FOSS IN TELCOS

Is it something new for the TELCOS ?

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WARNING: All Software presented on this presentation is Free Open Source Software (FOSS)

Why Free Open Source?

- The promise of FOSS is better quality, higher reliability, more flexibility, lower cost and the opportunity to drive open standards.

- Faster, lower cost and higher quality development through sharing of resources via collaboration.

- Community decisions about new features and roadmaps.

- A common environment for uses and App developers.

- Ability to focus resources on differentiating development.

  – *Bottom Line: The open source model significantly accelerates consensus, delivering high performing, peer-reviewed code that forms a basis for an ecosystem of solutions.*

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Does it something new ?

- The Internet is based on FOSS, as standards base, as well technologies ;-) from the beginning...
- All telcos using FOSS projects in some parts of their infrastructure.

What is new ?

- "Show the code. Not the the Standard. We have to be agile"
    - The telcos industry change rate is increasing
    - The talks "Open Standards vs Open Source" have started to be around, but seems the answer is: we have to use both of them in a right time/way... see the SDN&NFV Summit presentation from Orange: Open Source & Standardization – moving away from competition in Paris, March 2015

- The number of FOSS business-driven projects appeared:
    - OpenStack / CloudStack
    - OpenDayLight(ODL) / ONOS
    - OPNFV
    - and many others …

- This projects already proven, they have changed the rules in the DC/Content delivery business, now time for the TELCOS industry?

Some real case examples: Network Interoperability LAB.

- Each telecom operator has needs to test different services/scenarios before using them in the network or physical LAB.

- Using the NFV images from the vendors and "networking overlay" feature from OpenStack it is possible to make the testing environment based on as much server resources as needed, without a lot of configuration and connecting real devices.

- Using the "tenants" feature of the OpenStack one can isolate the workload from one person from another.

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Network Interoperability LAB overview
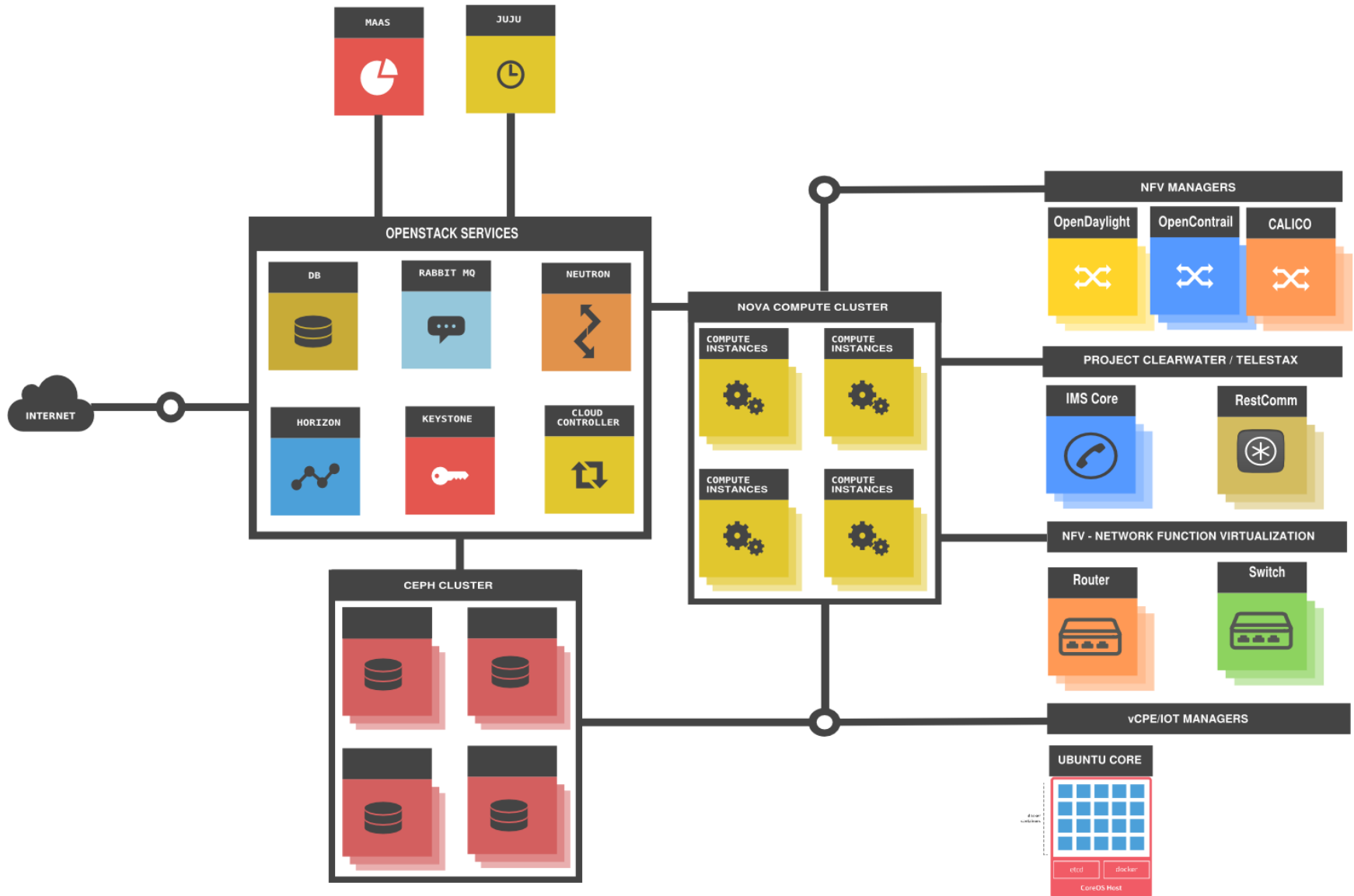
Main components

