

# Drive Continuous Delivery With Continuous Testing

Rafał Syryt

Senior Solution Consultant
CA Technologies

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How Good are You at ...

## Eliminating the barriers between ideas and outcomes?





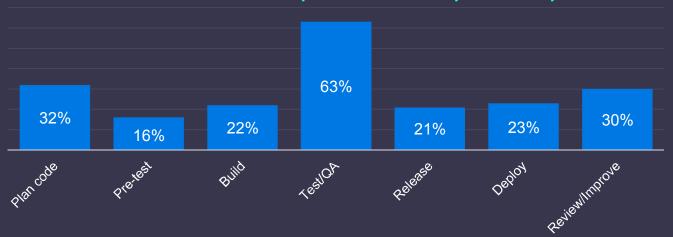
## QA is STILL a Bottleneck... Even in DevOps Shops

A 2017 survey of **self- proclaimed DevOps practitioners** found that ...



...of delays were occurring at the **Test/QA stage** of the cycle.

"Where are the main hold-ups in the software production process?"



http://www.computing.co.uk/digital\_assets/634fe325-aa28-41d5-8676-855b06567fe2/CTG-DevOps-Review-2017.pc

technologie

## SPEED

2.5x ore likely to have succeeded in

more likely to have succeeded in left-shifting testing activity to requirements phase

## **Tangible Evidence**

of the value Continuous Testing represents for Digital Business Leaders



more likely to deliver 10x faster iterations

1.9x



more confident in speed of delivery





2.6x



2.4x

more confident in quality of output





3.9x

more likely to experience rapid revenue growth



"Continuous Testing as a Digital Business Enabler", 2017



## Why is Quality So Hard to Achieve?

Testing hasn't really changed in the past 30 years, still using outdated methods to support Agile and DevOps.

"Clear evidence that you are unlikely to enjoy the full benefits of continuous delivery unless you modernize your testing tools and practices."



63% practitioners agree

Traditional testing methods are often too complex and expensive to use



**79%** practitioners agree

Adoption of continuous testing is much easier with the right tools



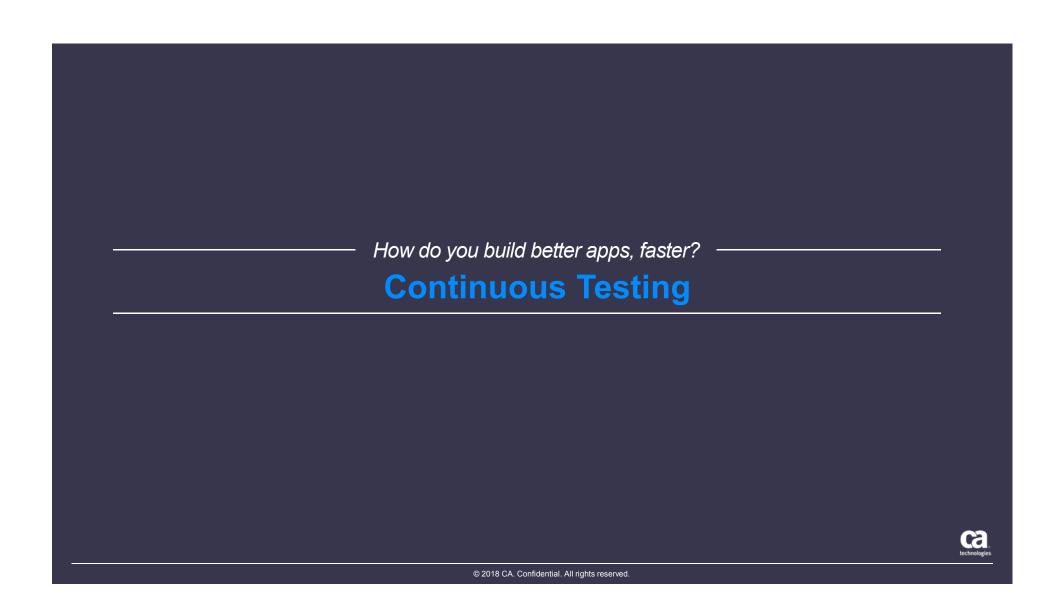
72% practitioners agree

Continuous testing requires a major shift in mindset and culture



"Continuous Testing as a Digital Business Enabler", 2017





## The Way We Look at Testing Needs to Change

Traditionally Testing has been an event in the SDLC

Plan

Develop

Test

Release

Testing practices need to be embedded in every step of the SDLC





## **Challenges to Achieving Continuous Delivery & Testing**



Requirements

64% of total defect cost originate in the requirements analysis and design phase<sup>1</sup>.



