

Building a State-of-the-Art IT Operation

Work Smarter Not Harder: Processes and tools for better IT operations

Michael Cote, Research Director, 451 Research

events.techtarget.com

Soon, the Only Thing Left for IT to Do Will Be Creating Value – What Next?

Use IT to make \$\$\$

Leverage cloud

Implement DevOps

Planning:

- Segment applications & services
- Differentiating (custom) vs. keeping the lights on (SaaS)
- Green-field vs. brown-field

Boot-strapping:

- Benchmark yourself first
- Start PoCs and labs now
- Do small things while plodding through big problems

“Hell is other people”

- Agility is the magic: reduced cost and release speed
- Engage with “the business”
- Cloud, and DevOps, is a culture war

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- One company with 3 operating divisions
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- 200+ staff, 100+ analysts
- 1,300+ client organizations: enterprises, vendors, service providers and investment firms
- 7,500+ individual subscribers
- Reach 16,000 end-users annually

<http://451research.com> - @451Research

Michael Coté

Research Director, Infrastructure
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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.



IT's Future Can Be
Fit Into One, Cheesy
Equation:

**IT – SaaS =
What?**

The Great Software Rewrite



Israel Gat
@agile_exec

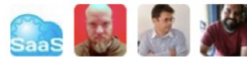
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Colleague and friend @cote came up with the equation {IT-SaaS=what?}. Such a concise way to summarize the grand transformation in #IT!

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10:49 AM - 5 Mar 2014

Custom Written Software Is the Only Interesting Answer

We believe that application development is, indeed, a vital and valuable part of the industry: our theory is that the majority of cloud spending originates with software developers as the prime movers.

Applying the formula 'IT - SaaS = what?' it increasingly seems the case that the 'what?' is custom-written software for ISVs, SaaS and increasingly companies like Nike and Starbucks that are relying on in-house software development for new products such as the Fuelband and mobile payments. Starbucks, for example, is estimated to have pulled in \$1bn in sales from its mobile app.

While developers are notoriously parsimonious when it comes to paying for tools and middleware, Atlassian's \$149m in revenue is testament that companies will pay for developer tools straight out. We also note the bets the venture community is placing on developer-oriented companies like those coming from the post-seed round, pre-A round firm Heavybit.

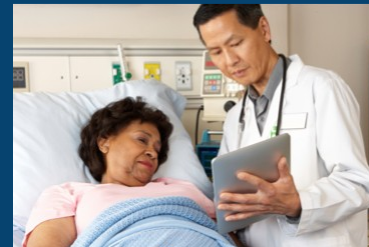
- Me! "Atlassian bundles ALM components around the popular git version control system," 451 Research, March 4th, 2014

Each Industry Is Being Injected with Software

Legacy...



New...



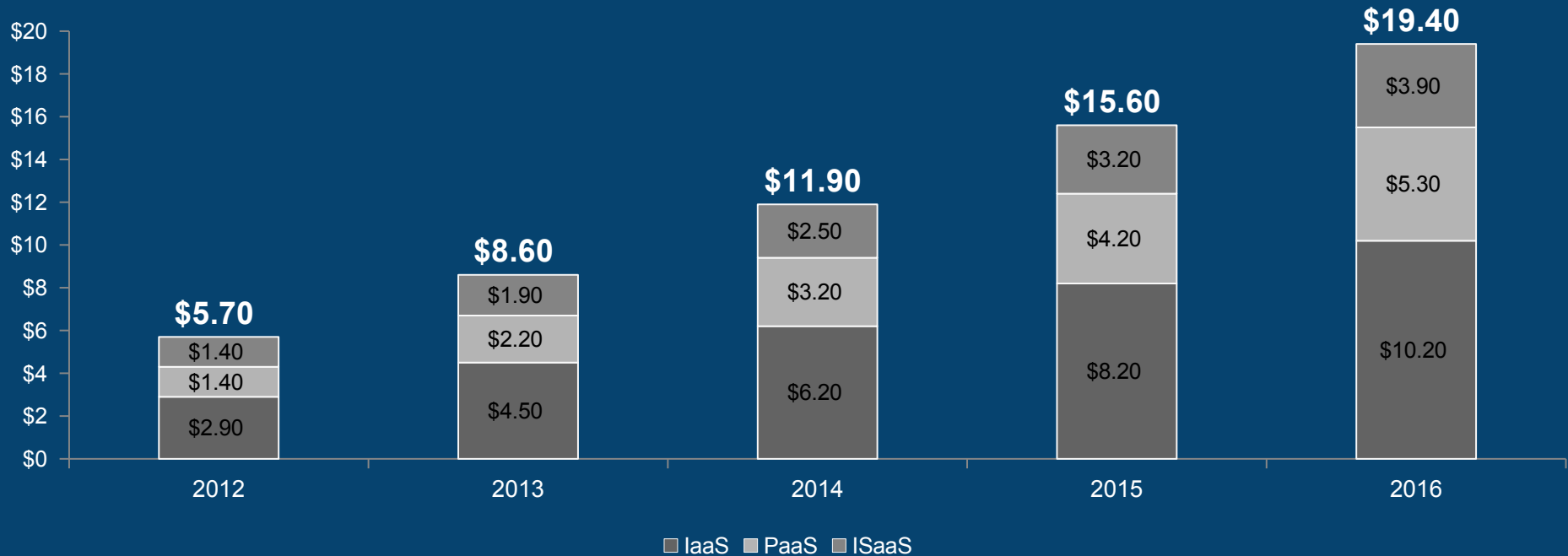
Not seen here: white-collar toolchains
Sources: [461 HCTS NA 2013 conference](#); [Chris Dancy](#)



