



Physical POD

Test and deployments

#OpenCORD

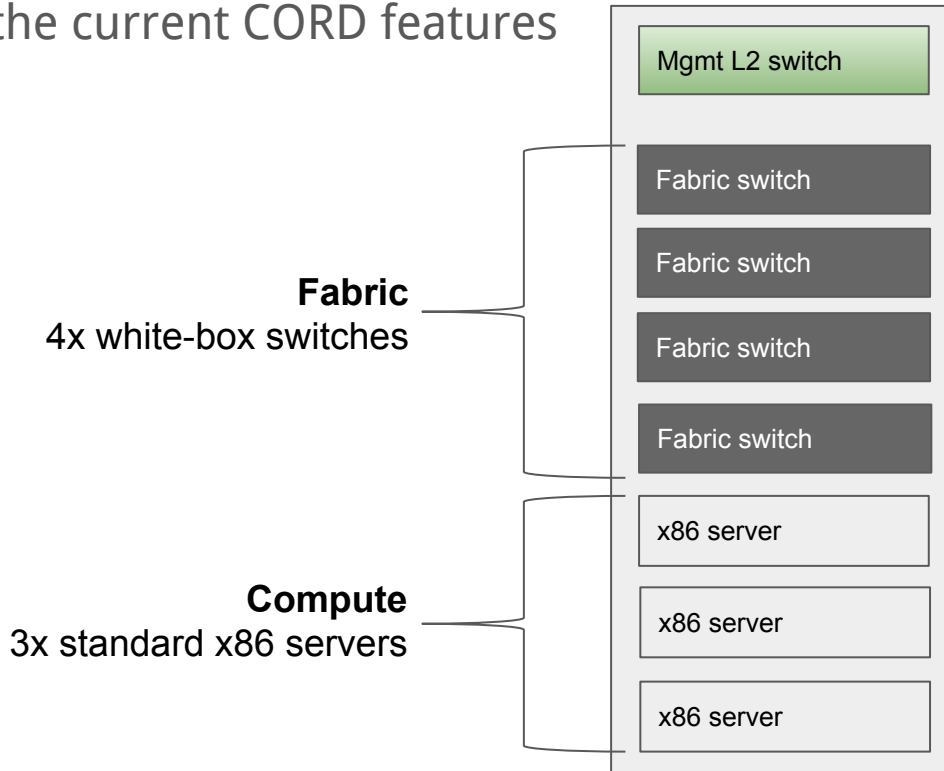


CORD
Central Office Re-architected as a Datacenter

Full POD: definition



The minimum amount of hardware that can be used to perform a full test of the current CORD features



