

451

Research

ANALYZING THE BUSINESS
OF ENTERPRISE IT INNOVATION

What does “enterprise grade” mean really? A triangle model to deal with an ever evolving thought technology

#uptime14, 21 May 2014
@cote | cote@451Research.com

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WWW.451RESEARCH.COM

Michael Coté

Research Director, Infrastructure Software

cote@451research.com

@cote – <http://cote.io>

Responsible for systems management, application development, cloud software, and misc. “infrastructure software” agenda.

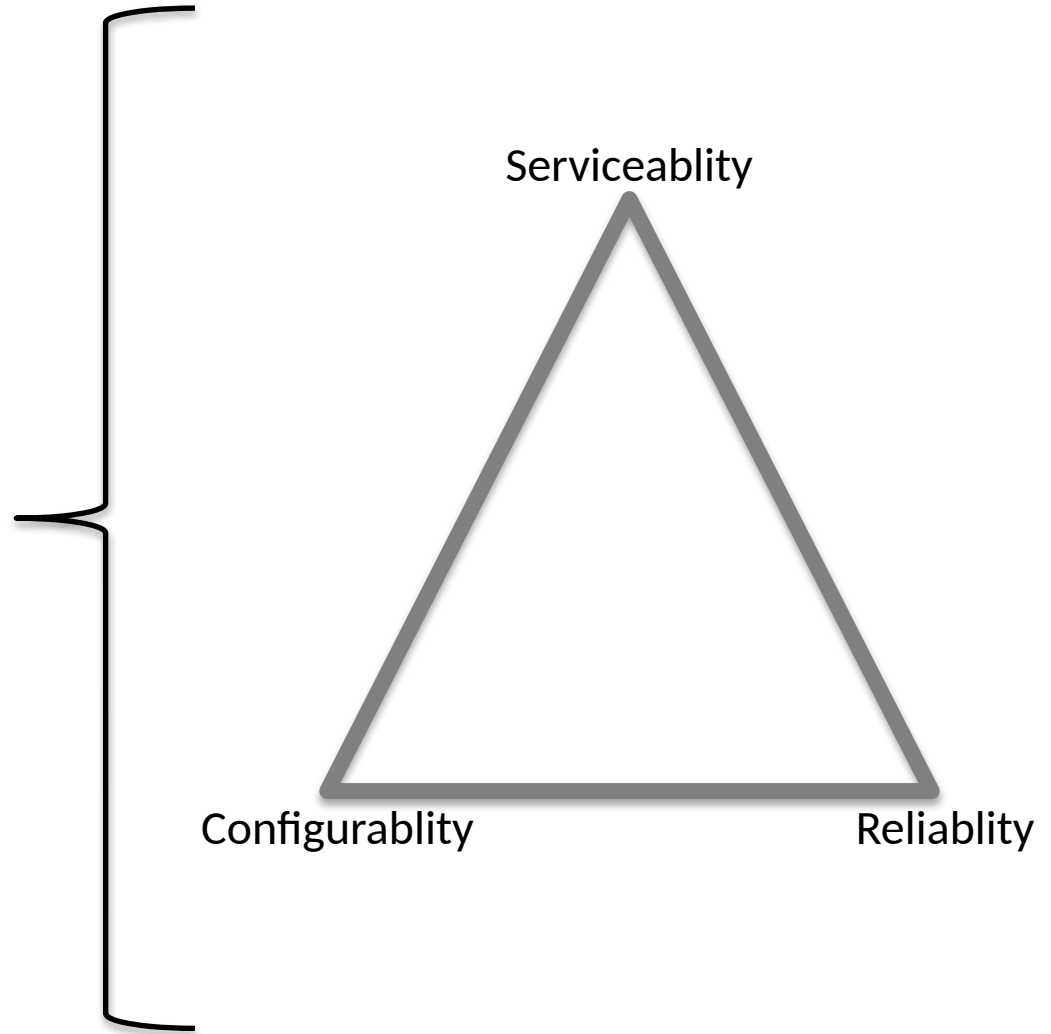
Before 451 I worked Dell in corporate strategy/M&A for software & cloud; as an analyst for 6+ years at RedMonk; software developer for 10+ years.



The Bastard Enterprise Iron Triangle Model

(You know the drill:)

You can pick two



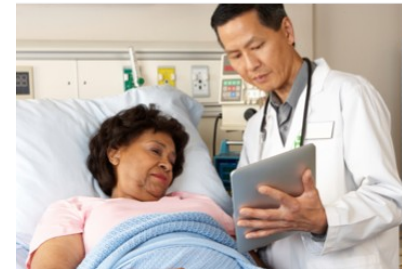
There's a lot of
re-writing and
re-platforming
ahead of us

Companies are becoming “software defined businesses”

Legacy...

