

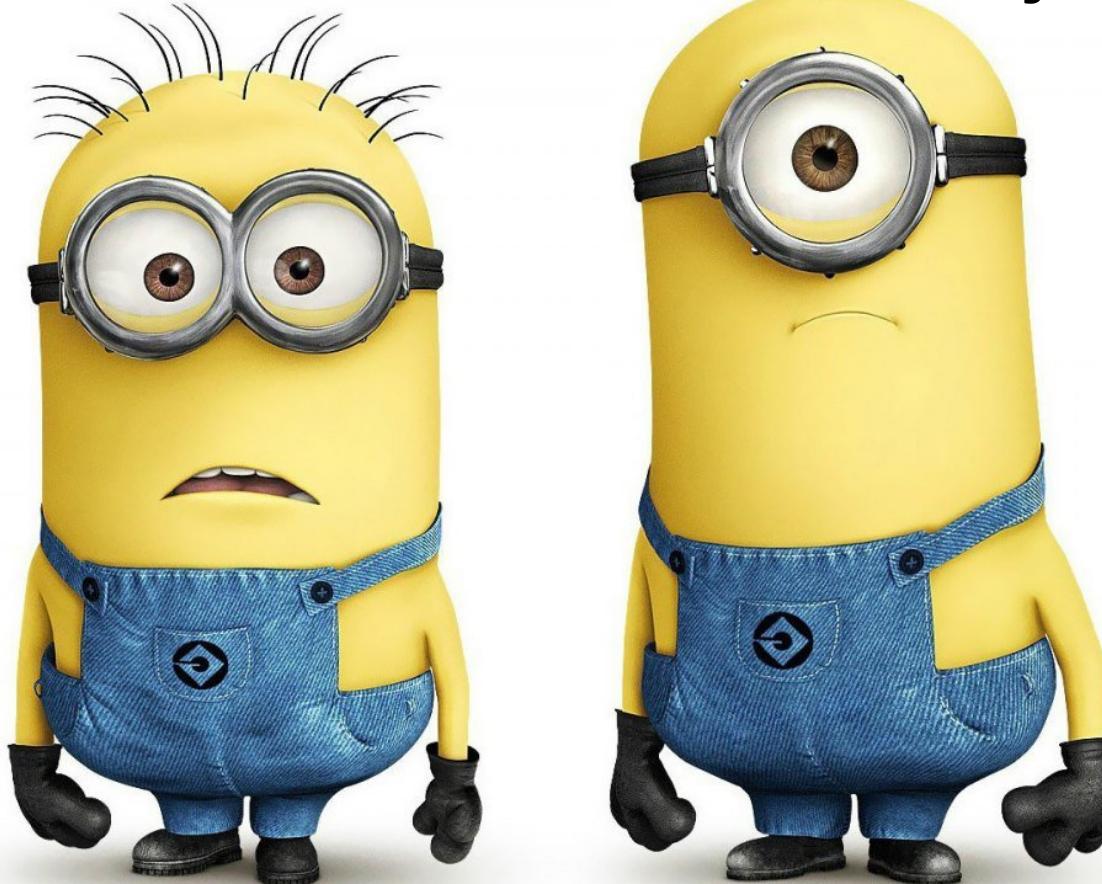
Automate Your Mobile Development Ecosystem

Josh Anderson - 06/04/2014

@nosrednAhsoJ

#bscadc

What does that title really mean?



Agenda

1. Who is this dude?
2. Who we are and why we do it
3. The problems we ran into
4. Our solutions
5. Success stories
6. Take aways

Why I am standing here



My roots

Team work



My mission

Make the craft of software better for future
generations.

