The Pragmatic Cloud

what development should care about

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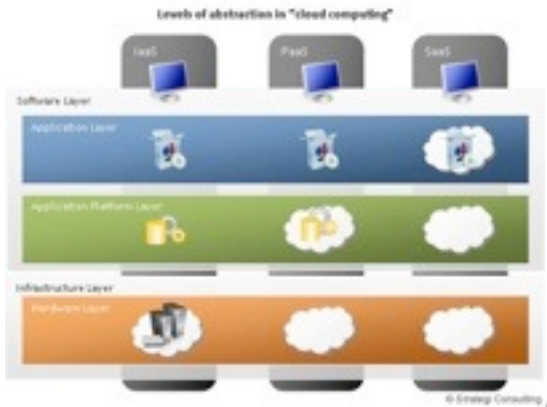
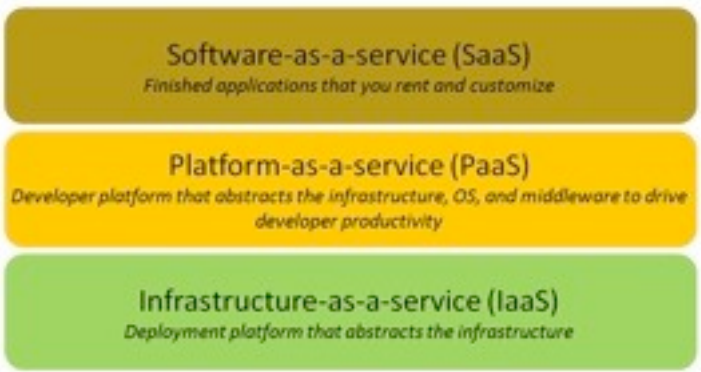
@cote

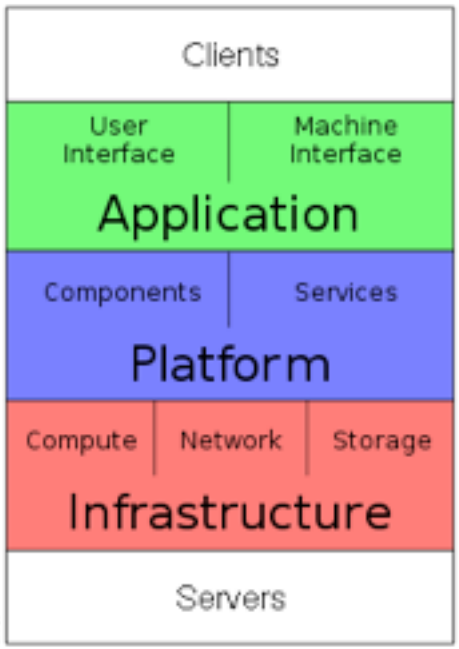
conclusions

- Happier users with better applications - it's not just about the software anymore
- Thus far, most cloud-talk is operations focused
- Development should start taking advantage of cloud technologies, responsibilities
- Agile is a good start

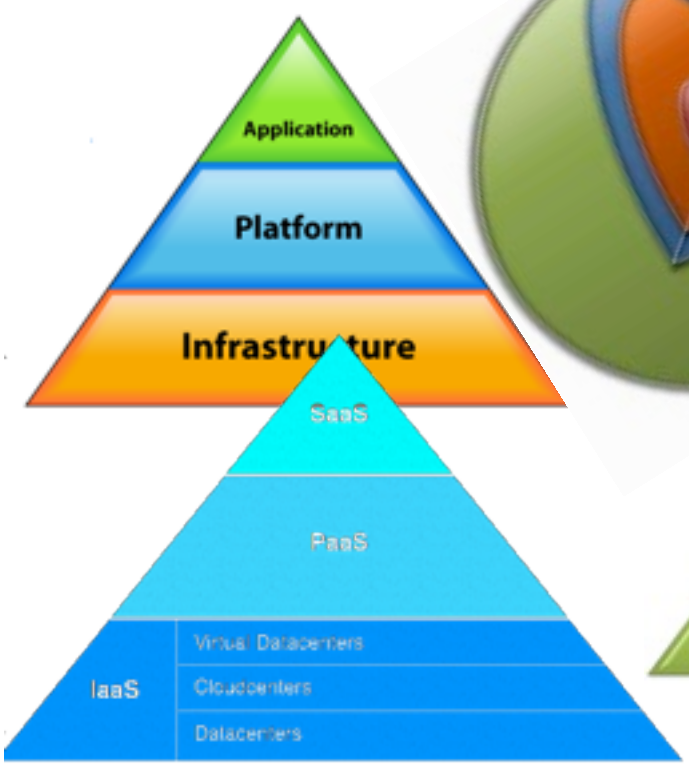
what is "cloud"?