“Cloud” Is Opening a New Way of Delivering Software, DevOps

In Addition to SaaS, Public Infrastructure Cloud Is Growing

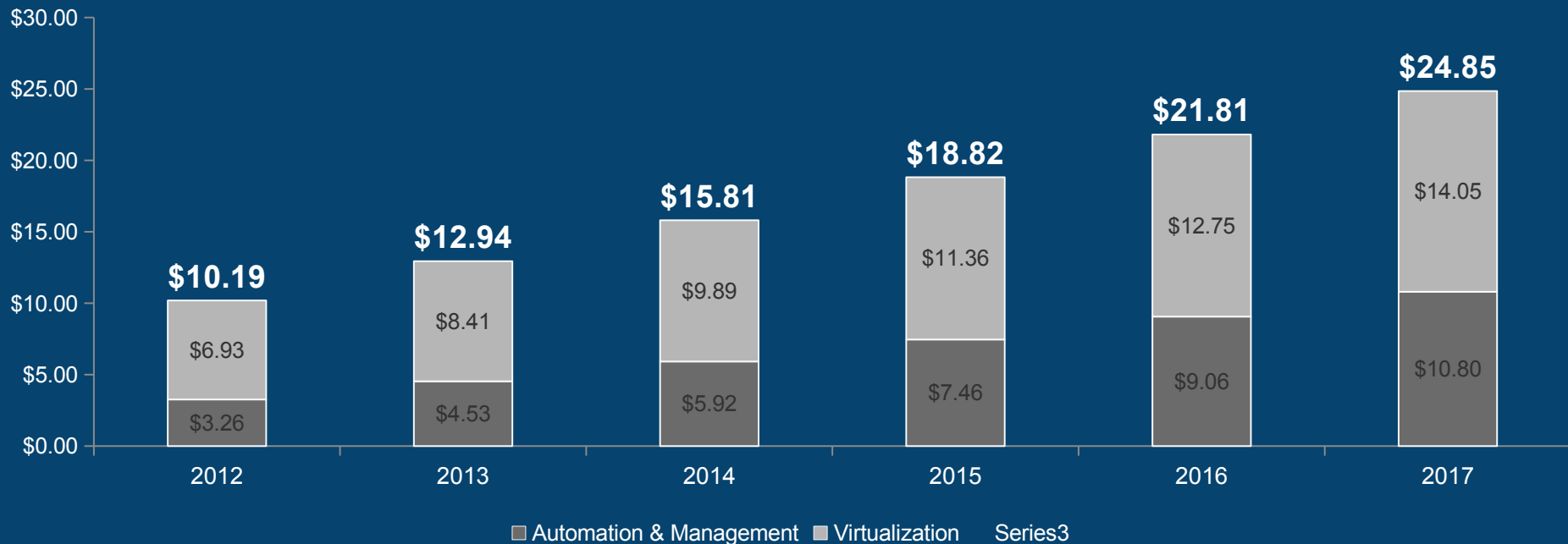
Infrastructure Public Cloud Forecast (\$bn)



Source: "Market Monitor: Cloud Computing Overview Report 2013," 451 Research, August 2013.

The Software of Cloud Is Growing As Well

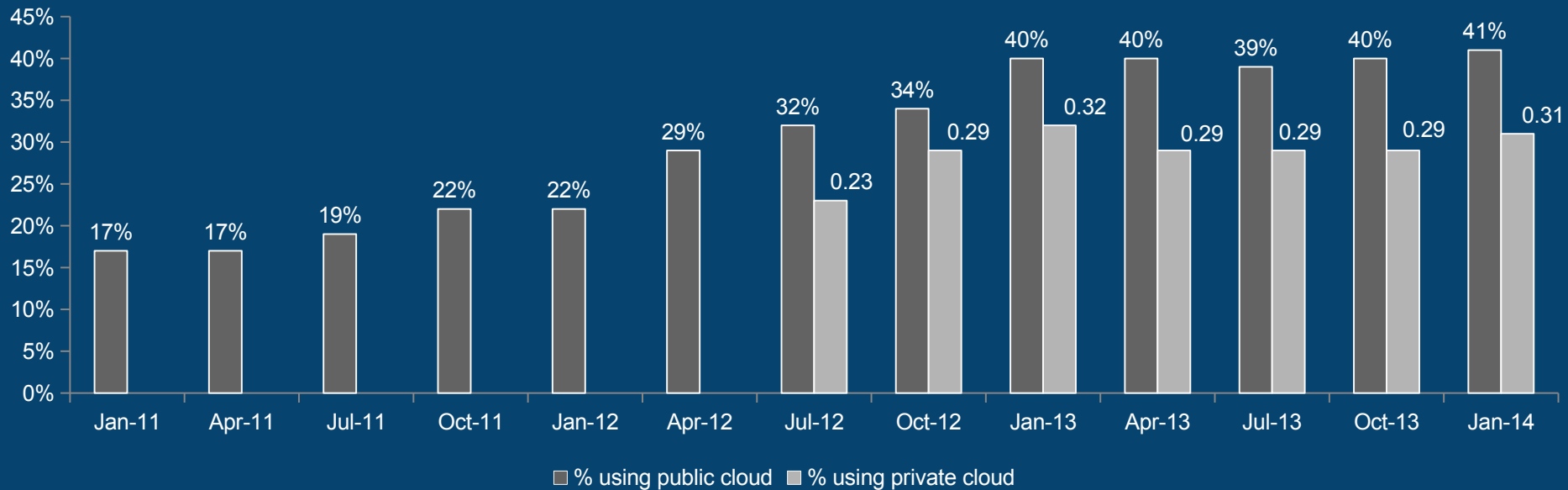
Cloud Enabling Technologies (\$bn)



Source: "Cloud-Enabling Technologies Overview," 30 April 2014, 451 Research.

