

Cloud State of the Union, 2015

Or, “What’s up with cloud, 5 years later.”

@cote – ACUG, 20 Jan 2015

Slides: <http://bit.ly/ACUGcloud2015>

Conclusions

1. Well, “cloud” sure as hell is a thing
 - We got ourselves a pretty clear definition, that has quickly faded in memory
 - Large, growing market displacing on-premises/packaged software
 - SaaS FTW!
2. People want cloud benefits, but fear public cloud
3. Cloud Math
 - $IT \approx Cloud$
 - $Cloud \approx (SaaS + Developers)$
 - $IT - SaaS \approx developers$
4. Your Plan: (1.) SaaS, (2.a.) hire some programmers, (2.b) buy/build a platform (3.) Profit!

Hello!



@cote

<http://cote.io>

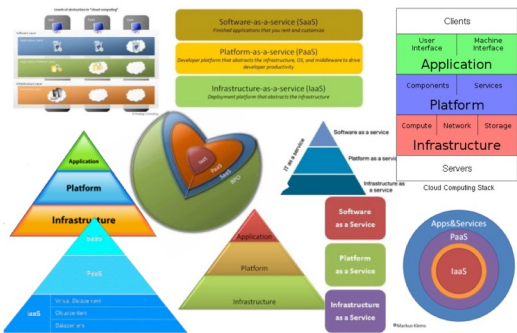
SoftwareDefinedTalk.com Podcast

I've worked in development, strategy/M&A, as an industry analyst, and marketing at places like BMC, Dell, RedMonk, 451 Research, and now Pivotal.

I gave [the opening ASUG talk in 2010](#)
(and then never came to meetings! I Suck!)

LAST WE MET...

what is "cloud"??



From William Vambenepe (@vambenepe)

burgers & aaSes

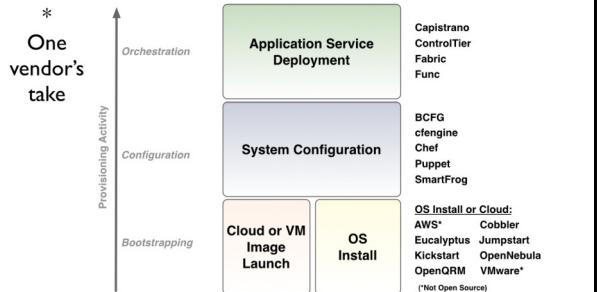


- SaaS, PaaS, IaaS - application, middleware, servers
- Public or private
- Amazon & everyone else, VMWare, Rackspace, others.
- Usually: virtualization, model-driven automation, web apps, dev/ops

things to point at

- IaaS - Amazon, Rackspace, Eucalyptus, vCloud, etc.
- PaaS - Force.com, Microsoft Azure, GAE, IPP, Heroku
- SaaS: SalesForce, Zoho, Google Apps, Service-now.com

"fully automated provisioning"



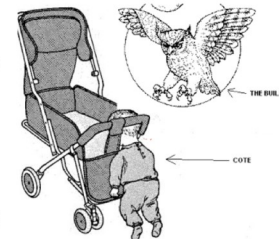
From <http://dev2ops.org/toolchain>

"operations as code"

Puppet, Chef, PowerShell

development - cloud concerns

- Application geared towards automated delivery
- Quick and easy to configure
- Development must *program* operations - modeling, instrumenting
- dev/ops - remember pagers?
- The window test



SINCE THEN...

NIST defined cloud, 2009-2011

Essential Characteristics

1. On-demand self-service
2. Broad network access
3. Resource pooling
4. Rapid elasticity
5. Measured service

Service Models

1. SaaS
2. PaaS
3. IaaS

Deployment Models


1. Private Cloud
2. Community Cloud
3. Public Cloud
4. Hybrid Cloud

Some things I'd forgotten: PaaS

PaaS: “The capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider. The consumer *does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.*”

Some things I'd forgotten: Private Cloud

Private Cloud: “The cloud infrastructure is provisioned for exclusive use by a single organization comprising multiple consumers (e.g., business units). It may be *owned, managed, and operated by the organization, a third party, or some combination of them, and it may exist on or off premises.*”

