

# Choices

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Rackspace

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# My Problems

- I want to build things.
  - I need servers to run those things I built.

# Not my problems....

- DCOPS says 2 months for new cabs.
- Once I have Cabs, its gonna take 3 weeks to get a switch configured
- And then my Hardware Vendor put in the wrong disks....

# Escape

- To the Public Cloud!

# Why?

- Choices are insufficient.
- Not just about cost or security:
  - Accessibility / Timing
  - Automation
  - Feature Roadmap / Continuous Improvements

# Choices

- “Stuff”:
  - Compute, Networking, Storage, Services
- Physical
  - Where does stuff physically live?
- Usage
  - How do I consume this stuff?

# Physical

- Your Datacenter
  - Scale? Are you as good as major players?
- Colo DC
  - Easier, but larger scale gets messy....
- 3<sup>rd</sup> Party
  - Specialists and Experts optimize
  - Traditional objections (price, security, etc)

# Usage

- Dedicated
  - Supply Chain?
- Virtualized / IaaS
  - Splice up machines
    - Available when I need it
- \*-as-a-Service:
  - Plug into an API
  - Managed Appliances?



# The Matrix

	Private DC	Colo	3 <sup>rd</sup> Party
Dedicated	DIY	Managed Colo	Managed Hosting
Virtualized	Private Cloud	Private Cloud	Private or Public Cloud
*-as-a-Service	Appliance or Private Cloud	Appliance or Private Cloud	Public Cloud

# Okay, Choices.

- None are perfect.
  - But don't underestimate improvements of Public / aaS.
  - All have their time and place.
  - I'm biased towards 3<sup>rd</sup> Party.

# History: LAMP

- 90s: Linux / Apache / MySQL / PHP
- Now: Linux / \* / \* / \*
  - (Glob match all software)
- What is the commoditization layer for this “stuff”?










# OpenStack?

- Open Source implementations of:
  - Compute
  - Networking
  - Storage (Block, Object)
  - Many other components.
- Focused on Public and Private Clouds

# Great, but I want physical machines!

- It's coming:
  - “Using OpenStack to Provision and Manage Physical Servers”:
    - <http://bit.ly/11yp80R>
- SDN / OpenFlow Switches, Controllers coming along quickly too.

# OpenStack Matrix

	Private DC	Colo	3 <sup>rd</sup> Party
Dedicated	 openstack™ CLOUD SOFTWARE	Managed Colo  openstack™ CLOUD SOFTWARE	Managed Hosting  openstack™ CLOUD SOFTWARE
Virtualized	Private Cloud  openstack™ CLOUD SOFTWARE	Private Cloud  openstack™ CLOUD SOFTWARE	Public Cloud  openstack™ CLOUD SOFTWARE
*-as-a-Service	App or Private Cloud  openstack™ CLOUD SOFTWARE	App or Private Cloud  openstack™ CLOUD SOFTWARE	Public Cloud  openstack™ CLOUD SOFTWARE

# A Control Plane for your Choices

- One set of APIs and operational practices that manage infrastructure in all choices.
- Is this important?
  - Linux was... One set of APIs and operational system for all of my applications.

# Make your Choices

- You probably want all choices available to your teams.
- Build your App around choices, don't just "build for the cloud".
  - Can I use two physical machines, or 100 public cloud instances? What is the engineering and operational cost of each?



# Thanks!

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