

# 5 Ways DevOps Practices Boost Innovation on the Mainframe



# But innovation doesn't apply to mainframes, does it?

**Digital transformation in the modern software factory is essential.**

And mainframes are mission-essential elements of this transformation in many industries, including, finance, transportation, insurance and others.

The industry is adopting agile and DevOps practices throughout IT to increase business agility. But mainframe teams have been left out of this transformation. Until now.

In this book, explore the potential for DevOps in your organization, told from a mainframer's point of view.



Improve Business  
Agility Through Agile  
Development



Achieve End-To-End  
Managerial Visibility  
into the SDLC



Continuous Testing:  
Shift Left to Improve  
Quality and Reduce  
Test Cycles



Continuous Delivery  
Keeps Mainframe  
Applications  
Up to Speed



Continuous  
Availability, Monitoring  
& Performance  
Enhances UX



# Improve Business Agility Through Agile Development

“Teams face a variety of challenges in delivering mainframe application improvements at **digital business speed**.”

Kurt Bittner and Robert Stroud, Forrester Research, Inc., “Digital Transformation Needs Mainframe DevOps,” June 20, 2016



Agile projects are

**3X** MORE LIKELY TO  
SUCCEED THAN TRADITIONAL  
WATERFALL PROJECTS.<sup>1</sup>



**65%** of CA Gen, CA Endeavor® or CA ALC users surveyed deem these products “effective” or “very effective” in addressing the pressure of **delivering software more frequently**.<sup>3</sup>



Highly agile organizations are

**40%** MORE LIKELY  
TO SUCCESSFULLY COMPLETE  
THEIR STRATEGIC INITIATIVES.<sup>2</sup>

Turn to CA Mainframe Application Development, Quality and Testing Tool solutions to build agile capabilities into your mainframe environment.



Learn how CA development solutions drive business value.

Try the ROI calculator.

<sup>1</sup> InfoQ, “Standish Group 2015 Chaos Report--Interview with Jennifer Lynch,” October 4, 2015, <https://www.infoq.com/articles/standish-chaos-2015>

<sup>2</sup> Project Management Institute, “Capturing the Value of Project Management,” Feb 2015, <http://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pulse-of-the-profession-2015.pdf>

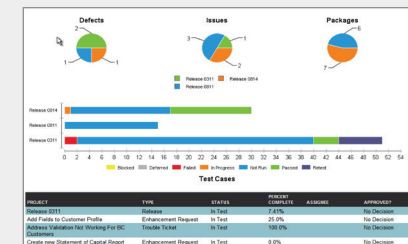
<sup>3</sup> TechValidate, “CA Technologies Mainframe Tech Facts,” Dec 10, 2015, <https://www.techvalidate.com/product-research/ca-testing-solutions/facts/BF9-0EB-589>



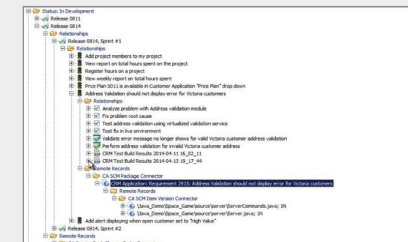
# Achieve End-To-End Managerial Visibility Into the SDLC

Cluster/job/node management      Heterogeneous system management      Intelligent alert management      Real-time job information

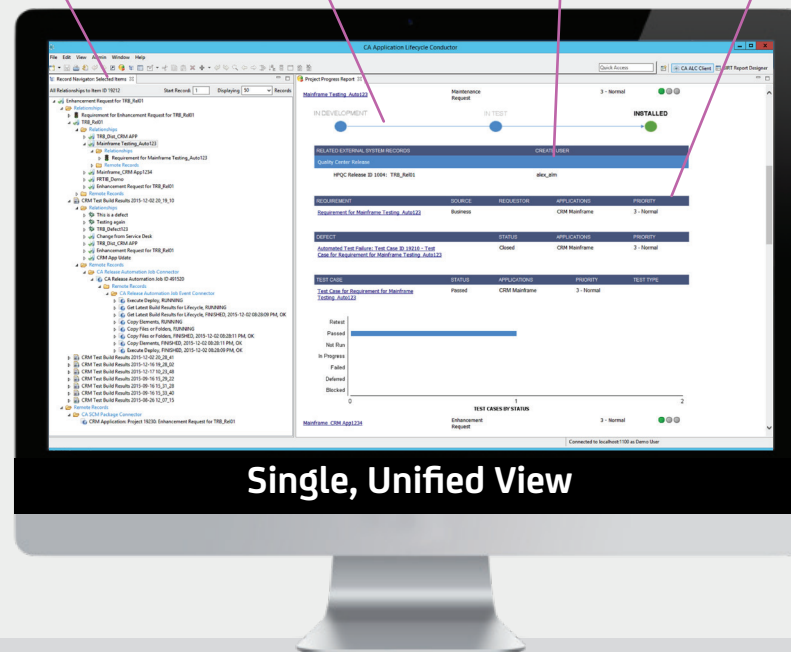
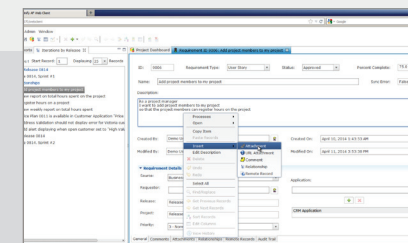
End-to-end reporting, real-time dashboards



Complete visibility & traceability



Flexible/modern interface



CA Application Lifecycle Conductor enables agility and DevOps on the mainframe.