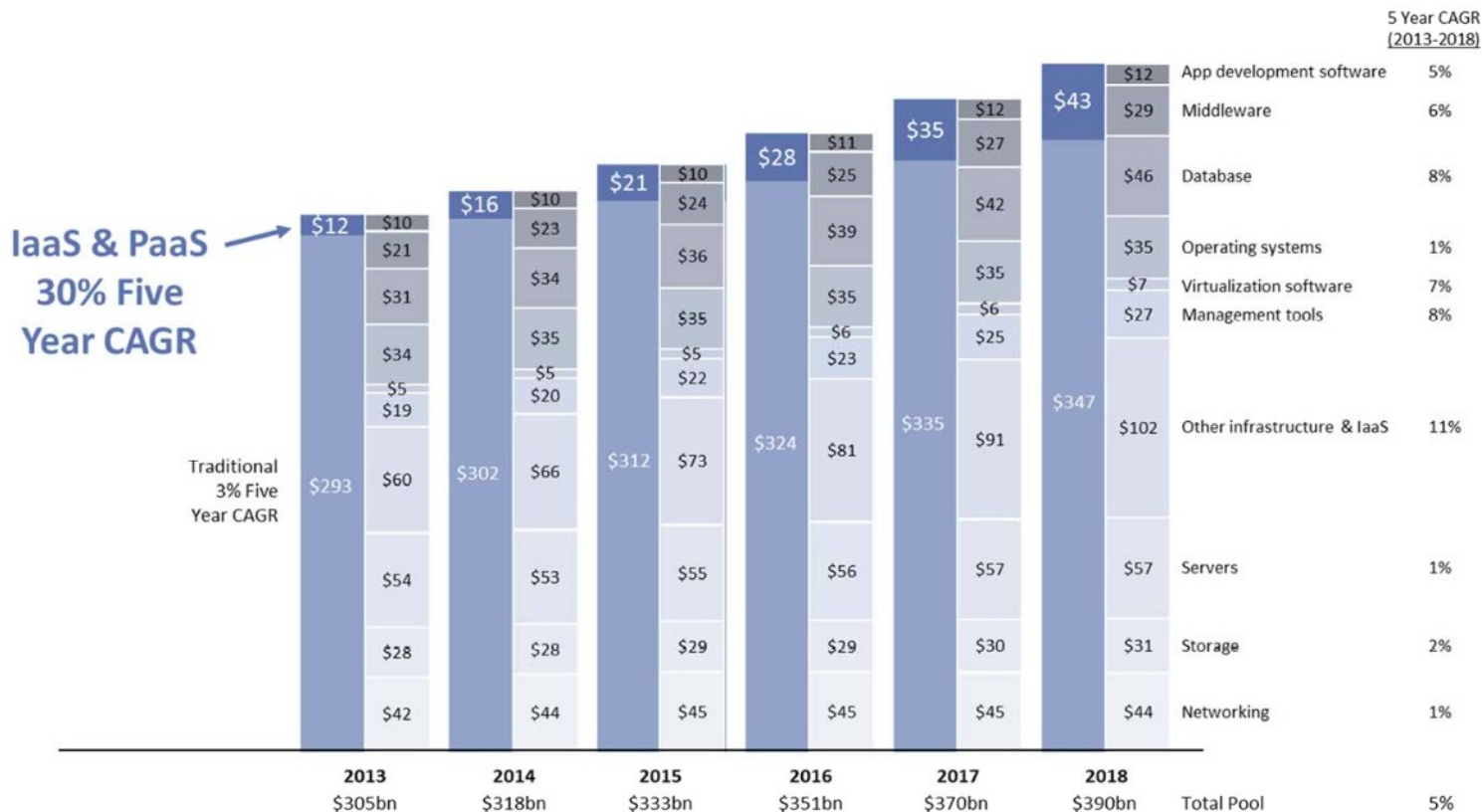


The
Bluebox/Metacloud case

Some things I'd forgotten: Hybrid Cloud

PaaS: “The cloud infrastructure is a composition of *two or more distinct cloud infrastructures* (private, community, or public) *that remain unique entities*, but are *bound together by standardized or proprietary technology that enables data and application portability* (e.g., cloud bursting for load balancing between clouds).”

Exhibit 2: Cloud platform TAM and total "pool" of enterprise spend cloud platform vendors can potentially disrupt (\$bns)



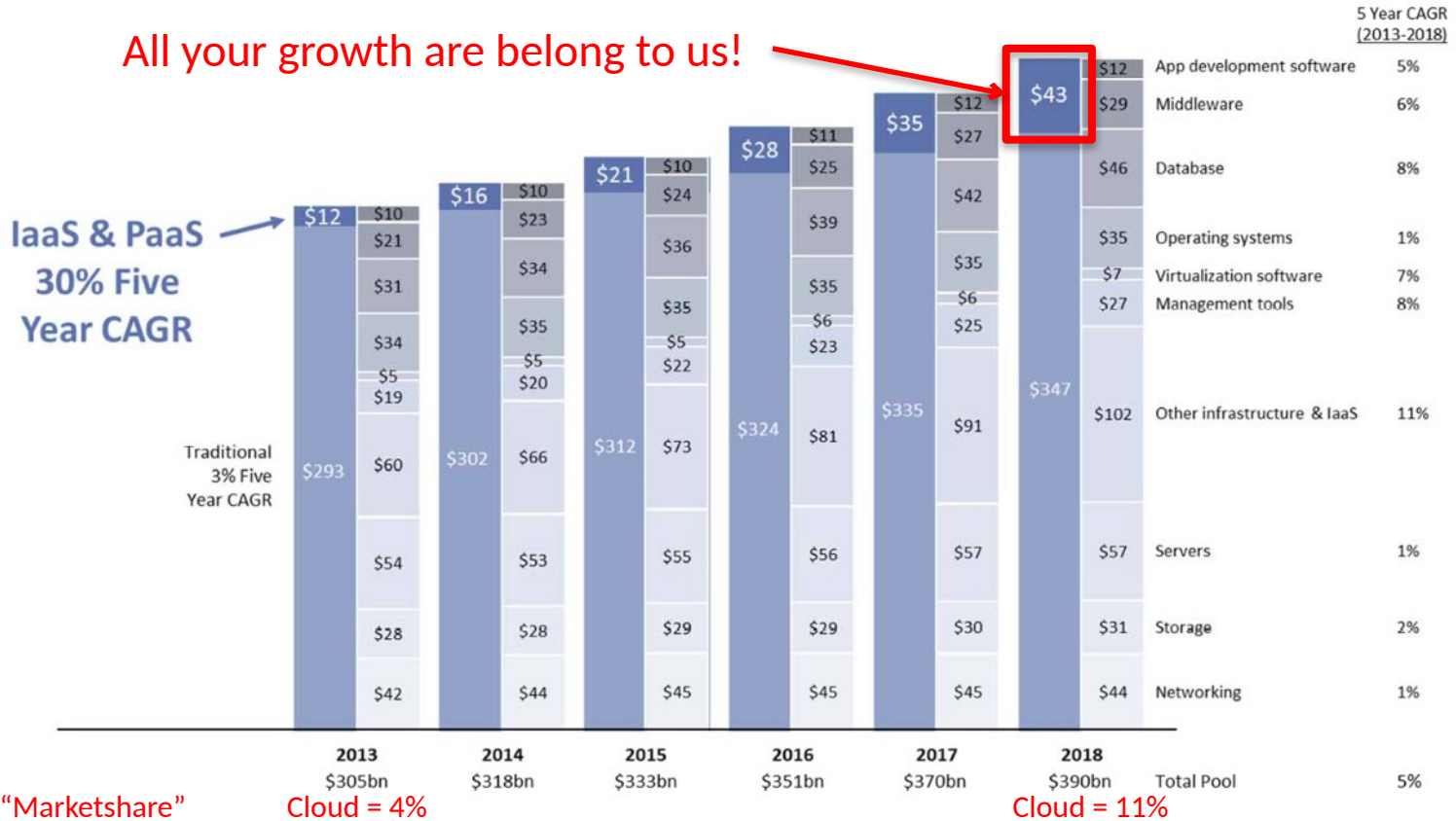
Source: Gartner 4Q14 and December 2014 forecast, Goldman Sachs Investment Research. Traditional includes infrastructure software and data center spend (excluding enterprise communications applications). Note: "Other infrastructure software" includes data integration and data quality tools, security, storage management and IaaS.