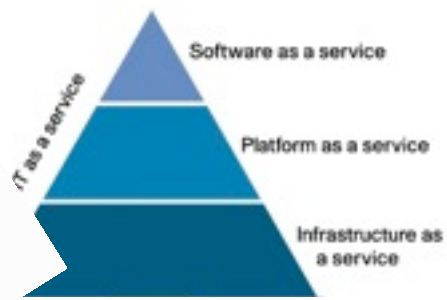


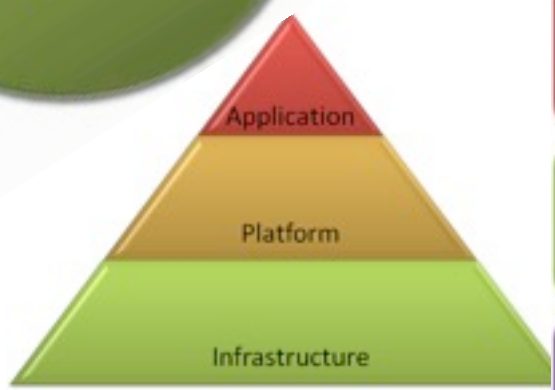




Cloud Computing Stack







From William Vambenepe (@vambenepe)

burgers & aaSes

- SaaS, PaaS, IaaS - application, middleware, servers
- Public or private
- Amazon and everyone else
- Usually: virtualization, model-driven automation, web apps, dev/ops

things to point at

- IaaS - Amazon EC2, S3, etc.
- PaaS - Force.com, Microsoft Azure, IPP, Heroku
- SaaS: SalesForce, Zoho, Google Apps, Paglo (Citrix), Service-now.com

amazon web services™

intuit.

heroku

Puppet

Eucalyptus Systems

the rackspace cloud

RIGHT SCALE

3tera™

dto SOLUTIONS

OPSCODE

for users

- SaaS - Google Apps, Salesforce, etc.
- Business apps that behave like consumer web apps - *better* applications
- Lower cost & faster delivery
- Remote control for the cloud

for operations

- “Cloud” - moving infrastructure off premise
- “Private cloud” - automating, virtualizing, self-service
- Focus on infrastructure, not applications

for developers

- Becoming ops friendly - or subversive if you dare
- Using cloud tools & practices to deliver applications
- Getting closer to the user with faster delivery

making users happy

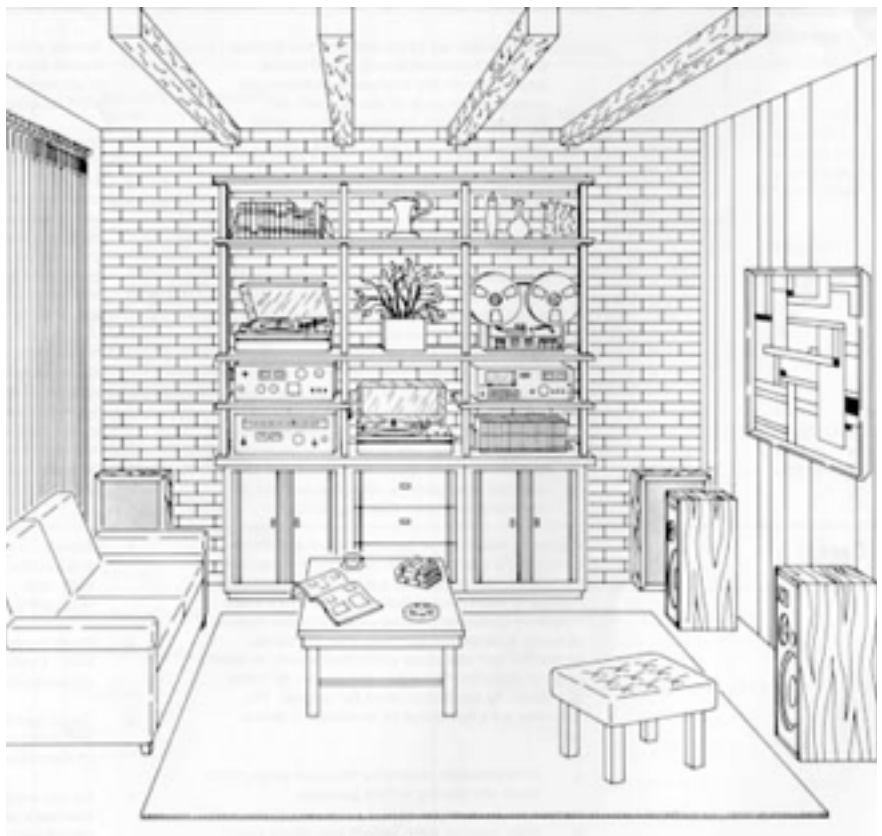
- Face it: most IT is terrible, boring, & complex
- Continually simplifying
- Lusting for cheap feedback