- Ubuntu MAAS
- Ubuntu Juju
- Ceph storage
- OpenStack (horizon, nova-cloud-controller, nova-compute, cinder, glance, neutron)
- Metaswitch Project Calico, Juniper OpenContrail
- NFV images from the vendors
- Metaswitch Project Clearwater
- Telestax AS – Restcomm server for WebRTC/SIP/PSTN

MAAS: Metal As A Service
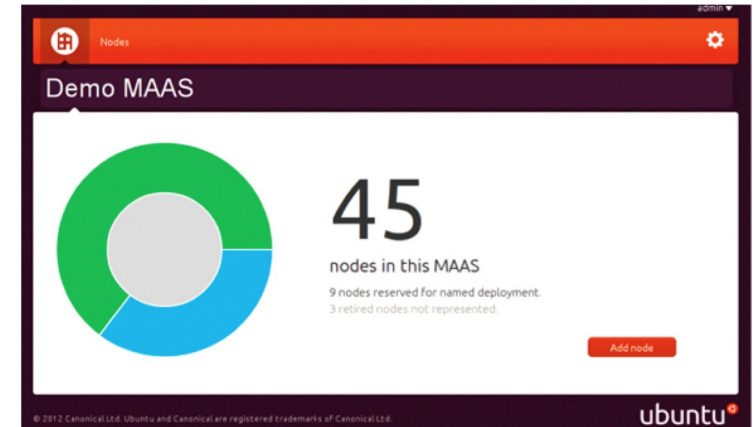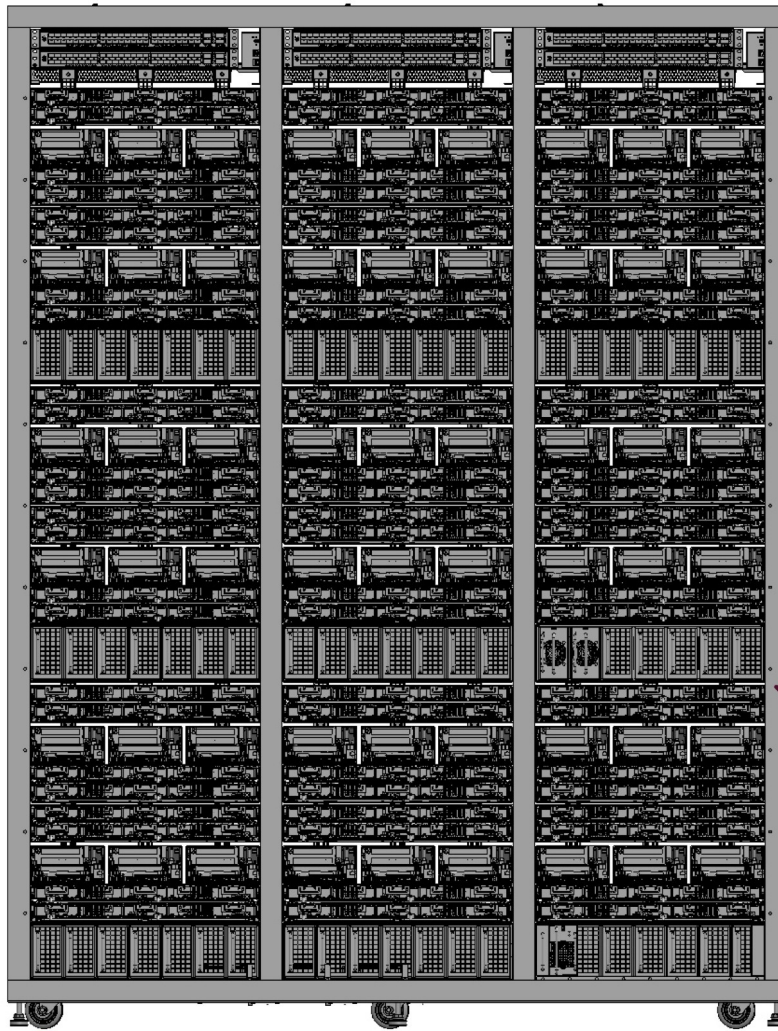
Bare-Metal Provisioning in Minutes