The Business Case

Why people give us money

App-As-A-Service



Decent scale

BUH-ZILLIONS

3,000,000,000 ADS

2,000,000,000 PV

60,000,000 UNIQUES

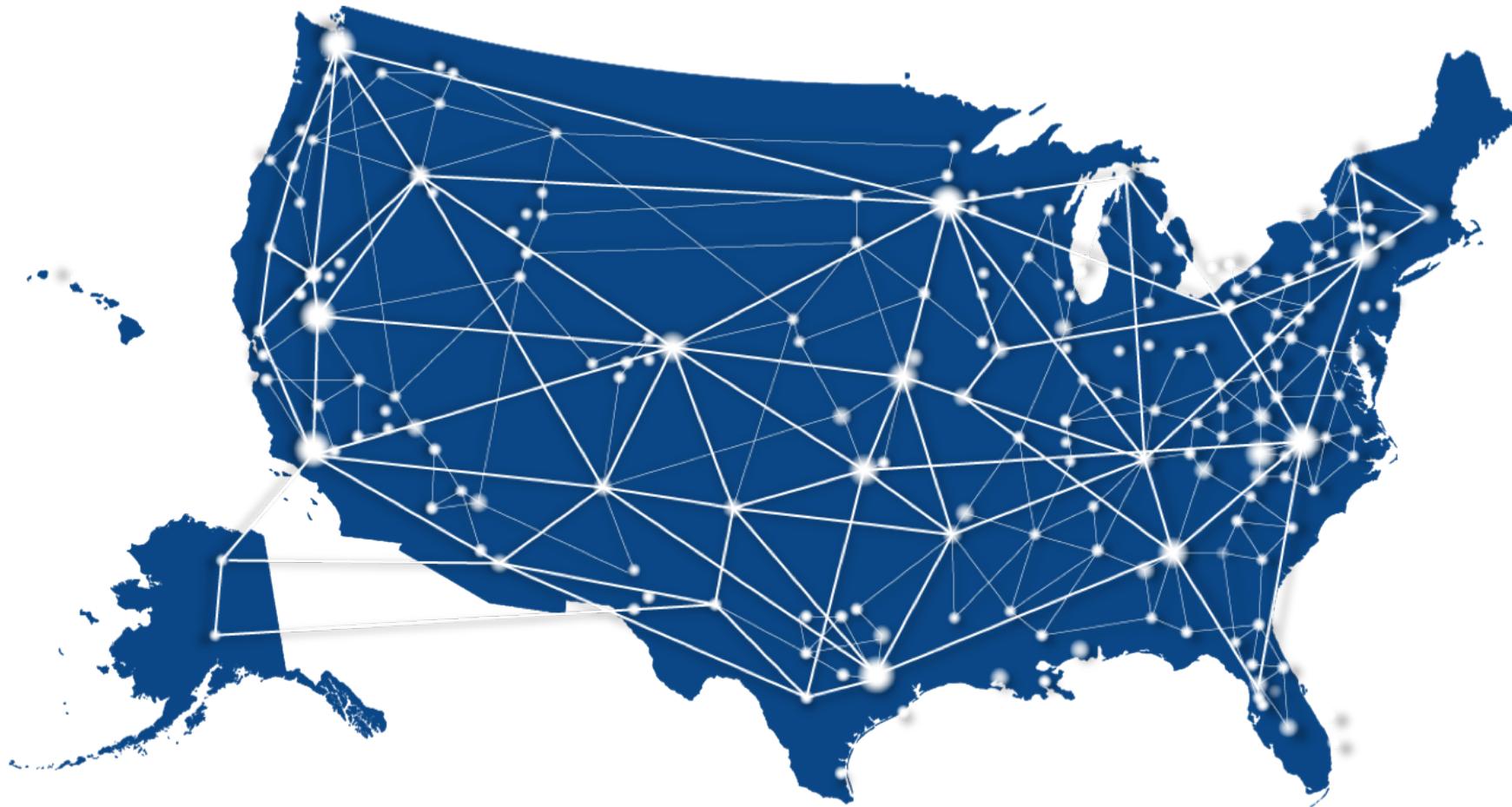


Answer
The
BIG
question



Eyes wide open...





Now do it hundreds of times

Our Problems

Yes, we had a few...

Our prioritization strategy



Why so much fear?



We call this testing?

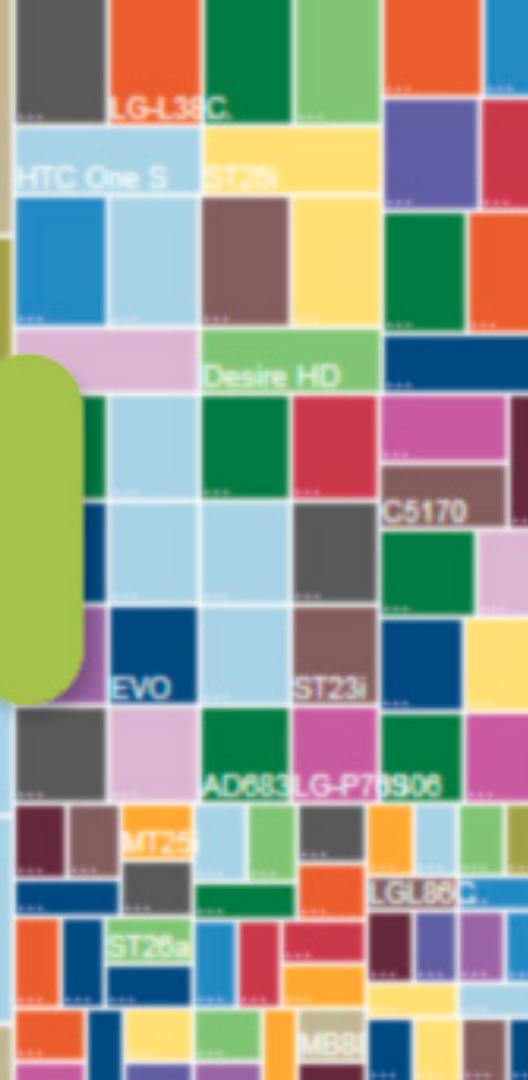
Frag men ta tion

Galaxy S III (GT-I9300)

Galaxy S II (GT-I9100)

Galaxy Note II (GT-N7100)

Nexus 7





DELL



Haier

lenovo



Motorola DROID BIONIC

Motorola DROID Pro

Motorola DROID RAZR

Motorola DROID X2

Motorola DROID BIONIC

Motorola DROID Pro

Motorola DROID RAZR



Cupcake



Donut



Eclair



Froyo



Gingerbread



Honeycomb



Ice Cream Sandwich



Jelly Bean



KitKat

And now release engineering...



