

OPENSTACK

WEB FRONTEND | **API PROXIES**

Horizon | EC2API

WORKLOAD PROVISIONING | **APPLICATION LIFECYCLE** | **ORCHESTRATION**

Magnum Trove | Murano Freezer | Heat Mistral Aodh
Sahara | Solum Masakari | Senlin Zaqr Blazar

COMPUTE

VIRTUAL MACHINES | **CONTAINERS** | **FUNCTIONS**

Nova | Zun | Qinling

NETWORKING | **HARDWARE LIFECYCLE** | **STORAGE**

SDN | **LOAD BALANCING** | **DNS** | **BARE METAL** | **ACCELERATORS** | **OBJECT** | **BLOCK** | **FILE**

Neutron | Octavia | Designate | Ironic | Cyborg | Swift | Cinder | Manila

SHARED SERVICES

Keystone | Placement | Glance | Barbican | Searchlight | Karbor

LIFECYCLE MANAGEMENT

DEPLOYMENT / LIFECYCLE TOOLS | **PACKAGING RECIPES FOR...**

Kolla-Ansible OpenStack-Charms TripleO Bifrost Kayobe
OpenStack-Helm OpenStack-Ansible OpenStack-Chef | RPM Puppet
Containers (LOCI, Kolla)

CLIENT TOOLS

CLIs

OpenStackClient

SDKs

Python SDK

INTEGRATION ENABLERS

CONTAINER SERVICES

Kuryr

NFV

Tacker

OPERATIONS TOOLING

MONITORING SERVICES

Ceilometer
Monasca Panko

RESOURCE OPTIMIZATION

Watcher Vitrage

BILLING / BUSINESS LOGIC

Adjutant CloudKitty

TESTING / BENCHMARK

Tempest Patrole
Rally