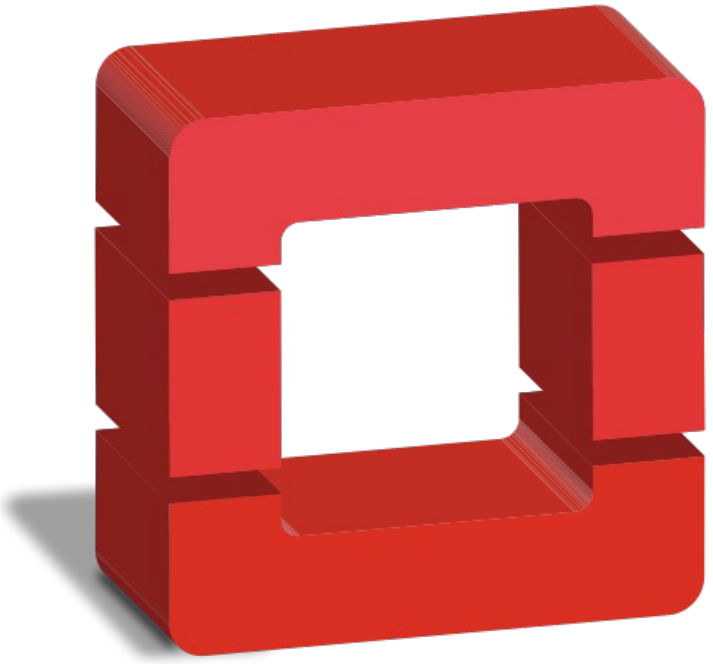
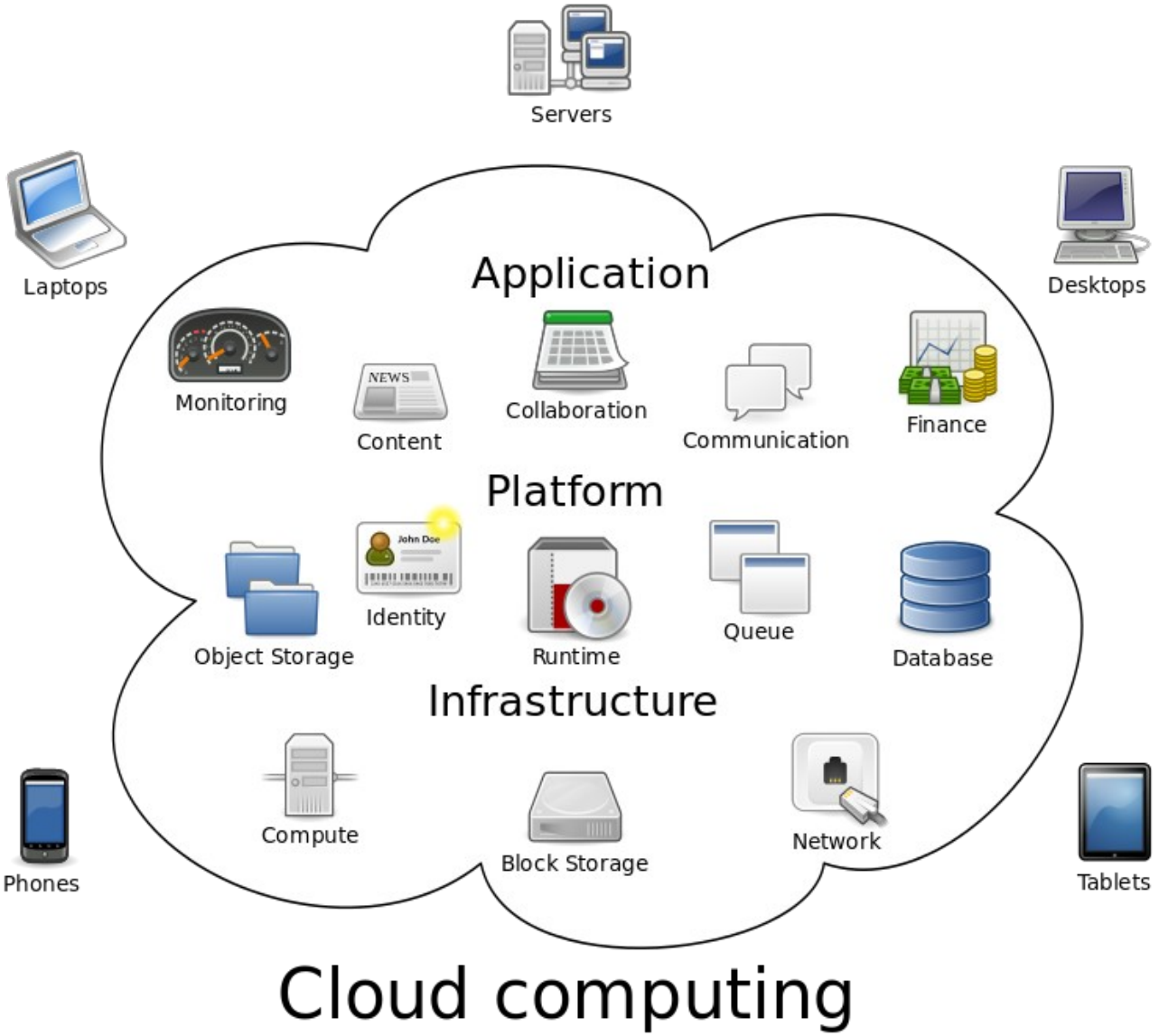