Designed by engineers



A peek under the covers





Digging deeper

How it affected our team

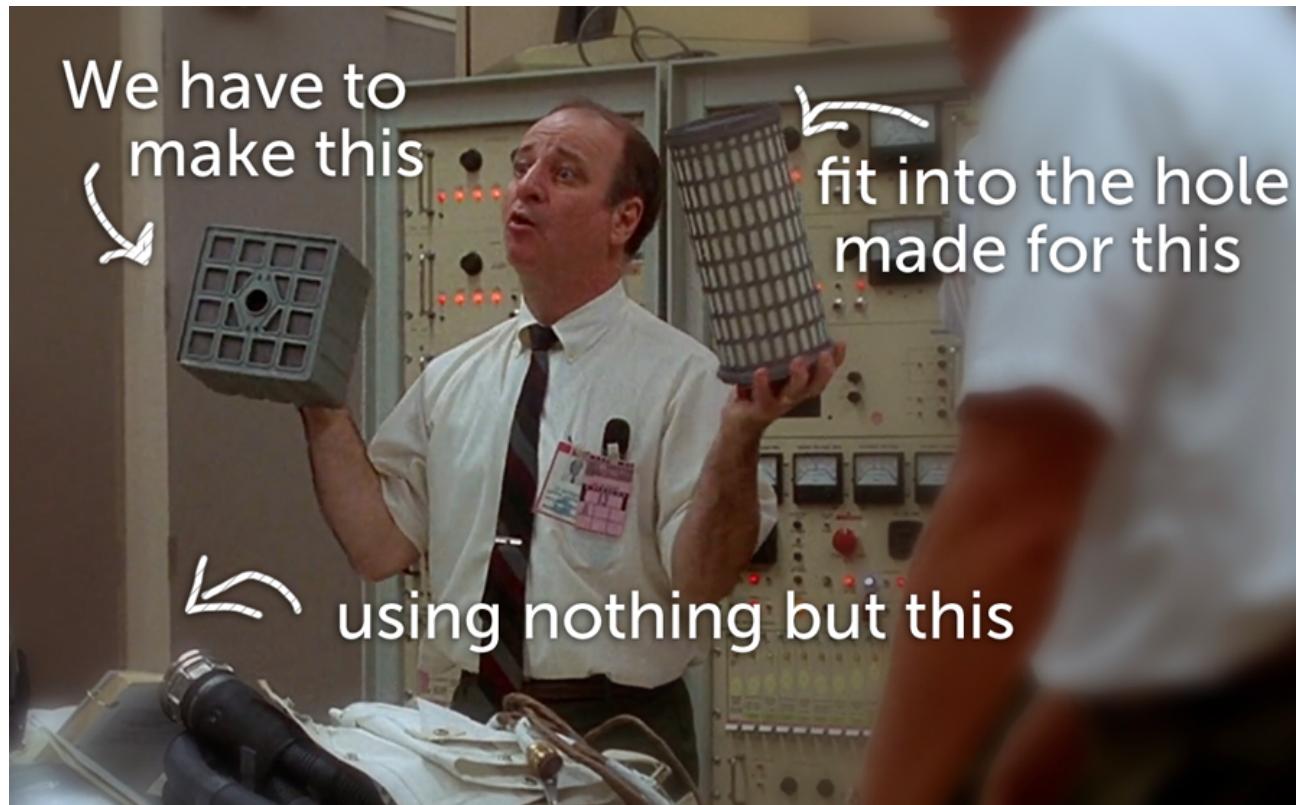




How it
affected our
product



Our challenge

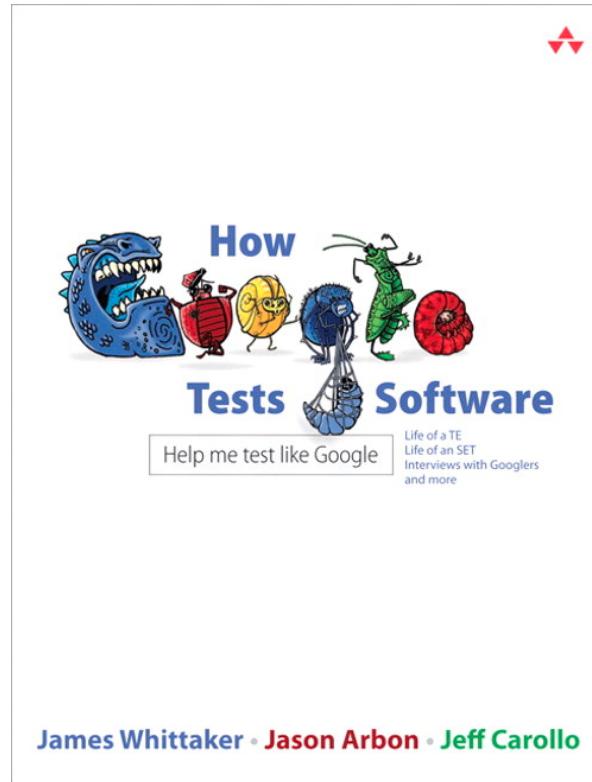


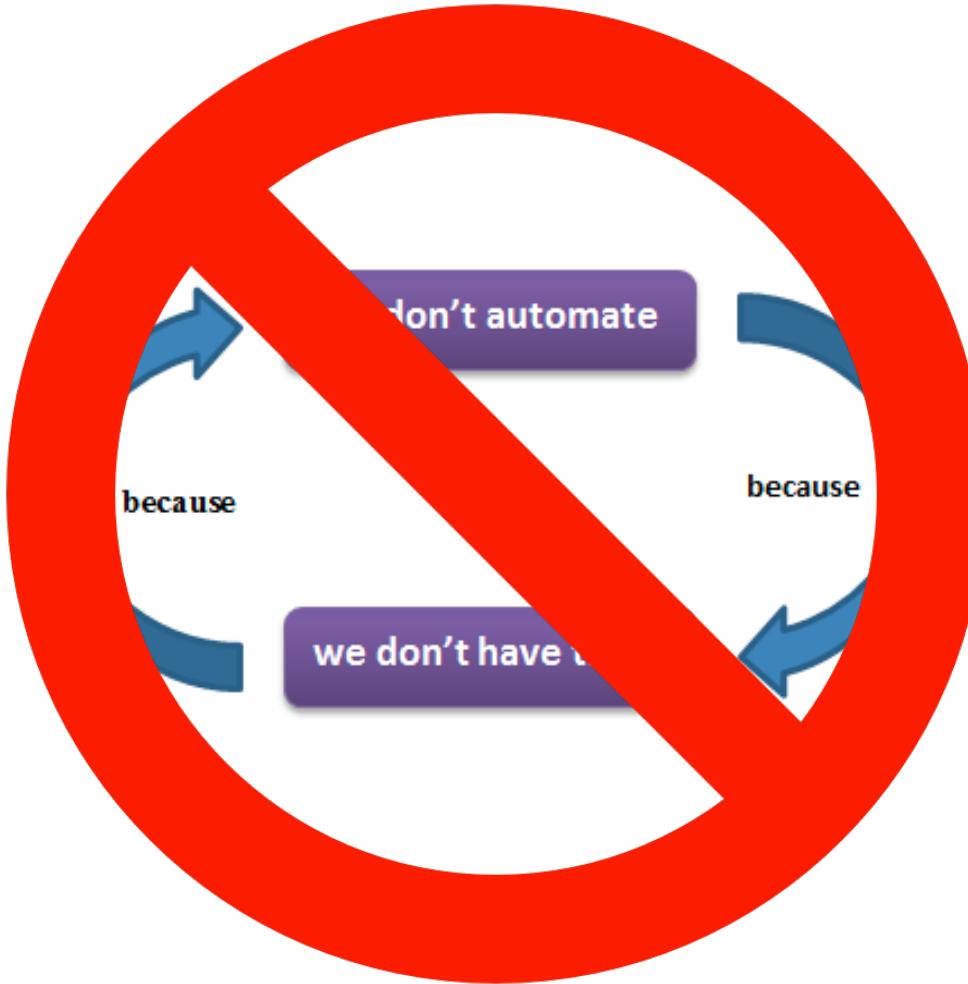
Our Solutions

Leading ourselves around the bear.



