FROM ZERO TO CODE: A HANDS-ON GUIDE TO MAKING YOUR FIRST OPENSTACK CODE CONTRIBUTION

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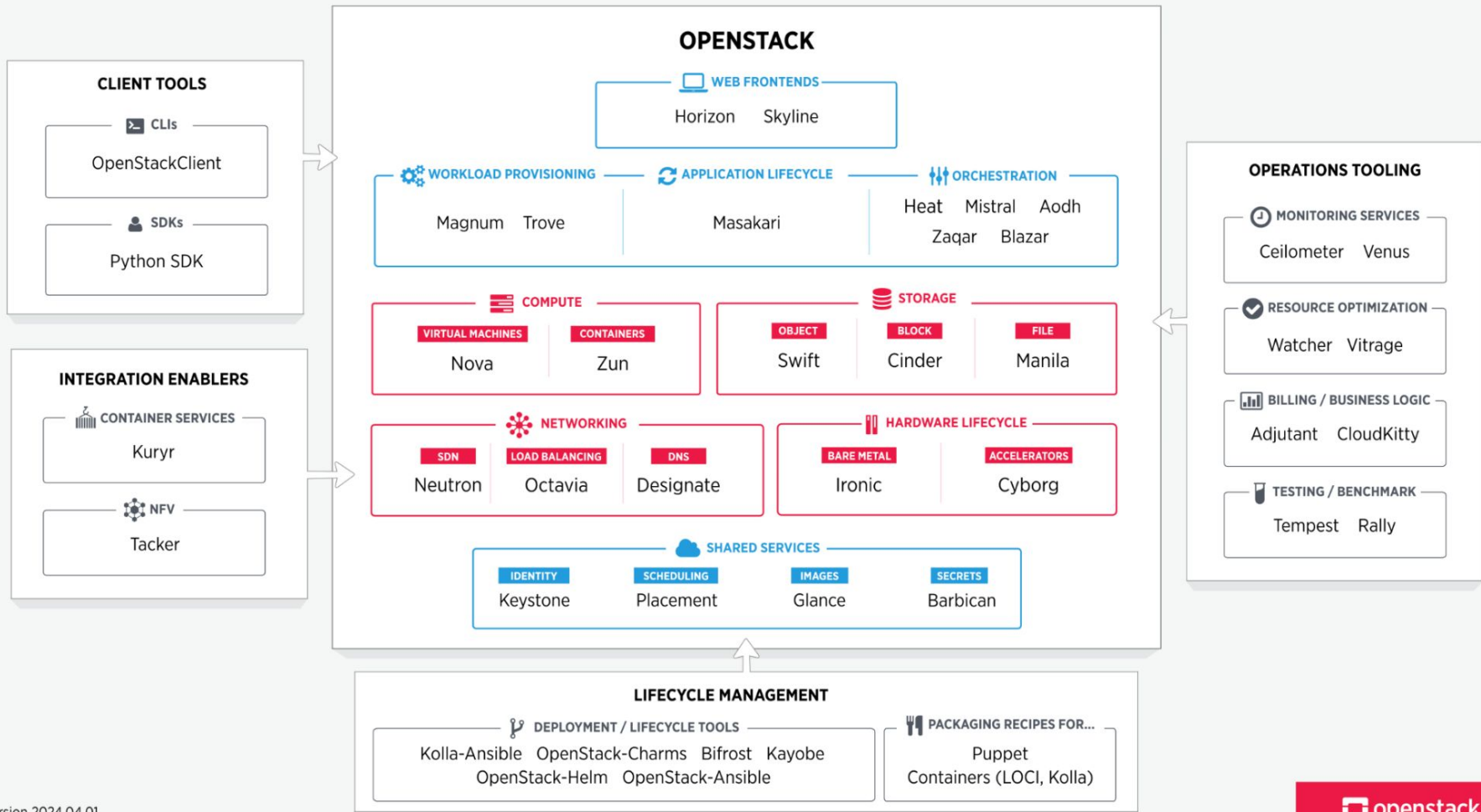# carloss

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Contributing to OpenStack

- Why contribute to OpenStack?
- Who can contribute to OpenStack?
- How do you contribute?