If Your Friends Jumped Off a Bridge...

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

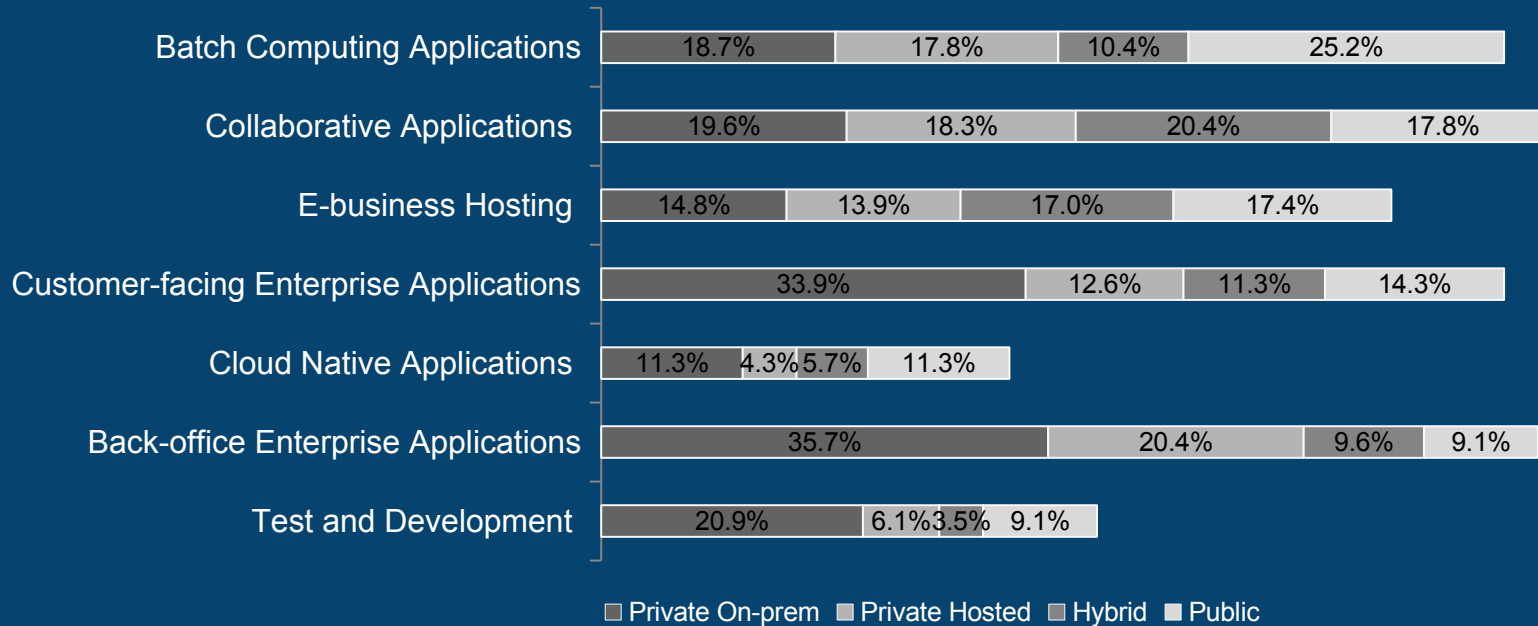


Source: A total of 1,137 respondents involved in their company's IT buying decisions participated in the January 8-27 survey, including 470 whose company currently use public cloud. ChangeWave Research is a service of 451 Research, from "[Corporate Cloud Computing Trends](#)," 451's ChangeWave, Feb 11, 2014.

So, What Are They Doing?

Hug Your Server Every Day!