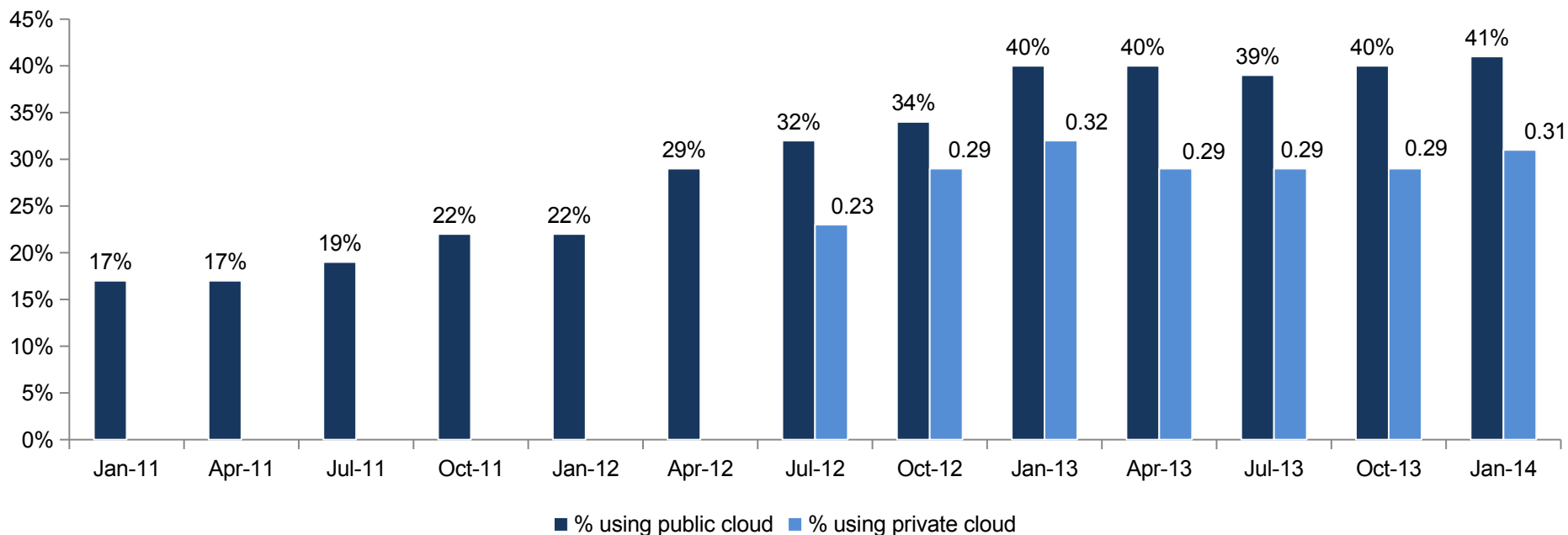


New...



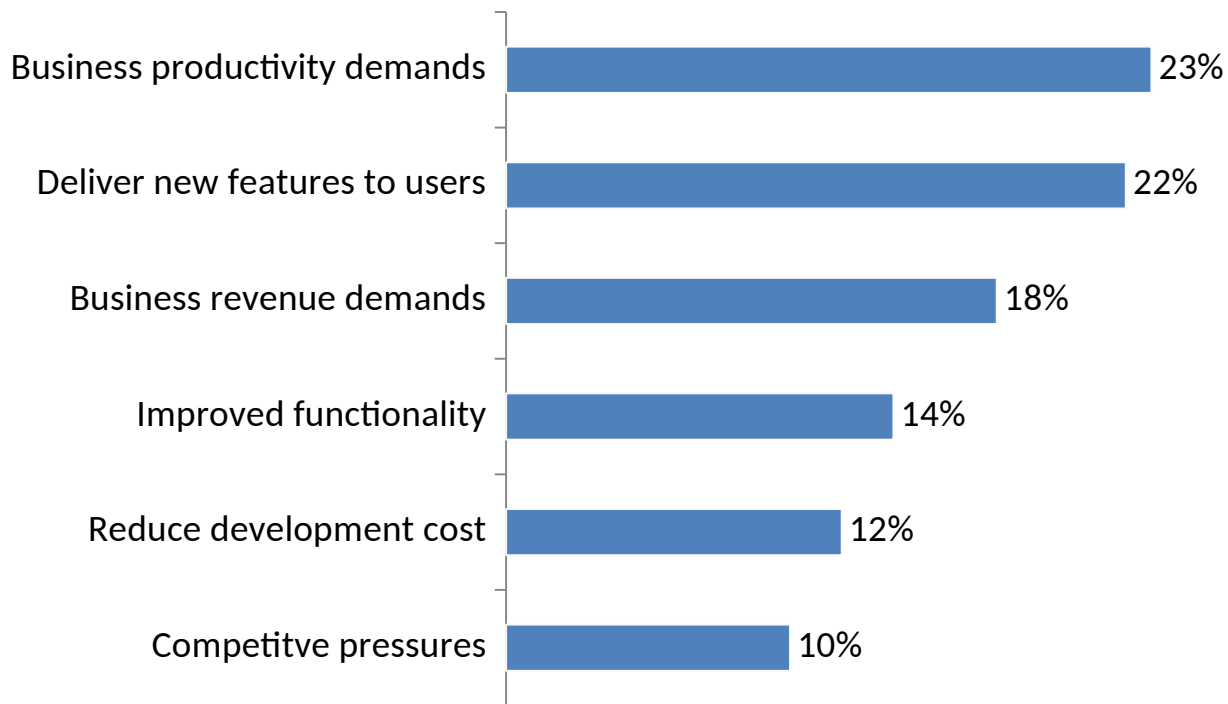
To meet the needs of software, cloud is being deployed