What the hell does that mean?

Let's learn us some charts!

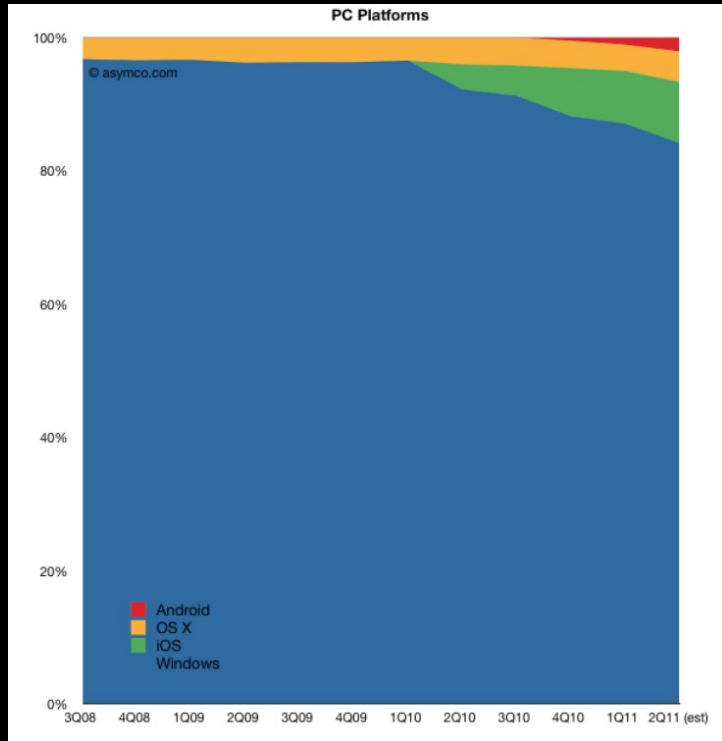


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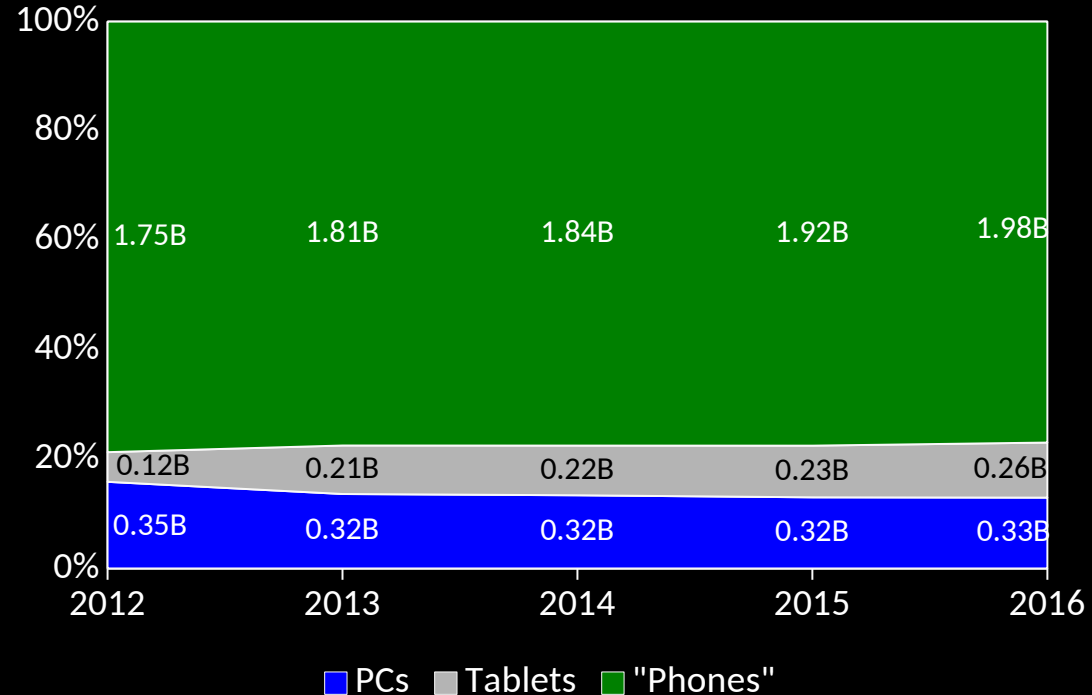


Source: Gartner 4Q14 and December 2014 forecast, Goldman Sachs Investment Research. Traditional includes infrastructure software and data center spend (excluding enterprise communications applications). Note: "Other infrastructure software" includes data integration and data quality tools, security, storage management and IaaS.

This should remind you of something...