MAAS: Architecture

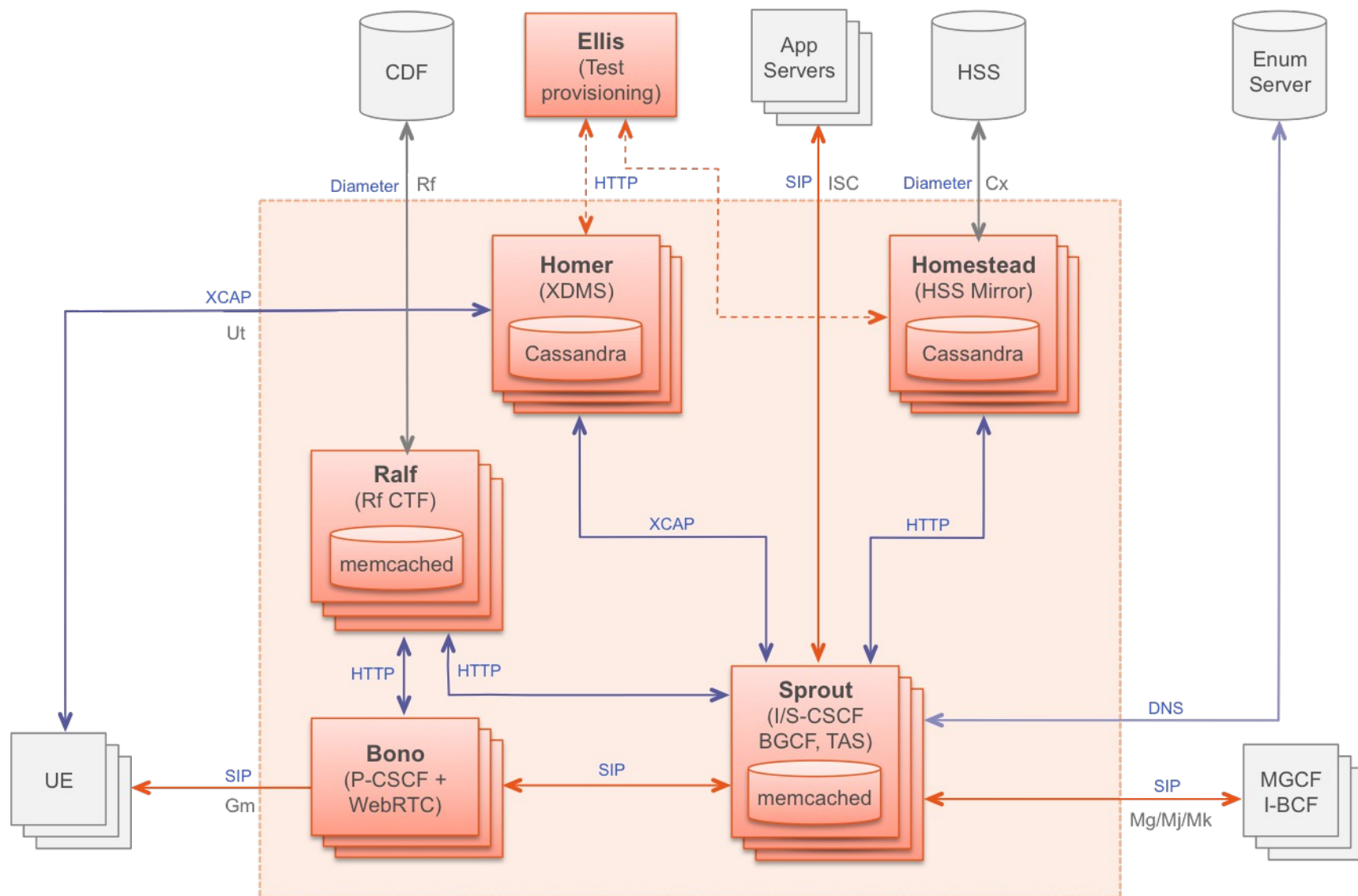# MAAS: Web interface

Juju – Deploy, manage and scale