Corporate Market: Public and Private Cloud Usage
(Private not tracked until Jul 2012)



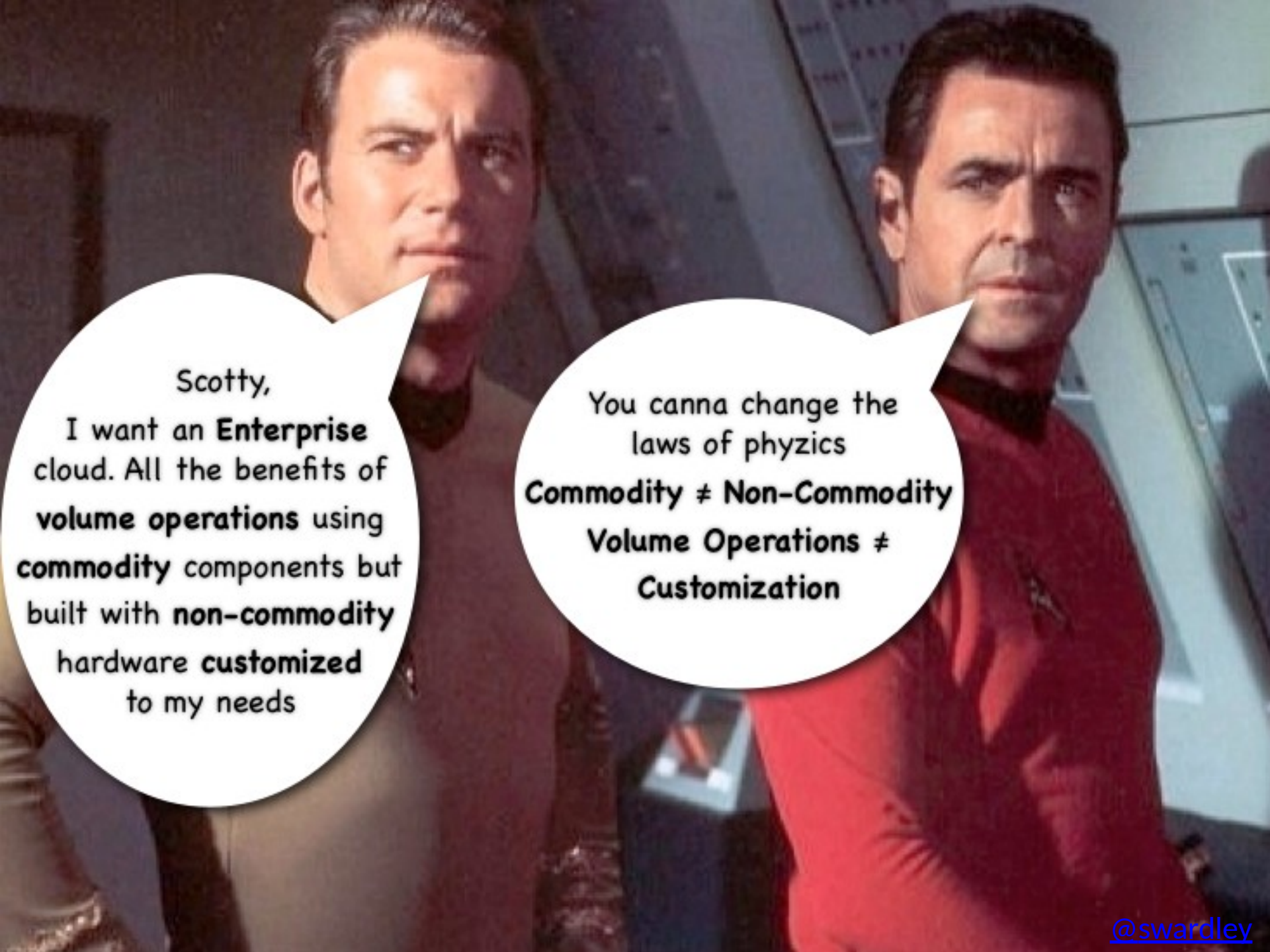
54% of early DevOps teams would like to deploy more frequently, with 48% already deploying 30 days or less

Of these drivers, which one is the most significant driver of demand for reducing release cycles



Findings:

- 51% cite business and strategy drivers: competitive, business productivity, revenue
- 49% cite technology functionality, new feature sets, reduced development costs



Scotty,

I want an **Enterprise** cloud. All the benefits of **volume operations** using **commodity** components but built with **non-commodity** hardware **customized** to my needs

You canna change the laws of physics

Commodity ≠ Non-Commodity

Volume Operations ≠ Customization

So...what does
“enterprise
grade” mean
anyway?

We know it has something to do with being an “adult”...