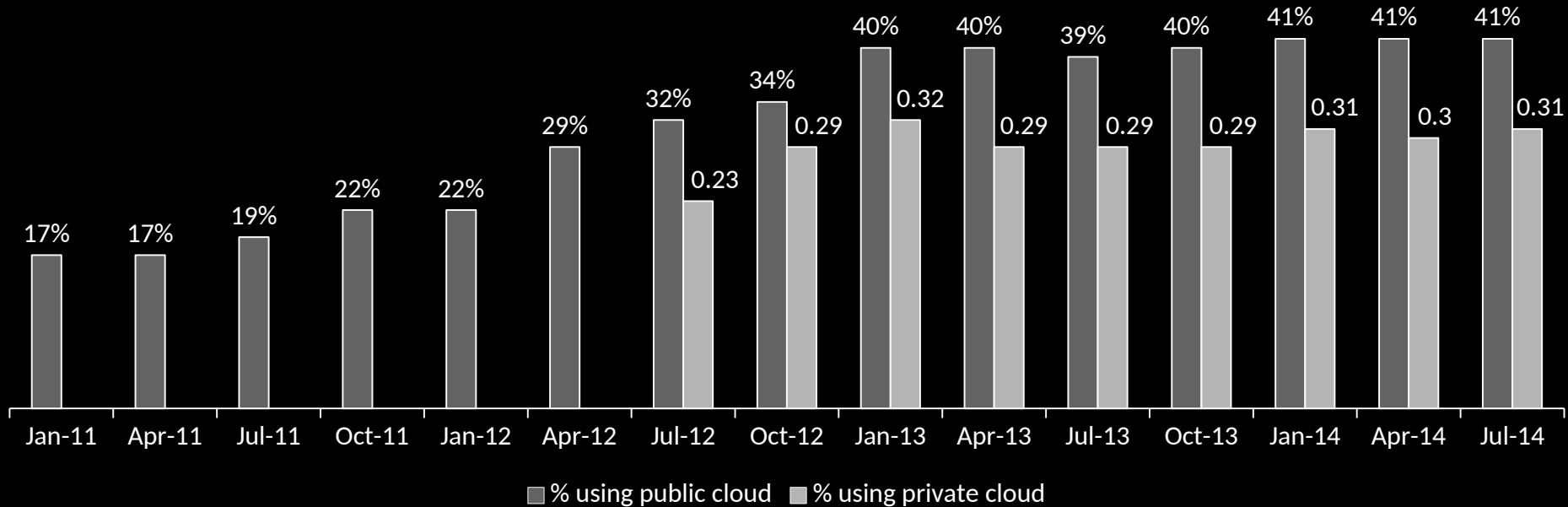
Device Marketshare, by shipments (Gartner, Oct. 2013, July 2014, Jan 2015)



CLOUD IS HAPPENING

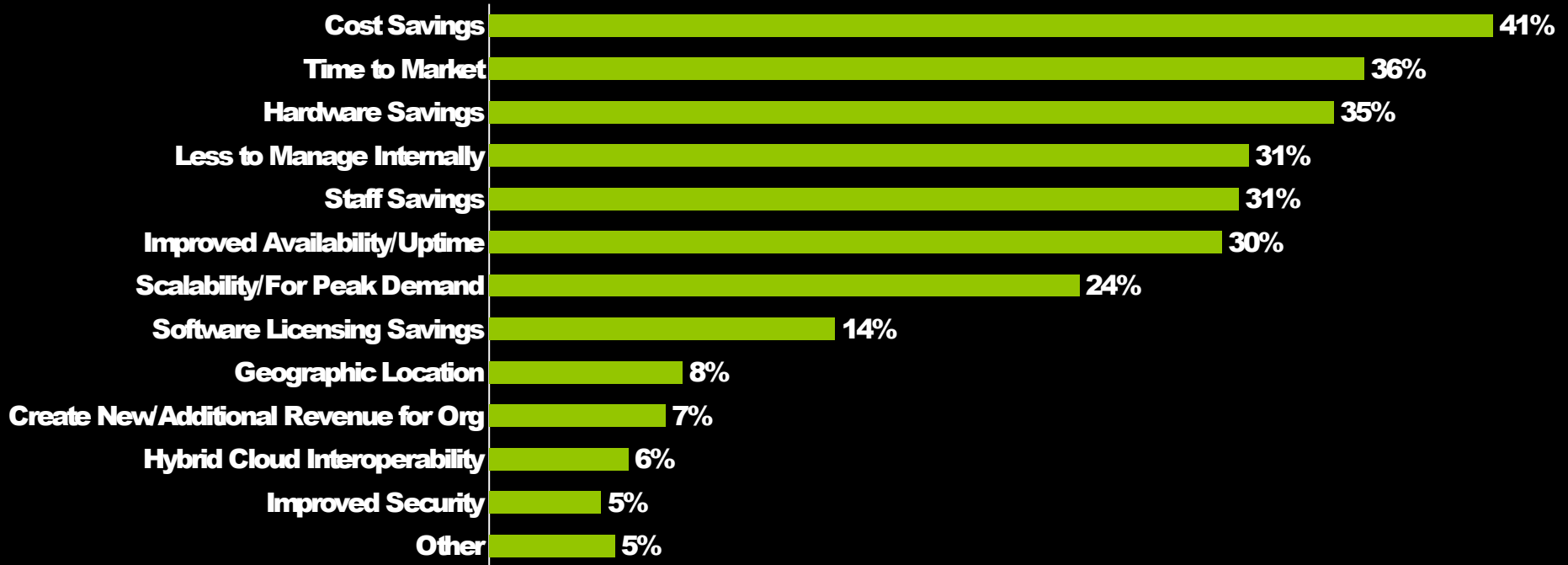
“I want to run my datacenter like Google”

Corporate Market: Public and Private Cloud Usage
(451 ChangeWave, private not tracked until Jul 2012)



