



OpenStack in the Black

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Disclaimer: contains opinions.

Summary

Provide color and light to the fiscal and operational challenges of open source private cloud infrastructure for modern IT enterprises.



“<Public Cloud> price reductions have undercut the cost case for our OpenStack deployment in a lot of cases...”

OpenStack User Survey, April 2017

Essential Questions

How can IT organizations **compete** with public cloud providers' cost efficiency model?

And why is this important?

Agenda

- Open Source and Commerce
- Economic and Operational Harmony
- Multi-{Infra,Arch,Cloud} Enterprise
- Real-World Stories (Including Yours)

Open Source + Commerce

It doesn't have to be awkward.

Assertions and Assumptions

- Open source is a **culture**, not a license.
- Cost ultimately drives **business decisions**.
- Combining **commerce** and **open source** can be awkward.
- Public cloud providers set the pace of **cost efficiency**.
- The universe seeks **balance**.

~~Vendor/Foundation Sales Pitch~~

This session will cover concrete principles, concepts, and approaches, **agnostic** of the **tool chain** or **distro choice**.

Economic and Operational Harmony

A bit of “Finance” for Developers, Cloud Operators, Project Owners...

Disclaimer: This is not tax, legal, or accounting advice. Seek a qualified professional in those skilled areas.

Cap Ex

Capital Expense

- Acquire major assets
- Facilities, vehicles
- Servers, switches
- Long term deduction
- Not salaries
- Not public cloud fees

Op Ex

Operating Expense

- Day-to-day operations
- Selling
- General
- Administrative
- Payroll, legal, accounting
- Bandwidth, utilities
- Public cloud fees

More User Feedback

Top business drivers:

75%: Increase operational efficiency

66%: Save money over alternative infrastructure choices

OpenStack User Surveys, April 2016

Differentiators

- Legacy, pre-virtualization hardware mindset
- Modern private cloud asset/expense strategy
- Ratio of CapEx to OpEx, Cash Flow, et al.
- Open Source, Open Core, Proprietary



“Right-sizes the number of servers to meet workload requirements; Ensures optimal energy OpEx, maximizes servers and facility CapEx utilization.”

Sardina Systems, re: Univ. of Edinburgh, April 2017

Open Infra.

OSF Confirmed or Pilot

- OpenStack
- Kata Containers
- Zuul CI
- Airship
- StarlingX

OK, wait...

There's more to OPEN.

- OpenStack, oVirt, Xen
- Kata Containers, Firecracker
- Zuul CI, Airship, StarlingX
- Kubernetes, Docker, LXD
- Apache, Nginx, Chef, Puppet
- Ironio, MAAS, Ansible, Juju
- Ceph, DRBD, Hadoop
- Etcd, Consul, Vault ... and on.

Multi-* Cloud

In the multi-infra, multi-cloud, multi-arch enterprise.

Multi-Infra

- Compute
- Network
- Storage

Hybrid Cloud

- Public Clouds
- Private Clouds
- Managed Services

CPU Arch

- x86_64
- arm64
- ppc64el
- s390x

Value

- Kernel development
- Distro package builders
- Sector-specific applications

Story Time

There was this one time...

Q&A

Thank you!



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References

OpenStack User Surveys: <https://bit.ly/36zHqX4>
<https://bit.ly/2qksEmu>

Rackspace: <http://bit.ly/34vmcaR>
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