Charles Lowell @cowboyd Following

Some days, I think we should trash our marketing copy and replace it all with “The Frontside: Grown-ups Writing Software for Grown-ups”

from Windsor Road, Austin

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3:09 PM - 28 Apr 2014

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Coté @cote · Apr 28
@cowboyd they call that “enterprise.” (That just happened!)
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Bae of Pugs @warrenhenning · Apr 28
@cote @cowboyd i don't know, I think my “throw a tantrum and go watch cartoons if it doesn't work the first time” methodology is quite good
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Coté @cote · Apr 28
@warrenhenning @cowboyd that's also “enterprise.”
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“-ilities”: functionality, capabilities, robustness, auditable...

 **James Watters**
@wattersjames Following

@cote ready for big teams, ready for audit and compliance, ready for clear engineering and support escalation would come to mind

📍 from New York, NY

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Business/IT Alignment, until your eyes bleed

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@cote suits the IT department just about ok, but everyone else hates it.

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The predictably snarky...



Tim Bray
@timbray



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RETWEETS 2 FAVORITES 2



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@clapoint



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@cote Should = solves enterprise problems in a reasonable cost/timeframe. Usually = high cost & 'three-armed sweater' features.

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Jordan Friedman
@jmf



Following

@cote "The sales team takes golfing!"

from Philadelphia, PA

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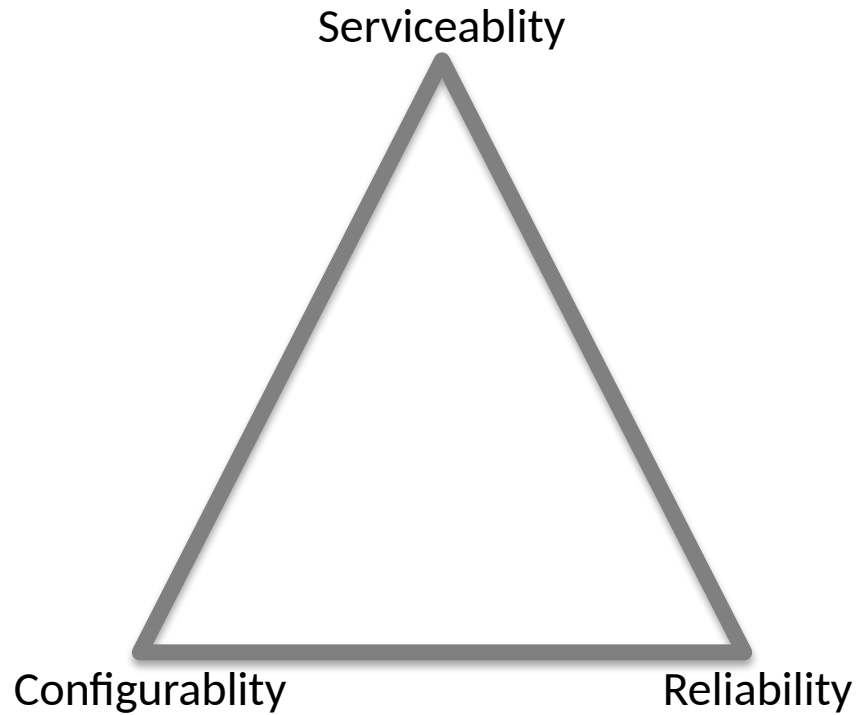
2:20 PM - 30 Apr 2014

me



Defining the triangle's points & their problems

The Bastard Enterprise Iron Triangle Model



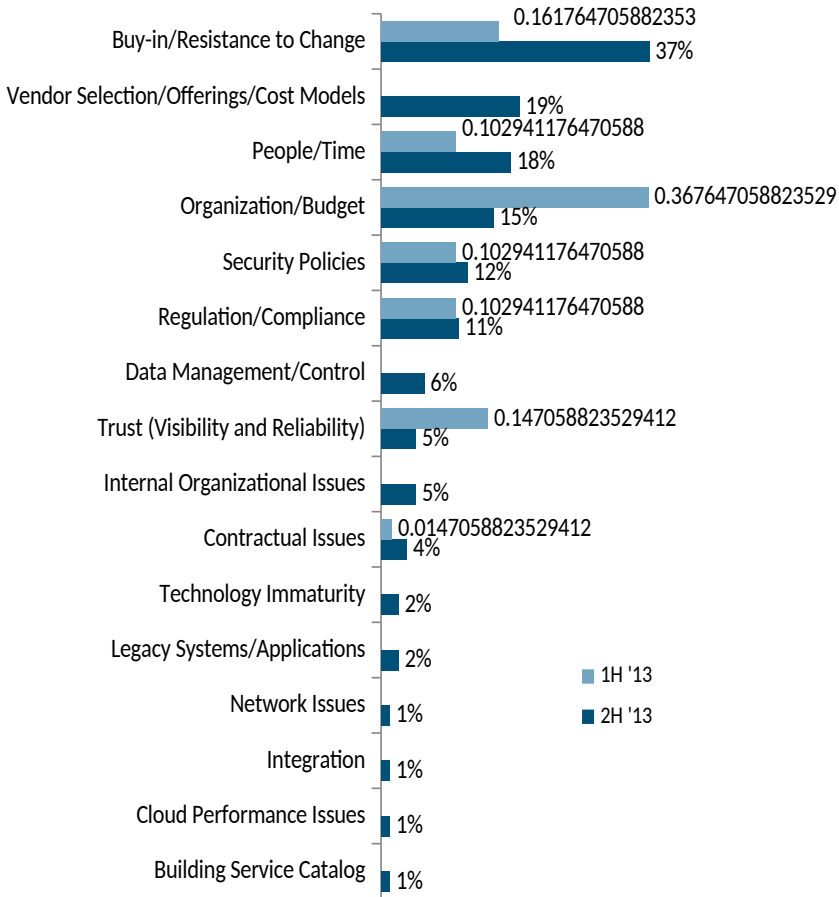
Serviceability – “a lot of effort went into making this effortless”

- The more customization, the harder it is to manage and have it still work
- If it's always breaking, it's not easy to manage – cf. fire-fighting
- You'll need a lot of good people for all those servers...