Source: Two studies, first with 1,137 respondents, second with 1,097, involved in their company's IT buying decisions participated in the Jan 2014 and Jul 2014 survey, including 470 and 445 whose company currently use public cloud. "Corporate Cloud Computing Trends," 451 ChangeWave, Feb, 2014 & ["Corporate Cloud Computing Trends," 451 ChangeWave, Aug 2014.](#)

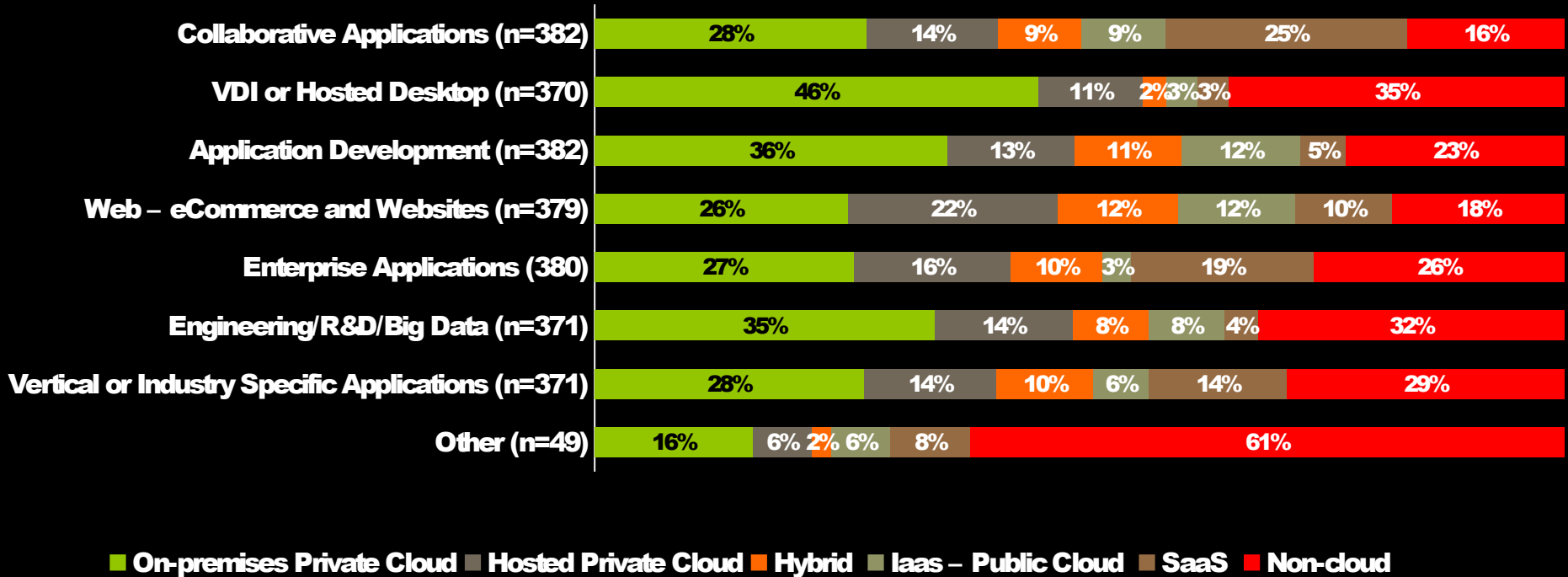
Why do cloud?



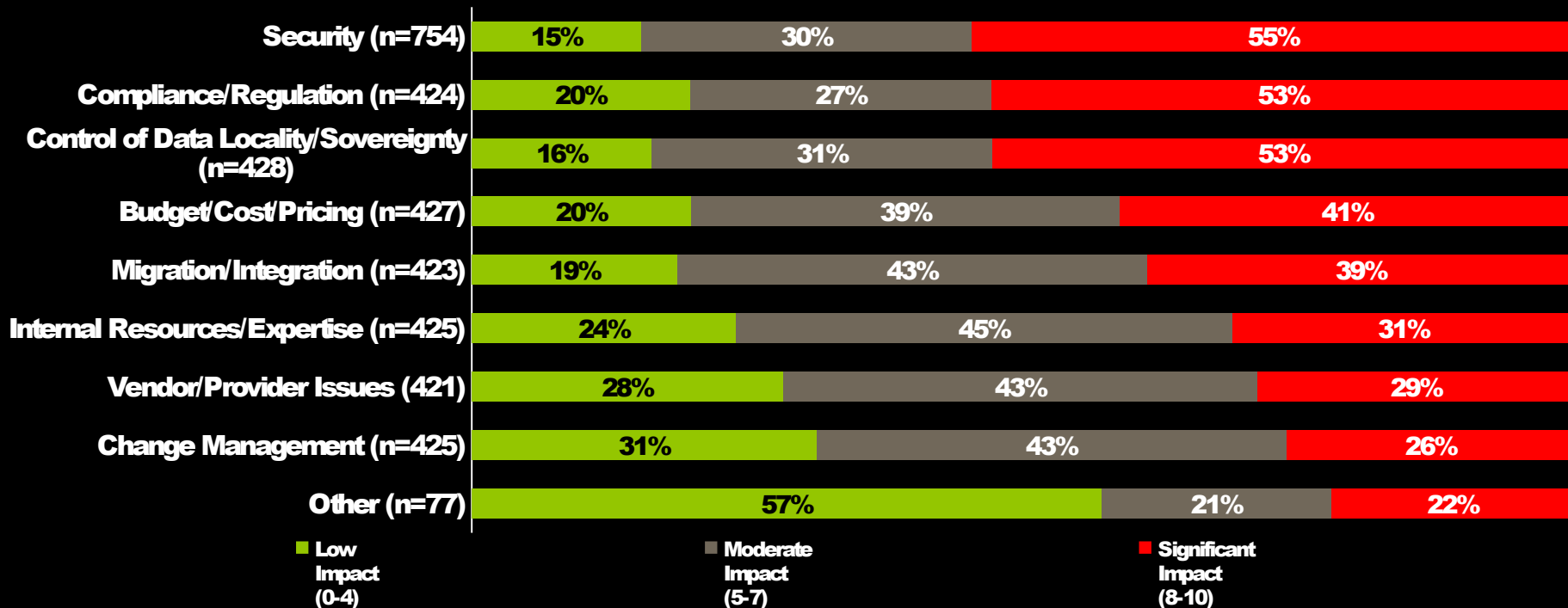
n=717. Q. What were the key factors in building the business case for cloud-computing investments at your organization? Please select your top three.