Własna chmura
Wprowadzenie do Openstack

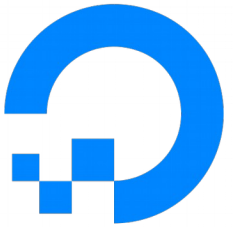
Bartosz Krakowiak
Koło Naukowe ŻUBR

Przetwarzanie w chmurze



Chmury publiczne

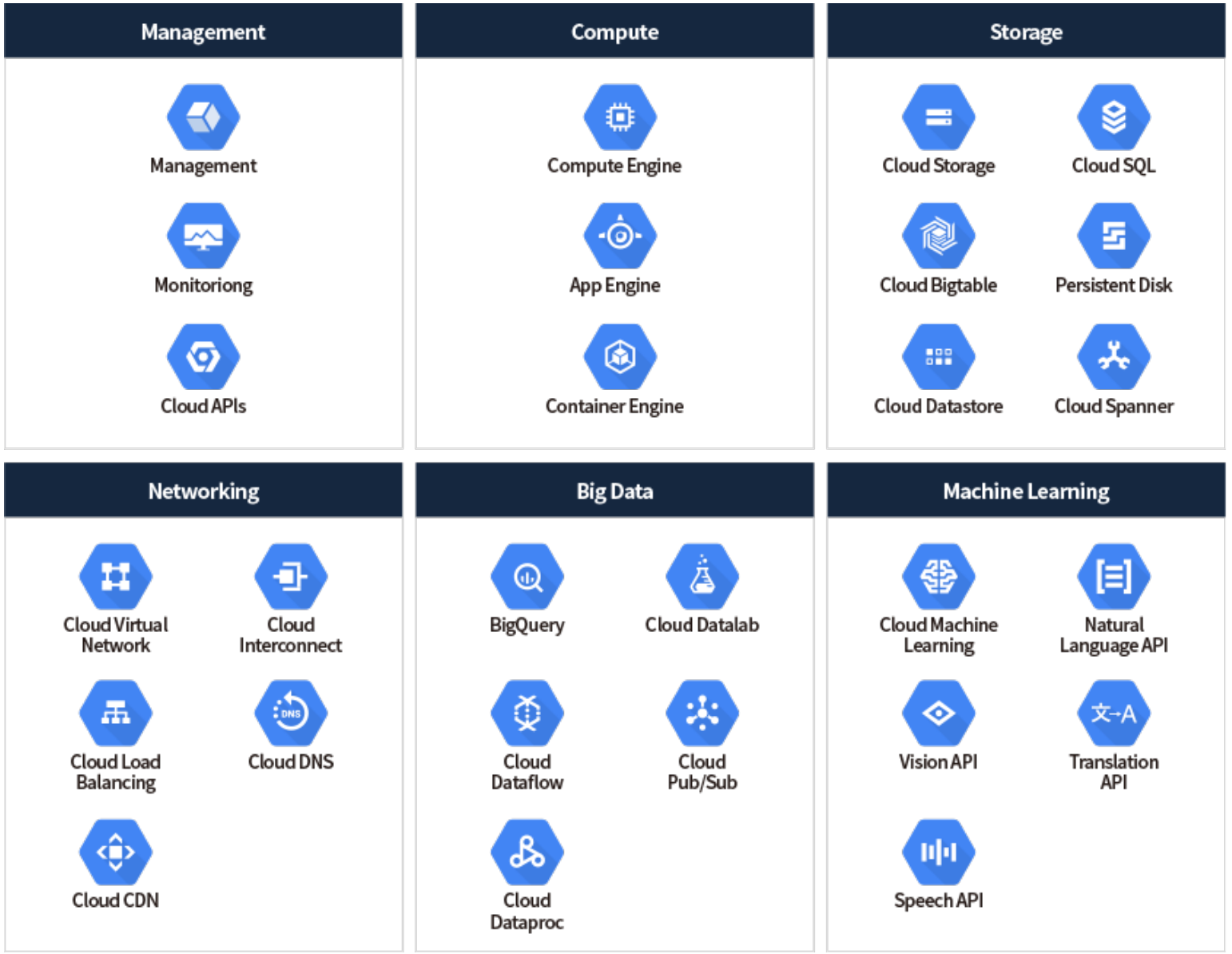
Google Cloud Platform



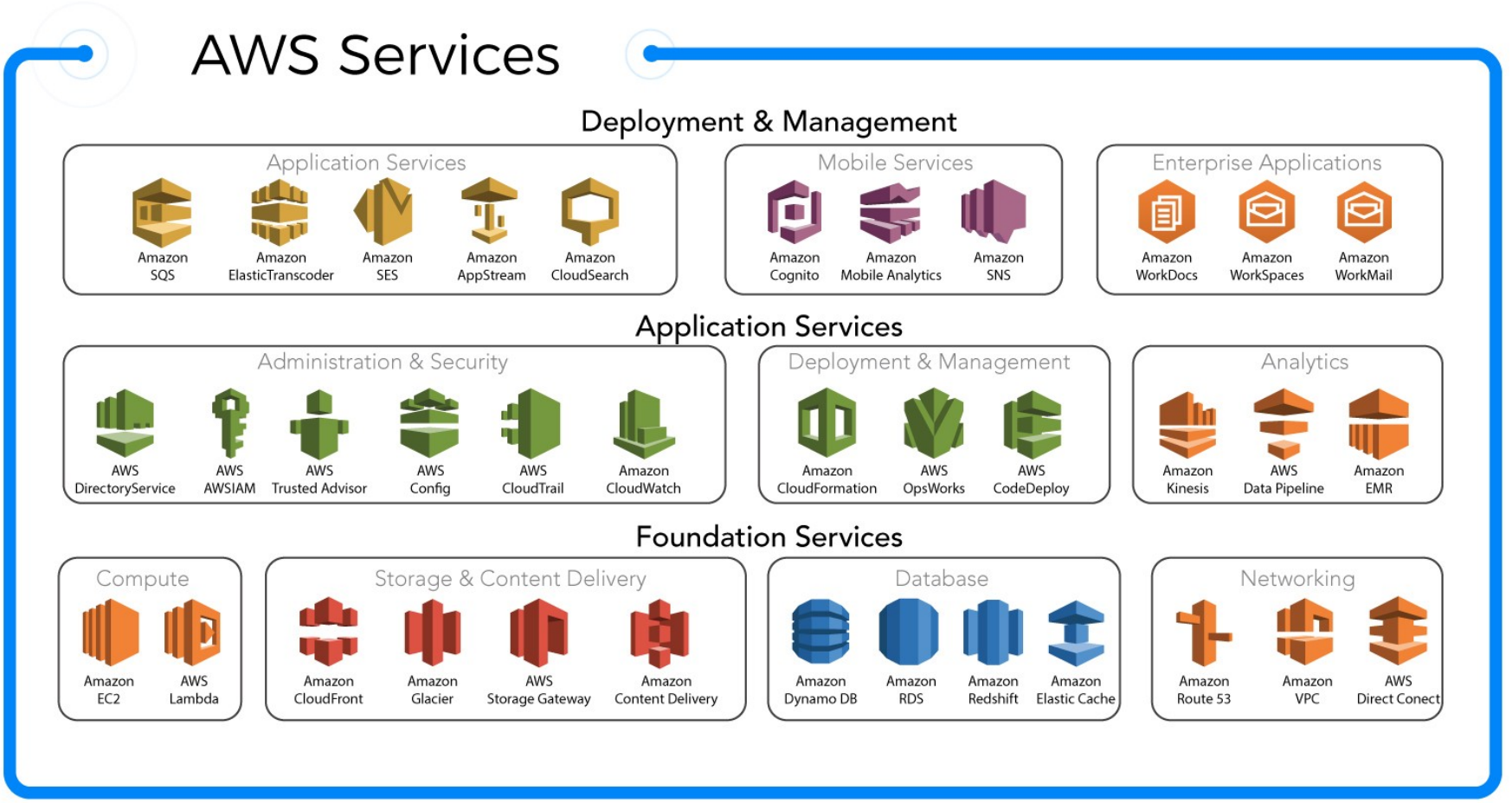
DigitalOcean

I jeszcze dużo innych…

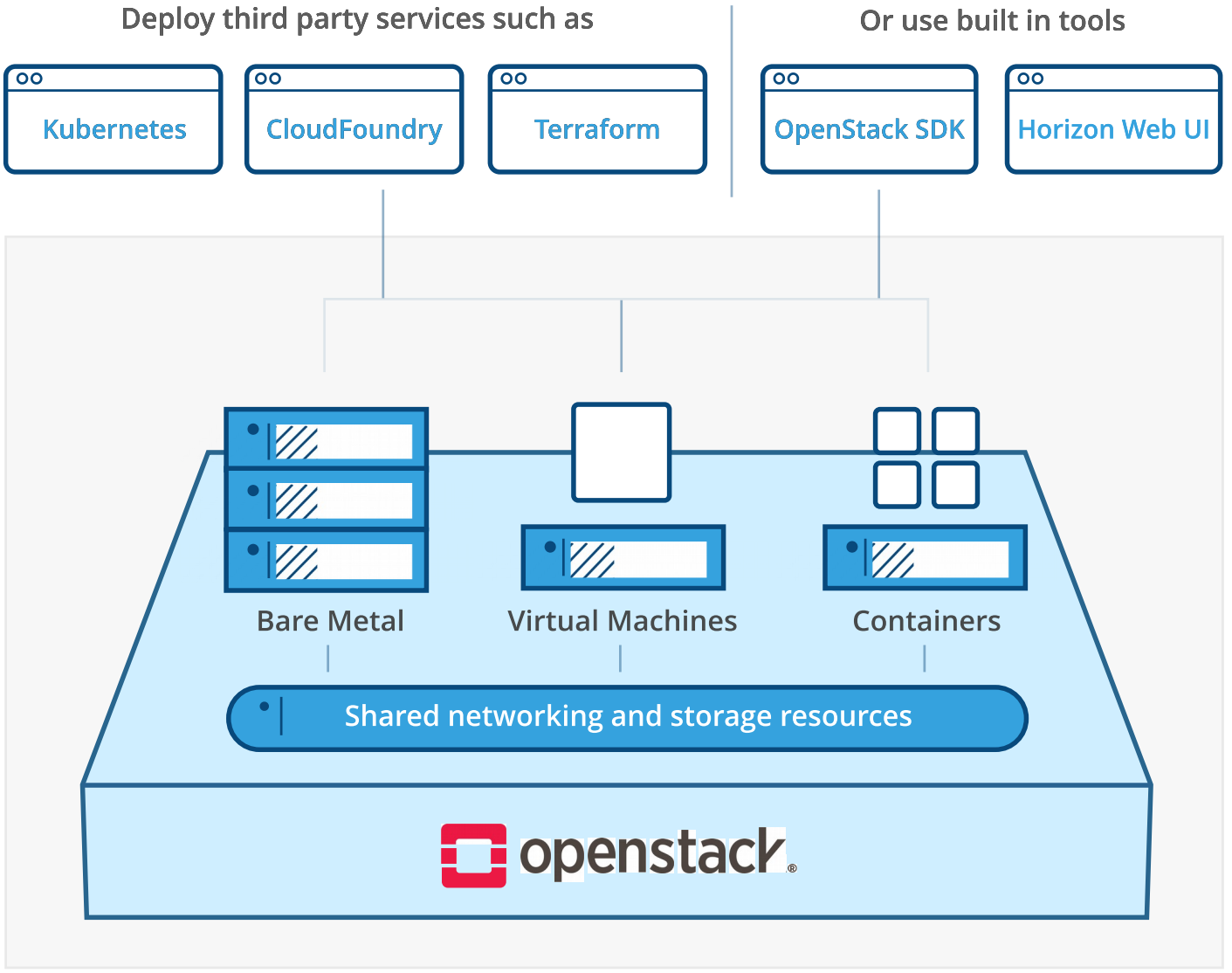
Funkcjonalności [1]