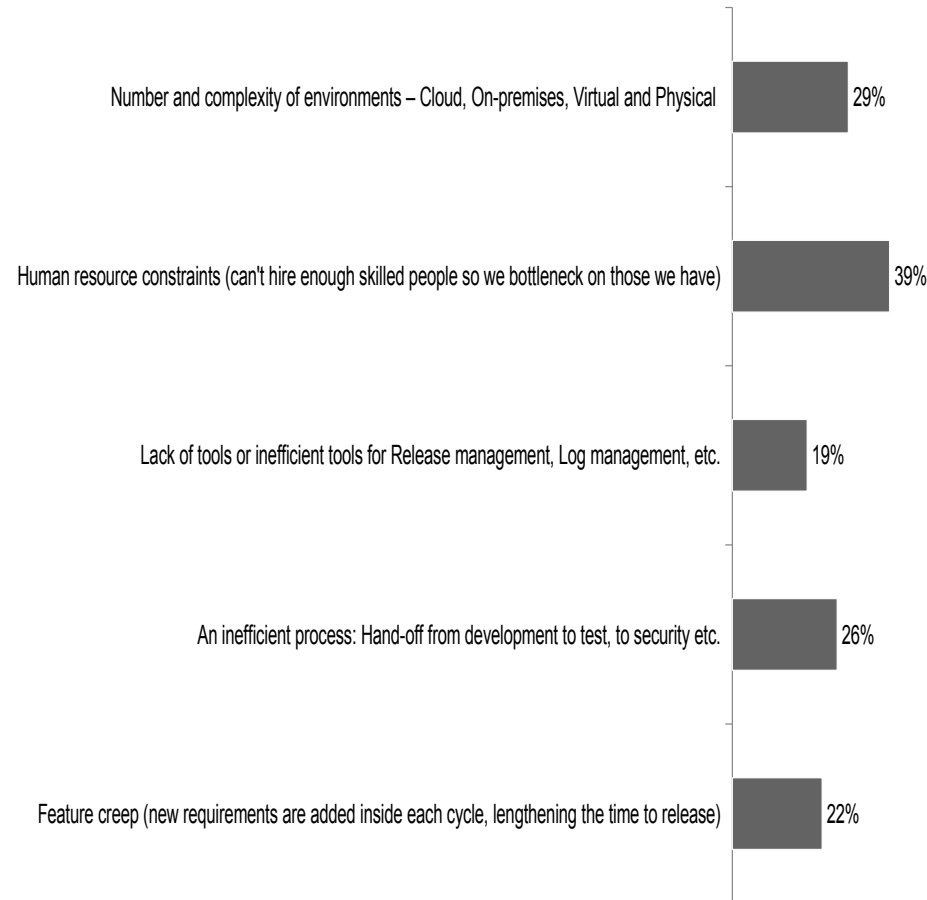
Company	Admin to Server Ratio
Facebook	1:20,000
Highly customized, old days	1:60
“Cookie Cutter,” old days	1:150
2012/2013 TheInfoPro estimates	1:99 physical servers 1:142 virtual servers
Pre-vBlock switch	12 admins for equivalent kit
vBlock	3 admins to 1 vBlock

Problem: a good admin is hard to find

Cloud: Non-IT Roadblocks



DevOps: What is holding you back from reducing release cycles?



Configurability – getting exactly what you want incurs “infrastructure debt”

- Each traditional enterprise application is a one off, requiring care and feeding
- Here come the LDAP clowns and Mr. MDM
- Conway’s infinite pizza team
- New automation tools make software-based, API-heavy assets much more agile



Problem: pets vs. cattle



Service Model



- Pets are given names like pussinboots.cern.ch
- They are unique, lovingly hand raised and cared for
- When they get ill, you nurse them back to health