your environments on any cloud
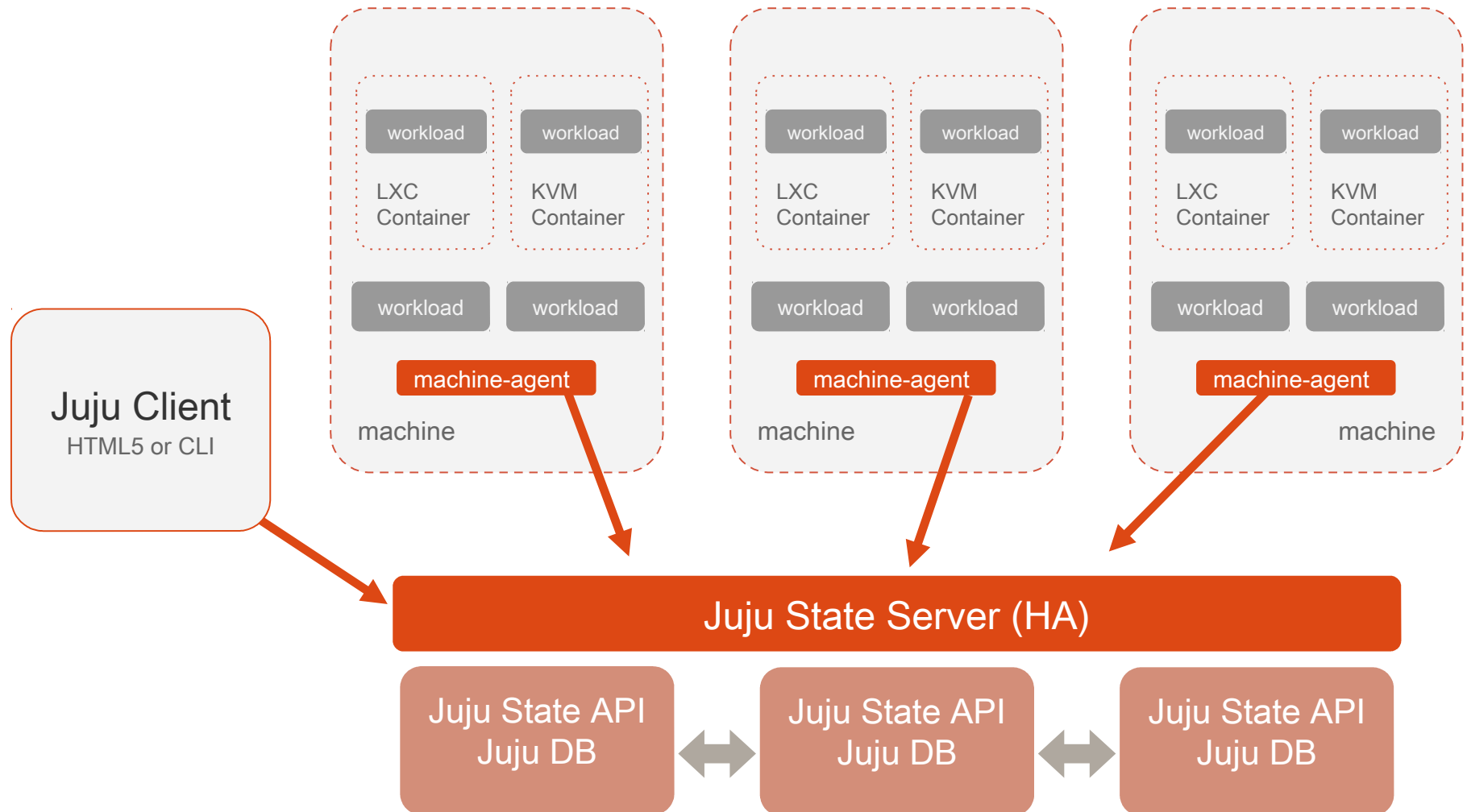
Juju = Instantly deploy, integrate and scale