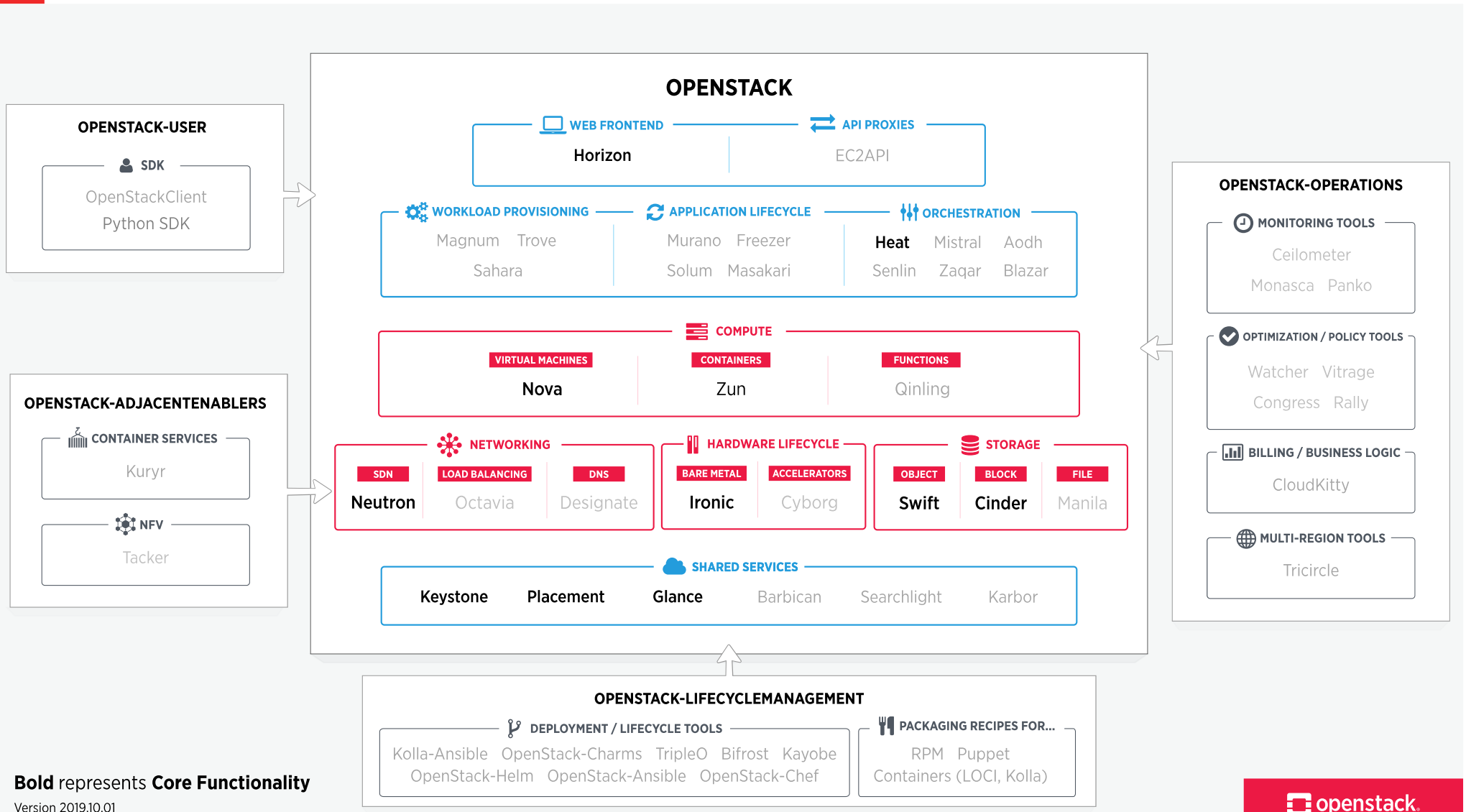
Funkcjonalności [2]



OpenStack


Deploy third party services such as
Or use built in tools
Kubernetes
CloudFoundry
Terraform
OpenStack SDK
Horizon Web UI
Bare Metal
Virtual Machines
Containers
Shared networking and storage resources
openstack

