

adopting continuous delivery

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<http://thoughtworks-studios.com/>

“adopting”

organizational, architectural, process

-NOT-

tools, code, infrastructure

takeaways

understand why you want to change

get measurable change fast, even if reaching your goal takes years

start with continuous integration

focus on organization and architecture

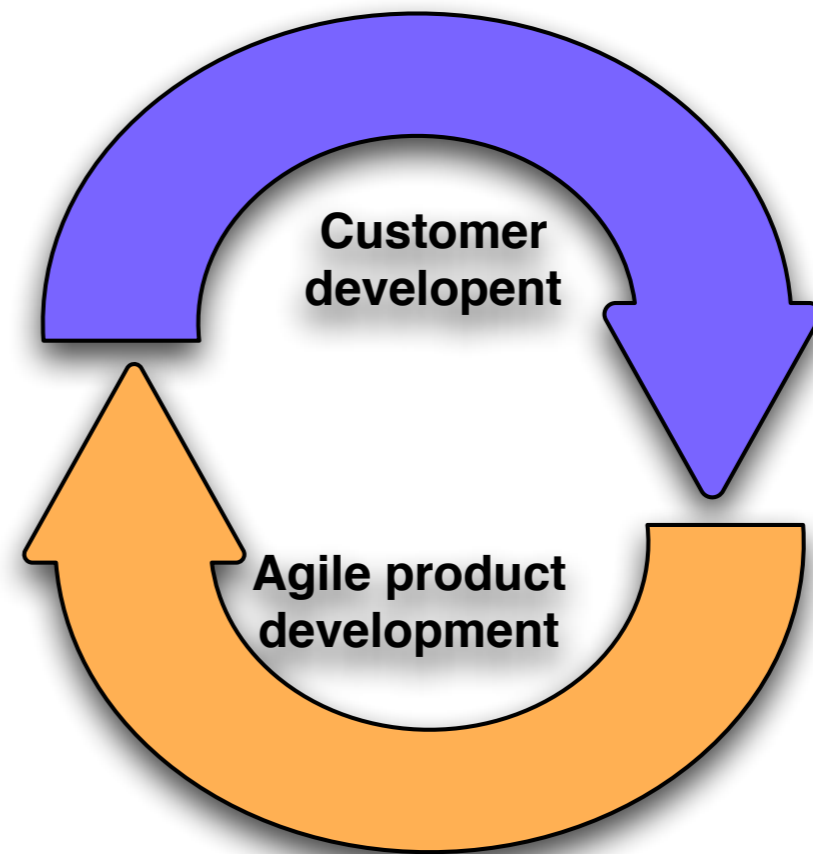
create culture of continuous improvement

what is continuous delivery?

**reduce the cost, time, and risk
of delivering incremental changes
to users**

why continuous delivery?