Q. Where do you currently host or plan to host these workloads?

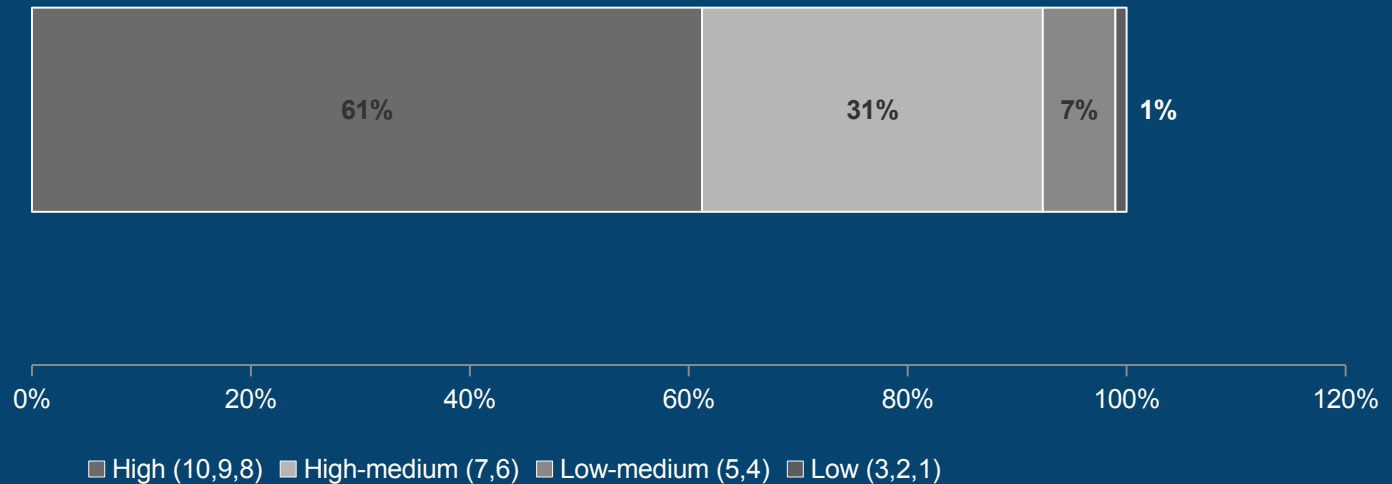


Source: 451 Research Custom Cloud Study, n=230.

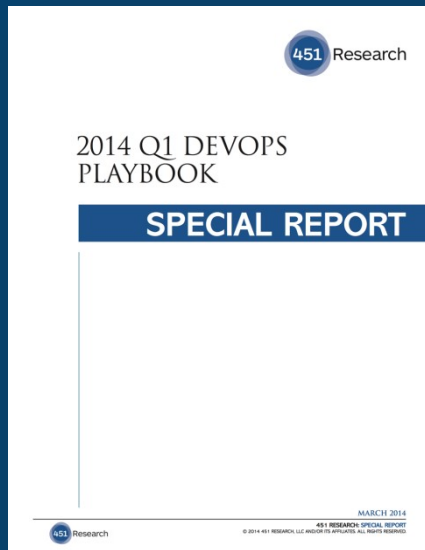
Mobile Apps Are Helping Drive Revenue and Profit

On a scale of 1 to 10, where 1 is no measurable value, and 10 is it had a major impact on your organization's revenue or profit, please rate the business value your company has achieved through deploying your Mobile Apps (n=196)

Rating (1-10) Impact on organization's profits of mobile apps platform



Like Any Good Firm, We Wrote a Report!



METHODOLOGY

DEVOPS DEFINITION

For the purposes of this study, we are defining 'devops' as such: organizations using on-premises or cloud-based technologies and practices, combined with advanced agile software development practices, to more quickly deliver applications to market. To do this, developers and operations staff – or, more broadly put, 'roles' – need to collaborate throughout the life of the project. There are many tools (free, commercial and open source), companies and services that operate here, but understanding the market as devops becomes more mainstream is difficult. This study serves as an initial examination and profile of the devops market.