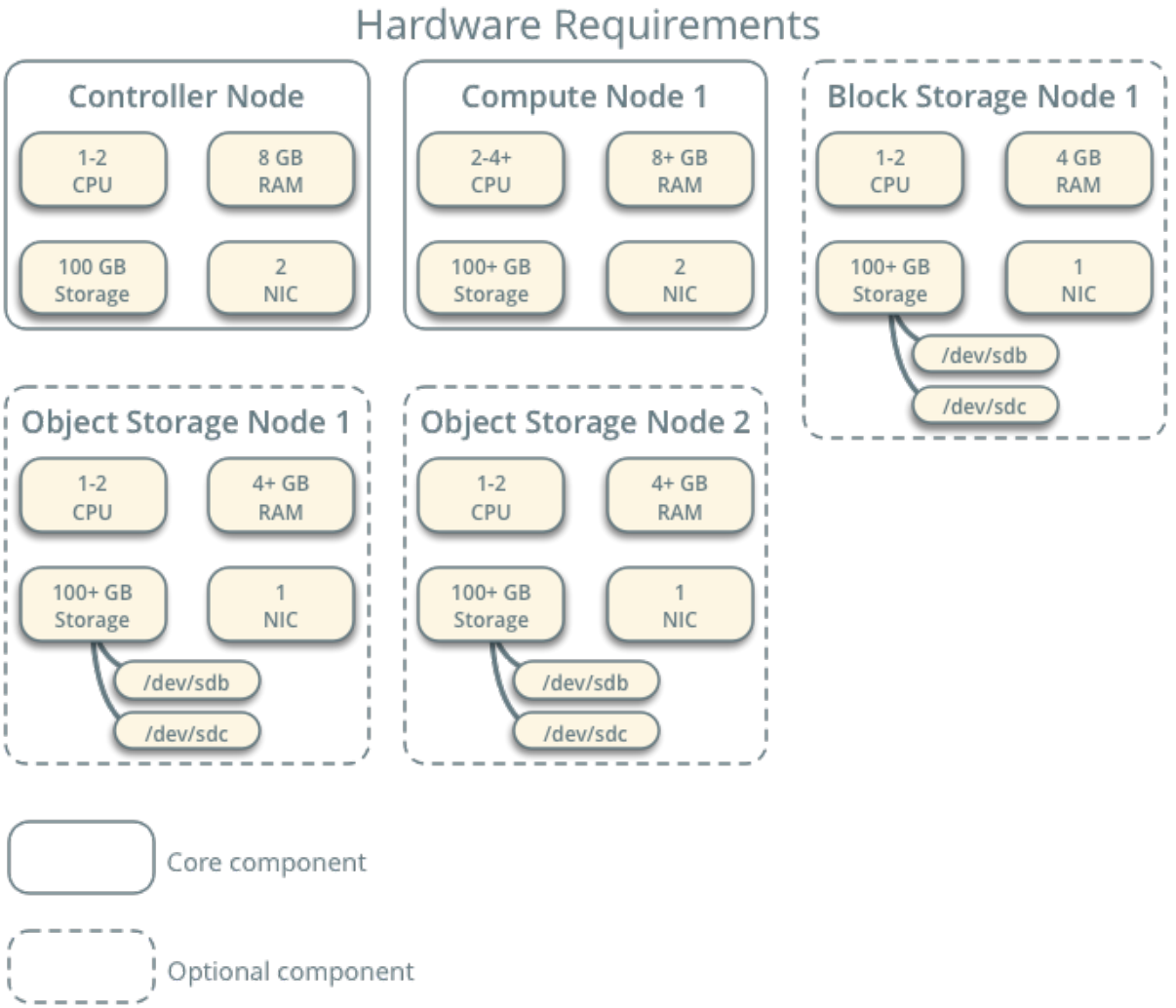
Openstack – mapa projektów



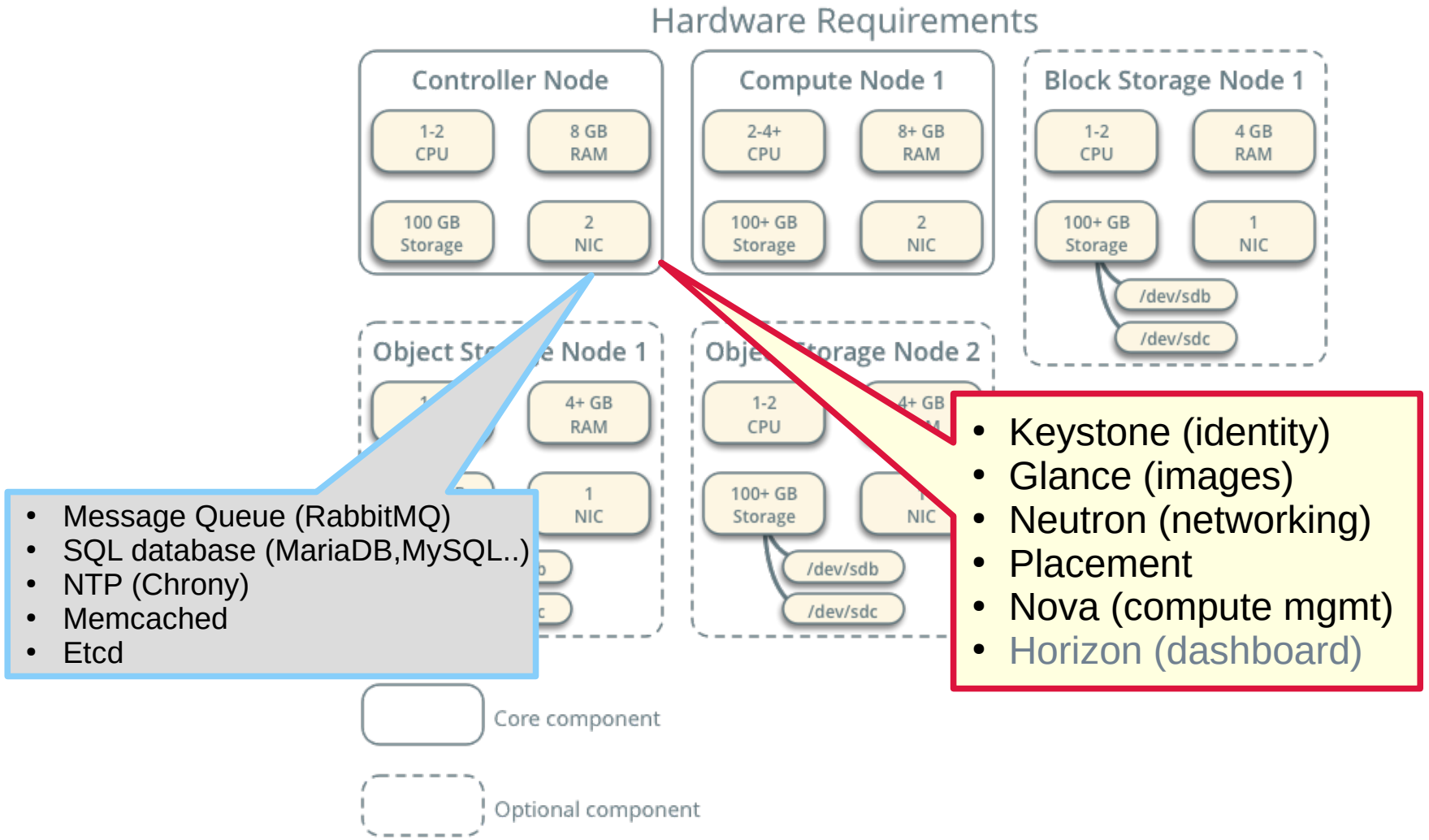
Bold represents **Core Functionality**

Version 2019.10.01

Minimalna konfiguracja [1]



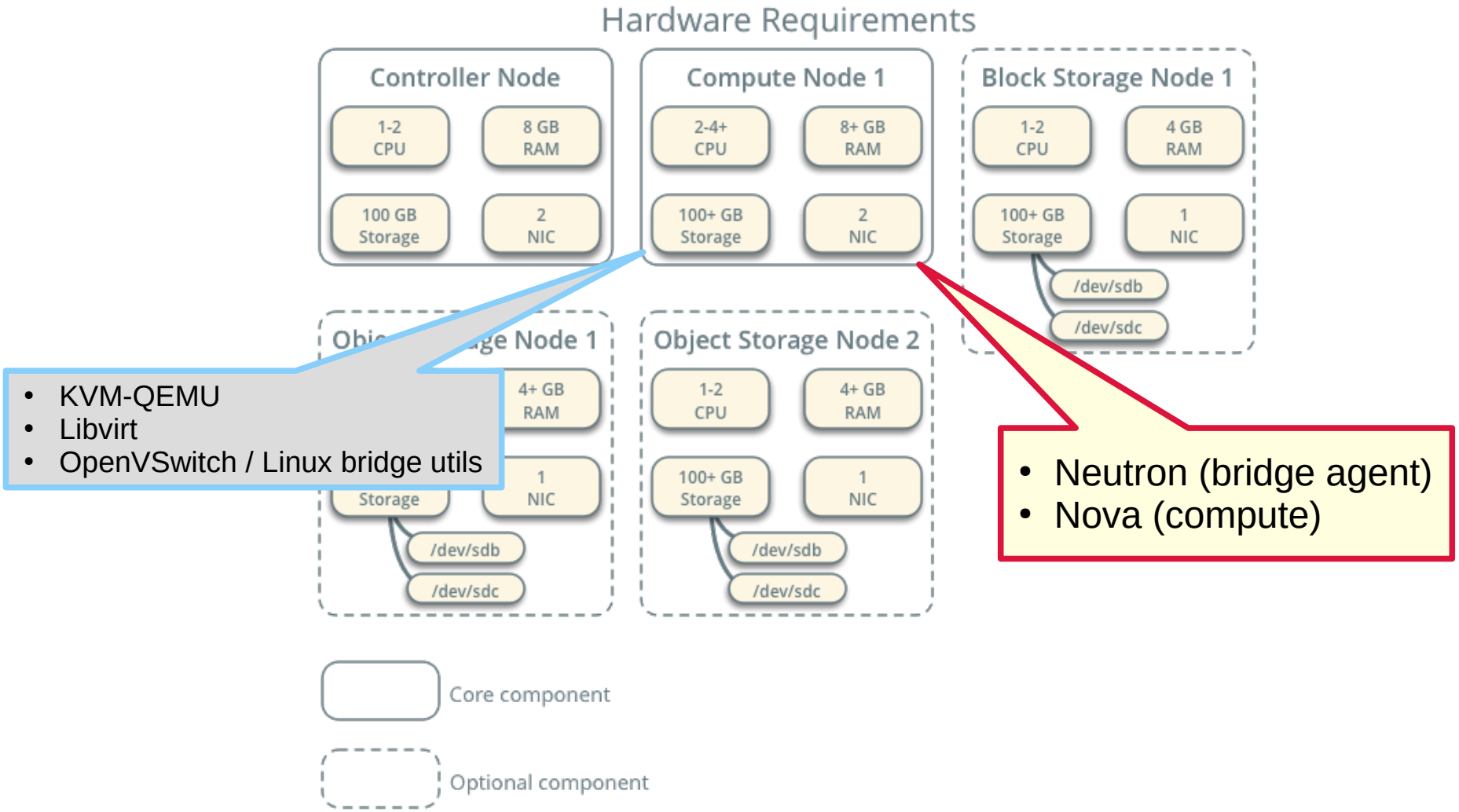
Minimalna konfiguracja [2]



- Message Queue (RabbitMQ)
- SQL database (MariaDB,MySQL..)
- NTP (Chrony)
- Memcached
- Etcd

- Keystone (identity)
- Glance (images)
- Neutron (networking)
- Placement
- Nova (compute mgmt)
- Horizon (dashboard)

