

Zuul CI/CD with Ansible Native

Cross-project testing

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Agenda

Who am I?

Zuul CI/CD

What is Zuul CI/CD?

Why is Zuul CI/CD?

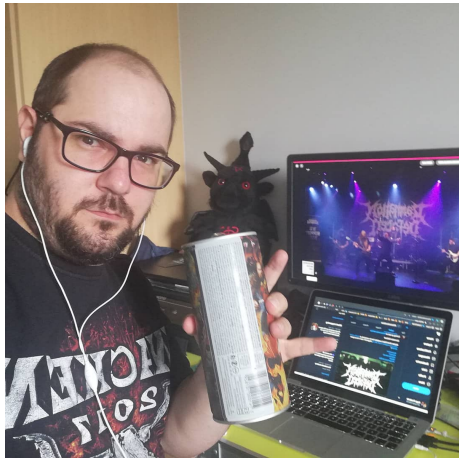
Did you said, Ansible Native?

Another Dimension

References



Figure: Rainbow Dash from My Little Pony



- ▶ Metalhead
- ▶ Dev/Ops
- ▶ Open Source
- ▶ Linux
- ▶ Computer Vision
- ▶ Cycling
- ▶ <https://hugoprudente.github.io>
- ▶ <https://nerdweek.com.br>
- ▶ Workday Inc — Private Cloud Team.
- ▶ Ex @AWS — DevOps Engineer Support
- ▶ Shelfpix — Principal Dev/Ops Engineer

What is Zuul CI/CD?





There's no Dana, only Zuul!

- ▶ A CI for microservices
- ▶ In-flight testing
- ▶ A Gating System
- ▶ Job hierarchy



- ▶ No manual intervention
- ▶ Include extra changes in workspace
- ▶ Allow dependency cycle
- ▶ Gate system (testing before merge)
- ▶ Atomic merges
- ▶ Resolve dependencies
- ▶ test against other projects
- ▶ share, extend and reuse jobs
- ▶ ephemeral testing environment.

Why Zuul CI/CD?



Figure: Openstack Dependencies Tree

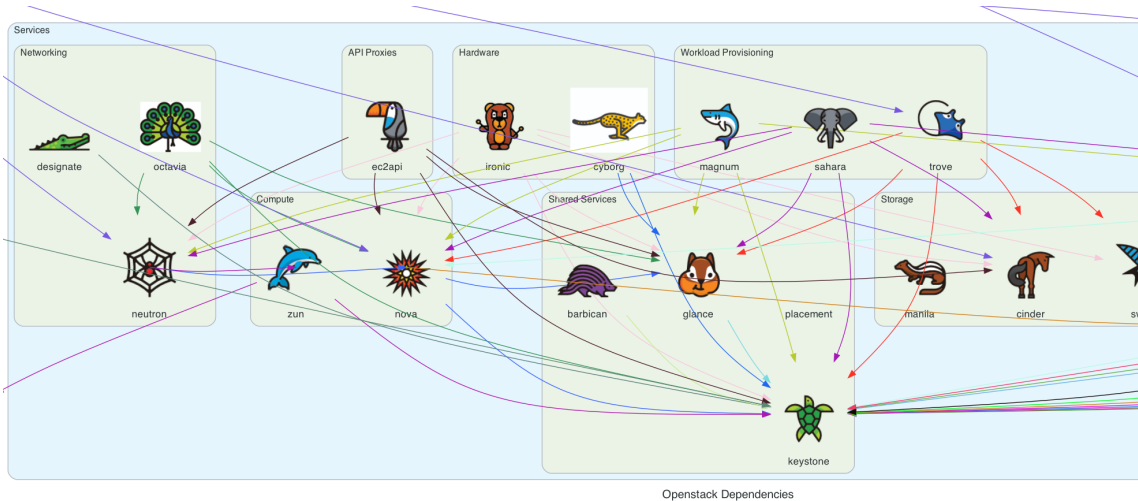


Figure: Openstack Dependencies Tree (zoom)

Queue lengths: 0 events, 0 management events, 0 results.


nova  Expand by default: ☐

check 62

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

Events: 0 trigger events, 0 management events, 2 results.

Queue: openstack/nova




	openstack/nova 799772,1	<div><div></div></div>	10 min 1 hr 25 min
	tempest-integrated-compute	<div><div></div></div>	
	openstack-tox-cover	SUCCESS	
	openstack-tox-lower-constraints	SUCCESS	
	openstack-tox-pep8	SUCCESS	
	openstack-tox-py36	SUCCESS	
	openstack-tox-py38	SUCCESS	
	openstack-tox-py39 (non-voting)	SUCCESS	
	openstack-tox-docs	SUCCESS	
	build-openstack-releasenotes	SUCCESS	
	ironic-tempest-ipa-whole-disk-bios-agent_ipmitool-tinyipa (non-voting)	<div><div></div></div>	
	nova-ceph-multistore	SUCCESS	
	nova-live-migration	SUCCESS	
	nova-multi-cell	<div><div></div></div>	
	nova-next	<div><div></div></div>	
	nova-tox-functional-py38	SUCCESS	
	nova-tox-functional-py39 (non-voting)	SUCCESS	

gate 31

Changes that have been approved by core reviewers are enqueued in order in this pipeline, and if they pass tests, will be merged. For documentation on how gating with Zuul works, please see <https://zuul-ci.org/docs/zuul/user/gating.html>

Events: 0 trigger events, 0 management events, 0 results.