We started here





don't automate

because

because

we don't have time

Tools to the rescue!



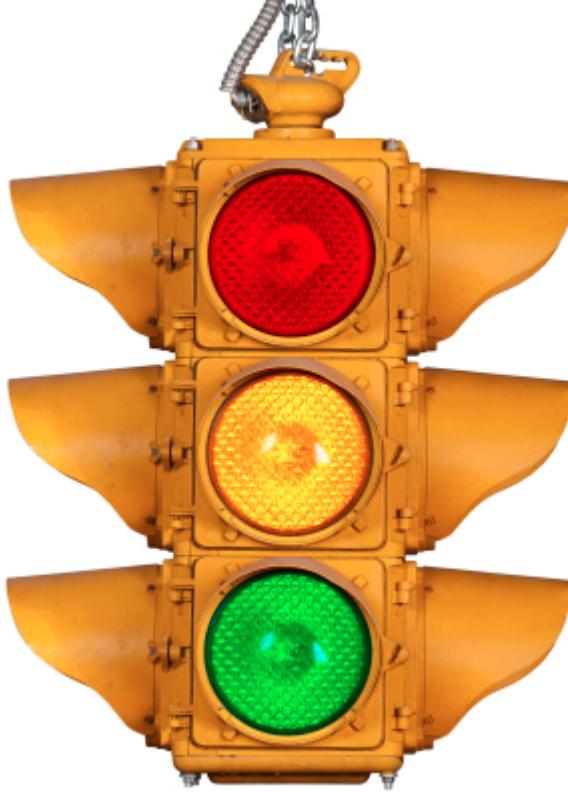




O V E R K I L L

An axe...?
Dude, seriously

Step One

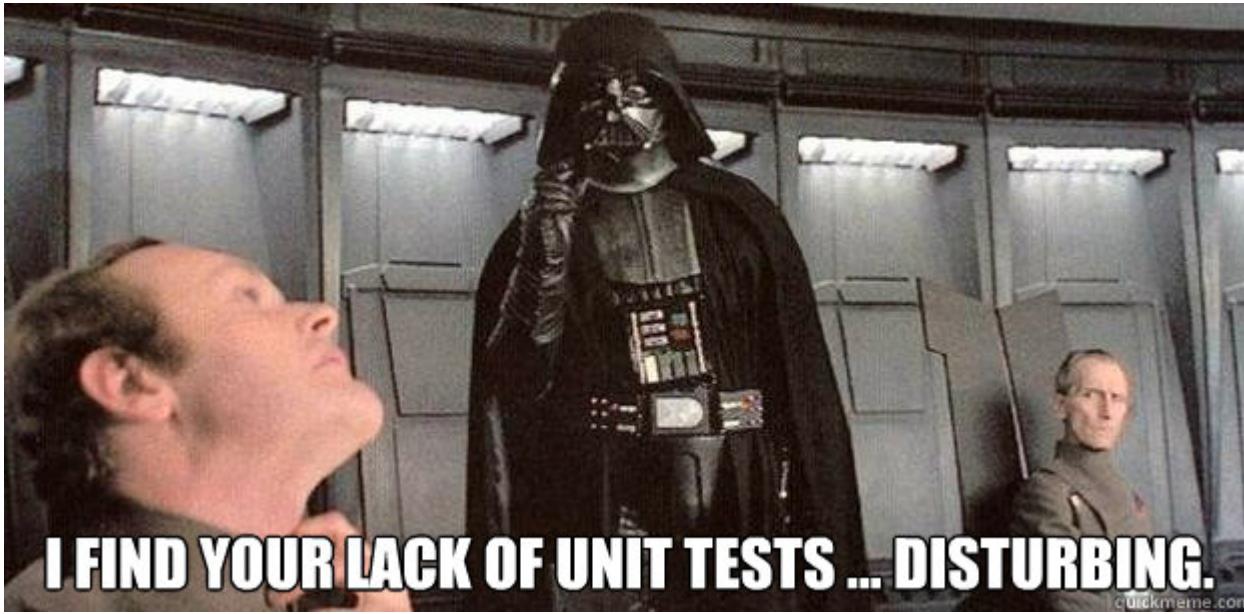


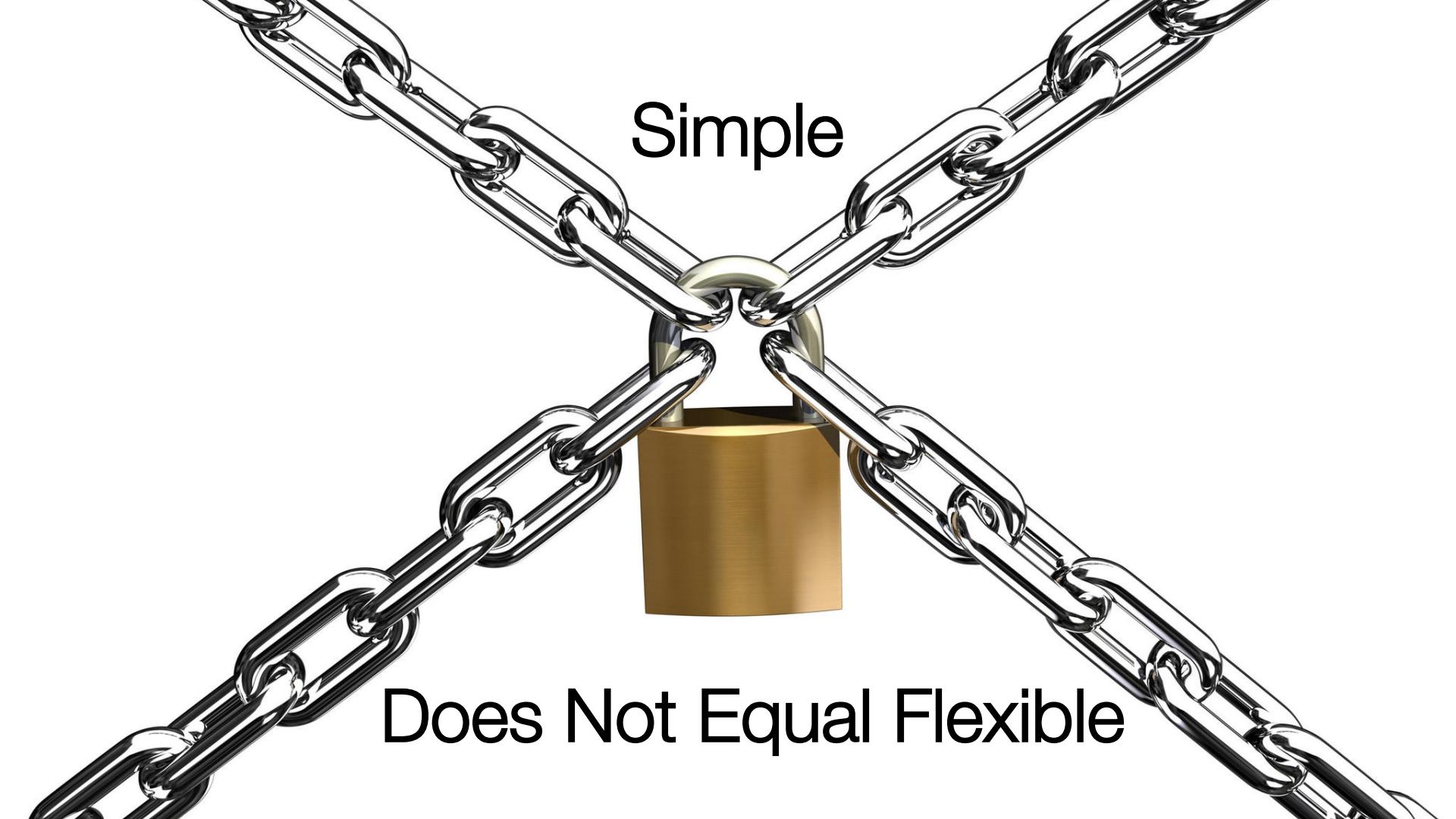
Continuous Integration

Enforcement



We still had some work to do



A close-up photograph of a metal chain. The chain is formed into a circular loop, with one link broken and replaced by a brass-colored cylindrical padlock. The chain links are polished and reflective.