"The computer is a moron."

-Peter Drucker

less to manage

- This probably means delivering as a SaaS
- Perhaps with a PaaS - lockin risks
- Cloud-friendly, if needed



“apps” vs. “applications”

“What we are looking to do is find other small areas that we can build **a nice small app** that’s done really well **that can help hundreds of thousands** of the QuickBooks millions.”

-Brian Sweat, Product Manager at Alterity, Inc.

Flexible
&
Cheap

Marketplaces
&
Feature delivery

User
Expectations

beyond tracking suffering

"I can actually **look at [a feature] and say, 'nobody uses feature X.'** It's not even being looked at. And it really **helps us shape the future of the app** which, on a desktop product, we don't have a lot of data like that."

-Brian Sweat, Product Manager at Alterity, Inc.

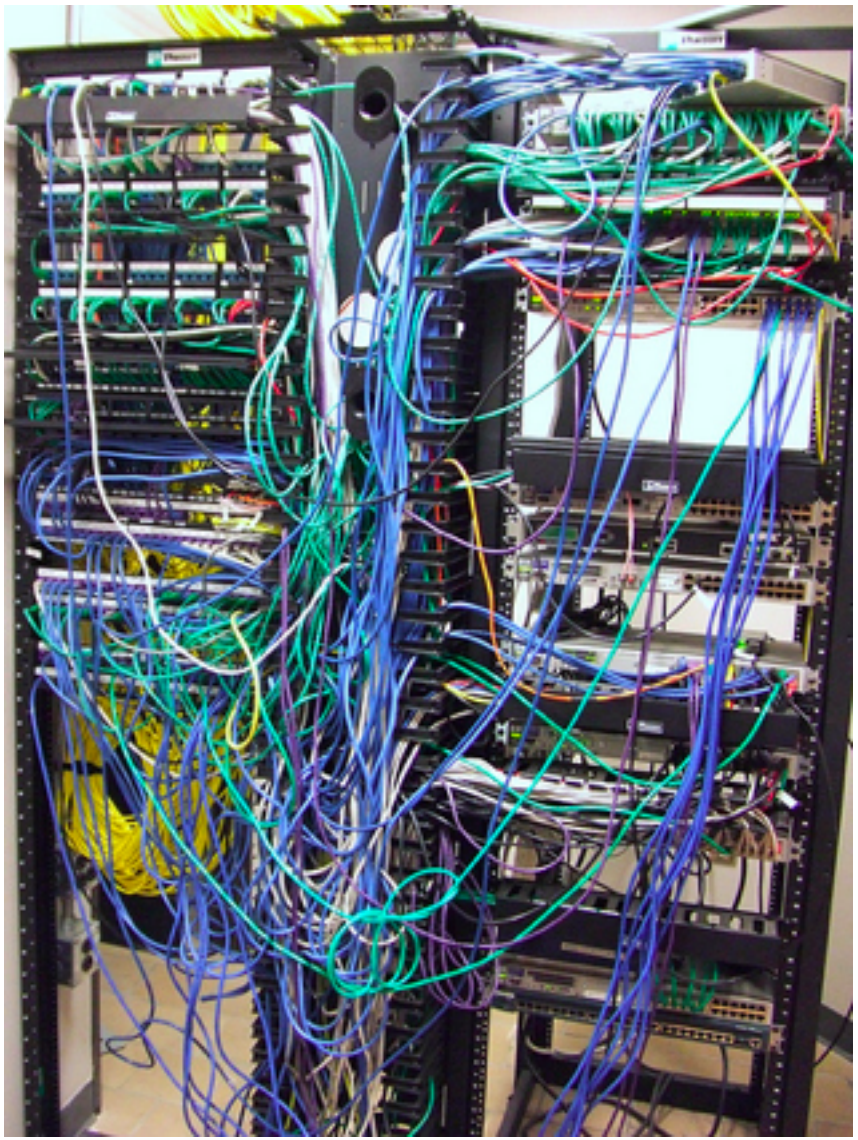
User analytics	Aggregate analytics	Feature analytics