**Development** 

50% of developers time is spent fixing and finding defects<sup>2</sup>

**80%** of teams experience delays in development and QA due to unavailable dependencies<sup>3</sup>



**Security** 

required manual pen test scan cost vs. automation<sup>10</sup>

30% of teams only security scan once per year9

**50%** more time spent on security defects in lower-performing teams<sup>8</sup>



**QA / Testing** 

**70%** of all testing is still manual<sup>4</sup>

63% of testers admit they can't test across all the different devices and OS versions<sup>5</sup>

**50%** of time spent looking for test data<sup>6</sup>

**79%** of teams face prohibitive restrictions, time limits or access fees on needed 3rd party services<sup>3</sup>



Release

**57%** are dissatisfied with the time it takes to deploy new features<sup>7</sup>

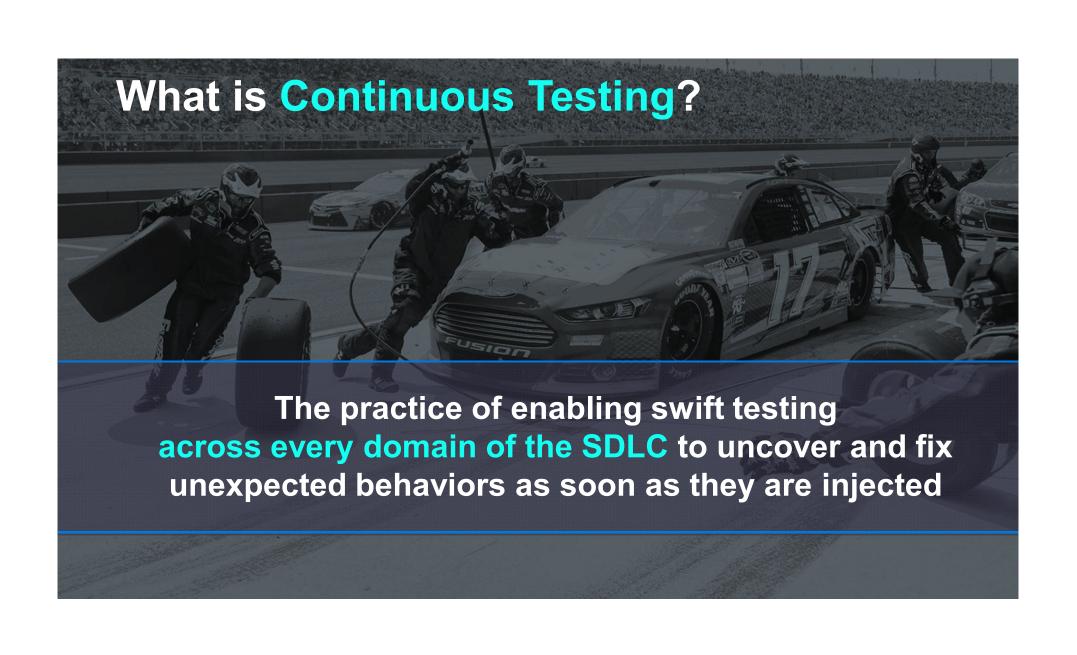


**Operations** 

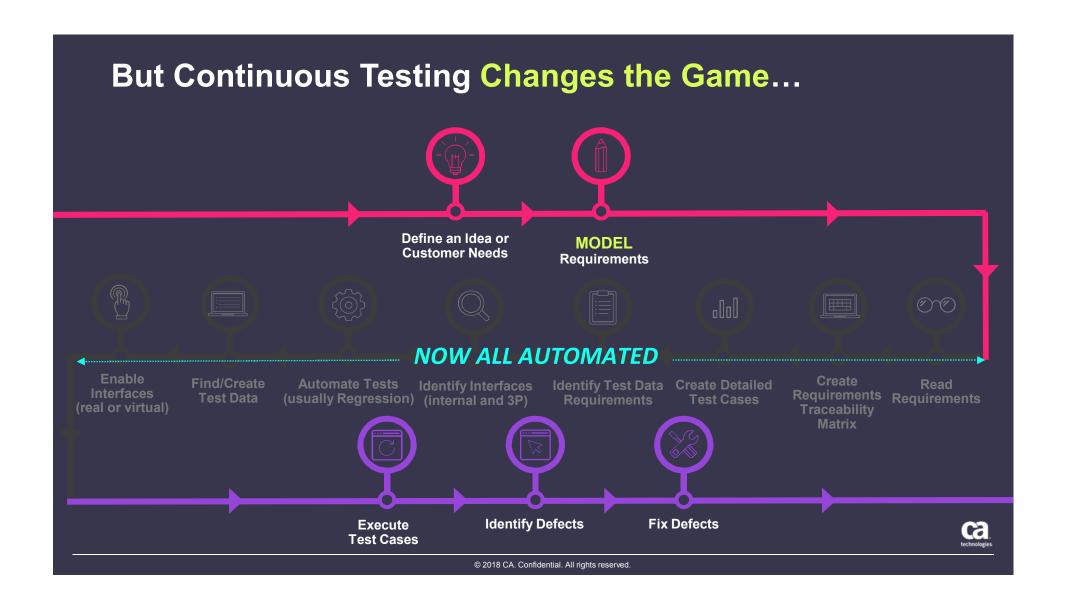
Greater than 50% production outages from configuration management