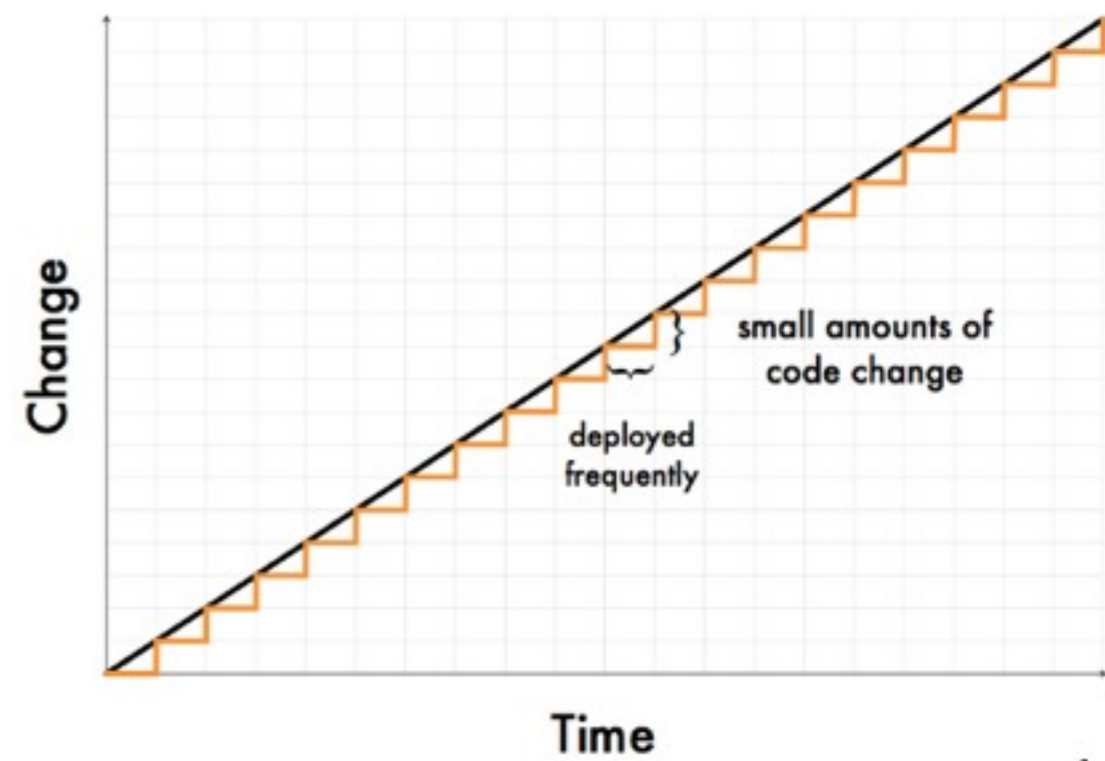
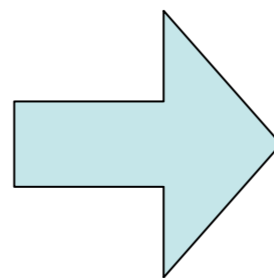
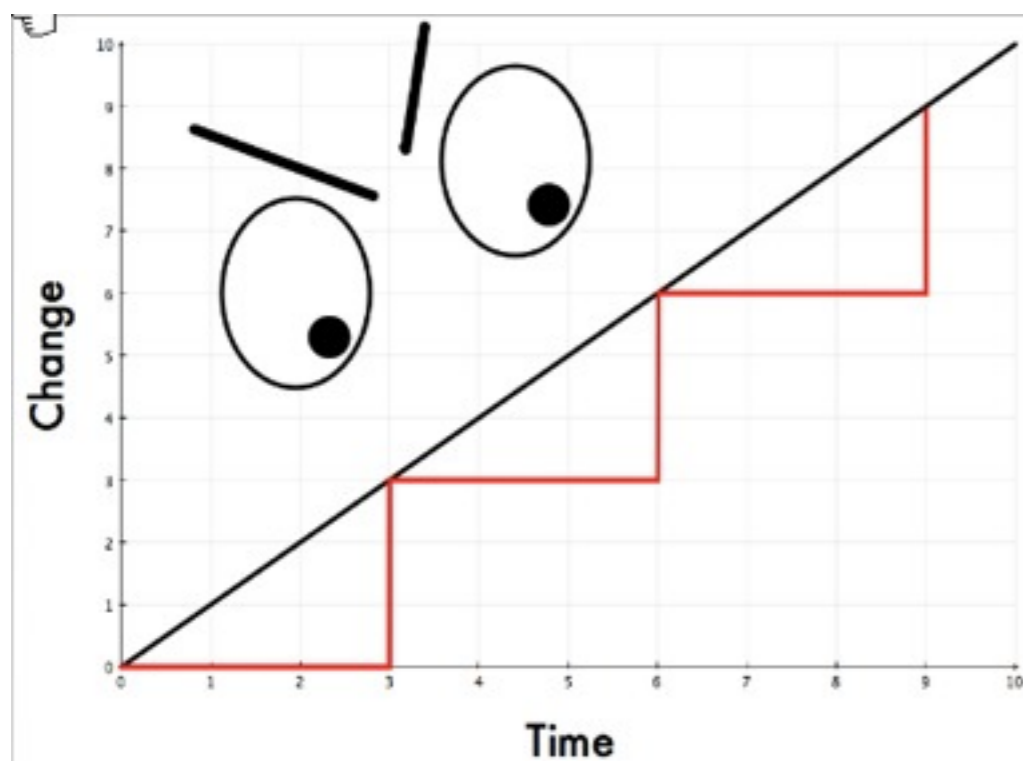
build the right thing



Eric Ries, "The Lean Startup" <http://bit.ly/8ZoX5F>

why continuous delivery?

