

#### **OpenStack Deployments Around the World**

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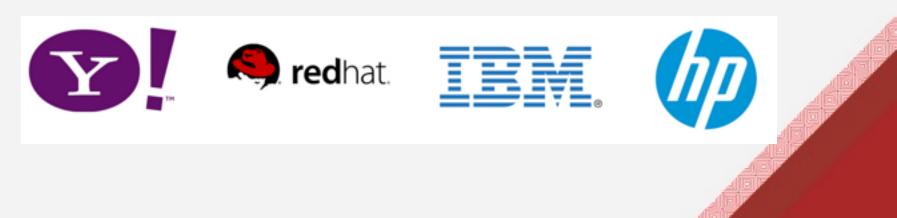






## About Uli

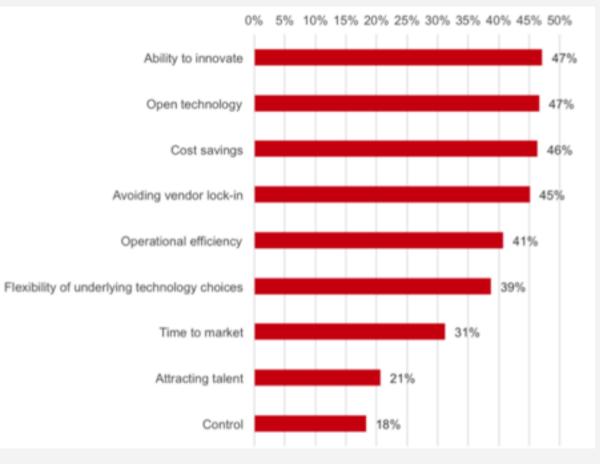
- Senior Architect at Red Hat
- based out of Singapore, covering APAC
- web infrastructure, virtualization, automation, cloud
- software developer → project manager → consultant → architect





# Who is using OpenStack? Why?

#### OpenStack 企业就绪论坛 Business Drivers

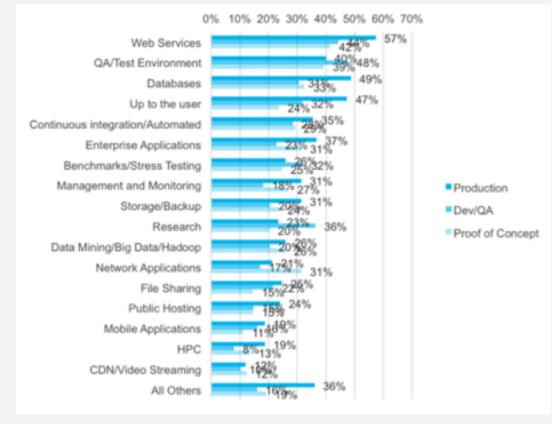


Source: OpenStack.org User Survey, November 2014





#### Workloads



Source: OpenStack.org User Survey, November 2014





## What's it again?

openstack<sup>™</sup>

**Open source project** for building a private or public infrastructure-as a-Service (laas) cloud running on standard hardware

**Cloud operating system** that controls large pools of compute, storage and networking resources throughout a datacenter

-> Community of global collaborators creating open source software to build public and private clouds



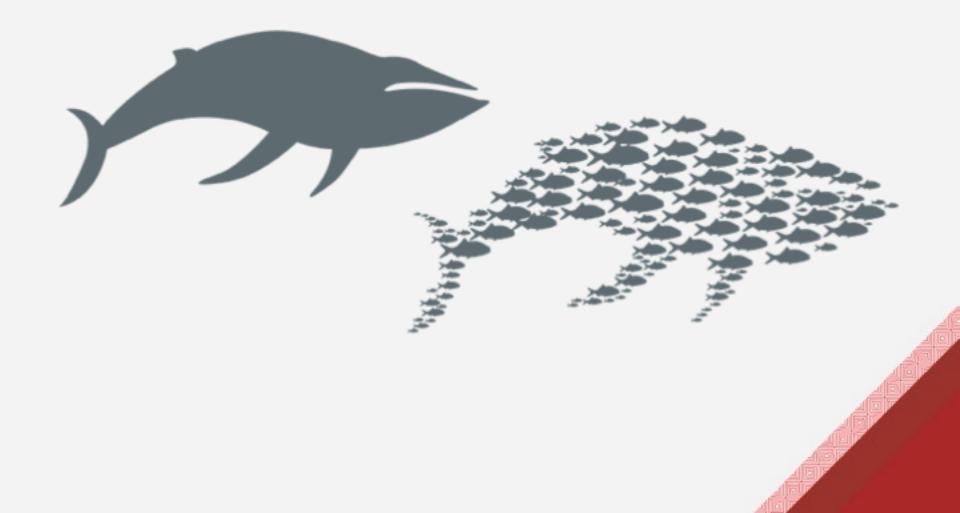
Why?

# 1 Choice

Choice



### OpenStack 企业就绪论坛 Workloads are changing





#### **Use Cases**



- Telco / ISP public cloud offering
- Internal Private Cloud
- AWS Equivalent



- Content Farm
- Scale-Out Storage
- AWS S3 Equivalent
- Enterprise Drop-Box

Network Functions
 Virtualization (NFV)



### **OpenStack** 企业就绪论坛

#### **Network Function Virtualization**



Message Router



DPI





SGSN/GGSN



CDN



Firewall



PE Router



Session Border Controller



Carrier Grade NAT

BRAS







Tester/QoE

monitor

WAN

Acceleration

Radio Access Network Controller



### OpenStack 企业就绪论坛 Workloads are changing

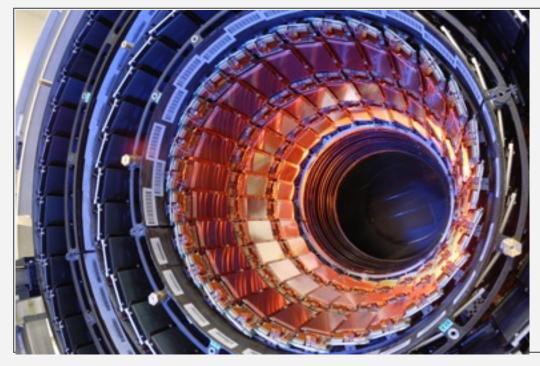








#### Cern: Data Analysis & Storage



- Cern Large Hadron
  Collider: particle
  accelerator
- 40m photos/sec →
  1 PB/sec of data
- OpenStack & Ceph
- 100k+ processor cores
- analytics results in minutes instead of months

Image: Cern



#### eBay

- multi-tenant, multi-region, self-service OpenStack cloud
- provides on-demand computing resources for all eBay developers
- project started 2012
- 95% of eBay traffic powered by OpenStack
- ~7k servers
- "frictionless" -- no tickets, no people, get job done
- Advantages: reduced app provisioning time from 4 weeks to 30 minutes.
- Saved double-digit million dollars on hardware
- Issues: capacity management. No vendor can fix their problems with community distributions
- using Trove for DBaaS, contributor





#### BMW

- started in-house Python-based development project for cloud management
- complexity, not enough efficiencies
- openness, no vendor lock-in
- OpenStack based cloud powers production of new BMW i8
- "Brutal Standardization" → 25% more cost efficient



- Advantages: Community Innovation become industry standards. Free of charge.
- Issues: stability, release cycle, culture change



- choice
- massive scalability
- community powered innovation

—> only possible the Open Source way!



# **Pedhat**

谢谢