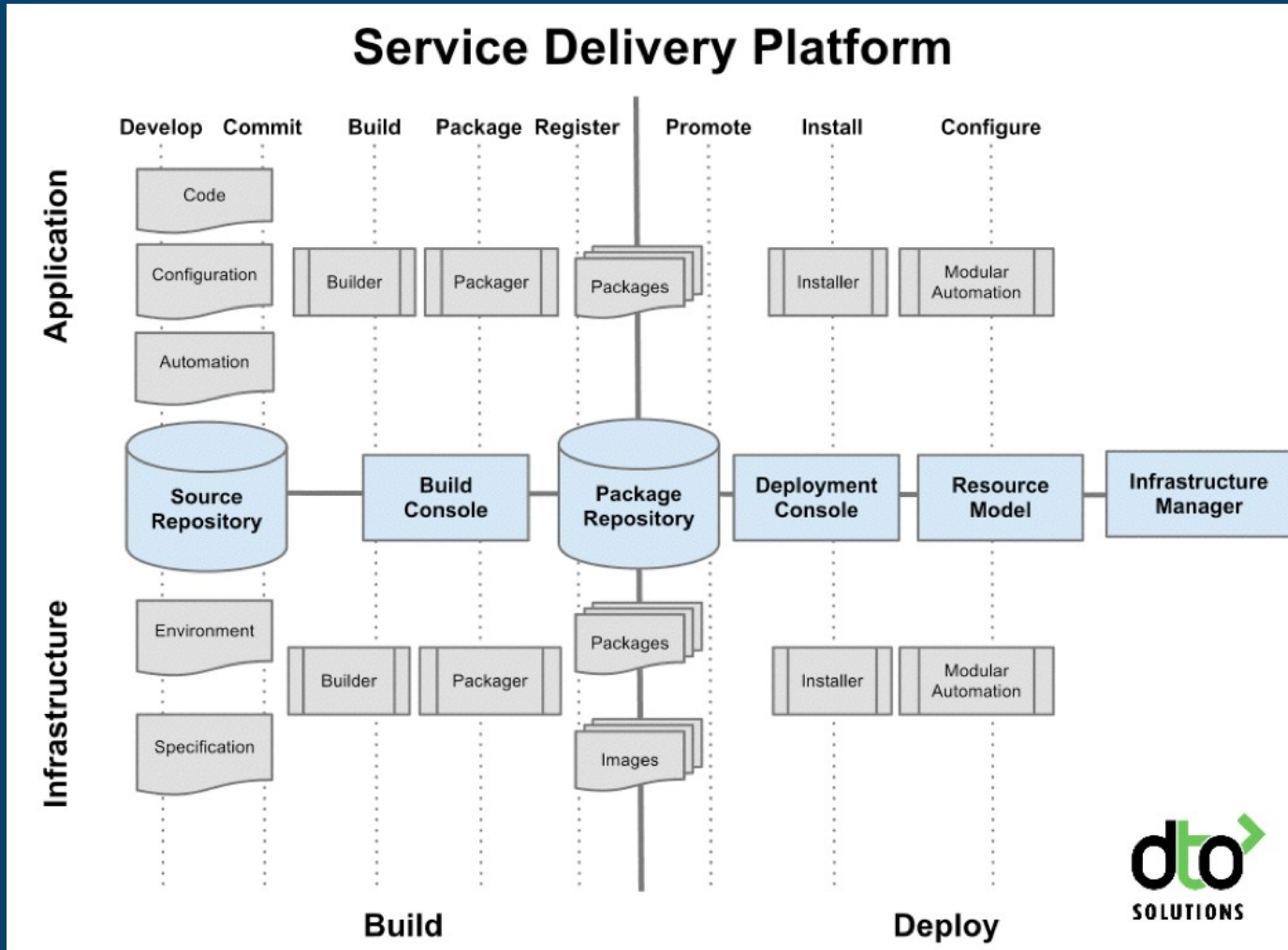
DEMOGRAPHICS

We wanted to study the buying behaviors of the 'devops buyer' – not the general market. Thus, we formulated screening questions that would find individuals who fit our profile of a devops buyer, or who self-identified as 'doing devops.' This was driven largely by screening for people who were creating and/or managing Web or mobile applications intended to be deployed on cloud or cloud-like infrastructure.

This allowed us to reduce a total population of 500 individuals down to 200. The raw data in our appendix shows the screening questions and responses, but one survey response in particular highlights the type of individual we were looking for – whether respondents agreed with the following statement: "The demand for cloud-based applications is changing how we develop software at my company."

While cloud is not required, in theory, for devops, the correlation of using cloud and delivering cloud applications seems highly relative to either doing devops, or the potential for benefiting from devops.

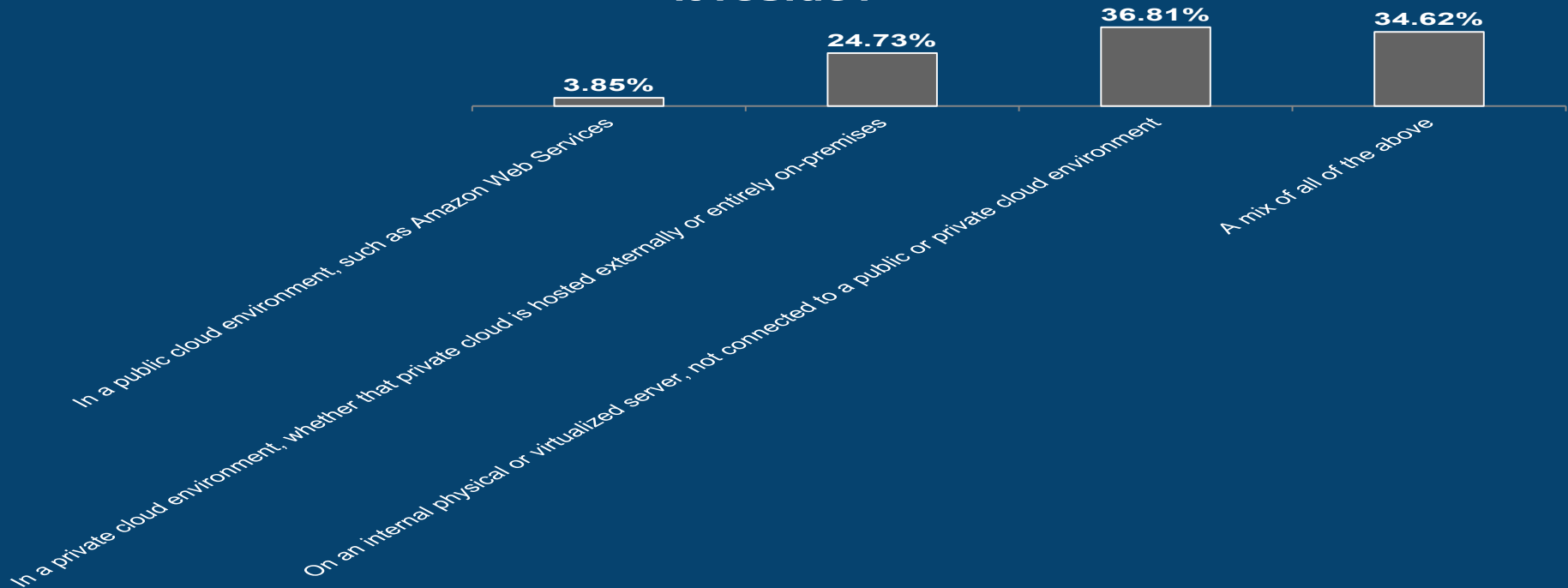
DevOps Builds a Software Delivery Pipeline, Focusing on the Application, of the IT



Source: [DTO Solutions](#), Lee Thompson.