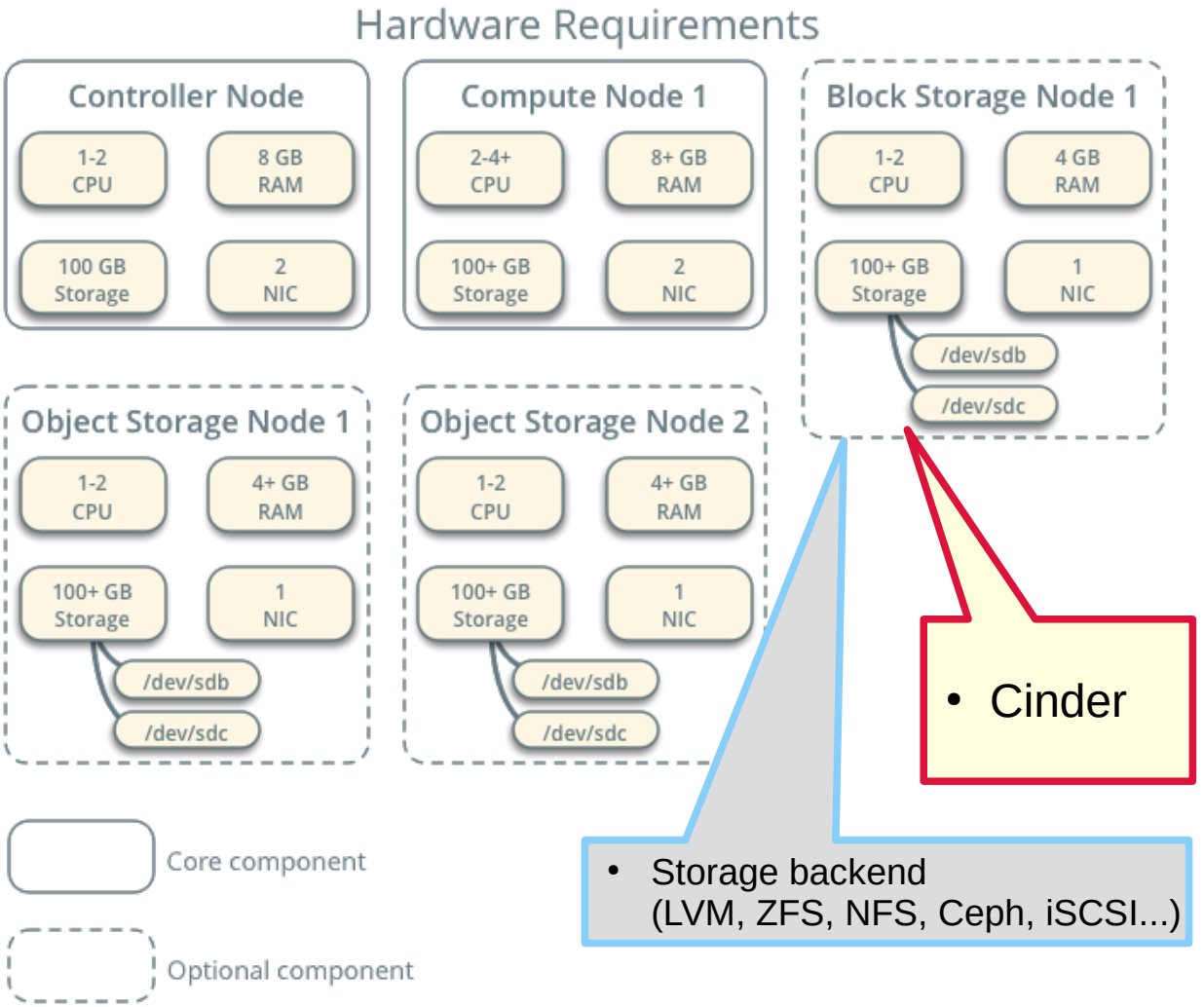
Minimalna konfiguracja [3]



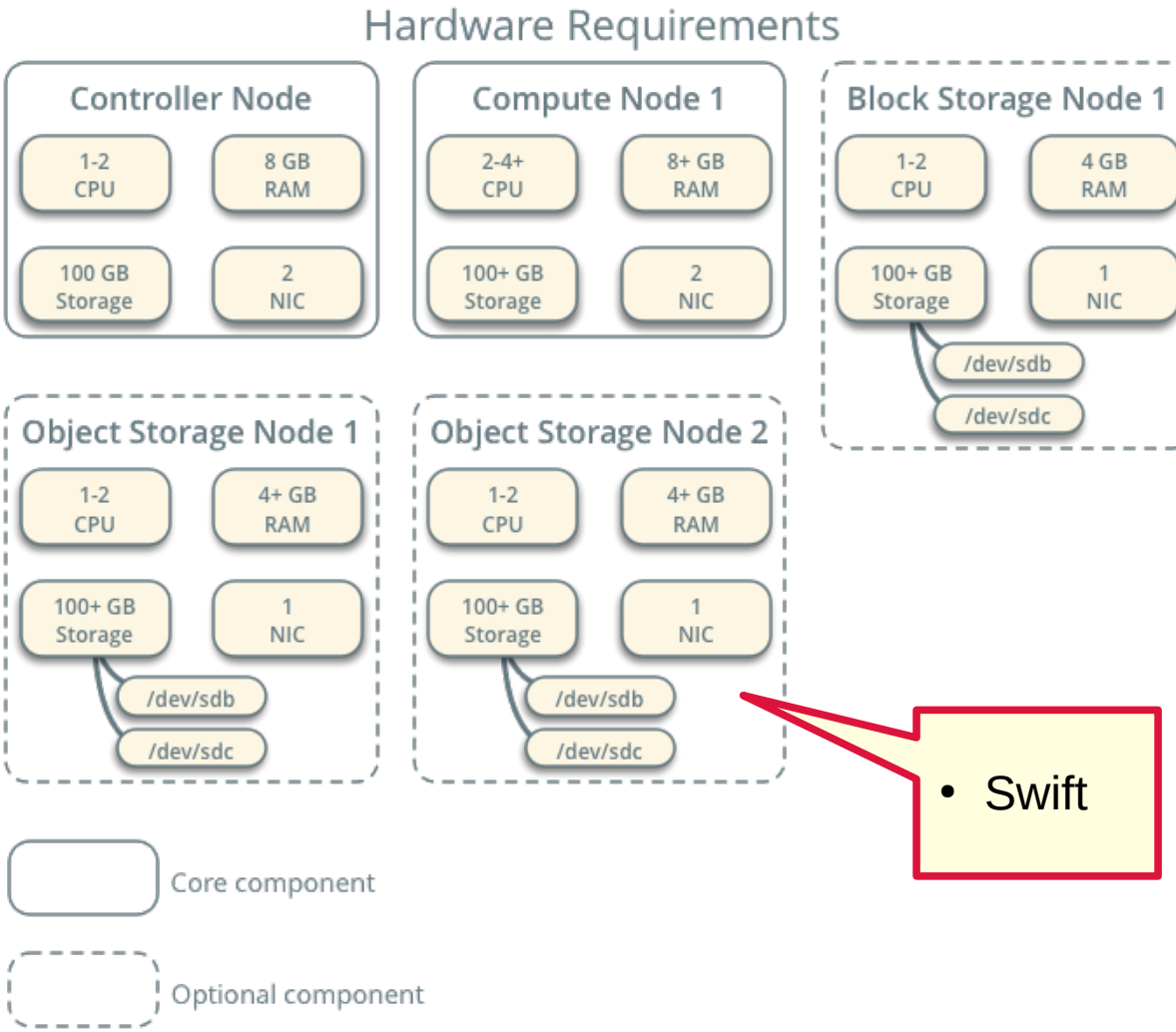
- KVM-QEMU
- Libvirt
- OpenVSwitch / Linux bridge utils

- Neutron (bridge agent)
- Nova (compute)

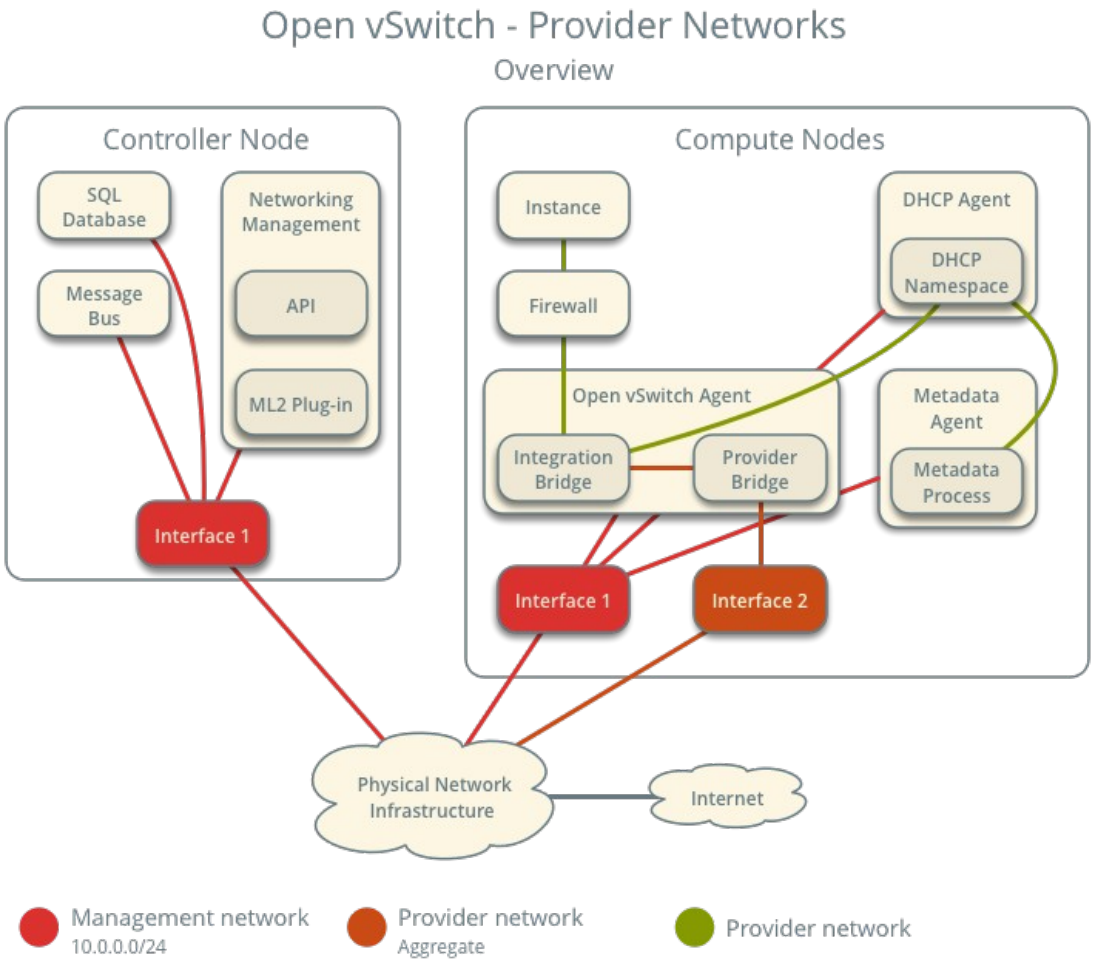
Minimalna konfiguracja [4]