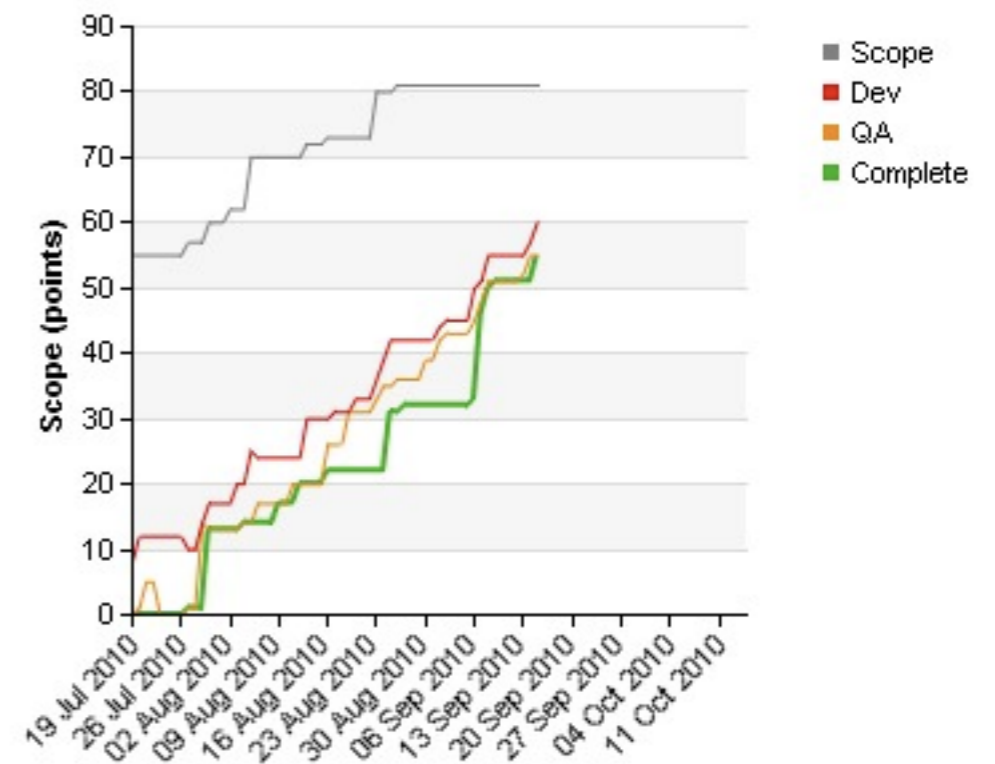
build the right thing
reduce risk of release



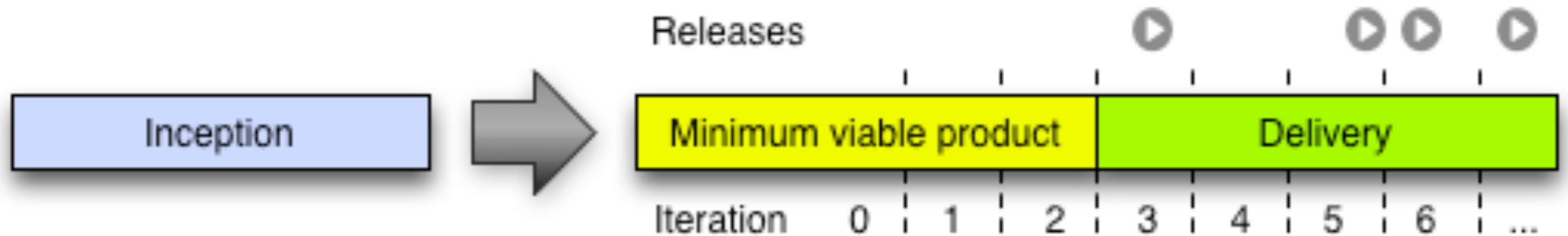
John Allspaw: "Ops Metametrics" <http://slidesha.re/dsSZlr>

why continuous delivery?

build the right thing
reduce risk of release
real project progress



how do i know i'm doing it?

