

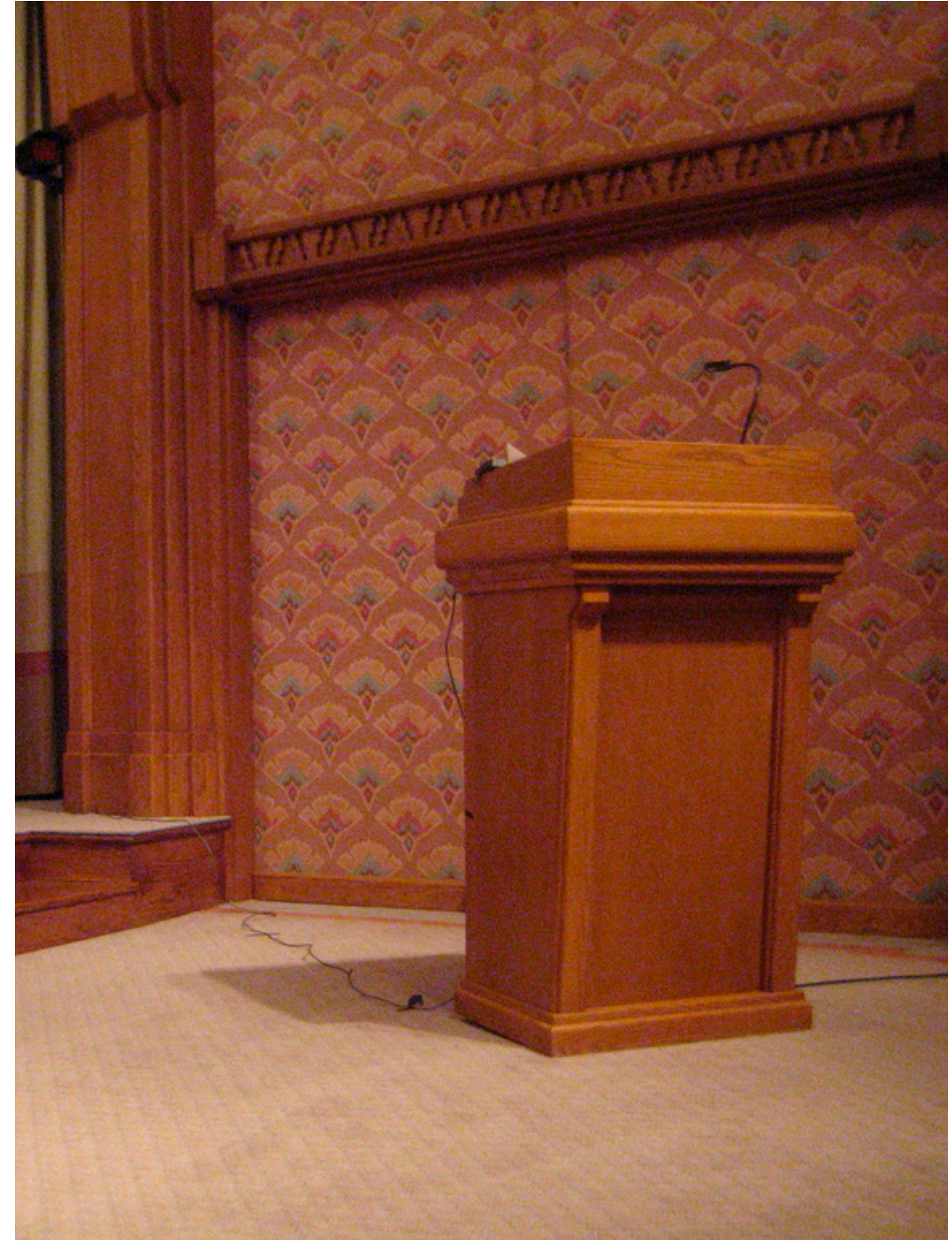


# Cloud Computing

Michael Coté, RedMonk

# Expectations

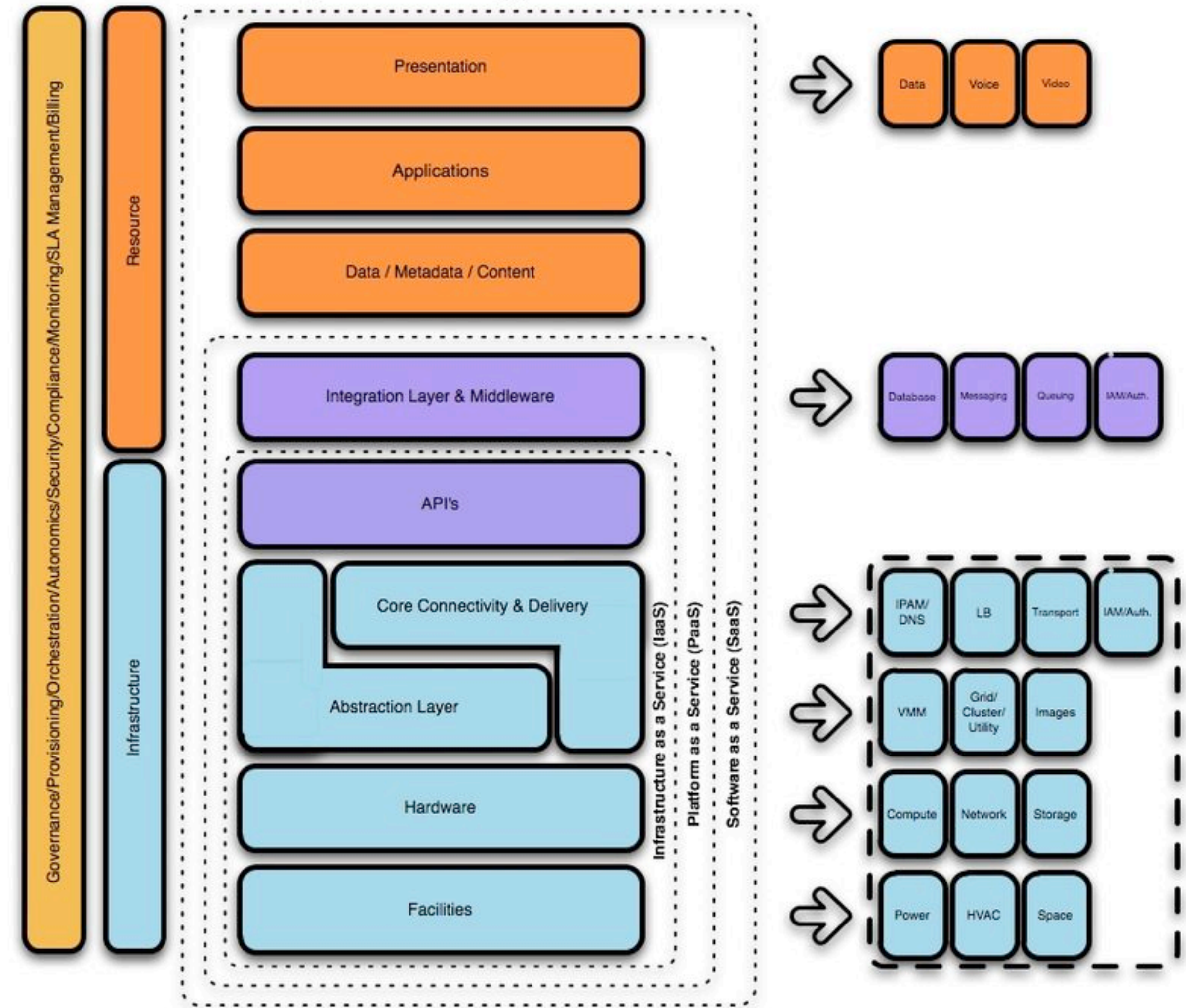
- Cloud computing now is like early SOA: it's silly-putty
- We'll take a simple definition and go with it
- How does "Linux" fit in? SWOT.



# The 3 \*aaS's of Cloud Computing

- SaaS, PaaS, and IaaS
- There are many more \*aaS's
- Applications, Middle-ware, servers

Cloud Taxonomy & Ontology - Draft v1.3 - Hoff



\* Christofer Hoff

# Why Cloud Computing?

## **Users**

- Cost
- Flexibility
- Elasticity/scalability

## **Vendors**

- New business models
- New features
- Lower cost of ongoing maintenance?

# Concerns

- Hype-fed, Semantic Confusion - public vs. private
- Retraining - multi-thread dev, dynamic ops
- Ending up paying more - e.g., \$20k on-prem vs. \$150k off-prem
- Lock-in
- Legacy concrete
- Virtualization turns out to be more important - “fog computing”



# Things to point at



- IaaS - Amazon EC2, S3, etc.
- PaaS - Force.com, Microsoft Azure
- Sun Cloud, 3Tera, Rackspace, & reborn hosters
- Automation & provisioning people



# Linux Strengths

- Appealing for its (potential) cost of zero
- Reliability, known quantity “at scale,” breadth
- Malleable & Transparent
- Easier for IT Management tooling
- Virtualization
- Existing, Linux-compatible applications

"We use [Linux] because it performs well on inexpensive, commodity hardware. That continues to be true and that continues to be a reason we use it."  
