

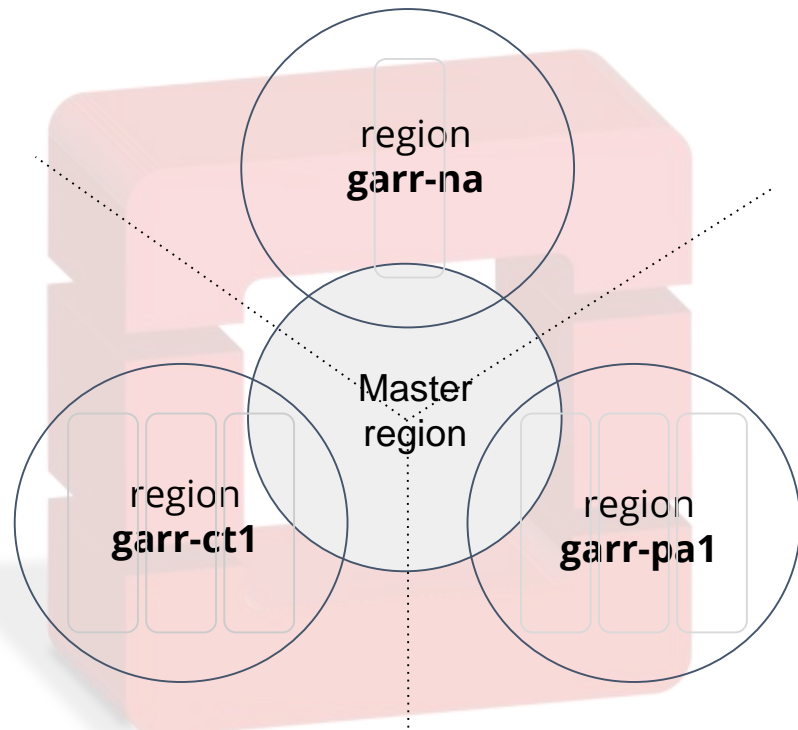
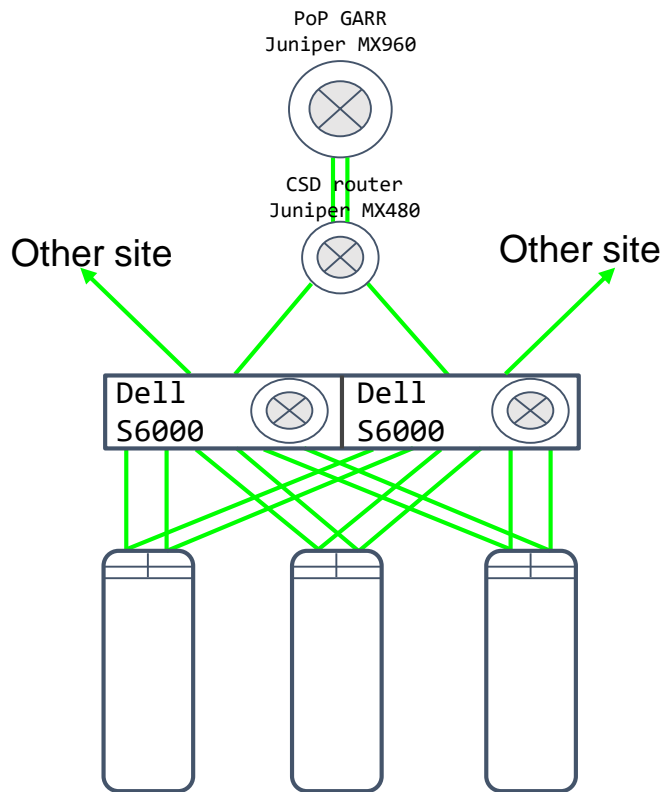
GARR Cloud backup & recovery

