

#### **Getting started on Openstack**

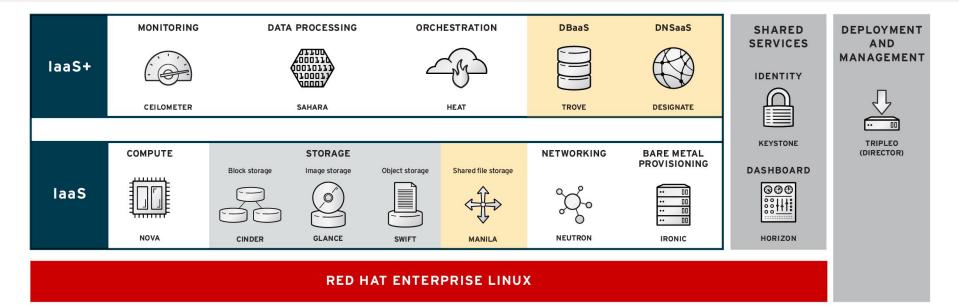
Architecture, Installation and Containers

Marco Berube sr. Cloud Solutions Architect May 2016

### Openstack is designed to scale



#### Red Hat Openstack 8 - Core Components

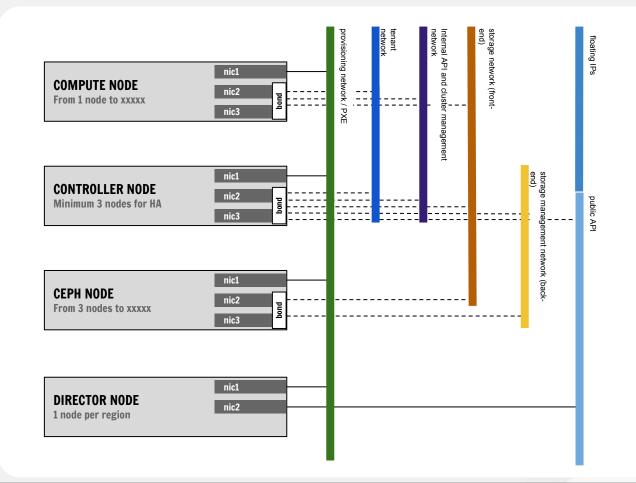


Technology preview





**openstack** reference architecture

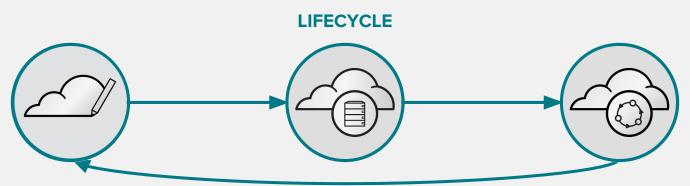






#### **OpenStack director**

Project's Mission



#### PLANNING

Network topology Service parameters Resource capacity

#### DEPLOYMENT

Deployment orchestration Service configuration Sanity checks

#### **OPERATIONS**

Updates and upgrades Scaling up and down Change management





#### From Upstream to Product





#### **OpenStack director**

Key values



RHEL OpenStack Platform director is providing a solution which is:

- solving for complete OpenStack lifecycle,
- part of upstream OpenStack community,
- rich on partner ecosystem,
- solving for deployments in scale,
- strong in community & product support.



# How can I get started without all this equipment?



**Disclaimer :** 

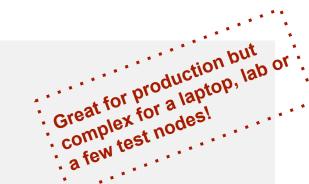
# The following network architectures are <u>not</u> best practices

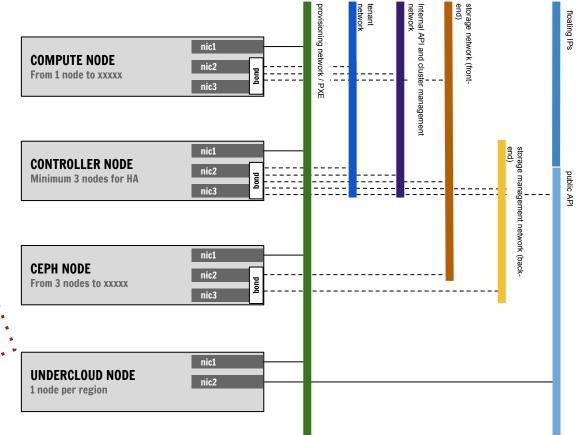
\* but very common to get started with Openstack :-)





