunit output aren't included

Next Steps

- Include other data sources:
  - Use zuul as source for run/job level data
  - Integrate elastic-recheck data for run_failures
- Include data from check and experimental queues
- UI improvements

Where to get more information

- openstack-dev ML openstack-dev@lists.openstack.org
- #openstack-qa on Freenode
- http://git.openstack.org/cgit/openstack/openstack-health/
- http://git.openstack.org/cgit/openstack-infra/subunit2sql

Questions?