operations as bottle-neck

- While developers have been delivering faster, operations has used process as armor
- “Change management” means “preventing change”
- But, they can’t be blamed - they need help!

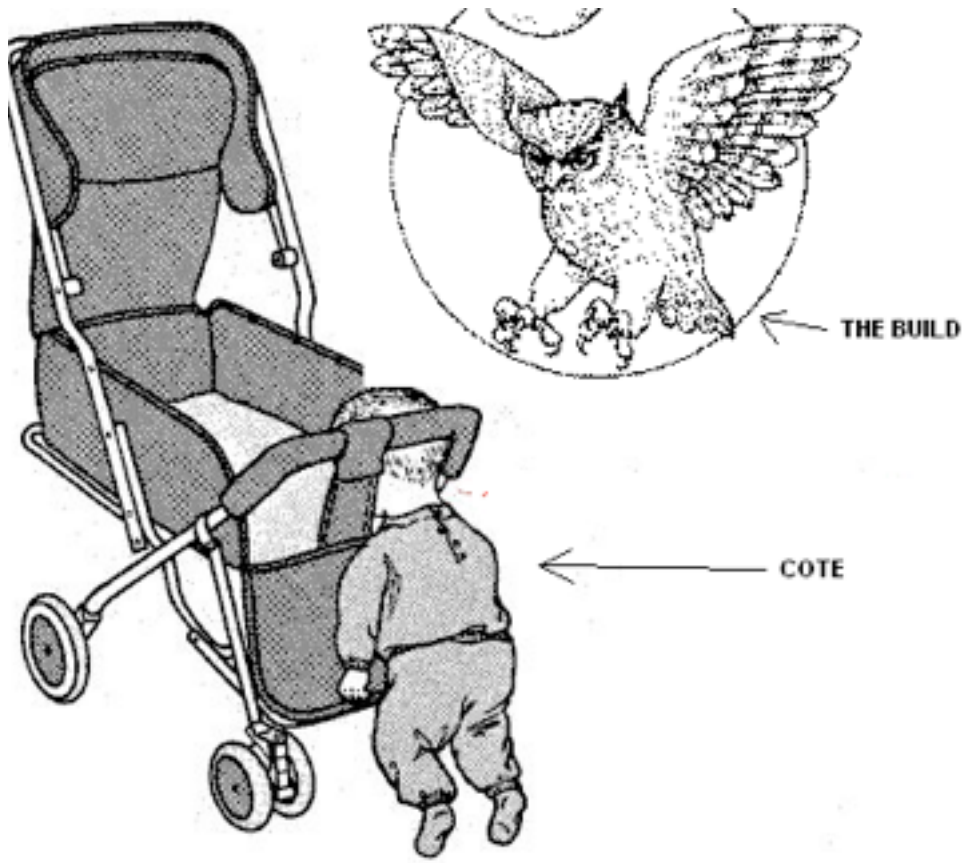
making friends with ops

- Learn what/how operations people talk & worry about
- Service desks, automation, service catalogs, SLAs, provisioning
- Know their ivory tower & their muck