Simple

Does Not Equal Flexible

CI version 2.0



Jenkins



WITH GREAT POWER
COMES GREAT
RESPONSIBILITY

Plugin matrix of pain



How to succeed with Jenkins

Google +



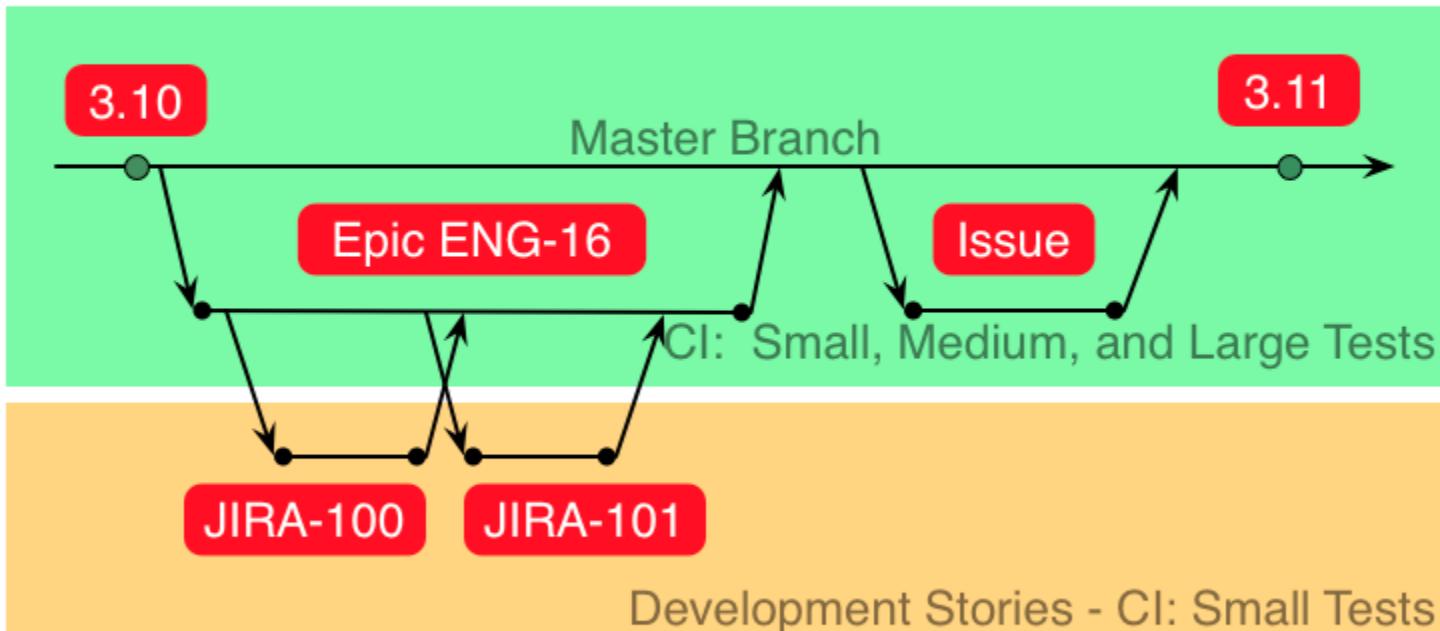
= BFFs

Our Jenkins setup



Automating beyond master

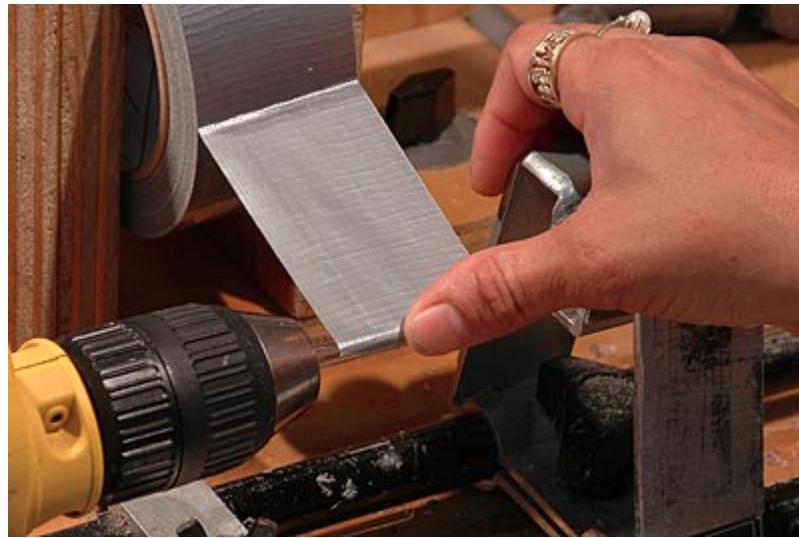
Epic Based Branching



Our test automation journey begins

A photograph of a steep wooden staircase leading up a lush green hill, symbolizing the beginning of