Project Calico, OpenContra
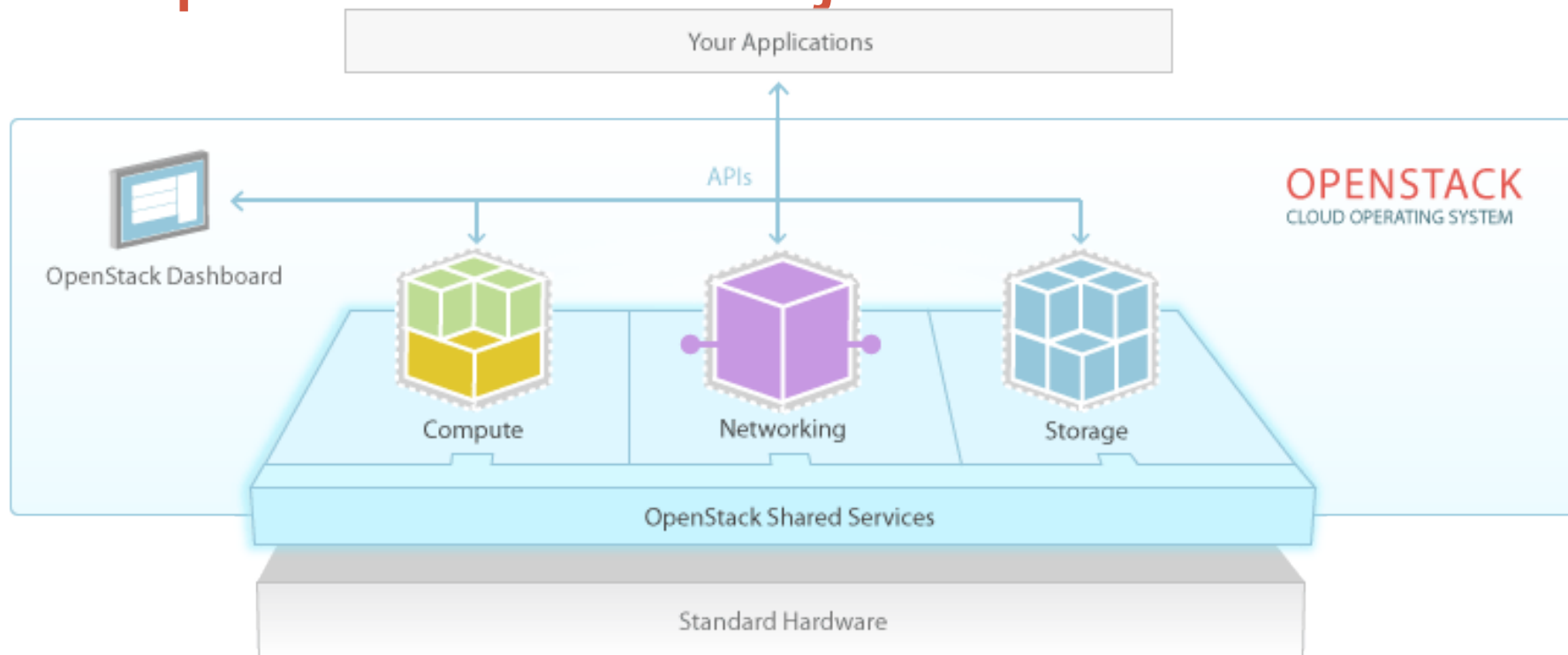Project Clearwater, Nuage
RestComm, etc.