Source: "[Voice of the Enterprise: Cloud Computing Q4 2014](#)," 451 Research.

Q. Over the next two years, what will your primary deployment method most likely be for each of the following workloads?



Cloud FUD still dominates



Q. Please rate how much of an impact the following have on inhibiting your organization's use of cloud computing. Please use a 0 - 10 scale where 0 is "No Impact" and 10 is "Massive Impact." Includes respondents who use cloud and do not use cloud.

Source: "[Voice of the Enterprise: Cloud Computing Q4 2014](#)," 451 Research.

WHY CLOUD IS HAPPENING

“Cloud or die,” causes

Agile Biz

- SaaS
- Compete with SW

Rotating
Cloud
Buzz saw

IaaS & PaaS

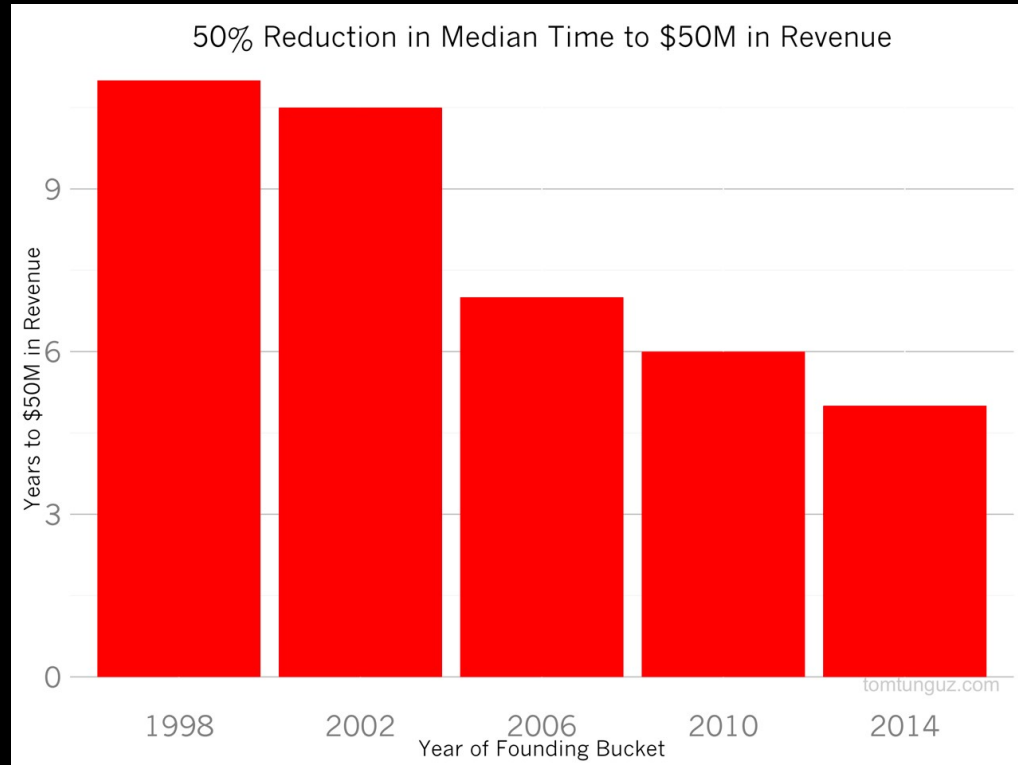
- Ops Automation
- Lower cost, faster

Mobile

- New UI, always on
- Leaky abstractions



Rapid SaaS growth shows buyer interest, frees up IT to focus on programming the business

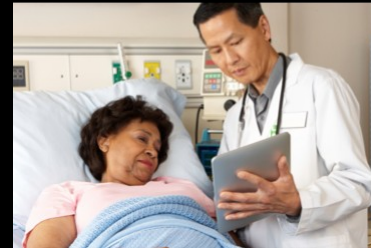


Think of the baseline as “no software,” and then you’ll understand how much software has to eat

Legacy...



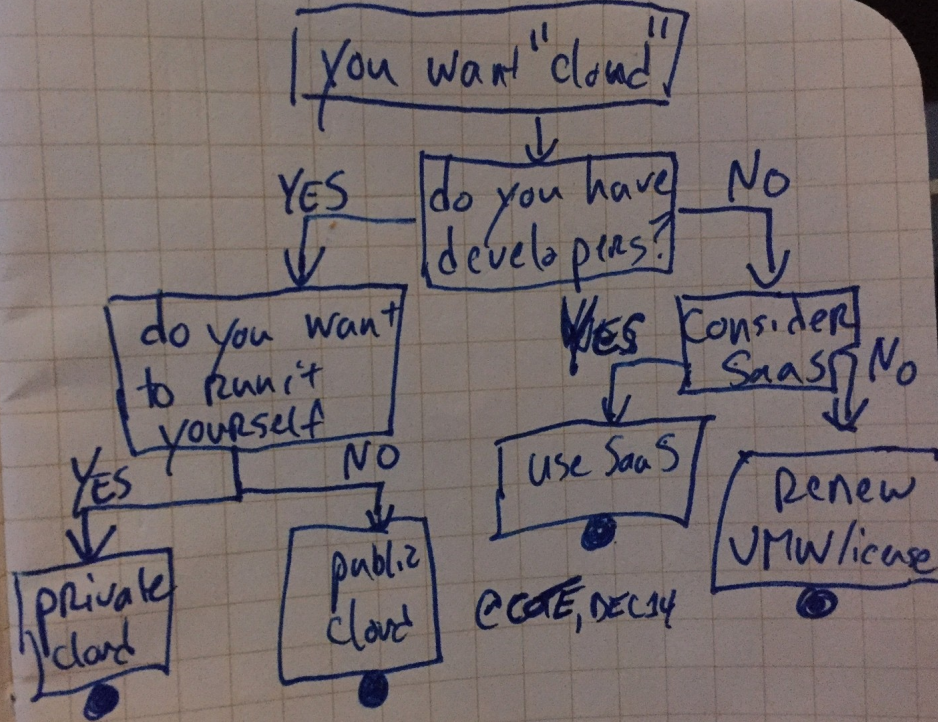
New...



