Connecting Applications from Mobile to Mainframe in the Application Economy

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technologies

Customers Driving Change in the Application Economy

An app in Asia allows transit commuters to order products by scanning billboards. An app in the U.K. provides a way to track social media buzz around popular TV shows. This is the application economy—a brave new world that knows no geographic borders or creative limits. And in this new world, the customer is king, demanding only the best user experience and expecting the latest and greatest app at the swipe of their finger.

When it comes to succeeding in this application economy, usability and speed to market are everything. Move too slow, and your customers will turn to your competitors. Deliver the apps and services your customers want when they want them, and the market is yours. So, how can app developers and IT managers that support mainframe platforms enable an exceptional experience and rapidly innovate and iterate the apps and services that will drive competitive advantage?

App Abandonment

In the U.S., 67% of retail app users will **leave an app** altogether (or 'churn') in the first month, increasing to **81%** of users by the third month of download.[1]

On a global scale, the numbers become worse …

76% **of users will abandon retail apps** within the first 30 days, increasing to **88%** by the three-month mark.

[1] Shaul, Brandy, Localytics: 76% of Users Abandon Retail Apps in First 30 Days, SocialTimes, August 12, 2015.

2.5 BILLION

The mainframe handles 2.5 billion mobile transactions per day—the equivalent of 100 Cyber Mondays—a number that is **expected to grow to 40 trillion per day by 2025**.[3]

Around 5 BILLION

lines of new COBOL code are added to live systems every year.[4]

[2] Hornblass, JJ, Mobile User Growth Eases at Bellwether Banks, Bank Innovation, April 15, 2015.
[3] *IBM Launches z13 Mainframe—Most Powerful and Secure System Ever Built* (Press Release), IBM, January 13, 2015.
[4] Miller, Rick, *COBOL Might Not Be Your Granddaddy's Programming Language*, ETI Performance Improvement, March 30, 2015.

From Independent to Interdependent Applications: Connecting Mobile to Mainframe

It may surprise you to realize this, but mainframe remains the core transaction processor in key industries, such as financial services, insurance, government, healthcare and telecommunications. In fact, millions of consumers touch mainframes every day.

Take, for instance, the three largest banks in the U.S. They now have 50 million customers using mobile banking with an adoption rate growing at 15 percent annually.[2] Many of the things consumers can do on those mobile applications, such as check their banking balance, require hits back onto the critical transaction processing component of the financial services data center; the mainframe.

That's why millions of lines of high-quality COBOL code will continue to run critical business applications. This is also why REST APIs integrated into mainframe services, such as database look-ups and transaction processing, will continue to be incredibly important.

Moving Into a DevOps-for-Mainframe Model

The integration of agile-based mobile app development, dependent on mission-critical mainframe-based operations, is driving the importance of DevOps initiatives within mainframe application development.

While the DevOps movement may have started in distributed shops, its practices are relevant to mainframe shops, perhaps even more so. Principles such as automation, continuous delivery, collaboration and analytics provide opportunities to break down silos, speed delivery, maintain high quality and reduce the costs associated with development.

The time has come to examine and adopt a DevOps-for-Mainframe model.

Compared to their mainstream peers, Digital Disrupters[5] are:

3.5x more likely to recognize the importance of being a software-driven business

2.5x more likely to use agile software development techniques

2.5x more likely to have broadly implemented DevOps

CA Solutions: Mobile-to-Mainframe Application Development

Mobile-to-Mainframe Application Development solutions from CA Technologies help provide a common set of tools that enable collaborative and dynamic development environments where mainframe and distributed developers can work together to deploy applications and services at the speed of now. They include:

APPLICATION LIFECYCLE MANAGEMENT

- **CA Application Lifecycle Conductor** tracks and governs the software development lifecycle from mobile-to-mainframe environments.

APPLICATION DEVELOPMENT

- **CA Gen** delivers a single, integrated development environment that can help teams create and maintain large-scale business apps for multiple platforms.

SOFTWARE CHANGE MANAGEMENT

- **CA Endevor® Software Change Manager** provides business-driven, customizable lifecycle paths and automated version control to protect software assets and maintain application integrity.

- **CA Harvest Software Change Manager (CA Harvest SCM)** offers powerful, process-driven capabilities for managing development teams that use diverse platforms and release management tools.

TESTING TOOLS

- **CA Mainframe Application Tuner** provides advanced, proactive performance analysis and tuning that helps optimize enterprise application performance across z/OS® applications.