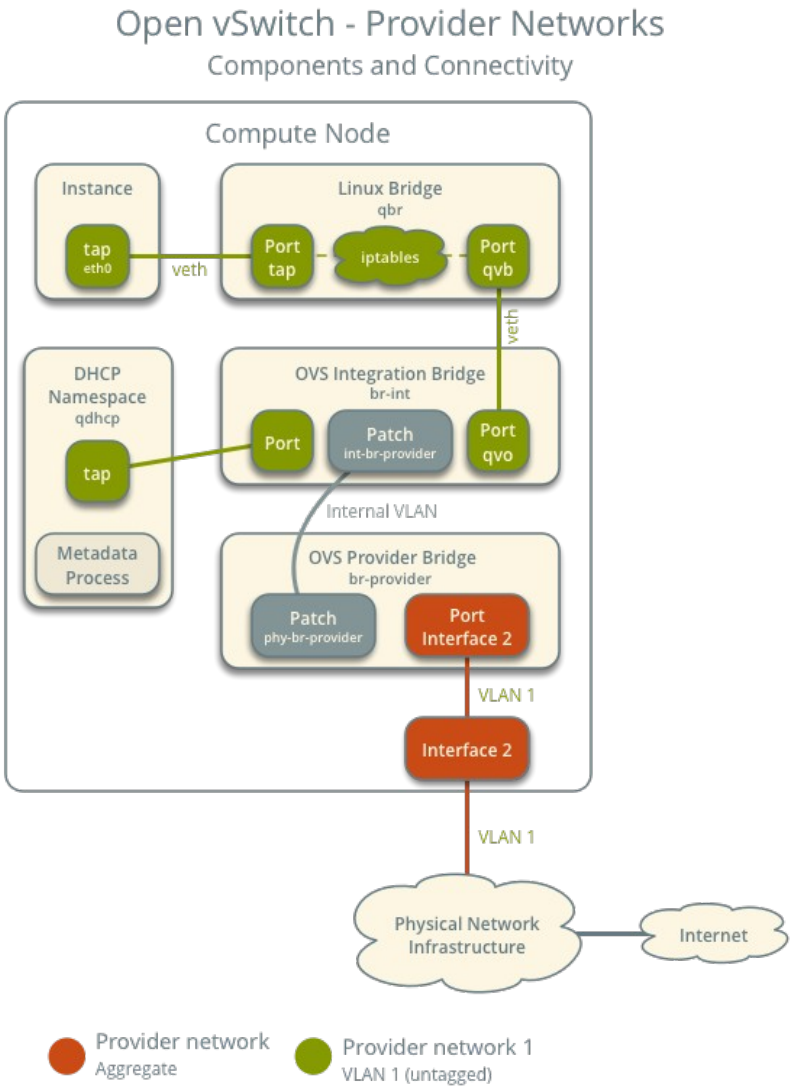


Minimalna konfiguracja [5]