OPENSTACK

WEB FRONTENDS
Horizon   Skyline

WORKLOAD PROVISIONING
Magnum   Trove

APPLICATION LIFECYCLE
Masakari

ORCHESTRATION
Heat   Mistral   Aodh
Zaqar   Blazar

COMPUTE

VIRTUAL MACHINES
Nova

CONTAINERS
Zun

STORAGE

OBJECT
Swift

BLOCK
Cinder

FILE
Manila

NETWORKING

SDN
Neutron

LOAD BALANCING
Octavia

DNS
Designate

HARDWARE LIFECYCLE

BARE METAL
Ironic

ACCELERATORS
Cyborg

SHARED SERVICES

IDENTITY
Keystone

SCHEDULING
Placement

IMAGES
Glance

SECRETS
Barbican

CLIENT TOOLS

CLIs
OpenStackClient

SDKs
Python SDK

INTEGRATION ENABLERS

CONTAINER SERVICES
Kuryr

NFV
Tacker

OPERATIONS TOOLING

MONITORING SERVICES
Ceilometer   Venus

RESOURCE OPTIMIZATION
Watcher   Vitrage

BILLING / BUSINESS LOGIC
Adjutant   CloudKitty

TESTING / BENCHMARK
Tempest   Rally

LIFECYCLE MANAGEMENT

DEPLOYMENT / LIFECYCLE TOOLS
Kolla-Ansible   OpenStack-Charms   Bifrost   Kayobe
OpenStack-Helm   OpenStack-Ansible

PACKAGING RECIPES FOR...
Puppet
Containers (LOCI, Kolla)

openstack.

That *weird* thing about OpenStack

The community is super welcoming to new contributors

HOWEVER,

- You have to patiently acquire the *context*
- You have to *communicate*
- You have to *earn trust*

Where is the code?

All OpenStack projects are hosted under the "openstack/" namespace on https://opendev.org

Where are the docs?

https://docs.openstack.org is a good starting point
There's a consistent structure to docs pertaining to each service: https://docs.openstack.org/{service}/latest

Workshop's instructions etherpad

https://etherpad.opendev.org/p/zero-to-code

What do you need for your first contribution?

- A device with internet access
- [Join OpenInfra as an individual contributor](#)
- Register on [gerrit](#)
- Sign the Individual Contributor License Agreement (ICLA)
- Create an SSH Keypair on your machine
  - ssh-keygen -t ed25519 -c "your-email@example.com"
- Have your public SSH key added to gerrit
- Install "git" and "git-review"

Low hanging fruits

- Each project team maintaining the corresponding repositories
- Today, we will use a [pool of issues](#)
- OpenStack services use the Launchpad issue tracker
  - Trackers for the projects will look like:
    - https://bugs.launchpad.net/manila
    - 'manila' is the name of the project. You can replace it with nova, cinder, keystone…
- Filtering for beginner-friendly issues (a.k.a low hanging fruits)
- Assign an issue for yourself; if you're having trouble, let us know

Submitting your contribution

- Fix the code and commit it locally
- Test your code
  - Devstack
- Running tests on devstack
  - pep8
  - unit tests
  - documentation
  - other fancy tests
- Upload your code to gerrit
- After the change is submitted:
  - Add reviewers
  - Wait for and look at Zuul results
  - Iterate with reviewers until the change has merged
  - Fun and profit

Reviewing a contribution

- review.opendev.org
- https://review.opendev.org/q/project:%5E.*specs+status:open
  - AKA "project:^.*specs status:open" in search bar
- https://review.opendev.org/q/project:%5Eopenstack.*+status:open+prefixsubject:doc
  - AKA "project:^openstack.* status:open prefixsubject:doc" in search bar
- Share amongst the crowd any submitted changes and review together!

These are primarily specification and documentation patches that could use a pair of eyes to check for spelling, grammar, and readability.

Feel free to review any pending patches in services that catch your interest. Just navigate using "project:openstack/<project-name>"

Connect with the Community

- Easy IRC steps using element.io (matrix bridge): https://docs.openstack.org/manila/latest/contributor/irc-quick-and-dirty.html
- Join #openstack or #openstack-dev for general questions
- We are on #openstack-manila
- For a full list of available channels and meetings go to: https://meetings.opendev.org/

Complete IRC guide: https://docs.openstack.org/contributors/common/irc.html

Thank you!

Connect with us:

Chat: #openstack-dev on OFTC
E-Mail: openstack-discuss@lists.openstack.org
Ping: gouthamr, carloss, ashrodri
       (#OFTC, and @redhat.com)

PTG PROJECT TEAMS GATHERING

A Fully Virtual Event

https://ptg.openinfra.org/

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