Not seen here: white-collar tool-chains

Sources: [451 HCTS NA 2013 conference](#); [Chris Dancy](#).

IT - SaaS ≈ developers



But, studies show that donkey adoption is slow

Without a male with which to mate,
the tribe of the unicorn will be no more.



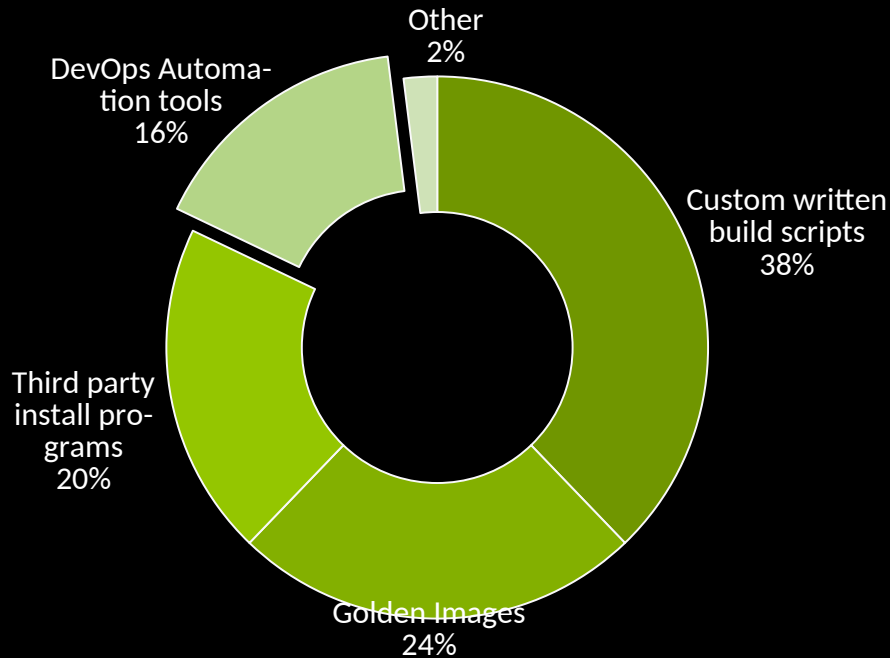
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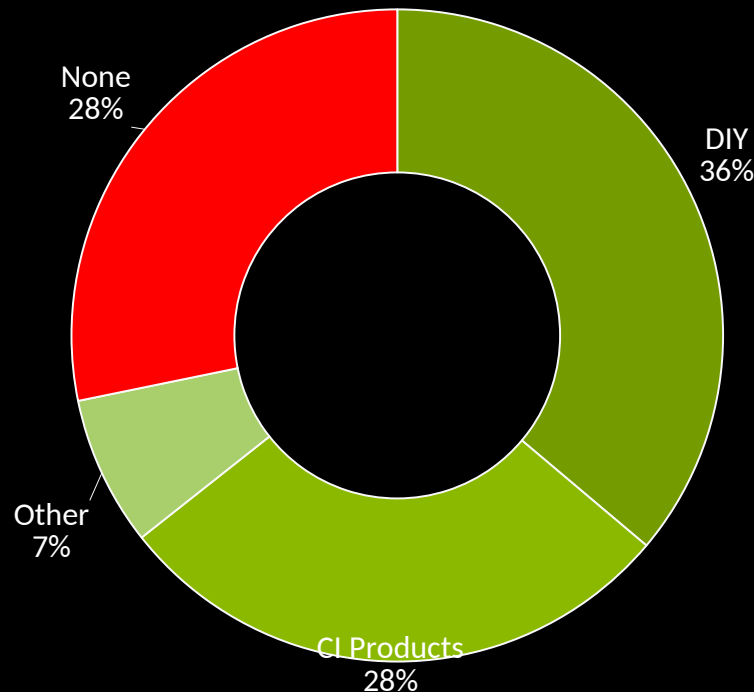
pbfcomics.com

Utopic DevOps tools use points to immature DevOps market, perhaps 3-5 years out before it's "mainstream"