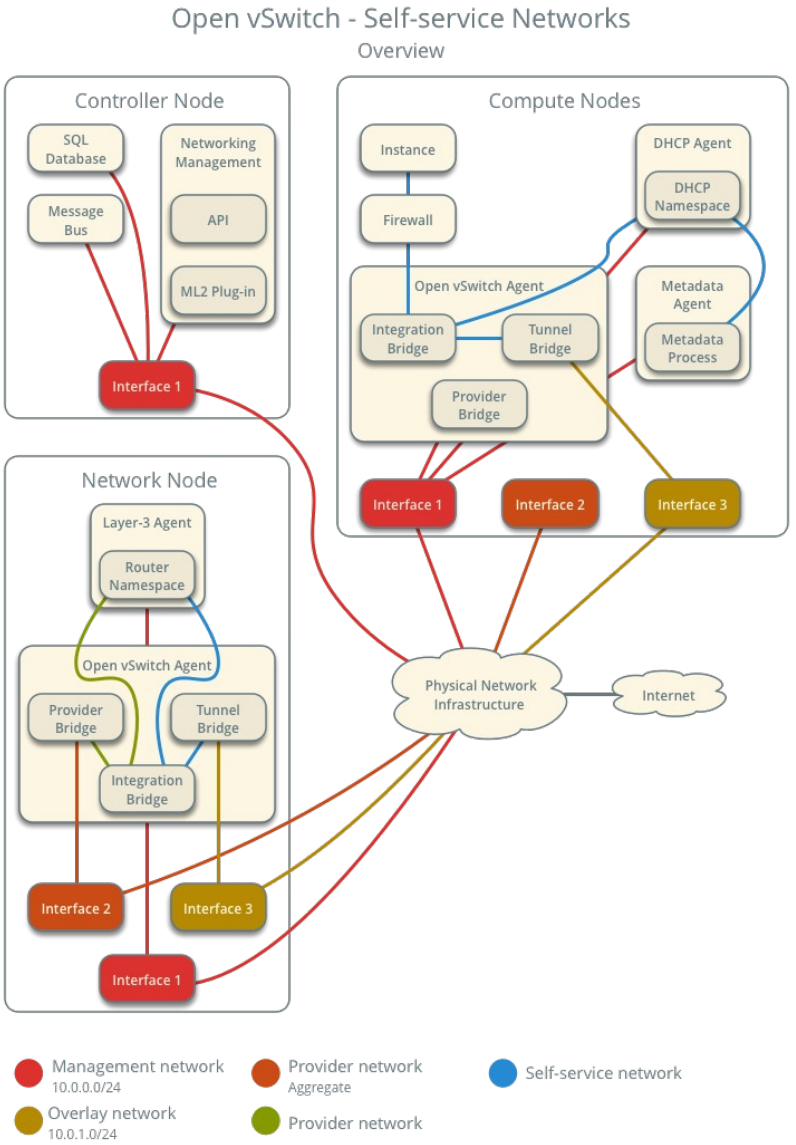
Sieci w OpenStack – provider networks

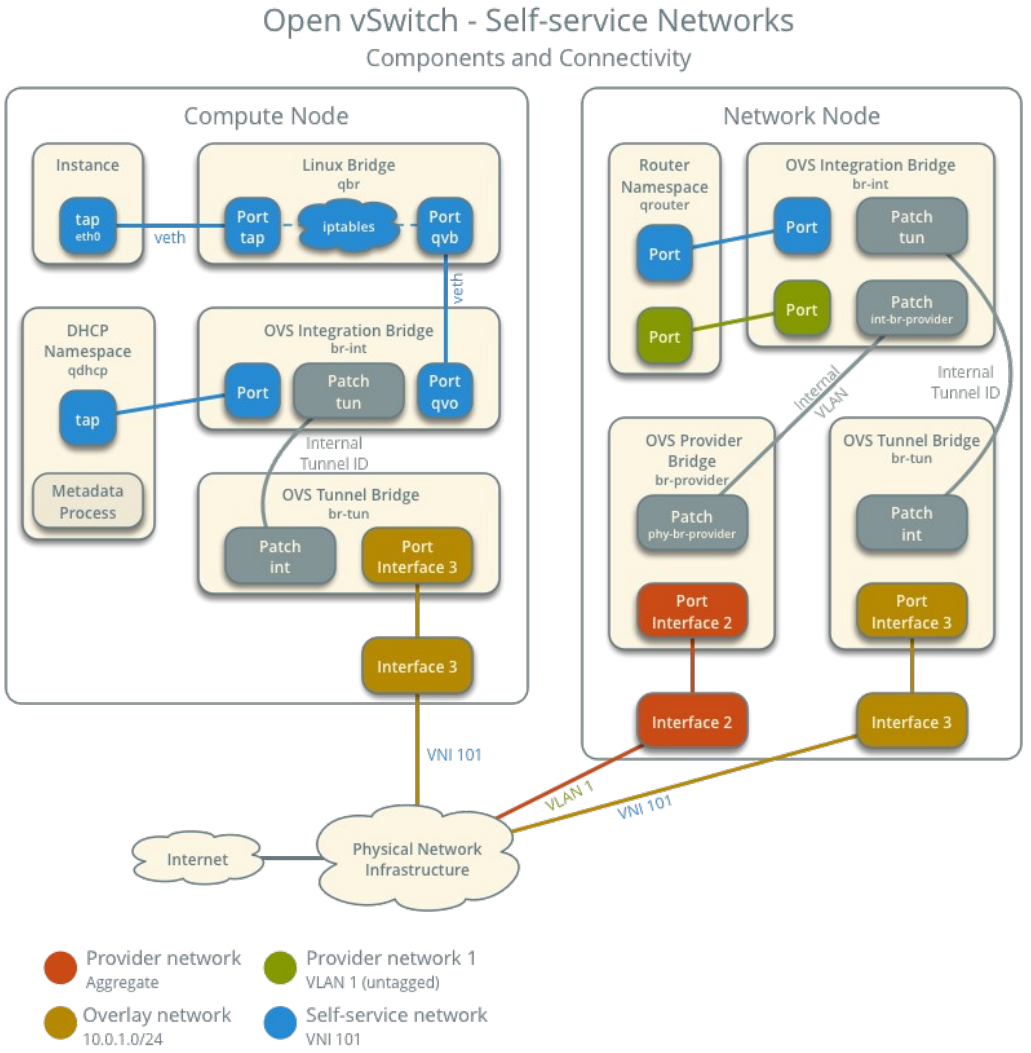




https://docs.openstack.org/newton/networking-guide/deploy-ovs-provider.html

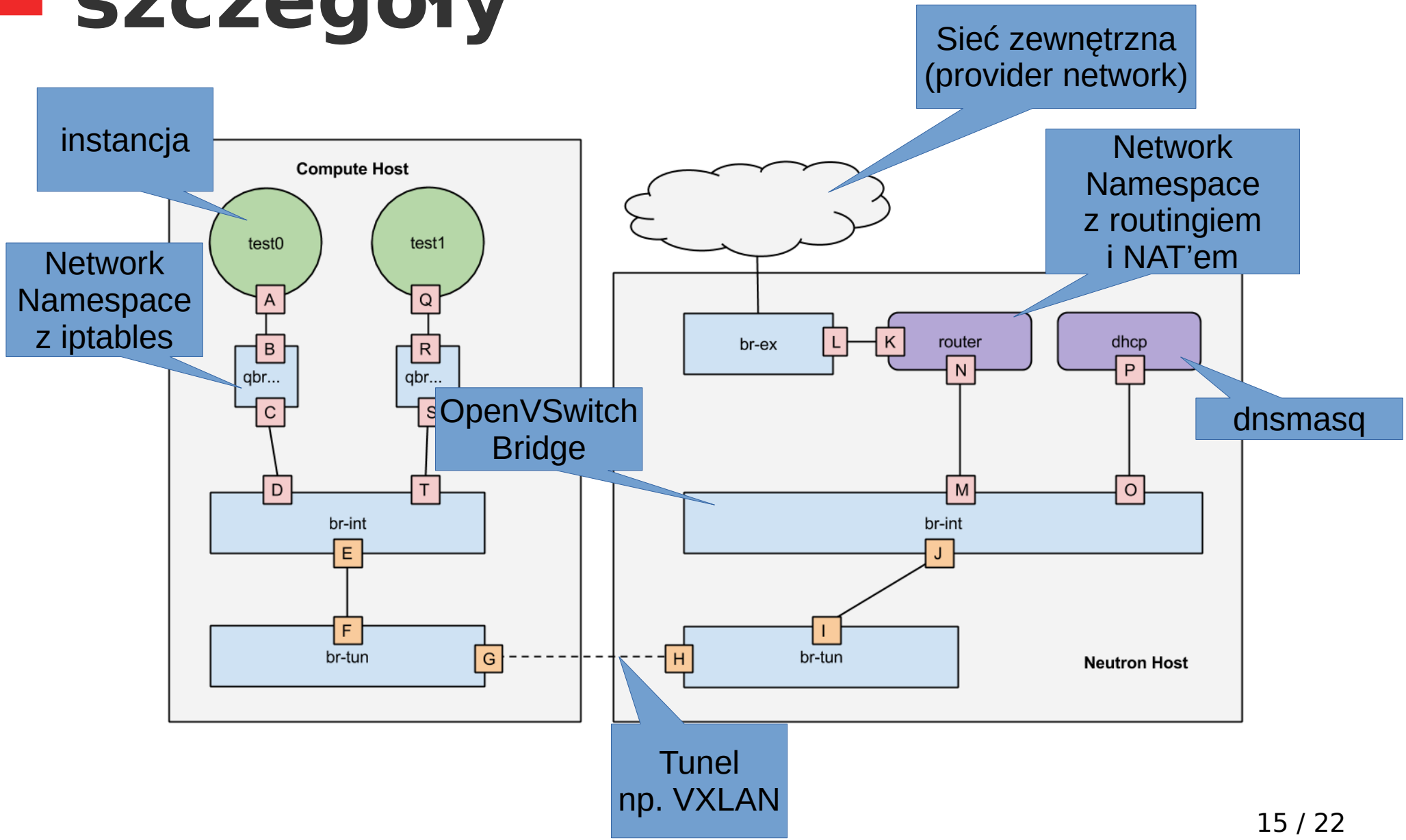
Sieci w OpenStack – self-service networks





Źródło: https://docs.openstack.org/newton/networking-guide/deploy-ovs-selfservice.html

