

OpenStack Overview

Javier Cacheiro



OpenStack Components

Horizon
(Dashboard)

openstack-cli

REST API

Keystone
(Identity)

Nova
(Compute)

Neutron
(Networking)

Glance
(Images)

Cinder
(Block Storage)

RabbitMQ

Galera
(MariaDB)

OVN

Main Concepts

- Open Source
- Programmed in Python
- REST API

Interacting with OpenStack

- Horizon
- openstack-cli
- REST API

Nova

- Role: Compute
- Purpose: Acts as interface with the hypervisor (KVM)

Neutron

- Role: Networking
- Purpose: Acts as an interface with Open Virtual Network (OVN) to provide software defined networking (SDN)

Glance

- Role: Images
- Purpose: Provide the base images from which virtual machines are deployed

Cinder

- Role: Block storage
- Purpose: Provide block storage (volumes) for the virtual machines

Keystone

- Role: Identity
- Purpose: Provide authentication, service discovery and multi-tenant authorization