Public Cloud Isn't the Only Answer, By Far

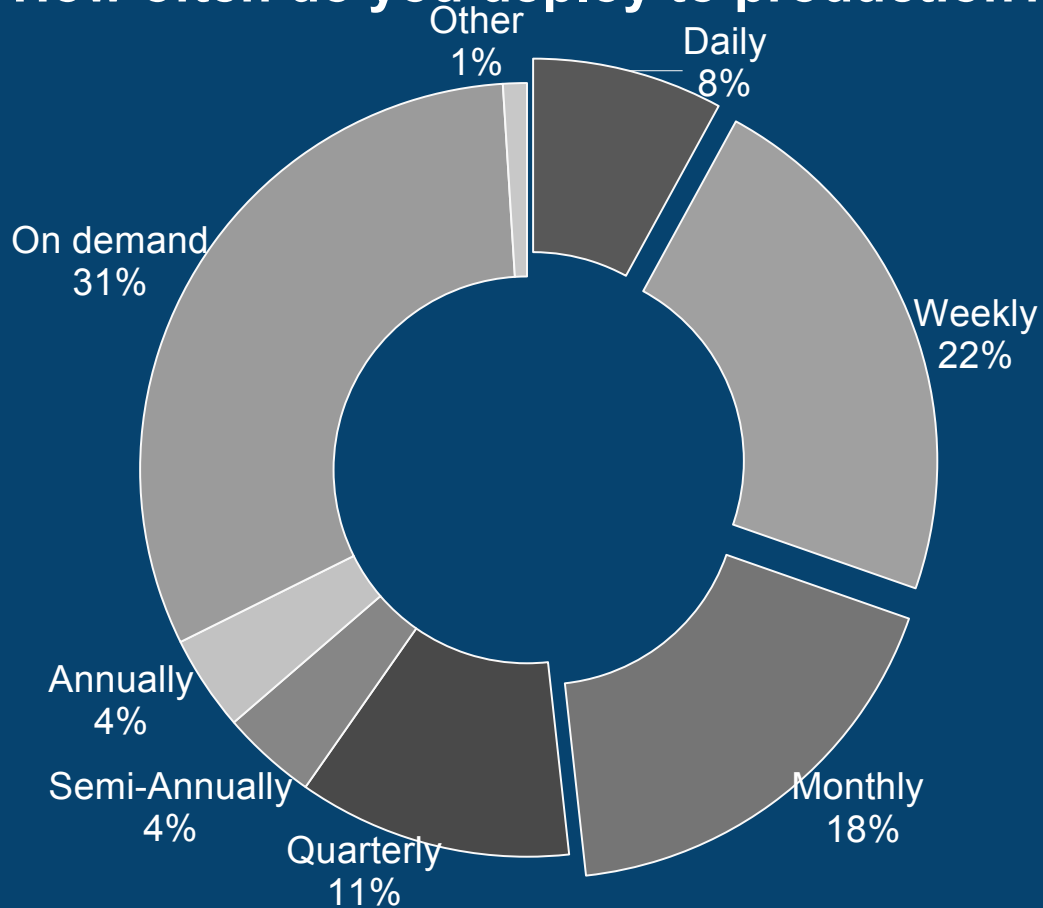
When running your application in production, where does it reside?



Source: 451 DevOps Study, Winter 2014. n=201 DevOps-minded individuals.

Frequent Functionality Is Better Than Expected

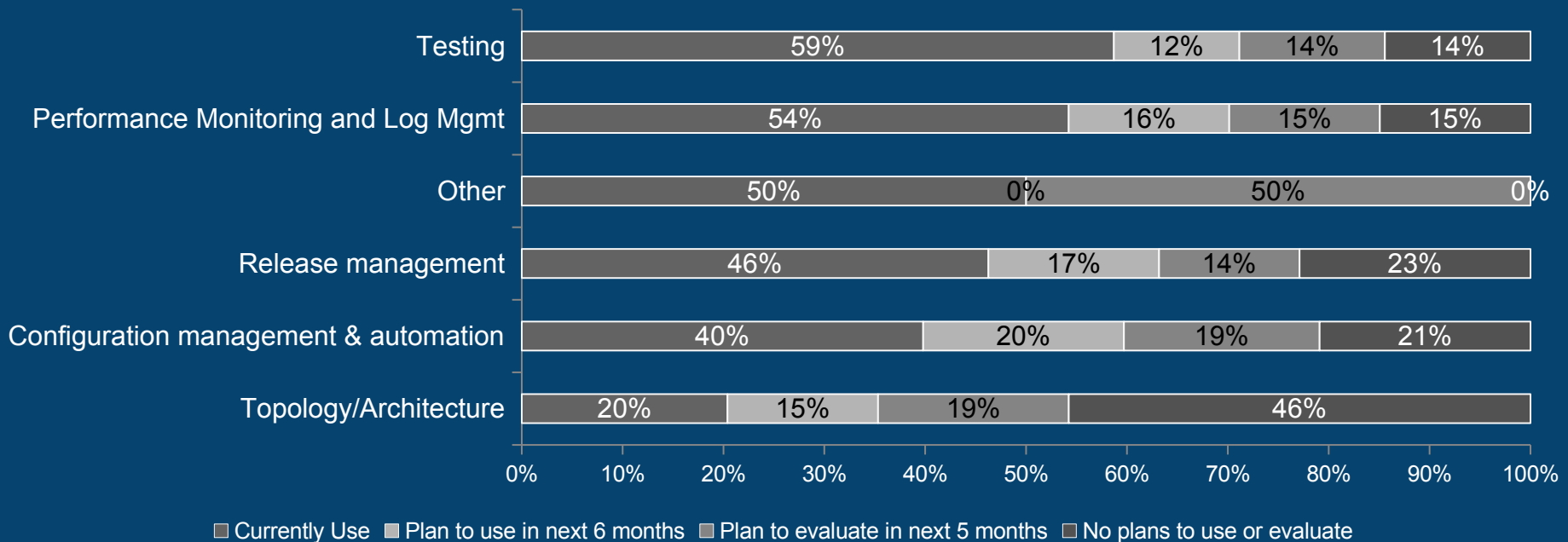
How often do you deploy to production?