a journey. The stairs are made of weathered wood and metal railings, set against a backdrop of dense tropical vegetation and power lines.

Framework Version 1.0



Option #1



Option #2



Option #3

calara.sh

Forging our own solution



Challenges still exist



The Proof

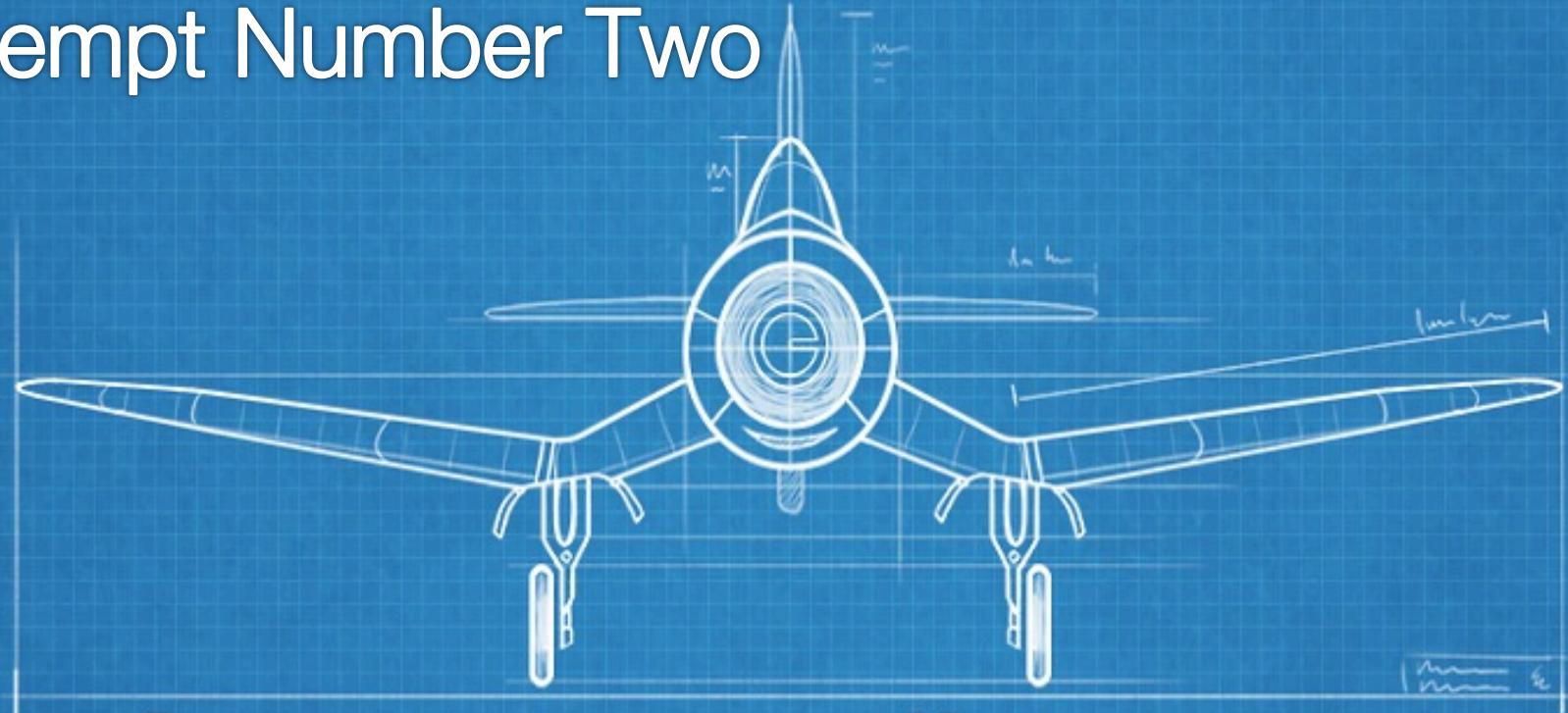


Dogfooding



Attempt
Number
One

Attempt Number Two



The freedom to build better apps

A free mobile platform for developers, managers and testers.

