

Your Roadmap to Continuous Delivery and Continuous Testing

Duncan Bradford
EMEA CTO

June 2018



Changing State of Applications

Process, Technology



Waterfall



Legacy,
Proprietary



Agile



Best of Breed,
Open Source



DevOps



DevOps.AI



ALM



Modern Software
Factory

**MAINFRAME
MONOLITHIC**

1 to 2 years

**WEB
CLIENT SERVER**

1 to 3 months

**MOBILE
CLOUD
MICROSERVICES**

TIME

1 to 7 days

**ARTIFICIAL
INTELLIGENCE
BLOCKCHAIN**

Real-time



Expectations of Businesses Are Changing

Business Drivers for Digital Transformation

SPEED



64%

of businesses are dissatisfied with the speed for new customer releases.¹

QUALITY



43%

of DevOps practitioners are choosing to focus on improving quality in the next year.²

SECURITY



\$7.7

million per company is the average annual loss worldwide due to cybercrime.³

USER EXPERIENCE



79%

of users will abandon a site if they don't quickly find what they need.⁴

COST



75%

savings from waterfall to agile.⁵

Applications need to be delivered quickly and reliably, with high quality and lower cost, while providing an exceptional customer experience.

1 - [Forrester Continuous Delivery & Release Automation 2017](#)

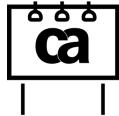
2 - [CTG-DevOps-Review-2017](#)

3 - [Veracode- everything you need to know white paper](#)

4 - [Voke Inc enterprise service virtualization report](#)

5 - [www.scrum.org- "Large scale agile scrum vs waterfall"](#)

Risk Factors of Ineffective Software Delivery



Brand Risk

77% of consumers abandon applications more quickly than they did three years ago.⁴

91%

of IT leaders say improving customer experience is important or essential.¹



Lost Revenue

Release delays and missed deadlines reduce maximum sales time and impact revenue.

60%

higher revenue growth for those companies adept at agile practices ("Agility Masters").²



Reduced Value

Too much manual work, unplanned work, wait time and technical debt undermines innovation and competitive edge.

96%

of DevOps Professionals have projects to make IT work faster with same resources.³

Based on industry research

Enterprise Software Delivery Challenges



VALUE STREAM CLARITY

84%

experience release problems due to application dependencies.¹



TESTING BOTTLENECK

63%

of DevOps adopters say current QA processes are a bottleneck.²



CLOUD MIGRATION

80%

of IT budgets will be committed to the cloud.³



FRAGMENTED TOOLS, TEAMS

1 Month

lead time for changes for low performers.⁴



LEGACY VS MODERN

53%

are using a microservices architecture.⁵



NO VISIBILITY & MEASUREMENT

57%

are dissatisfied with the time to deploy new features.⁶



SECURITY AND COMPLIANCE

30%

security scan only once per year.⁷

Eliminate Barriers Between Ideas and Outcomes

Reliably deliver high-quality software on demand to drive your business with

Continuous Delivery



Continuous Delivery Capabilities to Eliminate Barriers in the Enterprise



IDEA



VALUE

END-TO-END VALUE DELIVERY

Manage complex value streams with multiple apps and dependencies—always knowing the business impact of the pipeline.

CONTINUOUS TESTING

Testing across every activity in the pipeline to uncover and fix unexpected behaviors as soon as they are injected.

MODEL-DRIVEN RELEASES

Enable consistent, repeatable processes regardless of environment.

OPEN AND INTEGRATED

Easily leverage best-of-breed tools across the DevOps ecosystem, whether open source, commercial or home grown.

MAINFRAME TO MICROSERVICES

Legacy- and future-proof with complete support and expertise to handle multimodal environments—now and into the future.

VISIBILITY AND ANALYTICS

Get insights into app delivery performance and release readiness to continually improve.

COMPLIANT AND SECURE

Access complete, end-to-end audit trail and shift security checks left.



Continuous Delivery Is a Journey



GETTING STARTED

- Looking for ways to reduce manual effort
- Self-assessment / current state workshop
- Continuous integration



MAKING PROGRESS

- Model environments, components and state flows
- Construct automated deployment pipelines
- Promote and rollback versioned components on demand
- Begin automating some test areas
- Model release workflows



ALMOST THERE

- Provision full stacks
- Orchestrate end-to-end
- Continuous feedback
- Content planning



CONTINUOUS DELIVERY

- Automate and optimize the entire pipeline
- Intelligent continuous testing
- Continuous improvement

Manual and Scripting

Islands of Automation

Orchestrated
Tool Chain

Fully Automated
and Optimized



CA Continuous Delivery Solutions

Large Airline Adopts Continuous Delivery

➔ GOALS

- Understand needs of application, portfolio and stakeholders.
- Manage the release pipeline from development to production leveraging automation tools.
- Establish an end-to-end testing solution to automate and stabilize the delivery pipeline.
- Scale software quality and release management to become a company-wide service.

➔ CHALLENGES

- Limited test coverage
- Manual functional testing
- Limited non-functional testing
- No security scanning
- Limited scope releases
- Low velocity
- No agility
- Unstable test environments
- No test data management
- No automated release process
- No collaboration
- No credibility for release team

➔ RESULTS

- Went from monthly releases to on-demand releases
- Saved 22,280 manual test hours in 3 months
- From 40 hours for one round of regression testing to 4 hours
- Improved testing coverage up to 67%
- Now supporting releases from Dev, Stage, QA, UAT, Prod Perf and Pre-Prod to Production
- Gained visibility to status of each feature/story in the release pipeline
- Flexibility to standardize and grow





CA Press
apress
open

DevOps for Digital Leaders

Reignite Business with a Modern
DevOps-Enabled Software Factory

Aruna Ravichandran
Kieran Taylor
Peter Waterhouse

Thank You

For more information:
DevOps for Digital Leaders is a free download
<https://www.ca.com/us/collateral/ebook/devops-for-digital-leaders.html>