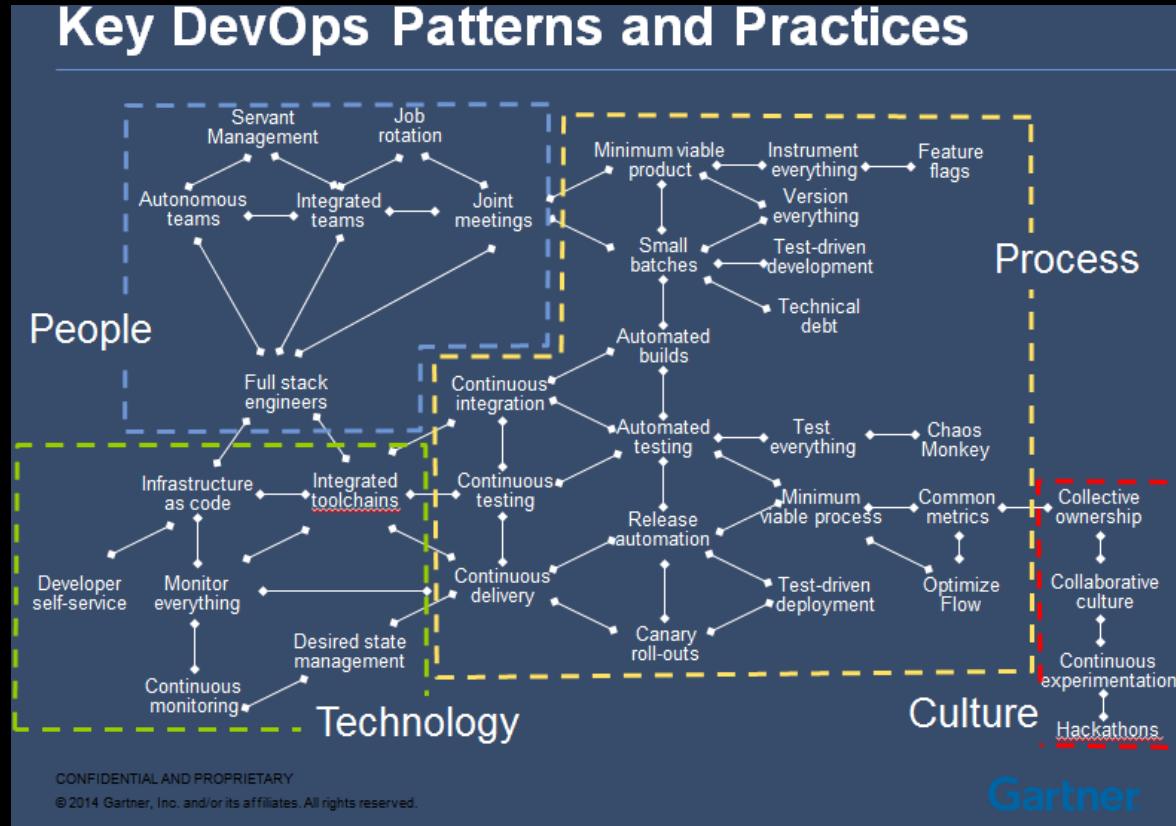
When designing and writing your software, how do you model and specify how the application should be deployed?



What build automation, or continuous integration (CI) tools are you using?



As we know, “culture” is harder



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LOOKING FORWARD

End-user

Cloud condiments
(fries eaten)

App/UI (PaaS)

Middleware (PaaS)

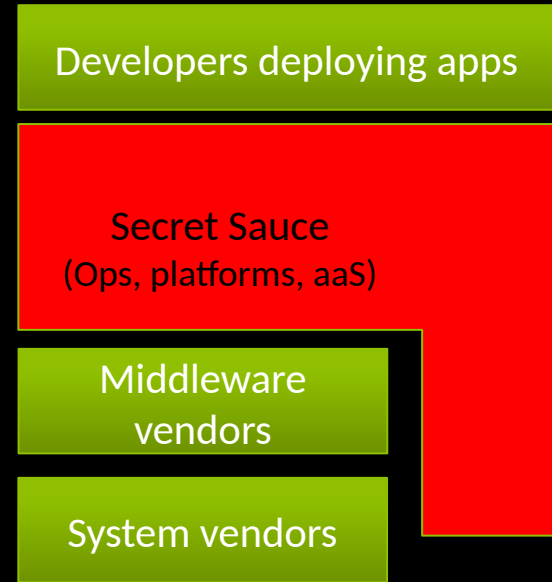
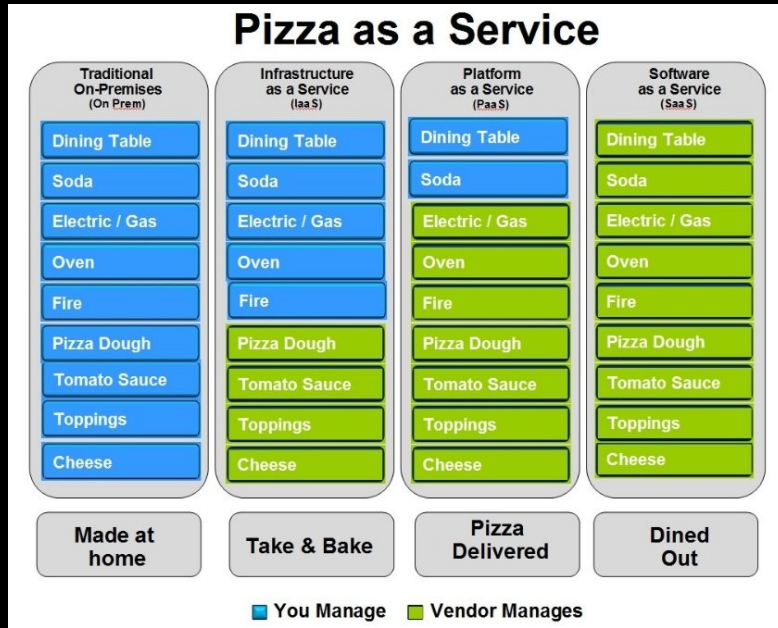
Hardware (IaaS)



Ops is the Secret Sauce

Anyone can throw together buns and meat, but making it all work together requires a bunch of secret sauce

Someone still has to make & bake the pizza



A product centric view of cloud hides the hard work:
making it all work together...someone's gotta do it

CONCLUSIONS

Conclusions (again)

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[Insert some advice here, call to action, etc.]

1. “Get yourself a double cheeseburger” (IaaS & PaaS)
2. “The cheese is ooziin” (breadth)
3. “The fries bite back” (changes you)

THANKS!

Slides: <http://bit.ly/ACUGcloud2015>

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