Google saves the day!

The screenshot shows the Google Play Store interface for the Twitter app. At the top, the Google Play logo is visible. Below it, the Twitter logo and the text "Twitter" and "Twitter, Inc." are displayed. A prominent blue button labeled "BECOME A TESTER" is centered, with a red arrow pointing to it from the left labeled "Step 1". Below this button, the text "You are logged in as" is followed by a placeholder for a user name. A descriptive text block below the button states: "Twitter, Inc. invites you to become a tester of early unreleased versions of Twitter, because you are a member of twitter-for-android-experiment@googlegroups.com". It explains that as a tester, you will receive test versions of Twitter through app updates, which may be unstable and contain bugs. It also mentions that you can leave the test at any time and return to the regular version of Twitter. At the bottom of the screen, there is a red-bordered button labeled "Download Twitter from the Play Store" with a red arrow pointing to it from the right labeled "Step 2". The footer of the screen includes standard links: "© 2013 Google - Google Play Terms of Service - Devices Terms of Sale - Privacy Policy - Developers - Artists".

Step 1 → BECOME A TESTER

You are logged in as [REDACTED]

Twitter, Inc. invites you to become a tester of early unreleased versions of Twitter, because you are a member of twitter-for-android-experiment@googlegroups.com.

As a tester you will receive test versions of Twitter through app updates. Test versions may be unstable and contain bugs.

You can leave the test at any time and return to the regular version of Twitter.

Download Twitter from the Play Store ← Step 2

© 2013 Google - Google Play Terms of Service - Devices Terms of Sale - Privacy Policy - Developers - Artists

Submission Process

The final frontier...

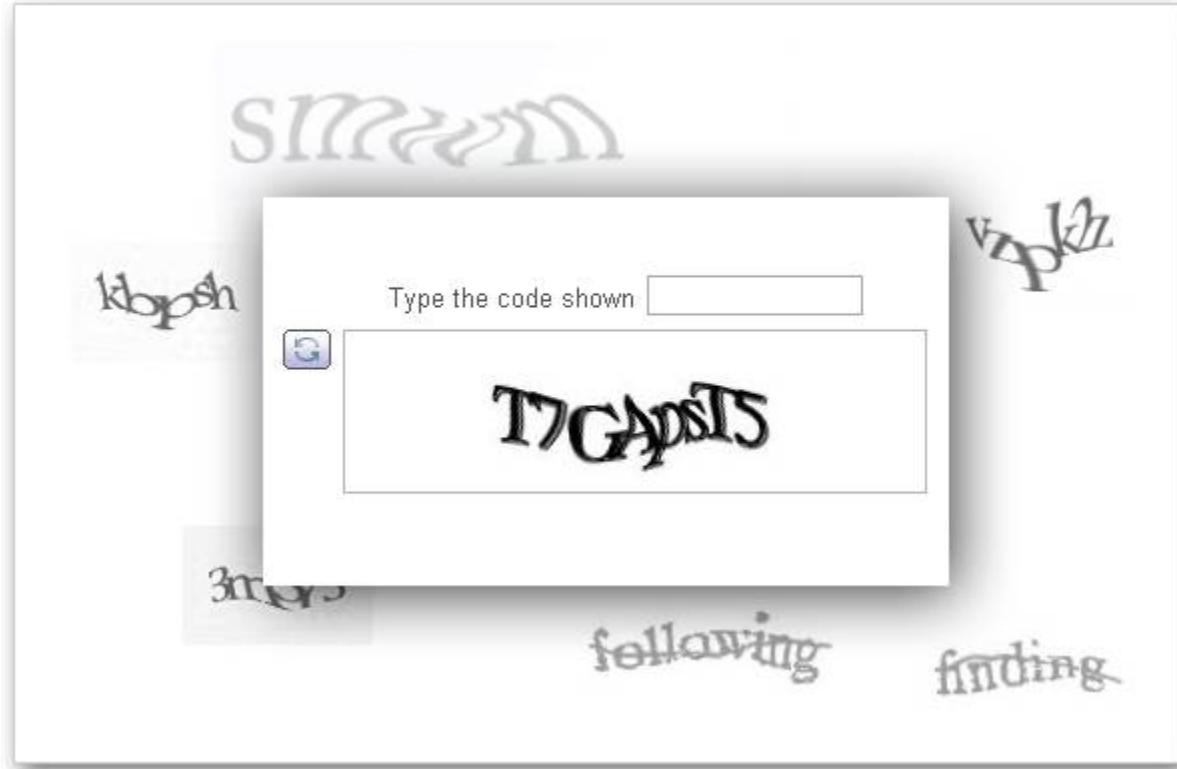
Taming the beast



The Clone Army

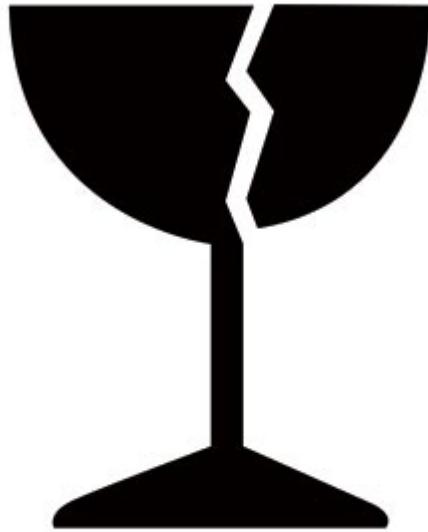


A blood oath



Our “solution”