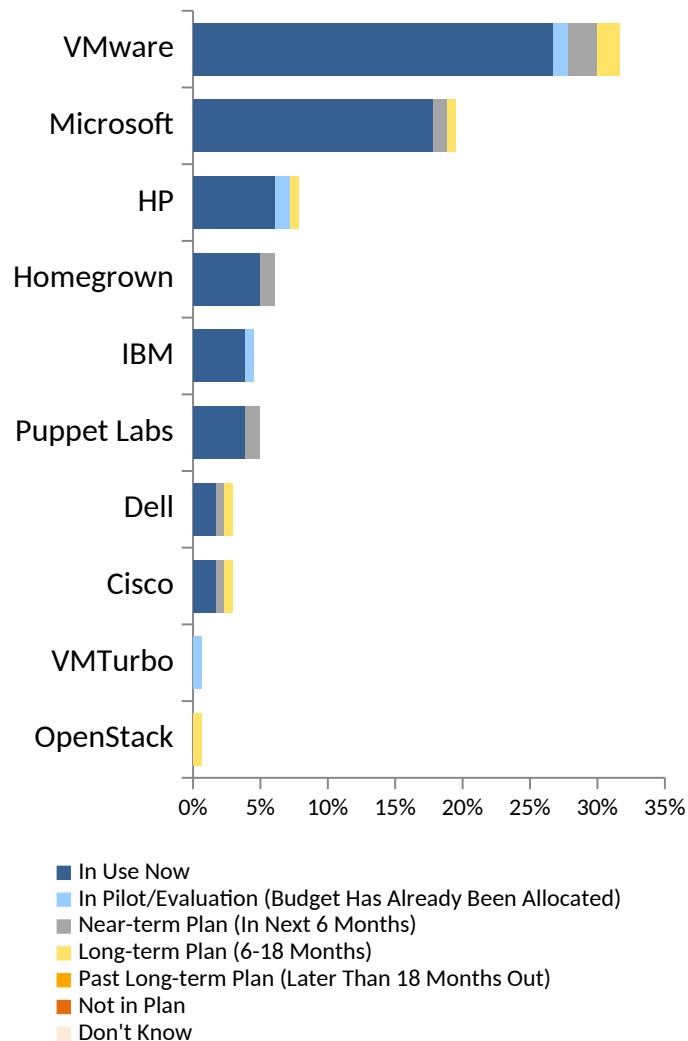
- Cattle are given numbers like vm0042.cern.ch
 - They are almost identical to other cattle
 - When they get ill, you get another one
-
- Future application architectures should use Cattle but Pets with strong configuration management are viable and still needed