- **CA File Master™ Plus** speeds test file creation and editing for virtual storage access method (VSAM), sequential and partitioned datasets.

- **CA InterTest™ for CICS** Automates debugging of CICS® applications to identify errors prior to production.

- **CA SymDump® Batch** helps to quickly detect, analyze and resolve batch application failures.

CA Solutions: Mobile-to-Mainframe Application Development

CA Application Lifecycle Conductor

Leverage and extend back-end application logic and data sources

System Programmer
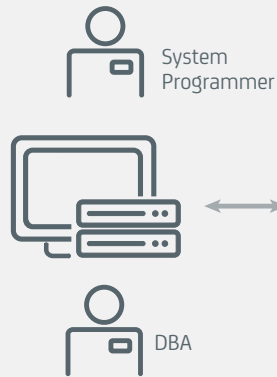
CA Mainframe Application Tuner

Cloud Services

Incorporate on-premises and cloud application services

CA Gen

DBA

CA API Management

Mainframe developer

Mobile developer

CA File Master™Plus

CA InterTest™

CA SymDump

Distributed developer
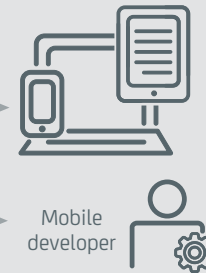
Develop mobile/Web front-end logic and new user experience

CA Endevor™ SCM

Software Change Management
Create code assets and manage software change

CA Harvest SCM

Working with Mobile-to-Mainframe Solutions from CA: What the Application Development Community Says

In a recent user survey of CA Gen, CA Endevor® Software Change Manager and CA Application Lifecycle Conductor, half of respondents experienced increasing performance pressure which is an indicator of a DevOps environment—higher customer quality expectations and greater frequency of software releases and delivery.[6] By adopting CA products, customers have:

Realized impressive results …

- **64%** of customers state that CA products are effective or very effective in addressing the pressure of delivering software more frequently[7]

- **65%** of customers state that CA products are effective or very effective in addressing the pressure of delivering higher quality software[8]

… and a positive user experience.

- **Over two-thirds** of customers felt satisfied or very satisfied with utilizing CA products[9]

- On average customers saw at least a **70% increase** in team productivity[10]

Half of respondents experienced increasing performance pressure[6]

[6] TechValidate. TVID: D3E-486-63A
[7] TechValidate. TVID: 65B-E99-036
[8] TechValidate. TVID: BF9-0EB-589
[9] TechValidate. TVID: 57F-B63-54D
[10] TechValidate. TVID: E18-BD9-7C6

Working with Mobile-to-Mainframe Solutions from CA: What the Application Development Community Says

"CA tools allow us to integrate mainframe functions to other platforms, bringing the 24/7 service unified in z/OS."

"CA products are the **heart of our mainframe** environment."

"With CA Endevor®, we can provide that batch cycles run on time and errors are minimized."

"The combination of CA Harvest and CA Endevor **allows** our release management **team to be aware of code changes** in both areas."

"CA Gen **keeps the developers from having to know and understand the behind the scene details** for communication between distributed systems and the mainframe."

"CA has allowed us to run parallel development within our products, effectively coordinate delivery and manage multiple versions of software."

"**Makes my work easier** and helps me provide timely delivery as per business requirement."

"CA Gen avoids the need to have a mainframe team or a distributed team; we have just one development team."

Achieving Success: Reframing Your Mainframe for the Application Economy

It's a brave new world— one that requires renewed focus on agility and seamless usability.
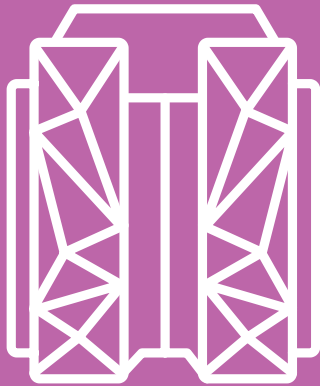
To deploy applications at the velocity you want and deliver the flawless experience your customer expects, IT operations and app developers that work on mainframes must:

- Connect to applications and data on the mainframe

- Unleash the power of data on the mainframe

- Create infrastructure flexibility for the future

CA enables system orchestration from a holistic view that spans your entire enterprise; where mainframe is not an exception, but a participatory and integral part of your IT infrastructure yesterday, today and tomorrow.

Learn more at ca.com/mainframe

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