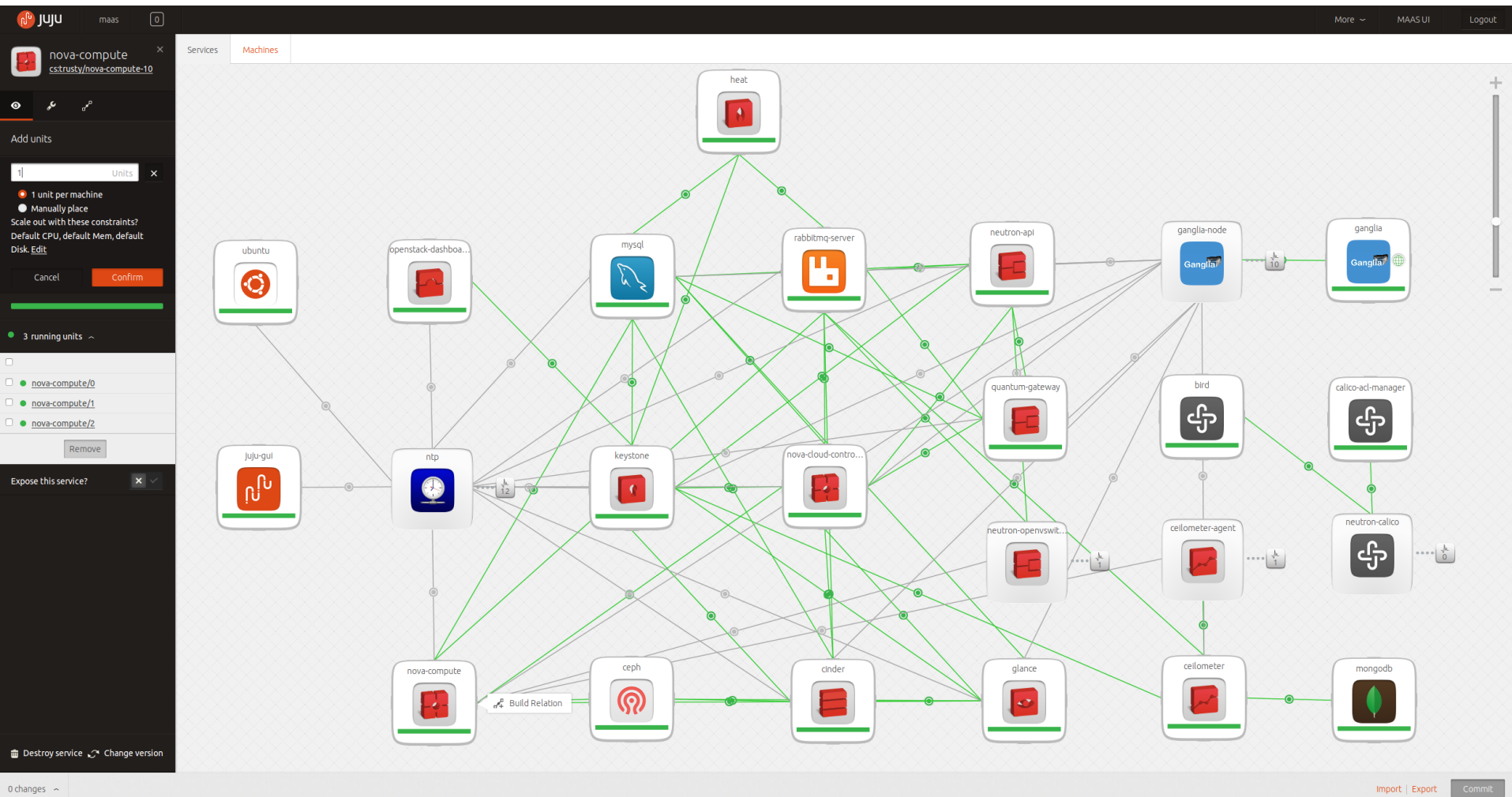
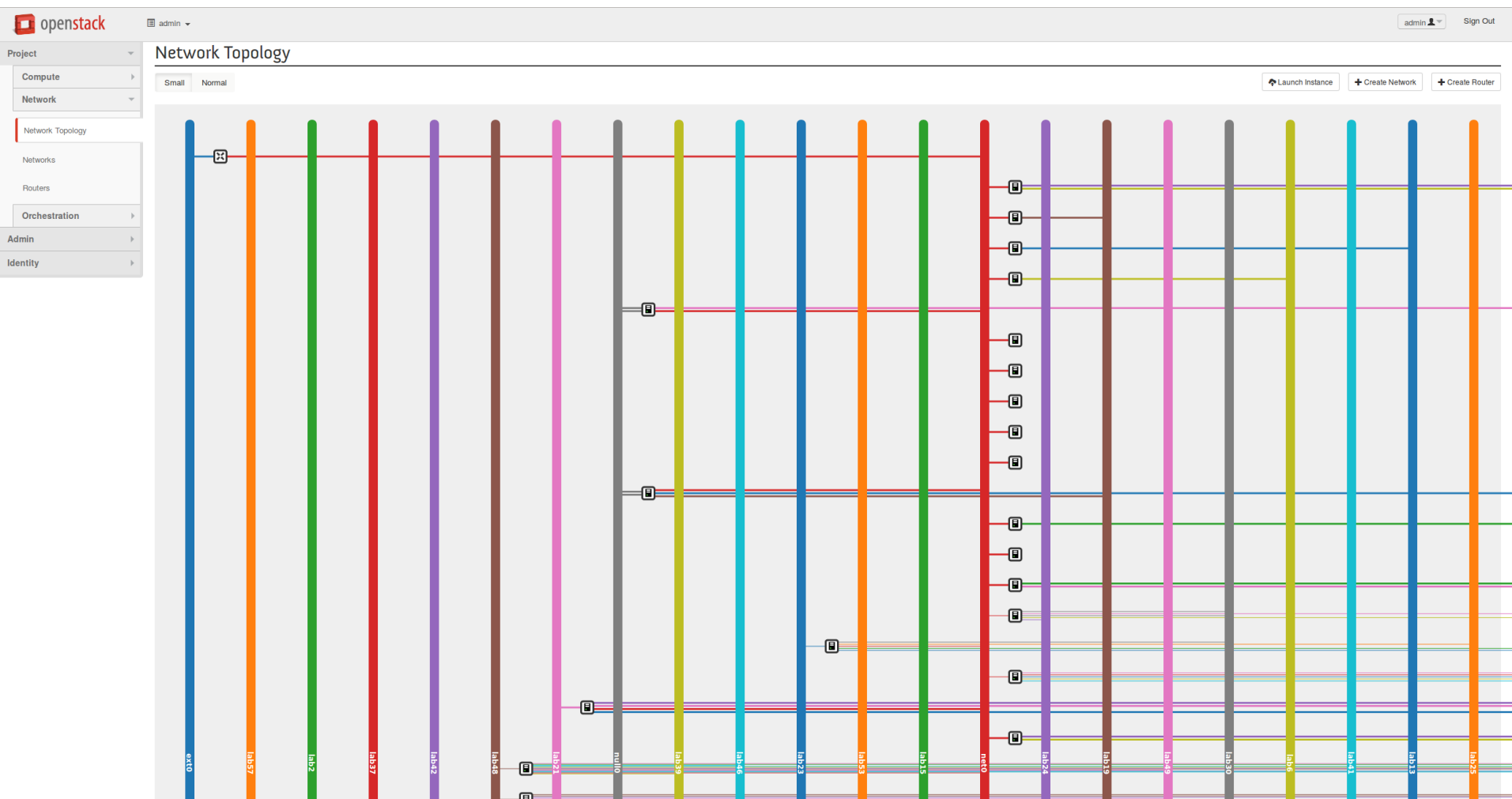# Project Clearwater = FOSS IMS Core

