

High Availability in OpenStack

from DevOps! side

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- DevOps
- Ceph Specialist
- Blogger

whoarewe



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- DevOps
- Doc Contributor
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Agenda

Contributions

Pacemaker Resource Agents

Official Documentation

Puppet Modules

Experiences

Medium Public Cloud

Large Public Cloud



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Contribution

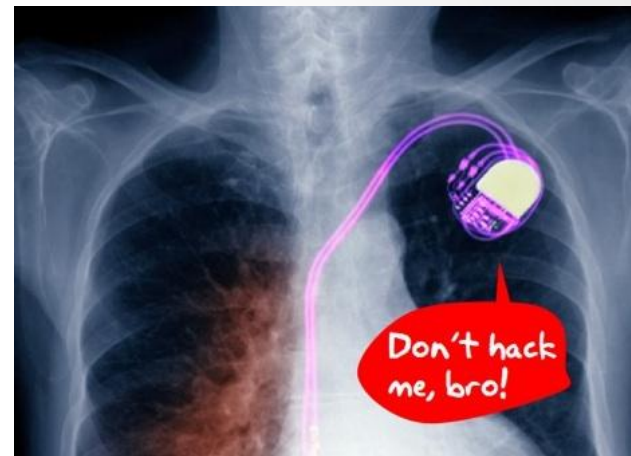
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Pacemaker Resource Agents

- Essex / Folsom / Grizzly
- Covers SPOF services
- Future: no future



Download them all!

<https://github.com/madkiss/openstack-resource-agents>

Official Documentation

- Active / Passive mode
- MySQL
- RabbitMQ
- OpenStack APIs
- Need contributors
- Future: Active / Active



RTFM !

<http://docs.openstack.org/trunk/openstack-ha/>

Puppet Labs

- Update modules for Grizzly
- Nova | Cinder | Quantum are HA aware

- Make modules for HA deployments
(Work in Progress)



Experience

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Use case #1: Medium-Size Public Cloud



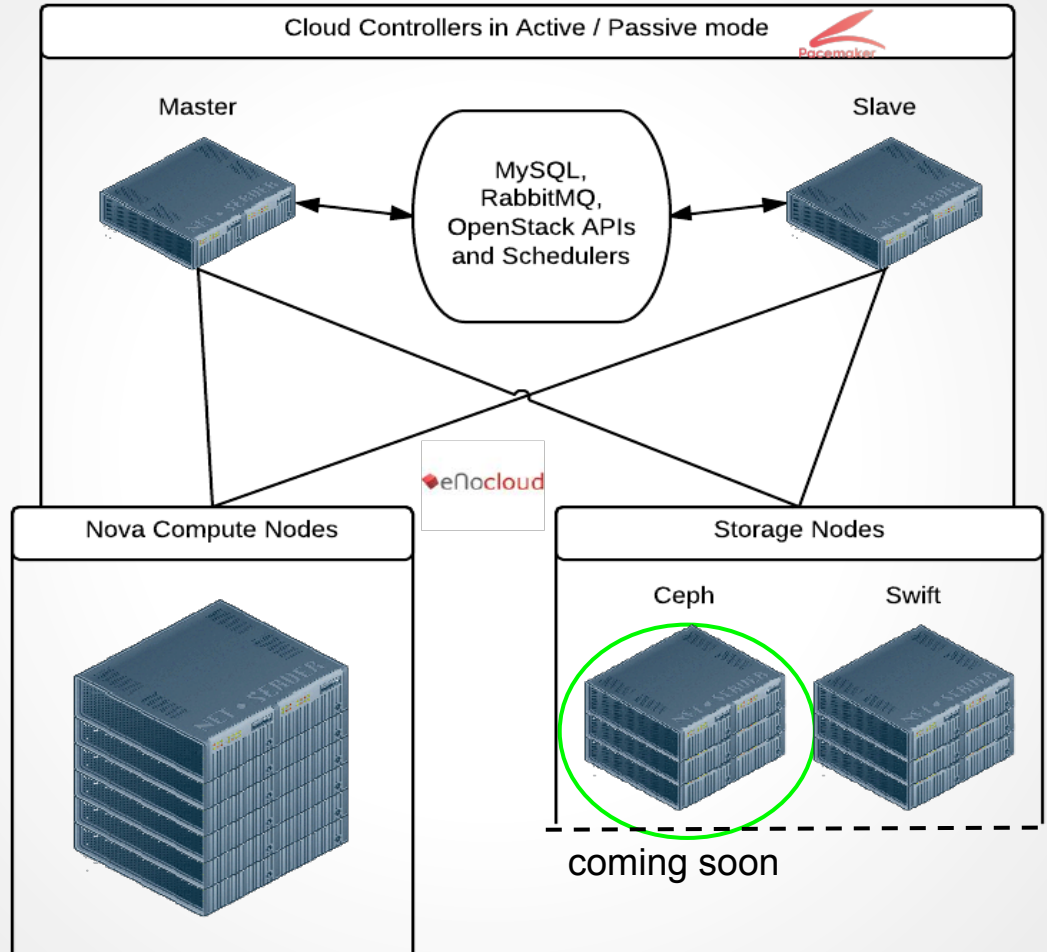
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Compute