**Calculate the savings now and learn more**

**55%**  
of a developer's time is typically spent on non-development work<sup>1</sup>

That's why developers need tools to effectively coordinate systems development lifecycle activities for project management and governance.



# Continuous Testing: Shift Left to Improve Quality and Reduce Test Cycles

## Early error detection = BIG \$ SAVINGS<sup>1</sup>



**\$1** for code-fix during testing

**\$10** for code-fix during QA

**\$100** for code-fix during production

## MAINFRAME TESTING REMAINS A BARRIER

“When their only option is extensive manual testing, they hold off changes for as long as possible. Preventing change is not the solution; better and more complete testing is.”

— Kurt Bittner and Robert Stroud, Forrester Research, Inc., “Digital Transformation Needs Mainframe DevOps,” June 20, 2016

CA Service Virtualization **reduces development and test cycles** and speeds time to market.

**Maximize efficiency** by adopting the CA Testing Tools suite:



- CA File Master™ Plus
- CA InterTest™ / CA SymDump®
- CA Test Data Manager
- CA Service Virtualization

## THE RESULTS SPEAK FOR THEMSELVES

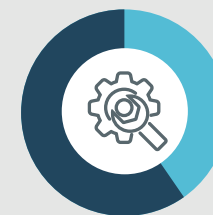
Property & Casualty  
Insurer achieved<sup>2</sup>



CYCLE TIME  
REDUCTION



ERROR  
REDUCTION



**67%** of surveyed companies with integrated CA Endeavor SCM and CA Testing Tools **reduced manual errors by 50% or more<sup>3</sup>**



**We're building the next generation** of continuous and automated testing capabilities on the mainframe environment. [Request a Call and Learn More](#)

<sup>1</sup> Ovum, “Meeting the Challenges of Change Management,” February 20, 2012

<sup>2</sup> CA Service Virtualization data sheet, <http://www.ca.com/content/dam/ca/us/files/data-sheet/ca-service-virtualization.PDF>

<sup>3</sup> TechValidate, “Survey of 25 Users of CA Technologies Testing Solutions,” Published Sept. 10, 2013, TVID: [F93-240-0F1](#)





# Continuous Delivery Keeps Mainframe Applications Up to Speed

To deploy a successful continuous delivery strategy, adopt **CA Endeavor Software Change Manager**, the **industry's leading** mainframe source code and configuration management solution, with **CA Release Automation**.

Building DevOps competency **delivers huge business advantages**. Compared to lower performing IT teams, high performers:<sup>1</sup>



## REDUCE TIME TO MARKET

Deploy **200x** more frequently

Require **2,555x** shorter lead times

Recover **24x** faster

## IMPROVE RELIABILITY

Spend **22%** less time on unplanned work and rework

Have **3x** lower change failure rates

## CA Endeavor SCM

*A Fortune 100 company achieved **continuous automated deployments***

**500** DEV PACKAGE PROMOTES PER MONTH

**150** PRODUCTION PACKAGE DEPLOYS PER MONTH

**Zero** PRODUCTION BACKOUTS

## CA Release Automation

**389% ROI**  
TOTAL ECONOMIC IMPACT  
WITH PAYBACK IN  
**2.8 MONTHS.**<sup>2</sup>

**ING INCREASED  
RELEASE FREQUENCY  
TO CONSISTENTLY OVER  
12,000**/MONTH<sup>3</sup>



**We're building the next generation** of continuous delivery capabilities on the mainframe environment. **Request to call.**

<sup>1</sup> Forrester, "State of DevOps," 2015

<sup>2</sup> Forrester, "The Total Economic Impact(TM) of CA Release Automation," December 2015

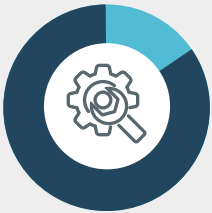
<sup>3</sup> "ING Builds Highly Available Continuous Delivery Pipeline with Microservices and Containers," CA World® 2015 Presentation



# Continuous Availability, Monitoring & Performance Enhances UX

## REDUCED LPAR

# 80%



An **insurance company** in Germany reduced their overall daily batch processing time from 14 hours to 7 hours, and were able to **reduce LPAR utilization to 80% in just two weeks.**<sup>1</sup>



## REDUCED HOURS

# 14 to 1

And a **public company** in Brazil **reduced the processing time** of a troublesome batch job from 14 hours to 1 hour 10 minutes.<sup>1</sup>

## INCIDENT DETECTION SAVED

# 450K+



A **banking customer** saved **\$450K+** over three years with proactive incident detection, while improving collaboration between distributed and mainframe teams.<sup>1</sup>



Run the CA Mainframe Application Tuner **business value estimations asset**



Learn more about **CA Enterprise Performance Management.**

Learn more about how CA can  
help you build agile DevOps capabilities  
and innovate on the mainframe.

**Request a Call.**

CA Technologies (NASDAQ: CA) creates software that fuels transformation for companies and enables them to seize the opportunities of the application economy. Software is at the heart of every business, in every industry. From planning to development to management and security, CA is working with companies worldwide to change the way we live, transact and communicate—across mobile, private and public cloud, distributed and mainframe environments. Learn more at [ca.com](http://ca.com).

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