Queue: integrated

	openstack/cinder 798696,1	<div><div></div></div>	46 min 45 min
	openstack-tox-pep8	SUCCESS	
	openstack-tox-py36	SUCCESS	
	openstack-tox-py38	SUCCESS	
	openstack-tox-docs	SUCCESS	
	grenade	<div><div></div></div>	
	tempest-integrated-storage	<div><div></div></div>	
	cinder-grenade-mn-sub-volbak	<div><div></div></div>	
	cinder-plugin-ceph-tempest	<div><div></div></div>	
	tempest-ipv6-only	<div><div></div></div>	
	openstack/cinder 798671,3	<div><div></div></div>	56 min 44 min
	openstack/nova 794006,2	<div><div></div></div>	56 min 44 min

post 1

This pipeline runs jobs that operate after each change is merged. Queue items are identified by the abbreviated hash (git log --format=%h) of the merge commit.

Events: 0 trigger events, 0 management events, 0 results.

promote 0

This pipeline runs jobs that operate after each change is merged in order to promote artifacts generated in the gate pipeline.

Events: 0 trigger events, 0 management events, 0 results.

pre-release 0

When a commit is tagged with a pre-release tag, this pipeline runs jobs that publish archives and documentation.

Events: 0 trigger events, 0 management events, 0 results.

release 0

When a commit is tagged as a release, this pipeline runs jobs that publish archives and documentation.

Events: 0 trigger events, 0 management events, 0 results.

periodic 2

Jobs in this queue are triggered on a daily timer.

Events: 0 trigger events, 0 management events, 0 results.

deploy 0

This pipeline runs jobs that operate after each change is merged in order to run production deployment releases.

Figure: Zuul CI Projects & Pipelines

Did you said, Ansible Native?



```
# zuul-jobs/playbooks/terraform/pre.yaml
---
- hosts: all
  roles:
    - ensure-terraform
    - revoke-sudo

# zuul-jobs/playbooks/terraform/run.yaml
---
- hosts: all
  roles:
    - terraform

# my-project/.zuul.yaml
---
- job:
  name: test0
  parent: terraform
  description: |
    Run terraform plan
  run: .zuul/playbooks/terraform/run.yaml
  nodeset: ubuntu
```

Figure: Zuul CI Job Definition Community, 2021

Listen! You smell something?

Demo time!

Would this be Gozer?

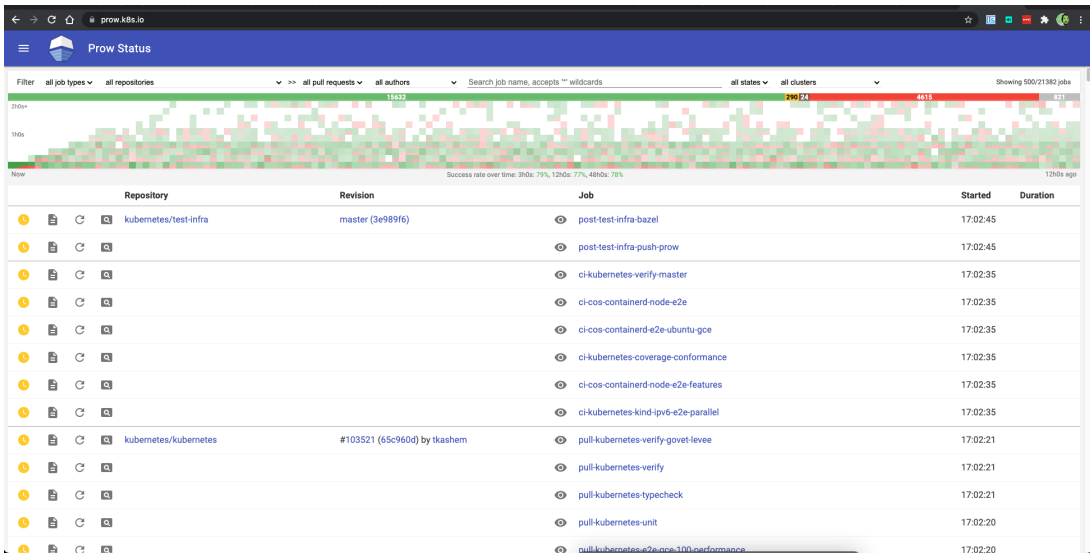


Figure: Prow by K8S, 2021

References



By K8S, Test Infra (2021). *Prow*. URL:

<https://github.com/kubernetes/test-infra/tree/master/prow>.



Community, Open Infrastructure (2021). *Zuul CI Jobs*. URL:

<https://opendev.org/zuul/zuul-jobs>.



Foundation, Open Infrastructure (2021). *Zuul CI Documentation*. URL:

<https://zuul-ci.org/docs/zuul/>.

Thank You!

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