ALBERTO COLLA / GARR

Roma, November 21, 2019

EaPConnect/GARR Workshop

Hardware & Architecture



Global services

keystone

keystone

keystone



DB



glance

glance

glance

Ceph proxy

Ceph proxy

Ceph proxy



Object storage

Servizi locali

Servizi locali

Global services

DNS

HA proxy

keystone



glance

Ceph proxy

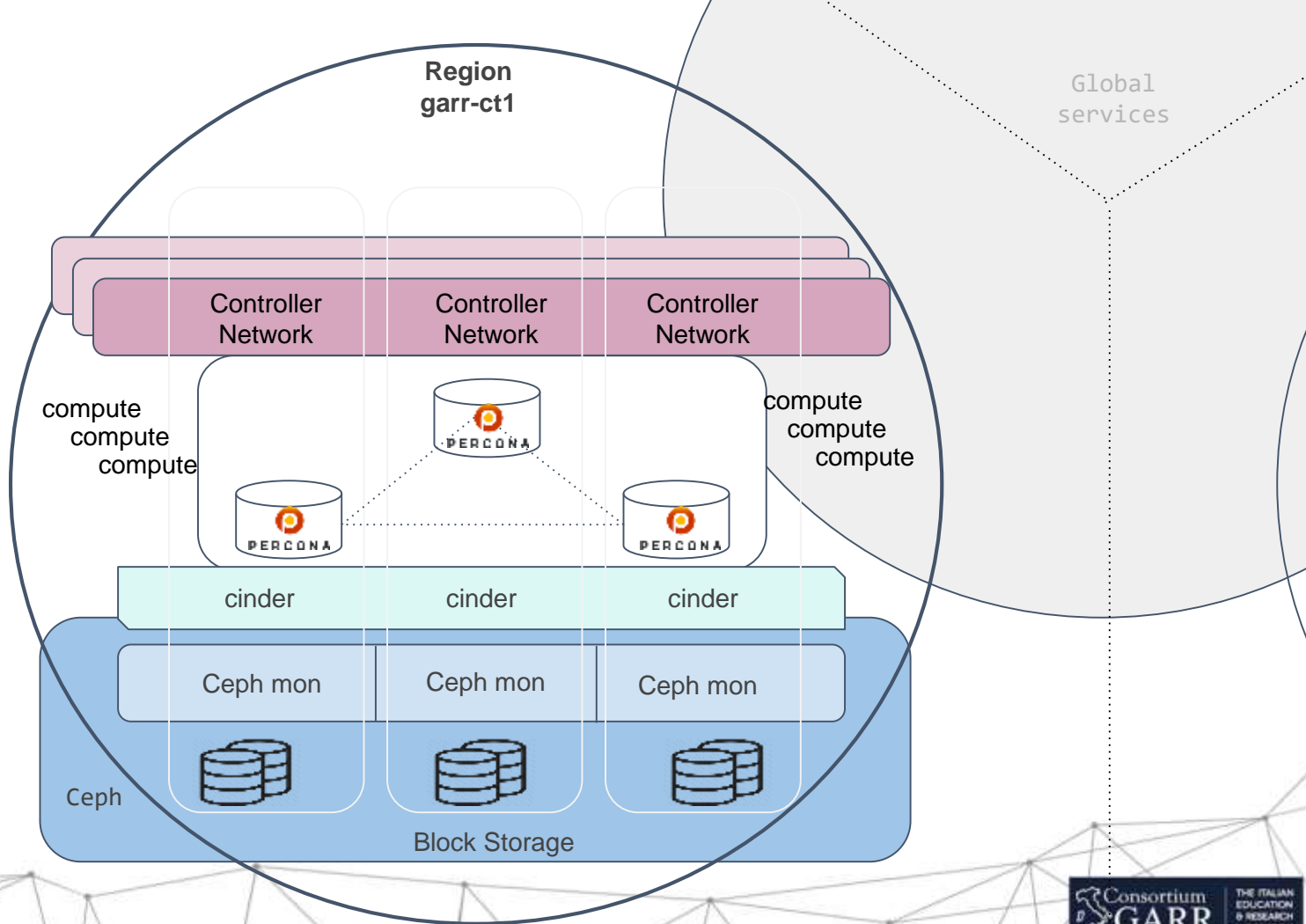


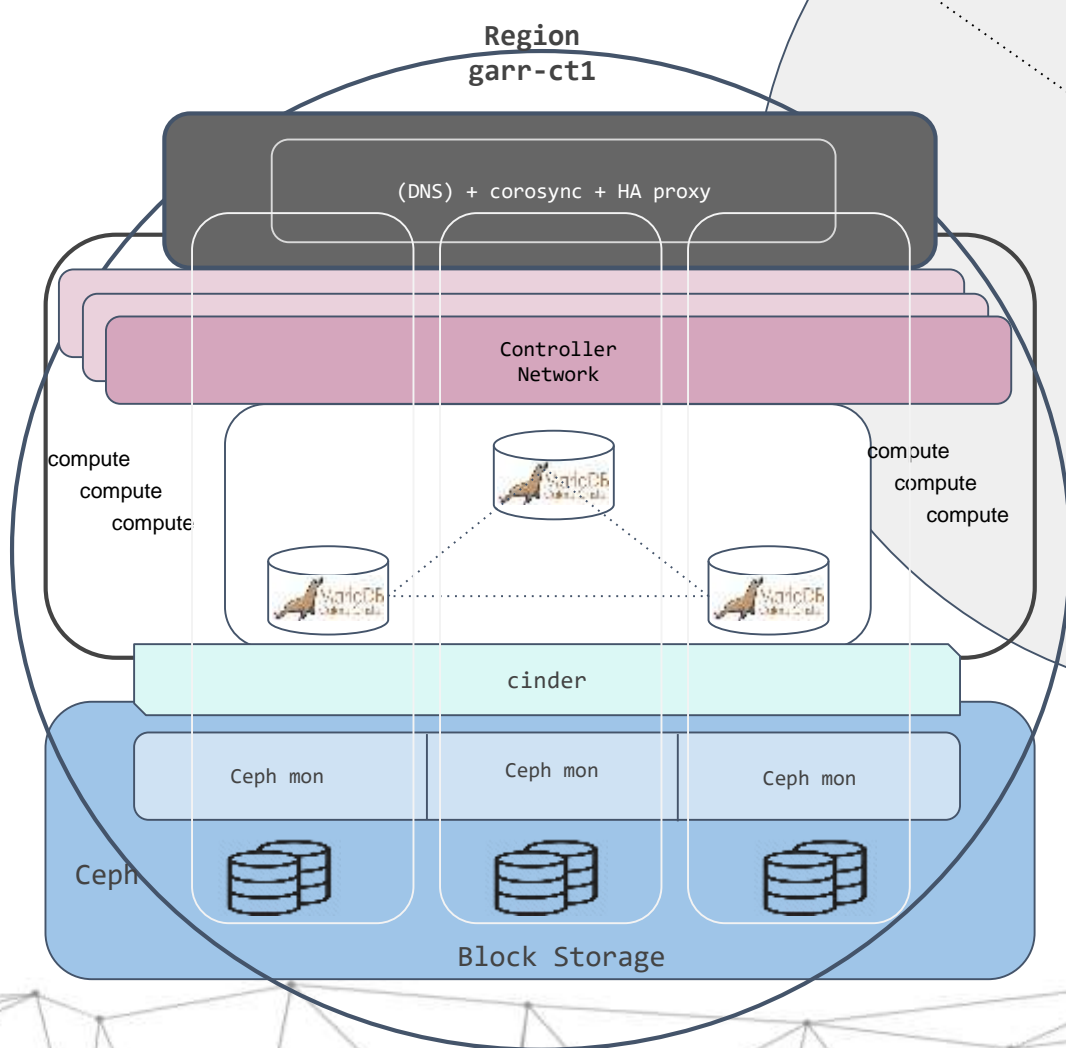
Object storage



Region
garr-ct1

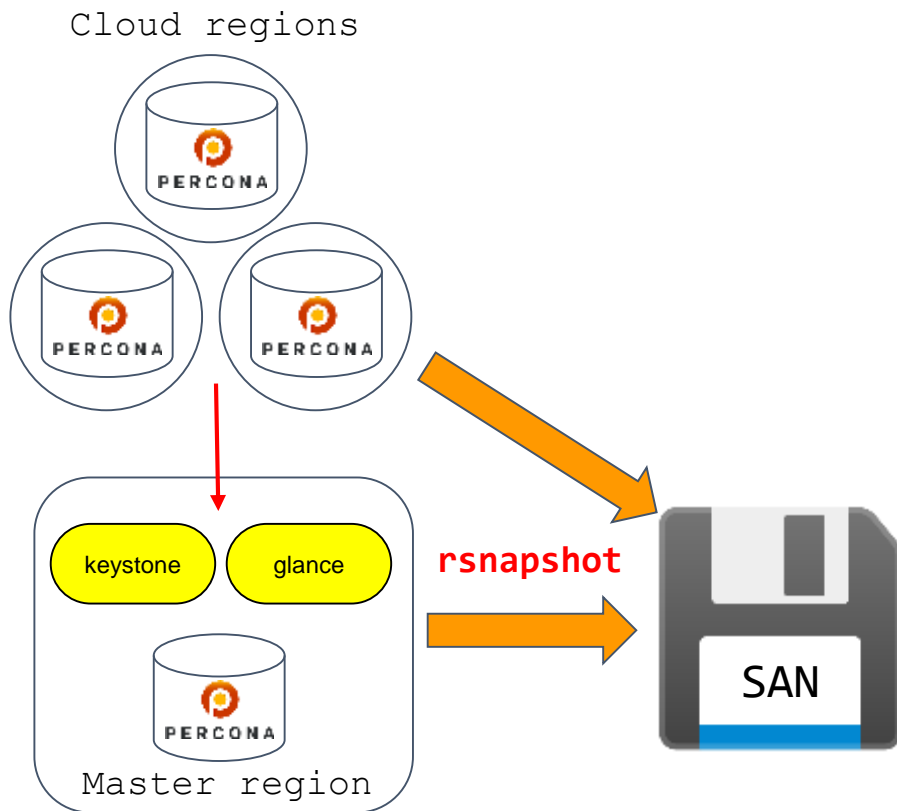
Region
garr-pa1