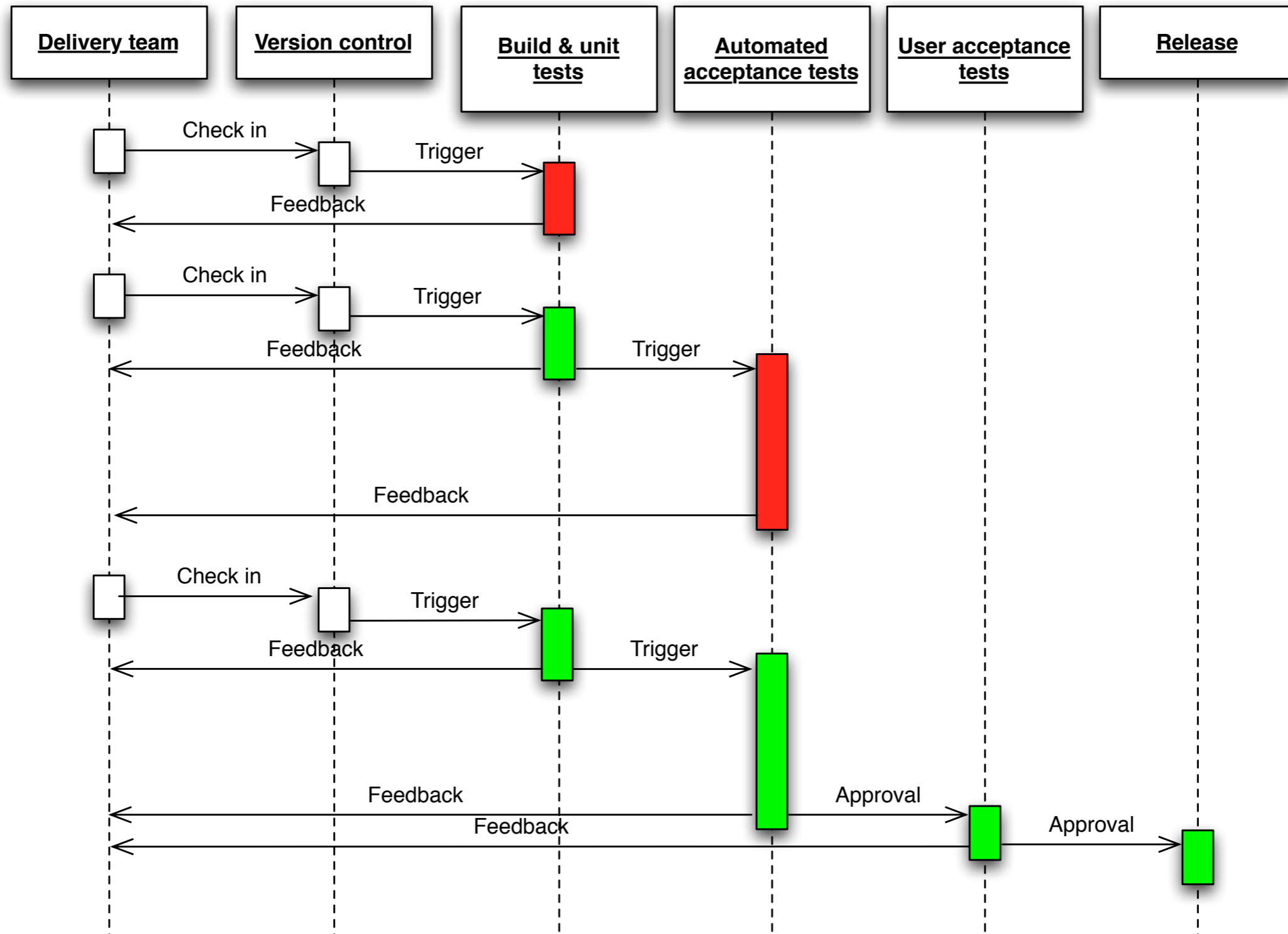


software is always releasable on demand

prioritize keeping system releasable over delivery

anybody can get fast, automated feedback on the effect of a change

deployment pipeline



greenfield project

plan for continuous delivery

architect for continuous delivery

skills & responsibilities

project launched *early*

business wants to *scale back* release frequency

devops



Little bit weird
Sits closer to the boss
Thinks too hard



Pulls levers & turns knobs
Easily excited
Yells a lot in emergencies

<http://www.slideshare.net/jallspaw/10-deploys-per-day-dev-and-ops-cooperation-at-flickr>