Gavin McCance, CERN

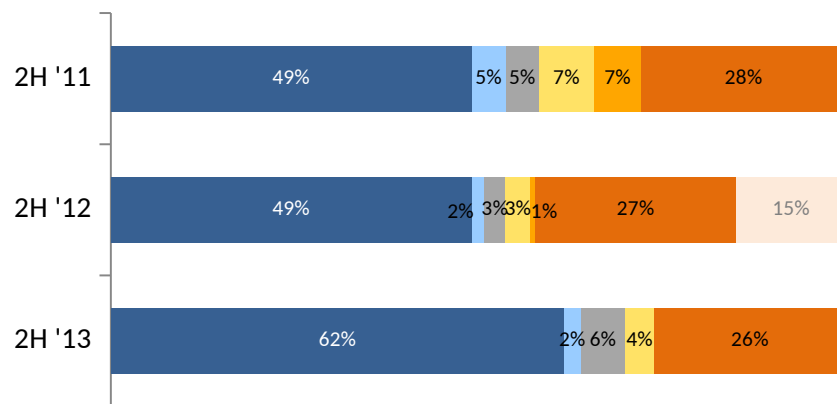
17

Cattle management tools are on the map, but pets rule

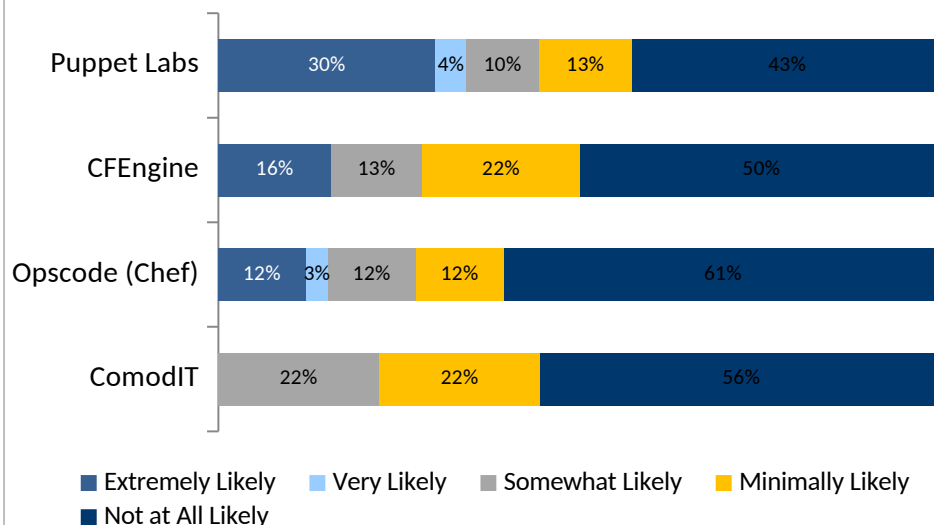
Vendor Implementation



Implementation Roadmap



If Aware, Likelihood of Use a Vendor

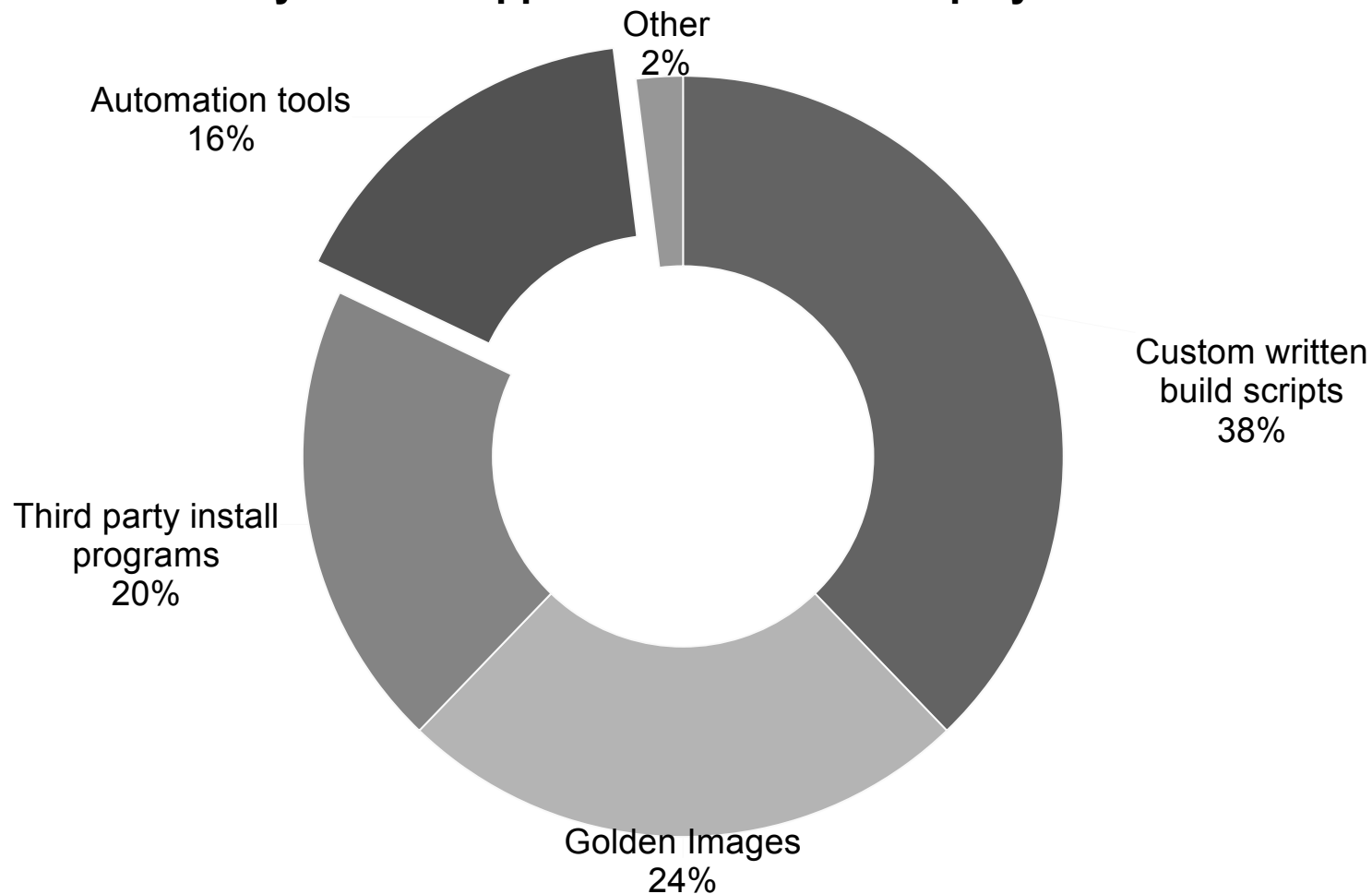


Source: [Servers & Virtualization - Wave 13](#)

Left Chart, n=180. Top Right Chart: 2H '11, n=108; 2H '12, n=175; 2H '13, n=180. Bottom Right Chart: 2013 vs. 2012, n=177; 2014 vs. 2013, n=177. The 'implementation' chart use the same legend as the vendor chart. Prior to 2H '12, 'Don't Know' responses were removed from calculations. Bottom Left Chart, Puppet Labs, n=70; Opscode (Chef), n=33; CFEngine, n=32; ComodIT, n=9.

Even in the mainstream DevOps world, adoption is early

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



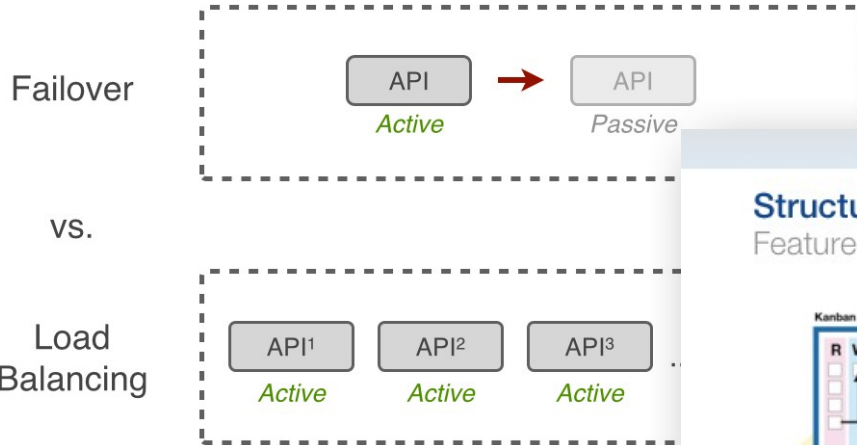
Reliability – “it works!” all depends on the requirements

- Keeping up with the 9’s – uptime vs. “works” time
- What regulations do you need to comply with?
- How many full-blown transactions do you actually need?

