Evolution of OPNFV CI system: what already exists and what can be introduced

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San Francisco 09/11/2015
The Continuous Integration (CI) infra used today

Jenkins, the CI engine

- Jenkins runs tests and automates some parts of project operations
- Jenkins focuses on building/testing software projects continuously and monitoring executions of externally-run jobs
- Jenkins supports plugins, which allows to be extended to meet specific requirements
- The Jenkins jobs are defined by Jenkins Job builder(JJB) in human readable YAML format
Some problems occur

✓ The number of patch commit and author is growing fast

✓ With 10 labs (include LF lab), while no efficient job scheduler (some labs are not connected stable)

✓ Do we need a log tool?
✓ And more ...
Which tools can be introduced?
Zuul (gating) and Gearman (job scheduling)

**Zuul scheduler**, the main component of Zuul, it receives events related to proposed changes, triggers tests based on those events, and reports back.

**Zuul merger**, set temporary Git repositories and branches up in order to ease the preparation of jobs environments.
One use case, Zuul used in OpenStack

Zuul solves,
1) Testing in parallel
2) Cross projects dependencies

Reference [http://status.openstack.org/zuul/](http://status.openstack.org/zuul/)
ElasticSearch ELK stack: gather/store/visualize syslogs
how should be the evolution of the CI infra??
Evolution of CI system

- Github Mirror
- OPNFV Mirror
- Remote Git Repository
- Gerrit
- Developers
- Pipy repository
- Ubuntu, Centos, etc, mirrors
- Repository of Steady version openstack/opendaylight, etc

Gating, work scheduler

- Zuul
- Gearman
- Jenkin masters

Scripts to get the mirrors & test depended packages for Build, use nodepool for image management.

- Jenkin slaves & plugins for test
- Log servers & log searcher

Puppet/Hiera manages the servers
Demo links

https://www.youtube.com/watch?v=fOYdsNdkCuw
Any Questions?
THANK YOU

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