– Anthony Golia, Executive Director of Enterprise Computing, Morgan Stanley

# Linux Weaknesses

- Focus on the OS level, not applications and usage
- Weak connections to development platforms, with exceptions like LAMP
- Virtualization & Automation Fragmentation
- Susceptible to “bad citizens”

# Linux Opportunity

- OS for Cloud clients -  
Netbooks, RIAs, “mobile”
- Model driven automation
- Fragmented air-space -  
everyone wants a cloud,  
everyone wants Linux
- Easy way to boot-strap into  
using Linux



# Linux Threats

- SaaS & PaaS means “the OS doesn’t matter” - cars with hoods that don’t open (past:VM & CLR)
- Commercial vendors creating new closed source worlds - Apple
- Cloud Distro Madness - QA & support matixes
- Cloud consolidation & collapse - eggs in a basket



# Conclusions

- Worse case scenario: nothing changes
- Best case scenario: many more Linux instances
- Thinking ahead: transitioning “brown field” applications



# Thank you!

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# Credits & Co.

- Podium: <http://www.flickr.com/photos/spine/2408993662/>
- Cloud diagram: <http://rationalsecurity.typepad.com/blog/2009/01/cloud-computing-taxonomy-ontology-please-review.html>
- Skeleton E. Newman: <http://www.flickr.com/photos/hryckowian/3102077404/>
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