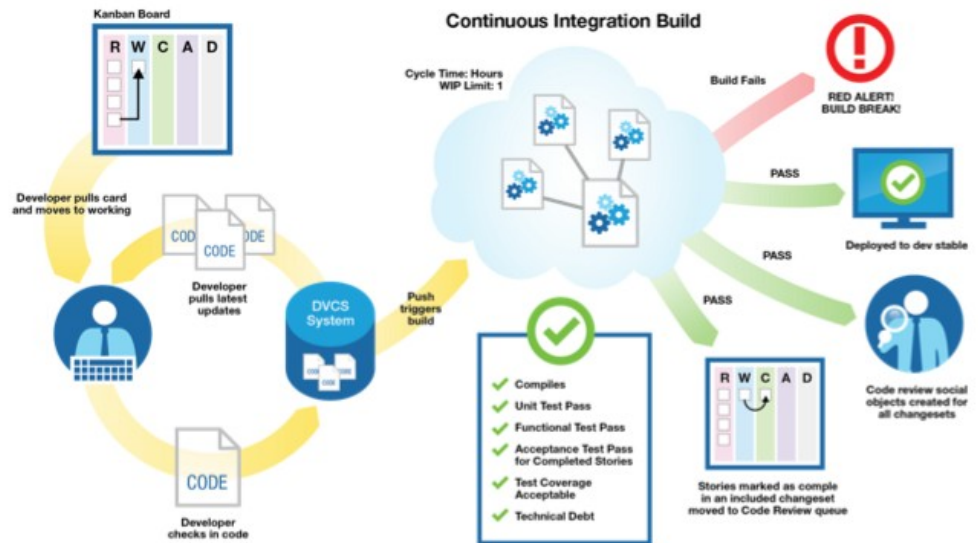


Problem: we're used to building cathedrals

Load Balancing vs. Simple HA




Structuring Your Kanban Flow Feature Implementation



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Problem: GRC is, largely, people. Good luck with that.







 **Dennis van Zuijlekom** ✕
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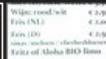
Voomies company slogan: "Uw data, ons een zorg"





This fire retardant [Brink's](#) safebox with [SLR](#) backup tapes inside was found by one of [Hack42's](#) visitors in a pile of trash in front of the offices of [Voomies](#), approximately six months ago. One of the tapes is also marked with the company name. Can't wait to see what's written on them.


The title is a pun on slogans such as "Your data, our commitment". [Google Translate](#) even mistranslates it as "Your data, we care", because it actually translates roughly into something like "Your data, we couldn't care less". It is much more subtle in Dutch though.




 1,549  September 29, 2012

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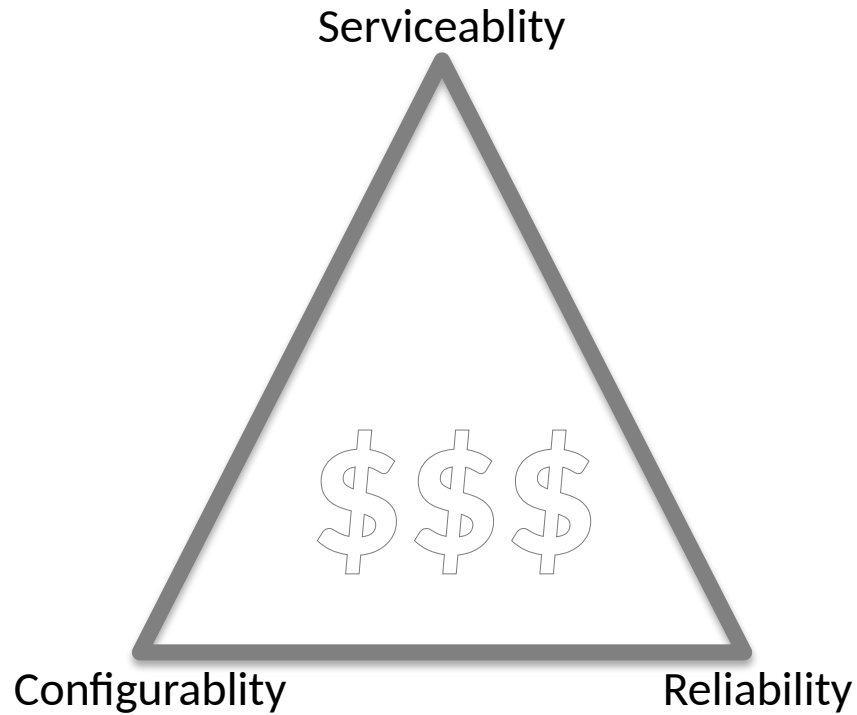
  

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What's missing? For one thing: price...



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