hiring a devop

How to Hire DevOps

By Rich Jones, Feb 23, 2012.

<http://gun.io/blog/how-to-hire-devops/>

DevOps is the latest big trend in hiring. Everybody is talking about DevOps, and everybody wants them.

So, what the hell are DevOps, why do you need them, where can you find and hire DevOps and what should you be looking for? This guide will hopefully demystify some of that for you.

The Dirty Secret

Here's the confusing part: There's no such thing as a DevOp. You'll have a damn hard time finding somebody who's business card just says "DevOp." What you're actually looking for is a developer with some experience and knowledge as a system administrator, or possibly a system administrator with some experience and knowledge as a programmer. When you **post a job looking for DevOps**, you might want your title and description to reflect this, as it will greatly increase the talent pool who will be interested in your post.

the devops role

If you add a “devops” function to your existing dev, testing and ops functions, *you just missed the whole point.*

the path of continuous delivery



http://www.flickr.com/photos/jezand_rani/455116092/

hp laserjet firmware team

2008

10% - code integration

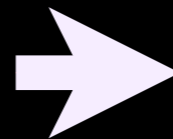
20% - detailed planning

25% - porting code

25% - current product support

15% - manual testing

~5% - innovation



2011

2% - continuous integration

5% - agile planning

15% - one main branch

10% - one branch cpe

5% - most testing automated

~40% - innovation

the economics

2008 to 2011

- overall development costs reduced by ~40%
- programs under development increased by ~140%
- development costs per program down 78%
- resources now driving innovation increased by 5X



A Practical Approach to Large-Scale Agile Development - Gruver, Young, Fulghum

what changed?

architecture

continuous integration

test automation

planning process

organizational transformation

aim to achieve measurable change
as soon as possible - no more than
a few months

top down or bottom up?

fetch me 100 of
your finest CSMs!



no! we will deliver
crappy software
late through self-
organization!



start with continuous integration

Is the *system* working?

If you broke it, you fix it.