Ave. cost of downtime per minute = \$4,700

53% percent of visits are abandoned if a mobile site takes more than three seconds to load



#### Why are Traditional Testing Activities a Bottleneck? Define an Idea or Write Manual **Customer Needs** Requirements **Processes** Enable Create Find/Create **Automate Tests Identify Test Data** Create Detailed Read **Identify Interfaces** Interfaces Requirements Requirements **Test Data** (usually Regression) (internal and 3P) Requirements **Test Cases** (real or virtual) Traceability Matrix **Identify Defects Fix Defects Execute** Ca. **Test Cases** © 2018 CA. Confidential. All rights reserved.



How do you build better apps, faster?

### **Continuous Testing & Delivery**



#### **CHALLENGE:**

Struggling to keep pace with the demands of the business. Needed to deliver applications and updates more quickly, of higher quality and with fewer defects.

## SOLUTION:

- CA Agile Requirements Designer
- · CA Test Data Manager
- CA Application Test
- CA Release Automation

"CA Technologies offered a compelling solution with its integrated tools that provide **seamless**, **end-to-end test management**.... CA Technologies solutions were able to manage all the technologies used across our applications, which other solutions were unable to do."



YouTube: "Stop - Agile DevOps in Waterfall Fashion Won't Work"

"With CA Technologies solutions, we can identify & rectify defects more quickly and easily before they are released into production. This will help us improve the speed and quality of software delivery."

## CA's Track Record Helping our Customers



Requirements



**Development** 



**Security** 



**QA / Testing** 



Release



**Operations** 

10X



Faster in delivering test cases & automation<sup>1</sup>

50%



Time reduction to replicate defects<sup>3</sup>

3 Trillion ⊗

Lines of code scanned

Reduce time needed to generate synthetic test data by 50%

Decrease downtime from release failures by 80%

Up to **50%** greater <sup>5</sup> app performance <sup>5</sup>

3 Month



Improvement in new automation And to full in-sprint automation

50%



reduction in app dev/test cycle²

**1 in 3** ⊗

Fortune 100 firms choose Veracode

**90%** availability for testing platforms<sup>3</sup>

23%

time to market improvement<sup>3</sup>

**32M** ⊘

Security flaws fixed<sup>7</sup>

1 x 500 throughput increase in testing<sup>4</sup> Early load testing to prep 🛇 for an actual

25 Million Users<sup>6</sup>

**12,000** ⊗

Developer remediation coaching sessions

35%



cost reduction with 3<sup>rd</sup> party access fees<sup>3</sup>

Reduce application deployment time almost

94%

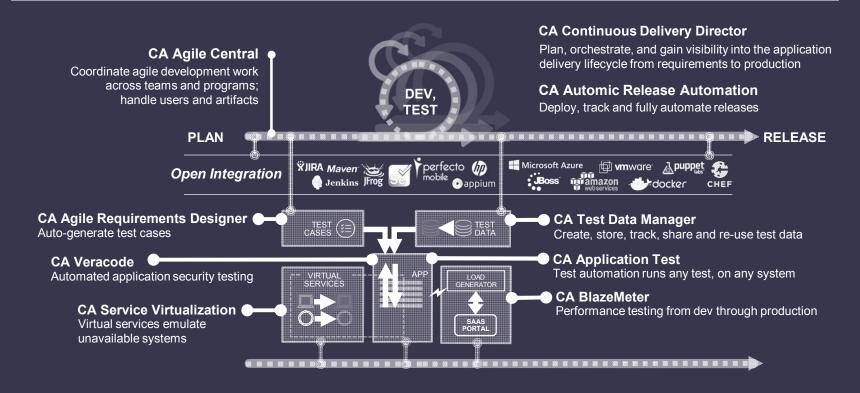
Increase weekly deployments by

300%



#### How do you build better apps, faster? -

### **End-to-End Continuous Testing & Delivery from CA**





## **THANK YOU**