We put the “agile” in **FRAGILE**

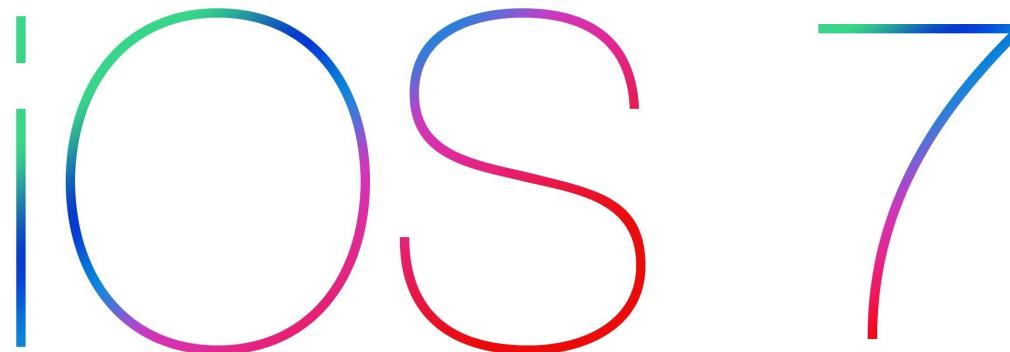
Where we go from here



Success Stories

More pudding.

The sub-24 hour release cycle



Quality FTW

KILL



quickmeme.com

Smaller, predictable releases

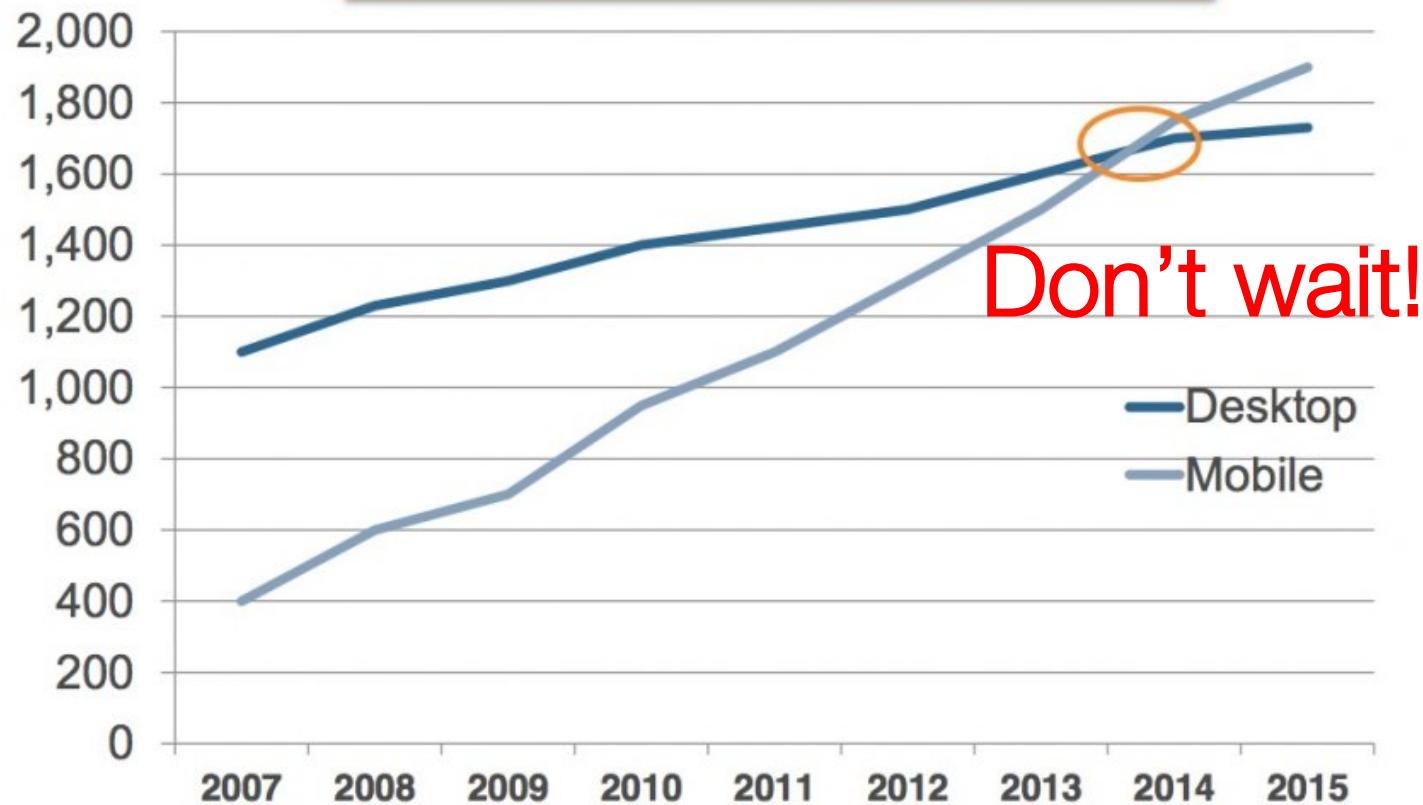
1 > 6

fear
NO MORE

Take-aways

Do this, don't do that.

Number of Global Users (Millions)



2005



2013





Start tiny

failure is always an Option ...

The MythBusters

A 3D rendering of a large question mark composed of various question words like How, Where, Why, What, Who, When, and Which.

The question mark is formed by several large, bold, 3D letters in a dark gray color. These letters include "How?", "Where?", "Why?", "What?", "Who?", "When?", and "Which?". Interspersed among these large letters are many smaller, semi-transparent versions of the same words, creating a sense of depth and repetition. The overall effect is a dynamic, abstract representation of inquiry or asking questions.

A large, semi-transparent blue Twitter logo watermark is positioned in the background of the slide. It features a stylized bird in flight, composed of several overlapping blue shapes. The bird's body is a large circle, with its head and tail extending to the right. Its wings are depicted as two long, sweeping curves extending downwards and to the left. The entire logo is a solid blue color.

@nosrednAhs0J