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Storage



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Image
Service



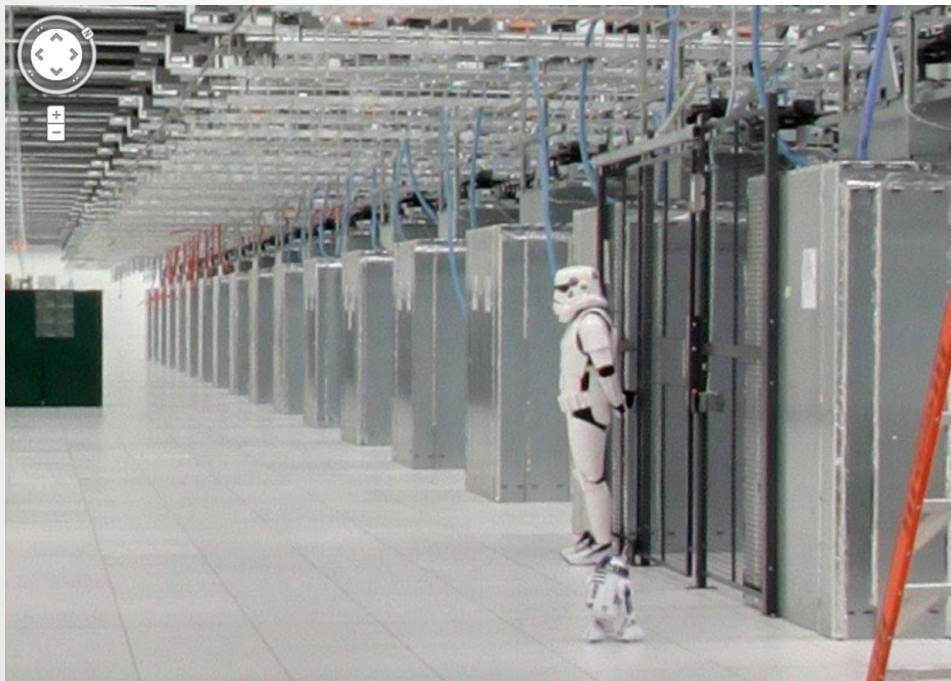
Feedback

- ✓ Easy and fast deployment (with Puppet)
- ✓ Enough for our needs

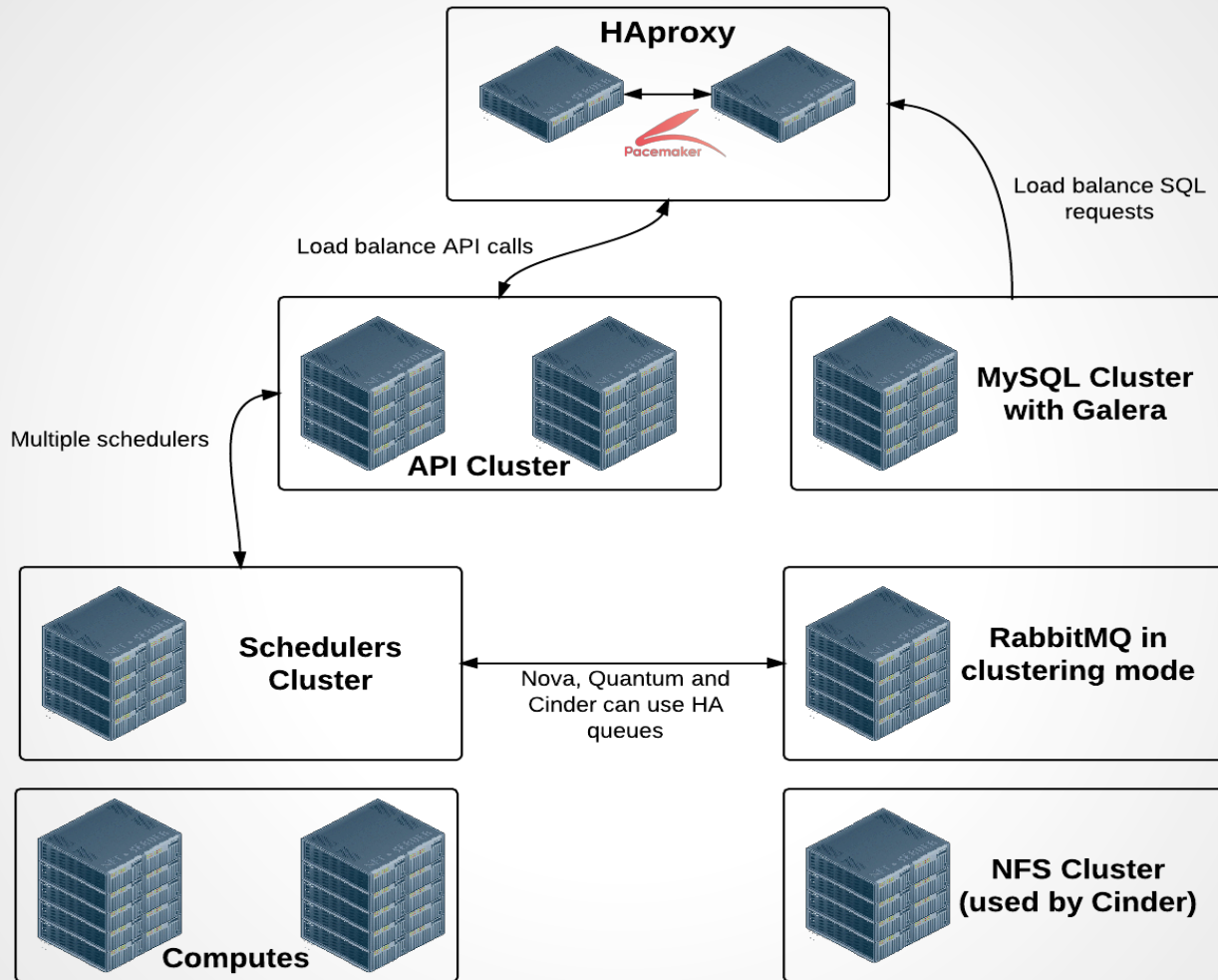
- ✗ Not scalable enough
- ✗ Split brains risks
- ✗ DRBD?

Can be improved:

Use case #2: Large-Size Public Cloud



Cloudwatt

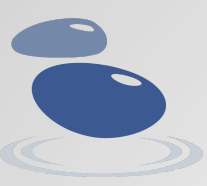




Feedback

- ✓ Highly scalable
- ✓ Maintenance
- ✓ The Network scheduler allows us to scale L3
- ✗ Networking: L3 is not HA
- ✗ OVS plugin does not scale (L2 isolation)

In progress : testing cells



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To infinity... and beyond



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Newcomers

- Nova-conductor (horizontal scaling)
- Ceilometer improvements
- Quantum Load Balancing & Metadata agents



Des questions ?

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