Source: 451 DevOps Study, Winter 2014. n=201 DevOps-minded individuals.

Tools Usage Is Somewhat Mature, But Mostly “Legacy” Tools

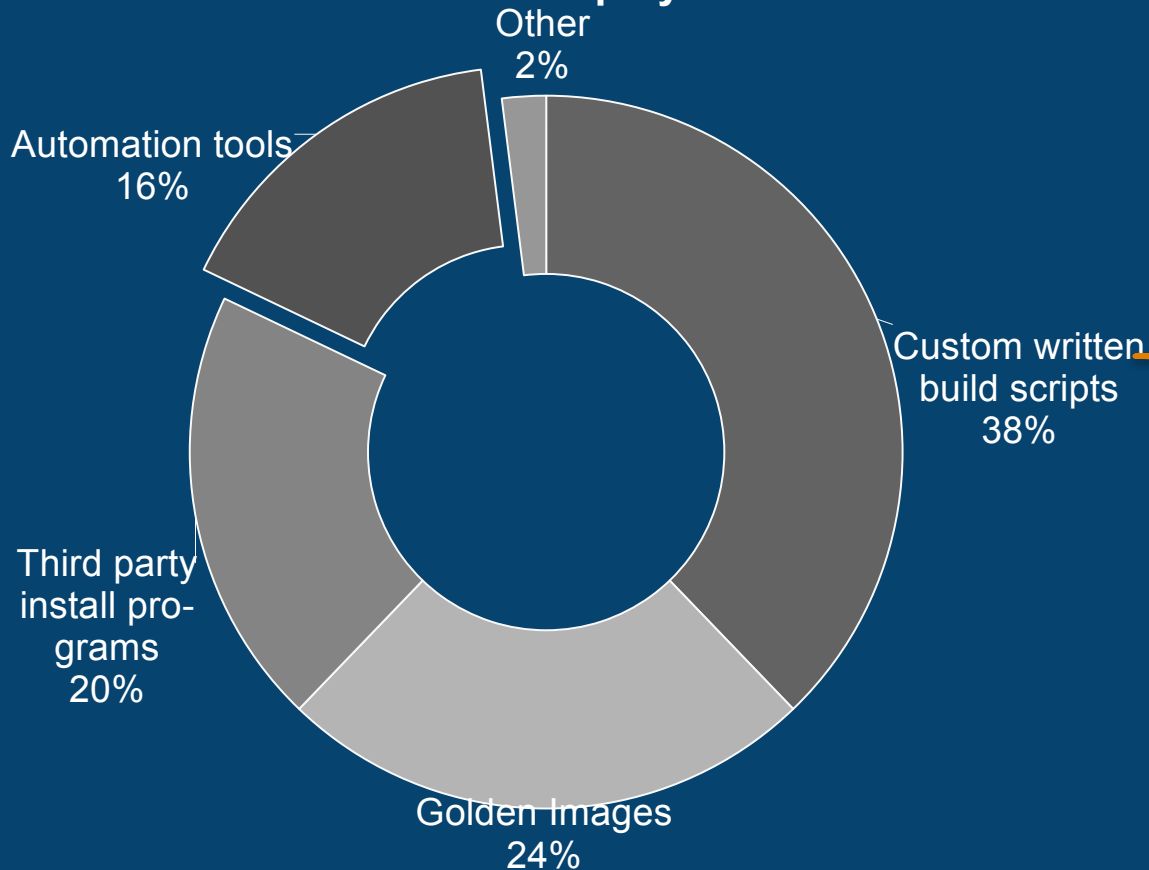
What tools are you using?



Source: 451 DevOps Study, Winter 2014. n=201 DevOps-minded individuals.

Use of the Utopic DevOps Toolchain Is Still Early

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



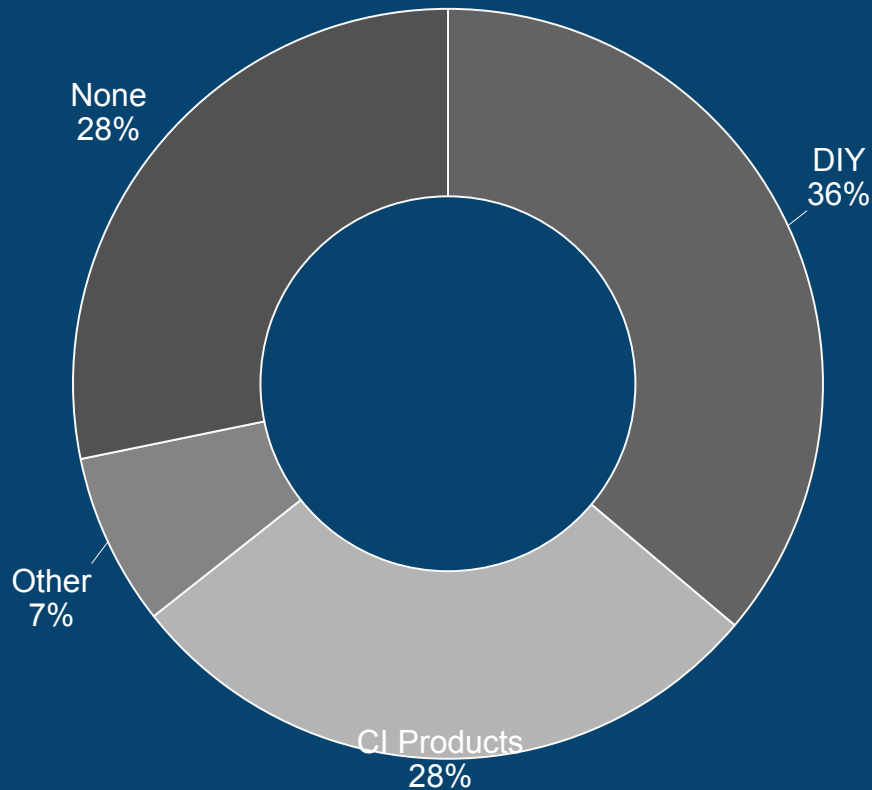
Addressing the problem:

- Investigate Puppet, Chef, Ansible, Salt, Juju, etc.
- Ponder containers & Docker
- Dust off your “service modeling” ideas

Source: 451 DevOps Study, Winter 2014. n=201 DevOps-minded individuals.

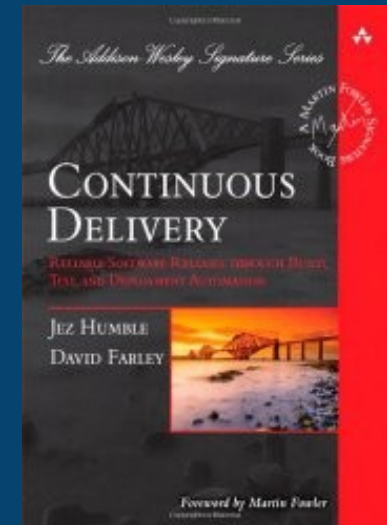
#Continuousfail Is Continuously Improving

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



Addressing the problem:

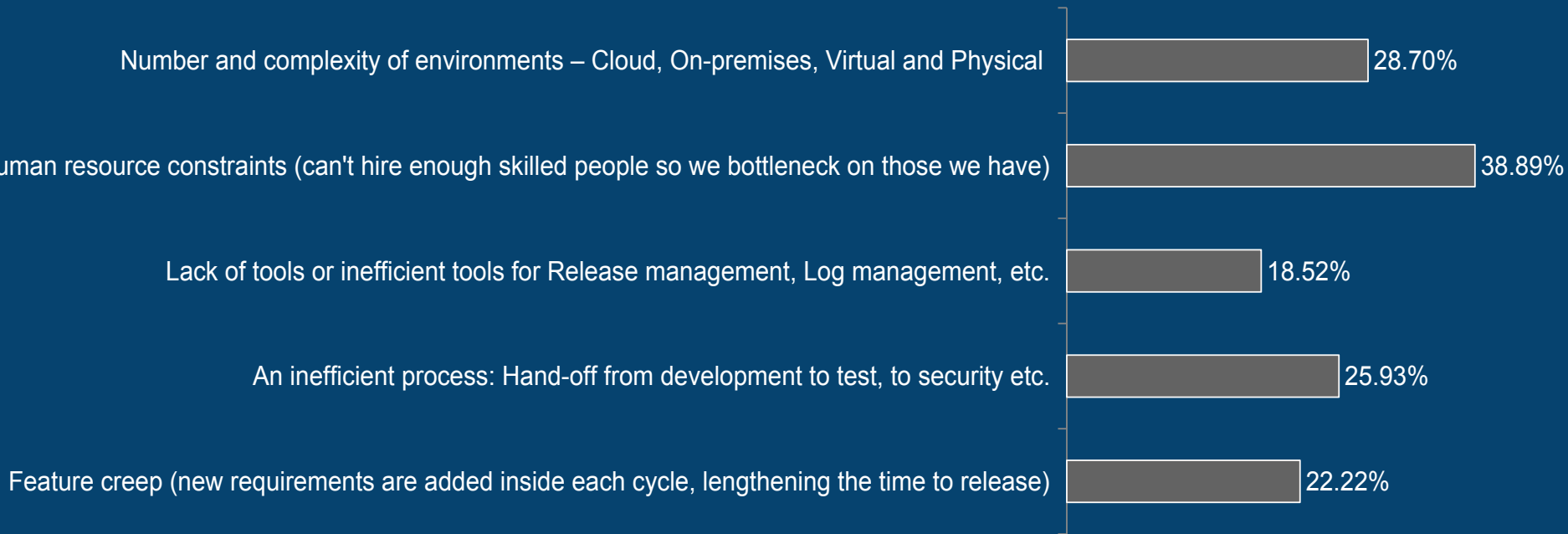
- If your DIY is good, quit your job and do a startup
- Read the bible, and comply to taste:



Source: 451 DevOps Study, Winter 2014. n=201 DevOps-minded individuals.

It Turns Out, “Culture” Is a Real Problem

What is holding you back from reducing release cycles?



Source: 451 DevOps Study, Winter 2014. n=201 DevOps-minded individuals.

Next Steps, a Review

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Thanks!

There's strong business demand, work to be done as far as the eye can see, and lots of maturing ahead of us.

Good luck out there!



Questions?

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