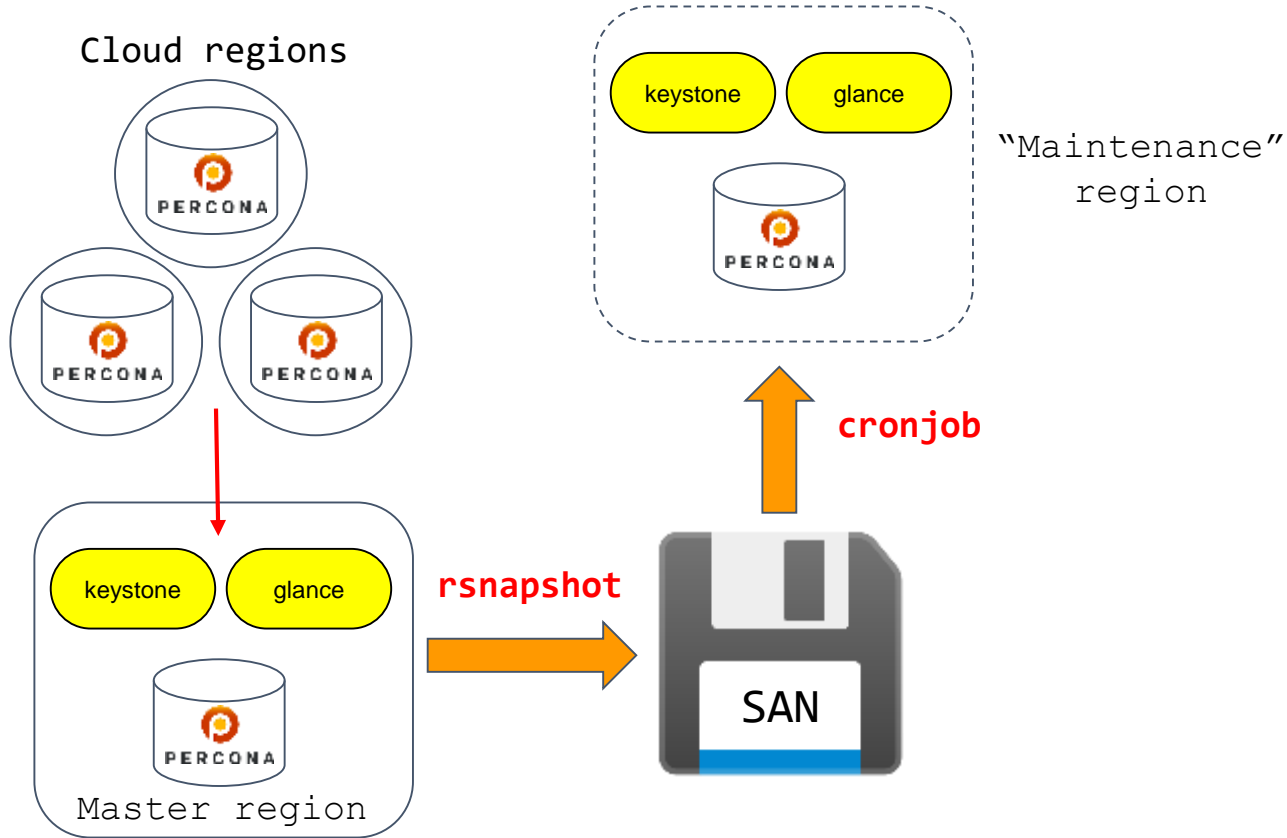


Servizi globali

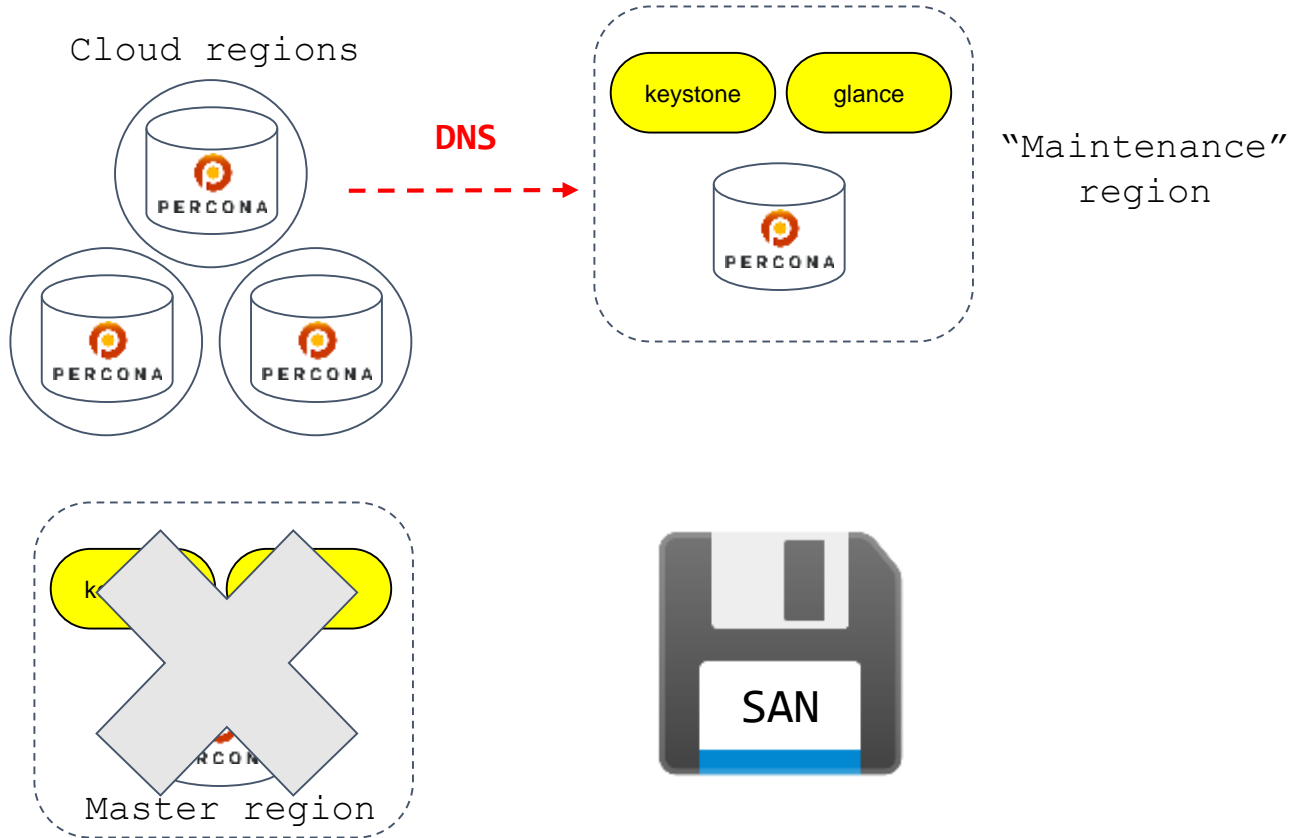
Database dump



Maintenance region

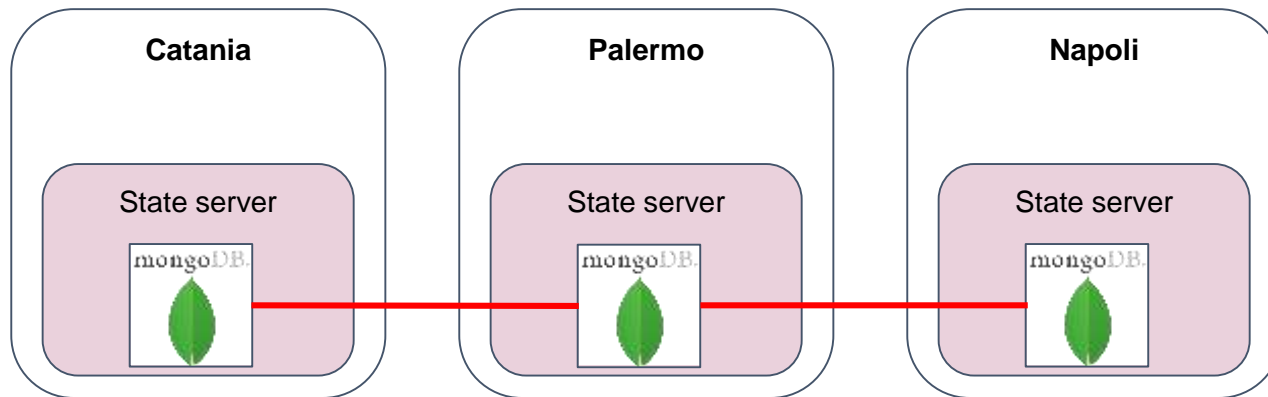


Maintenance region



Juju

- Juju controller natively supports HA configuration
 - `juju enable-ha -n 3`
 - 3 state servers (VMs) distributed on 3 sites
- `juju create-backup` dumps mongodb on juju client
 - daily cronjobs
- `juju restore-backup` restores Juju controller from backup in case of disaster



Service containers

- LXD containers distributed on 2 blade servers on each site
 - MAAS (region & rack controllers), "Signup" DB, Ticketing system, etc.
 - Daily cronjobs backup containers and copy to the other server and to a remote site
- MAAS region ctrl in (geo) HA