Local Workstation



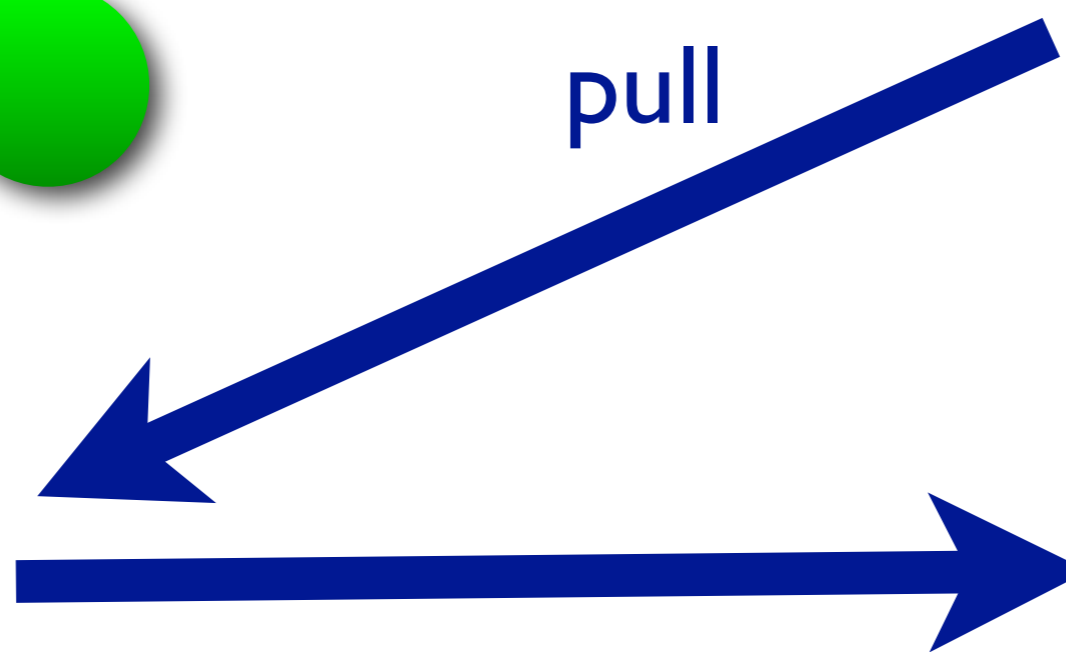
Mainline Server



✓
Done!

pull

push



architecture

“feature branching is a poor man’s modular architecture” - Dan Bodart

micro-services - build a platform - bit.ly/shHRff

branch-by-abstraction - bit.ly/kAUbEw

strangler application - bit.ly/R4ZiJZ

design for test and deploy

design for phoenixes - bit.ly/PFtDQy

stand up system in dev environment

acceptance testing in non-integrated environment

create test doubles for integration

what can we do in a year?

1 -> 2 releases per month; 40% cycle time reduction

low-hanging fruit: reduce branching, run tests, standardize environments, decrease build time

program-level co-ordination

director of continuous delivery managing initiative

finding the right team

excitement

existing capability (“nokia test”)

slack time

can demonstrate measurable change

the nokia test

Are you doing iterative development?

Iterations must be time-boxed to less than four weeks

Software features must be tested and working at the end of each iteration.

The iteration must start before the specification is complete.

bas vodde

the nokia test

Are you doing Scrum?

Do you know who the product owner is?

Is the product backlog prioritized by business value?

Does the product backlog have estimates created by the team?

Are there project managers (or others) disrupting the work of the team?

bas vodde

maturity model

- continuous integration
- testing
- environments and deployment
- data management
- traceability and auditing
- organizational alignment
- configuration management
- architecture

how not to do it

monolithic architecture, water-scrum-fall

architecture didn't consider test and deployment

expected magic CD fairy to make things better

“They don't need a deployment pipeline, they need to talk to each other much more”

people are the key

get everyone together at the beginning

keep meeting

make it easy for everyone to see what's happening

continuous improvement (kaizen)

takeaways

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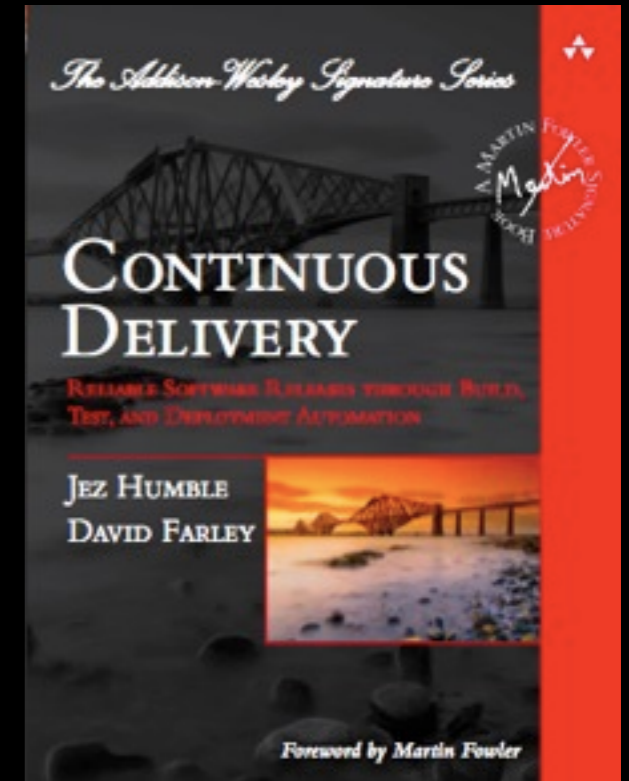
create culture of continuous improvement

questions

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<http://continuousdelivery.com/>

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