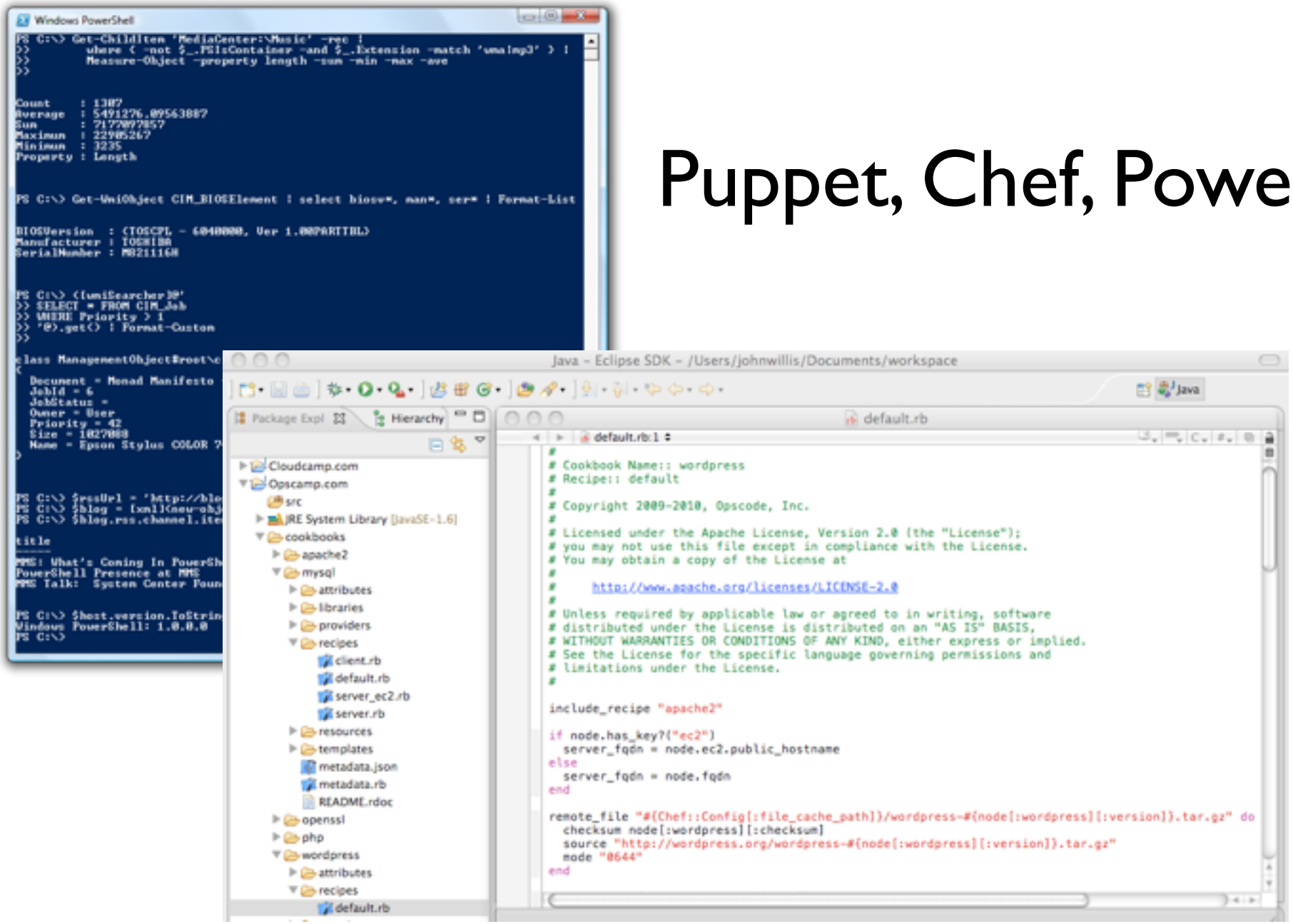


developing for the cloud

- Application geared towards automated delivery
- Quick and easy to configure
- Development must *program* operations - modeling, instrumenting
- The window test



“operations as code”



Puppet, Chef, PowerShell

“fully Automated Provisioning”