OpenStack – Project Overview

- Currently 14 integrated projects within OpenStack
- All these projects communicate via public API`s
- Services have behavioral compatibility with AWS
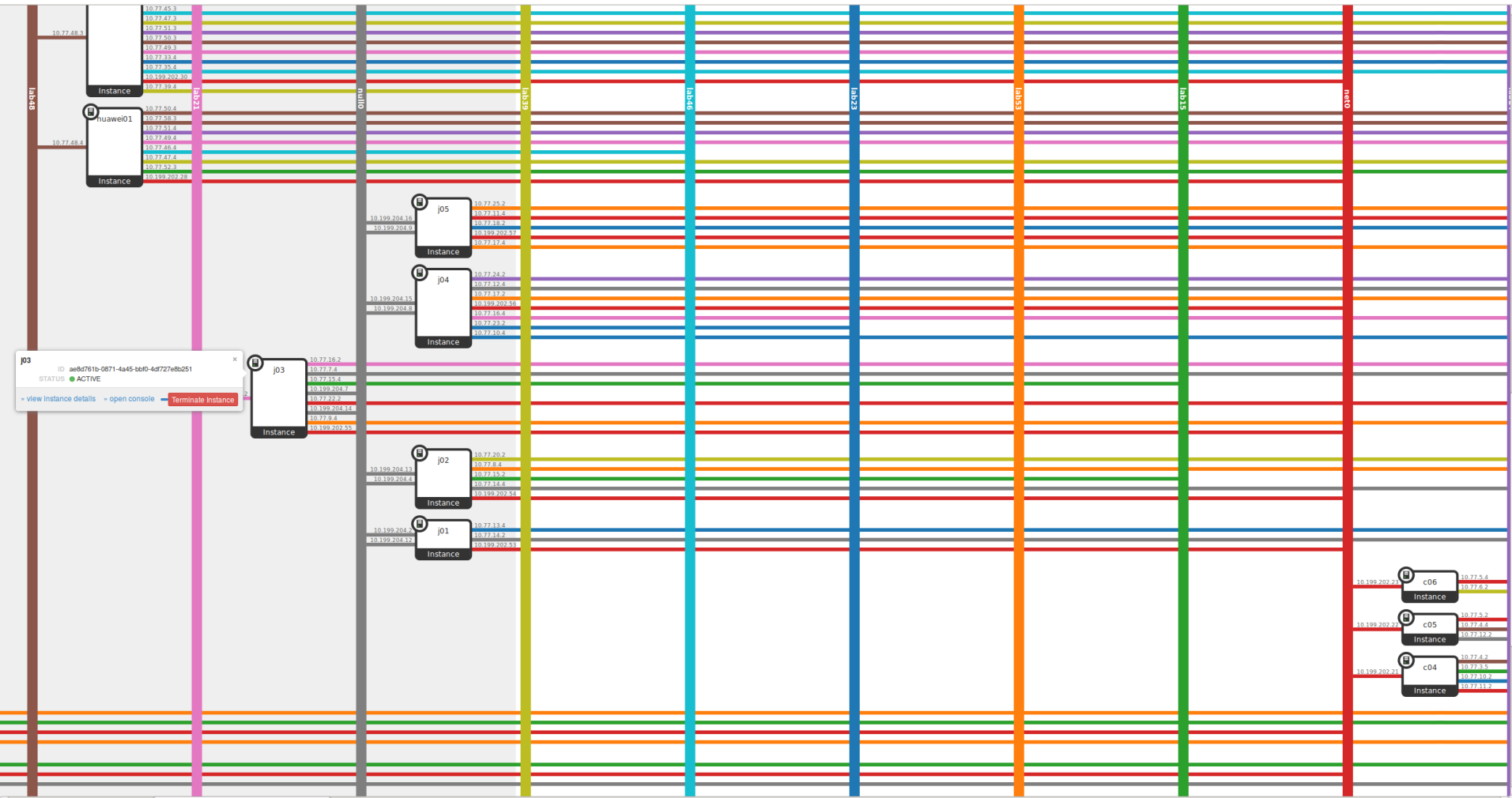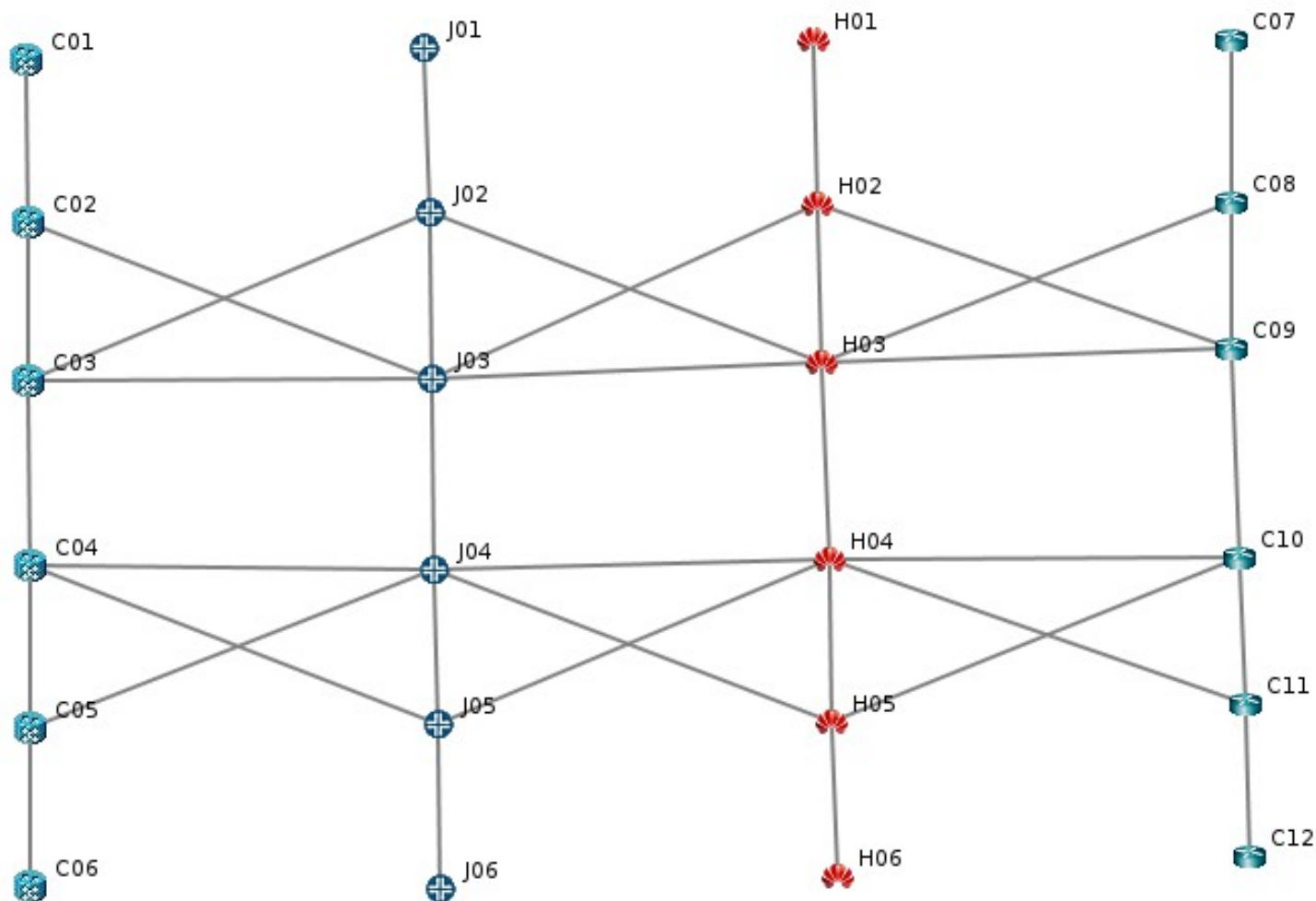
OpenStack powered by Juju (services)

OpenStack Horizon Network Topology

OpenStack Horizon Network Topology

Network topology logical view from OSS

The conclusion

- TELCOS have to "keep their arms dirty", to do not miss the momentum of using the right tool in right place, to adopt to rapidly changing market.

- The example of current collaboration (f.e. OpenStack API) can be useful for the TELCOS management domain.

- The ability to develop/deploy FOSS projects makes TELCOS employees leaders of the industry, not just users of the "another vendor" product.

And yes, this is all FOSS, please do try, use, attend and collaborate ;-)

Thank you for your attention!

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