**openstack** reference architecture







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#### **openstack** Lab architecture

Scenario 1: basic tenant networking

<b>COMPUTE NODE</b> From 1 node to xxxxx	nic1	 Tenant & storage network	
CONTROLLER NODE 1 node	nic1 Nic2 (br-ex)		
NFS or CEPH STORAGE NOVA / GLANCE / CINDER storage	nic1		





#### **openstack** Lab architecture

Scenario 2: provider networks

<b>COMPUTE NODE</b> From 1 node to xxxxx	nic1	
CONTROLLER NODE 1 node	nic1	
NFS STORAGE NOVA / GLANCE / CINDER storage	nic1	

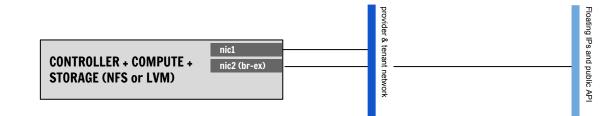
#### # /etc/neutron/dhcp\_agent.ini

0

enable\_isolated\_metadata=true
enable\_metadata\_network=true







## openstack

#### Lab architecture

Scenario 3: All-in-one + tenant network



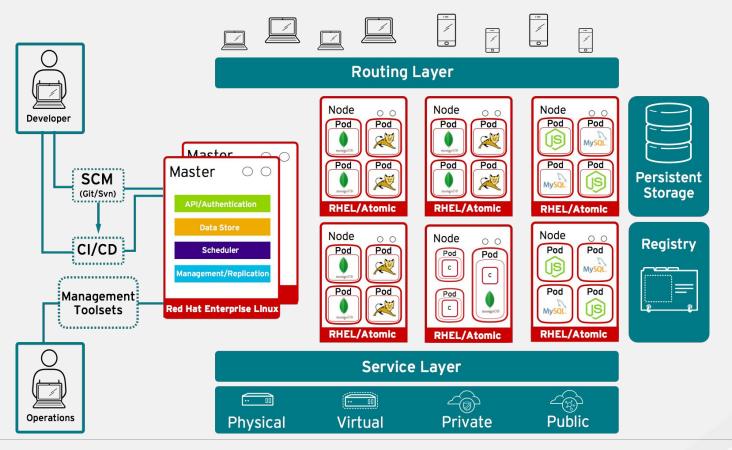
Packstack installation
{ instructions at <u>www.marcoberube.com</u> }



### Orchestrating containers



#### Openshift high-level architecture



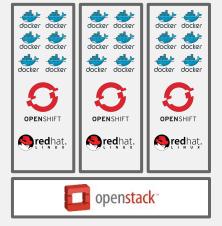


## Red Hat Open Hybrid Cloud

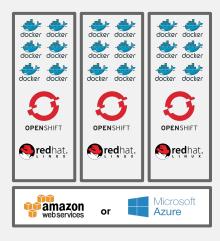




Traditional Virtualization



Private Cloud

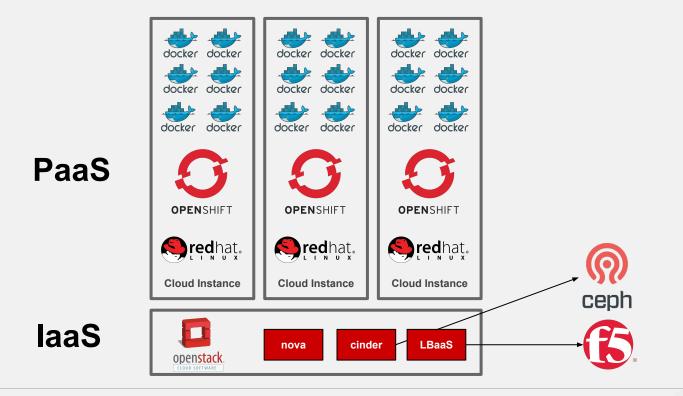


Public Cloud



## Leveraging Openstack laaS capabilities

Network and Storage orchestration







## **THANK YOU**

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