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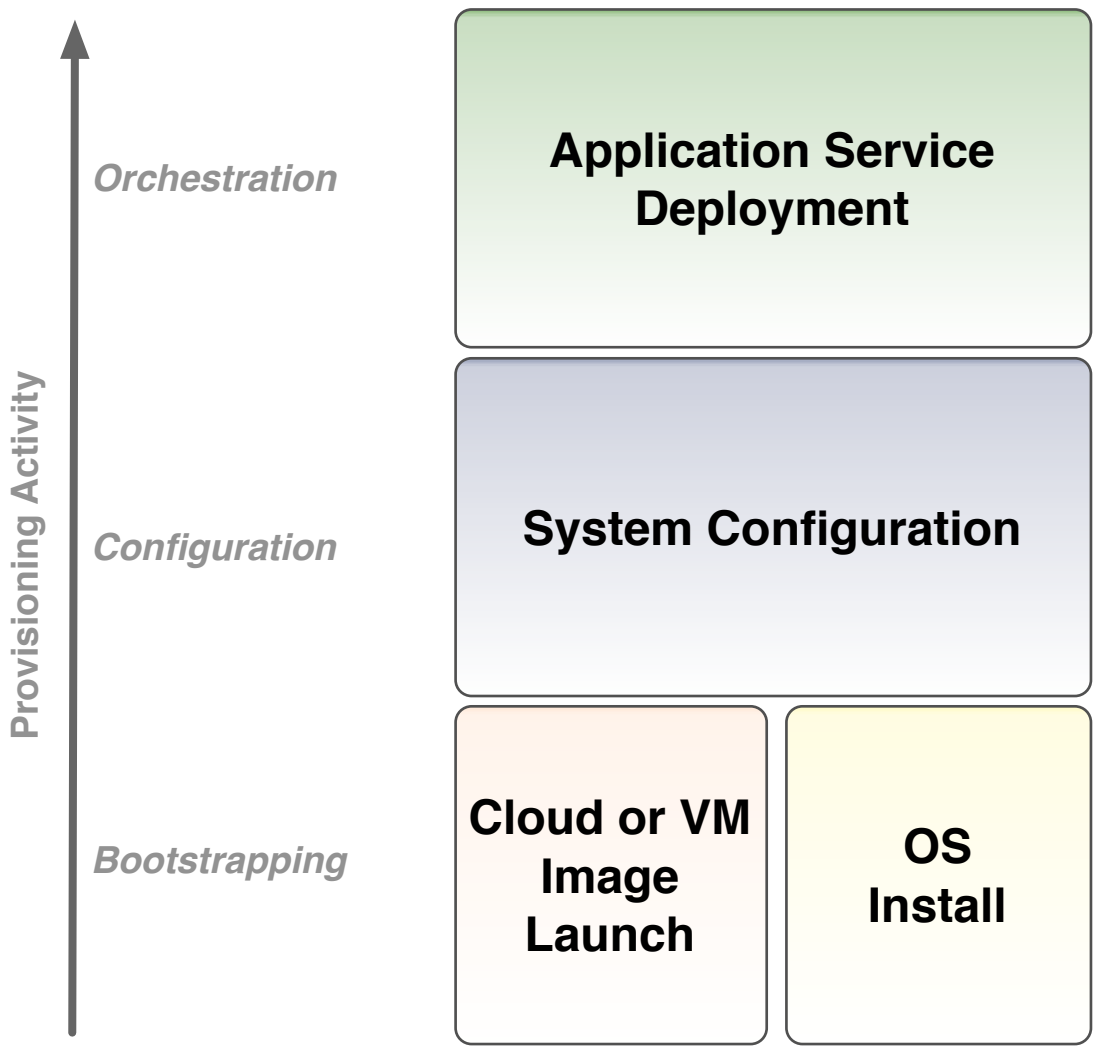
One vendor’s take



From http://dev2ops.org/toolchain

a tool: cloud labs

- Self-service sysadmin
- As with virtualization, dev & QA are early frontiers
- Build-farms, no IT hassle
- Provisioning vs. Configuration

The Crazy aaS Dream

One day, the development team will complete the iteration

Every story works, and the app is shippable

Minutes after the review meeting, operations clicks a button,
& the users start using the new features

Thank you!

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Credits & Co.

- Cloud model madness - http://stage.vambenepe.com/archives/1355
- Larry quote: http://news.cnet.com/8301-19413_3-10448200-240.html
- Burger, CC-BY: http://www.flickr.com/photos/yogma/3630108509/
- Woman "user": http://www.flickr.com/photos/smithsonian/2536001835/
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- Crazy wiring: http://www.flickr.com/photos/clonedmilkmen/3604999084/
- Chef screenshot: John Willis (john@opscode.com)
- PowerShell screenshot: http://en.wikipedia.org/wiki/File:Windows_PowerShell_1.0.png
- Brian Sweat quotes: http://www.riaweekly.com/2010/01/26/riaweekly069/
- Fully automated provisioning: http://dev2ops.org/toolchain