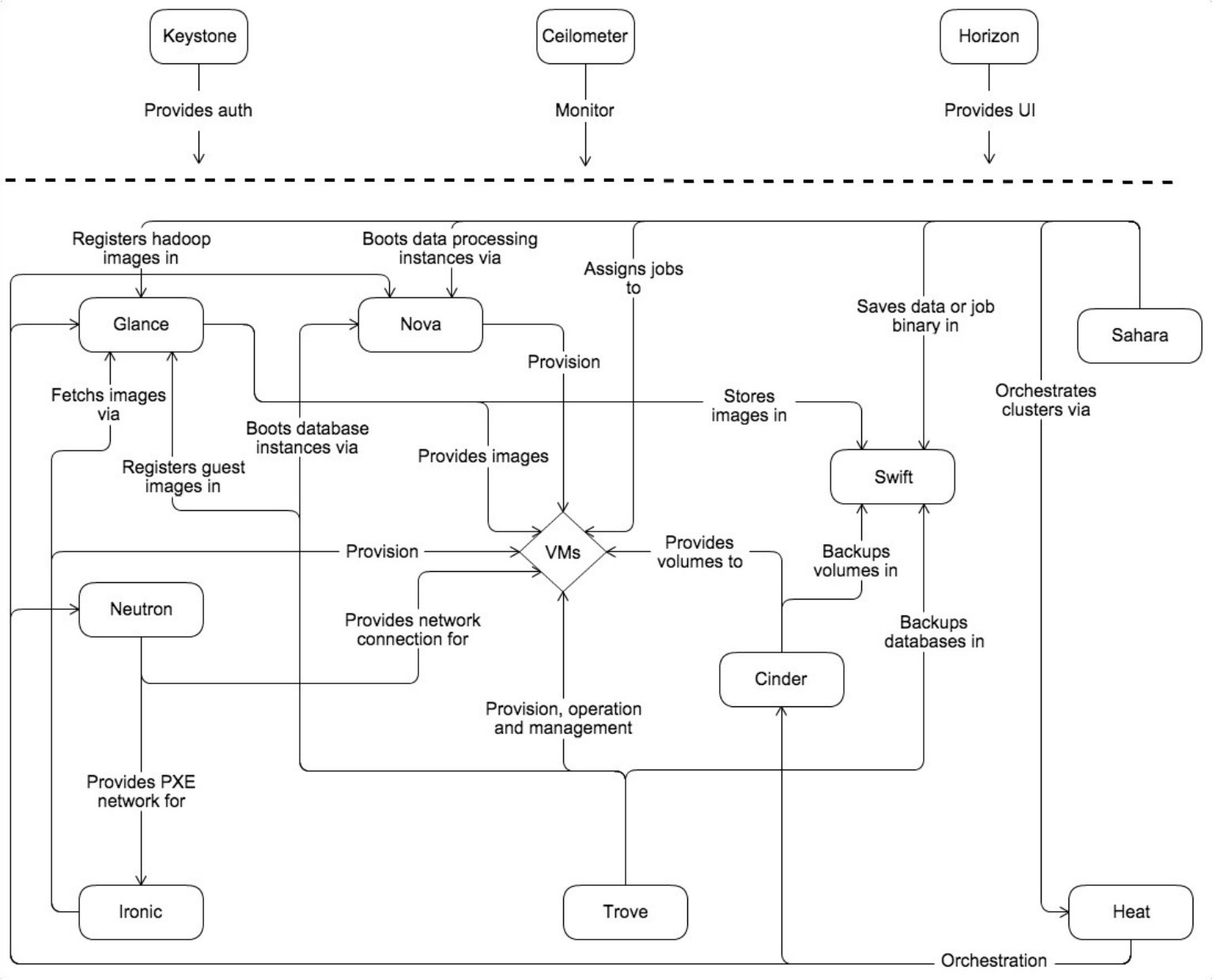
Sieci w OpenStack - szczegóły



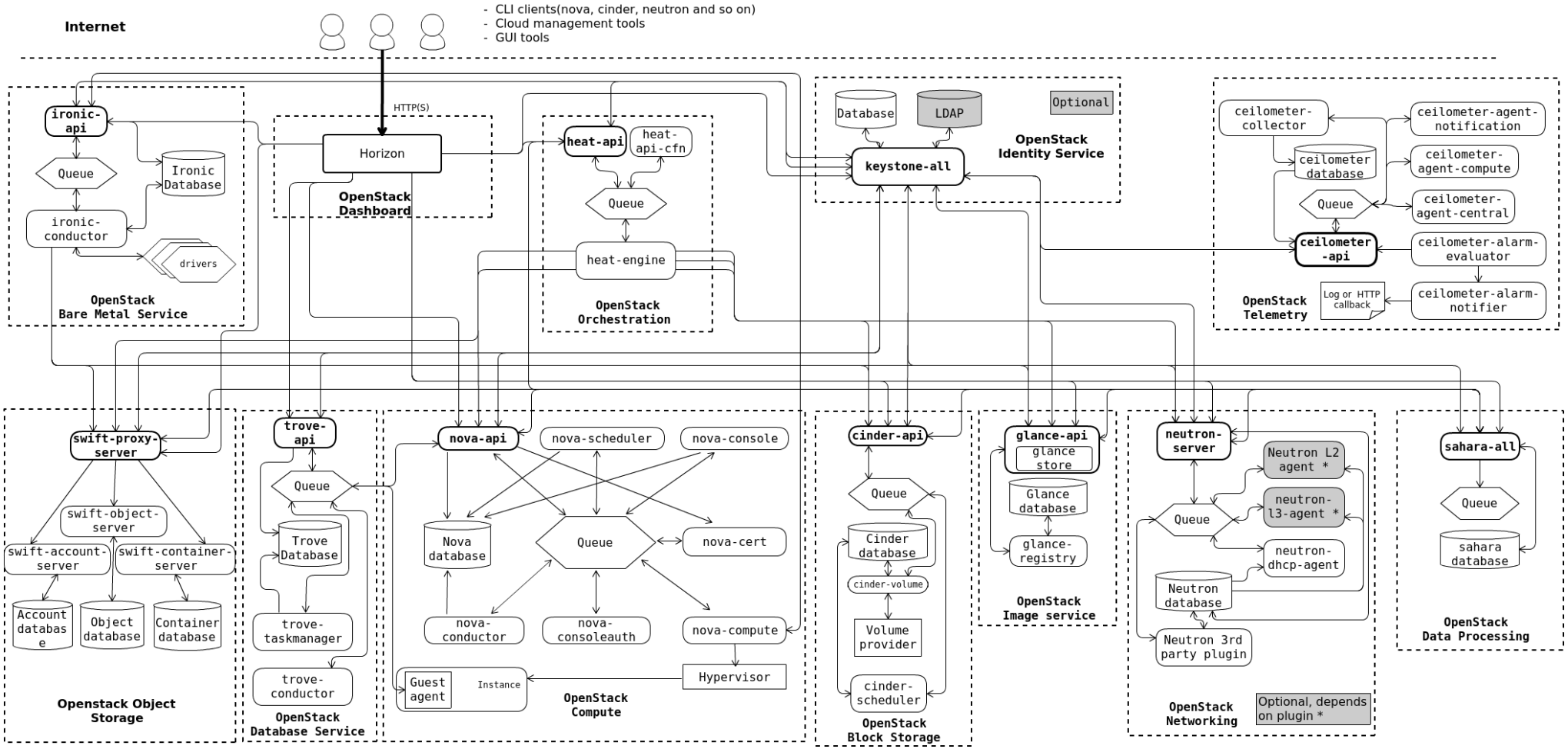
Źródło: https://www.rdoproject.org/networking/networking-in-too-much-detail/

Sieci w OpenStack - szczegóły

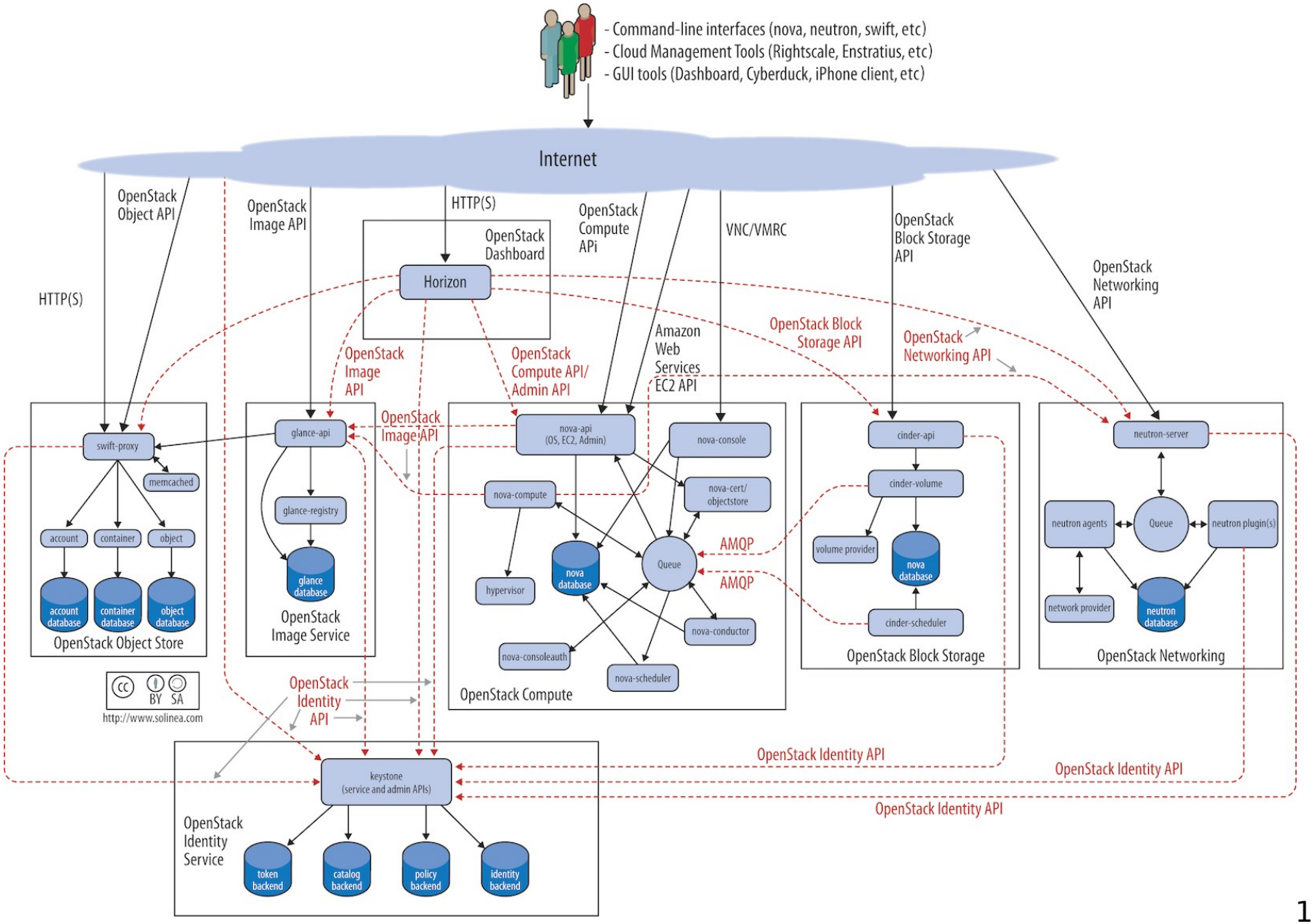
Openstack architektura [1]



OpenStack architektura [2]



OpenStack architektura [3]



Zajęcia praktyczne - devstack

Wdrożenie Openstacka

- OpenStack-Ansible

  https://docs.openstack.org/project-deploy-guide/openstack-ansible/stein/

- Kolla–Ansible – OpenStack w kontenerach

  https://docs.openstack.org/project-deploy-guide/kolla-ansible/stein/

- OpenStack TripleO – do większych chmur

  https://docs.openstack.org/project-deploy-guide/tripleo-docs/latest/

- OpenStack z Juju Charms

  https://docs.openstack.org/project-deploy-guide/charm-deployment-guide/stein/

Dziękuję za uwagę