

# 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
- openstacksdk
- 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