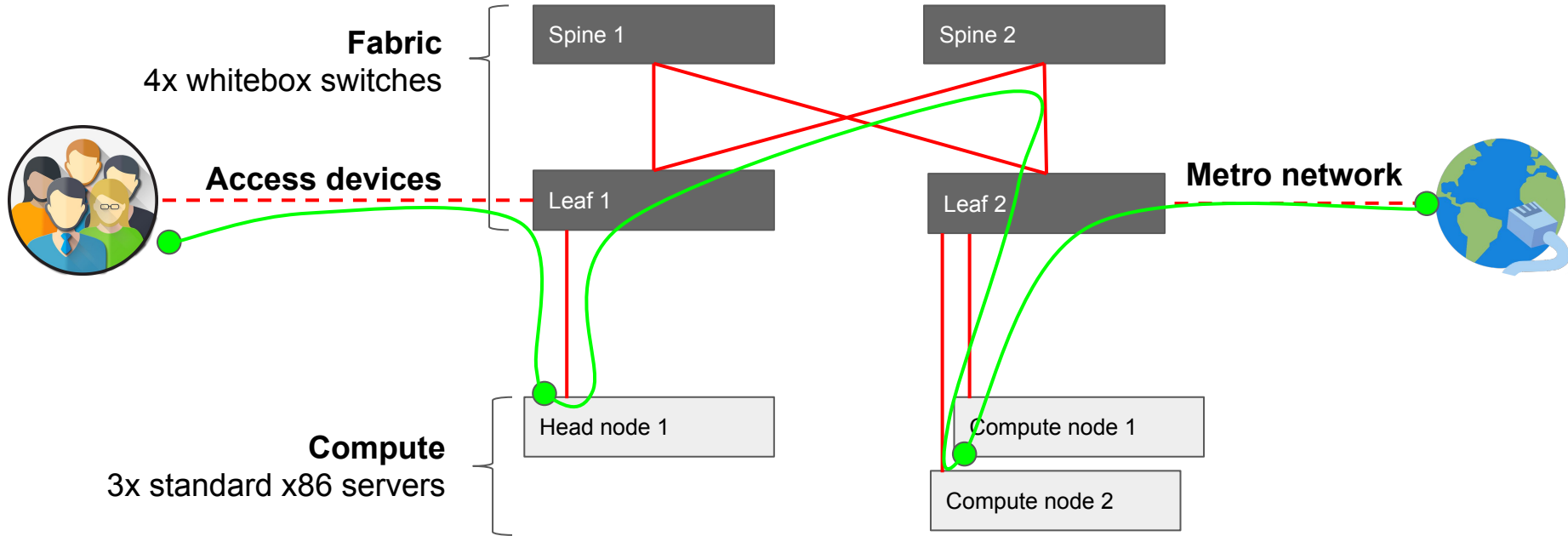
Tricks

- Avoid company proxy servers
- Use suggested hardware

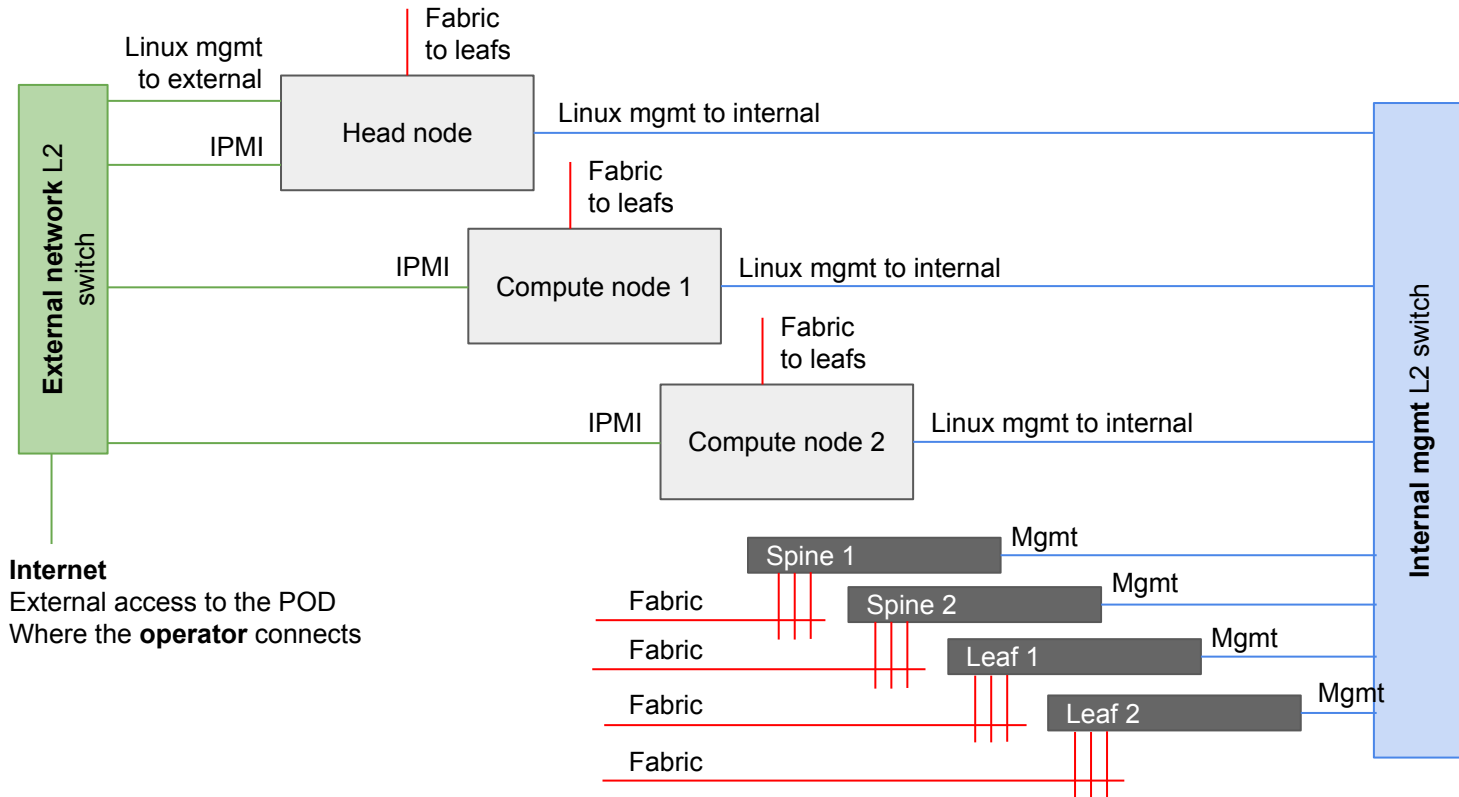
Suggested components:

- Server QuantaGrid D51B-1U (2x Intel E5-2630 v4 10C 2.2GHz 85W, 64GB of RAM 2133MHz DDR4, 2x hdd500GB)
- 40G NIC: Intel Ethernet Converged Network Adapters XL710 10/40 GbE PCIe 3.0, x8 Dual port
- Switches: Accton 6712 - 32x40GE

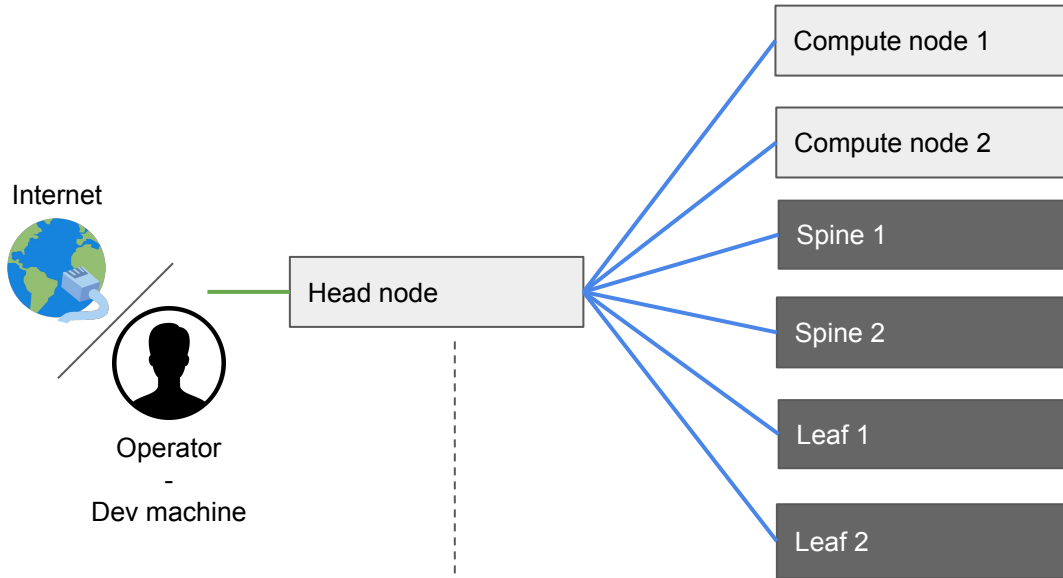
Network connectivity: user / data plane



Network connectivity: a complete view



Deployment steps



- Runs**
- OpenStack head node
 - ONOS
 - XOS
 - ...
 - **MAAS**

Steps to deploy:

1. Download CORD repo on the dev machine
2. Create the CORD dev VM on the dev machine
3. Fetch CORD packages on the dev machine
4. Push the software to the head node
5. Deploy and configure the head node
6. Reboot (to deploy) the compute nodes and the switches
7. Add your configurations



- Building a CORD POD requires ~3-4 hours (human interaction)
- Is there a way to automatically reset a POD?
- How do I do “CI”? What if I want to test a fresh installation with the latest changes every day?

Jenkins integration



Jenkins



Internet



External network L2 switch



Operator

Head node

Compute node 1

Compute node 2

Spine 1

Spine 2

Leaf 1

Leaf 2

Current status



We can build a CORD POD in a click!



CORD
Jenkins



Partner
4 PODs



Partner
1 POD



Partner
1 POD

ON.LAB

1 POD
Nightly building master
and CORD 2.0



Documentation

- <http://wiki.opencord.org>
- https://github.com/opencord/cord/blob/cord-2.0/docs/quickstart_physical.md

Contacts

- Mailing-list: cord-dev@opencord.org
- Slack: slack.opencord.org

Presenter

- Luca Prete / luca@onlab.us