



Mainframe and Mobile – *Are your back-end apps ready*

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Announcing:

IBM MobileFirst 

Put your **Business** in Motion.



The Industry's Most Comprehensive Mobile Portfolio



1

**The Broadest
Portfolio of
Mobile
Solutions**

2

**The Deepest
Set of Services
Expertise**

3

**New Industry
Partnerships
and Resources
for Developers**

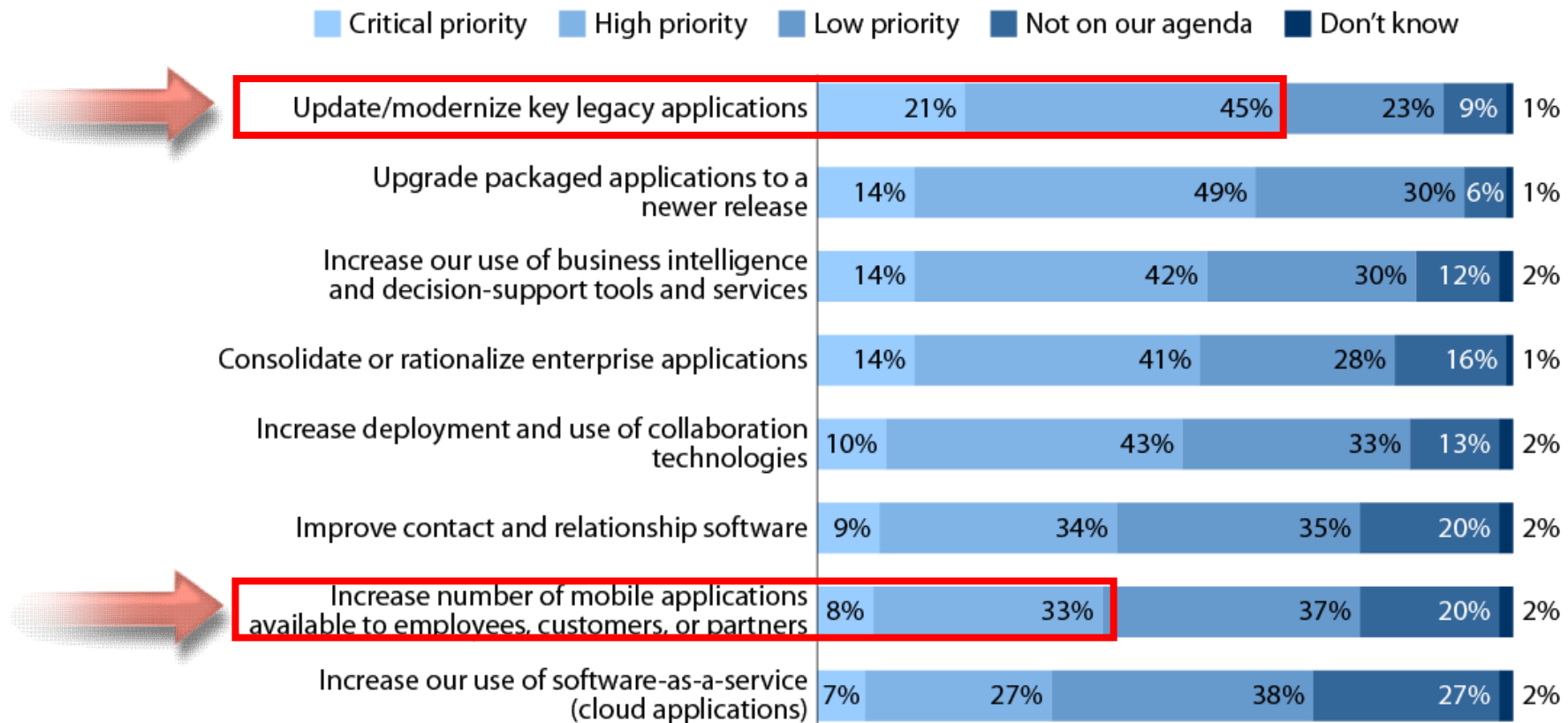


IBM MobileFirst Offering Portfolio





Top priority for executives: Updating existing applications

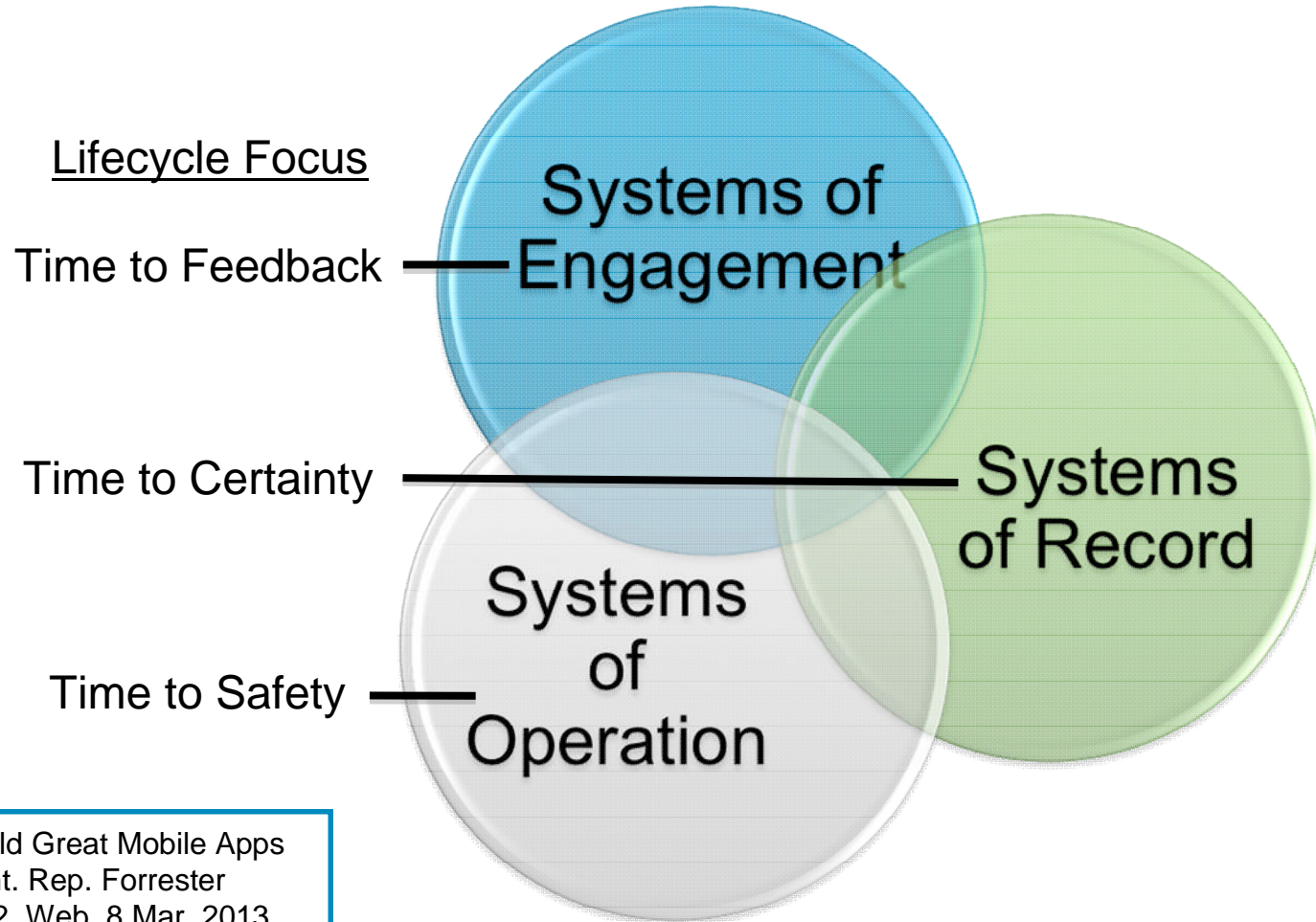


Note: Results based on 2,124 software decision makers (percents may not total 100 because of rounding).

Source: Forrsights Software Survey, *Application Retirement — It's Time To Put The Elephant In The Room On A Diet*, February 2011.



Great mobile apps drive engagement



Hammond, Jeffrey. Build Great Mobile Apps That Drive Engagement. Rep. Forrester Research, 25 July 2012. Web. 8 Mar. 2013.



Key mobile development and delivery challenges

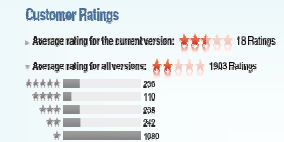
Fragmentation and developing for multiple mobile platforms

- Highly fragmented set of devices, platforms, languages, and tools complicates development, test, and operations



Delivering high quality apps

- Consumers demand a high quality user experience where quality is influenced as much by design as it is by function



Accelerated time to market requirements

- Higher frequency of new releases puts added pressure on teams to deliver on time and with high quality



Connecting apps with existing enterprise systems

- Apps typically need to leverage existing enterprise services, which must be made mobile-consumable
- Enterprise wireless networks are running out of bandwidth to accommodate employee devices

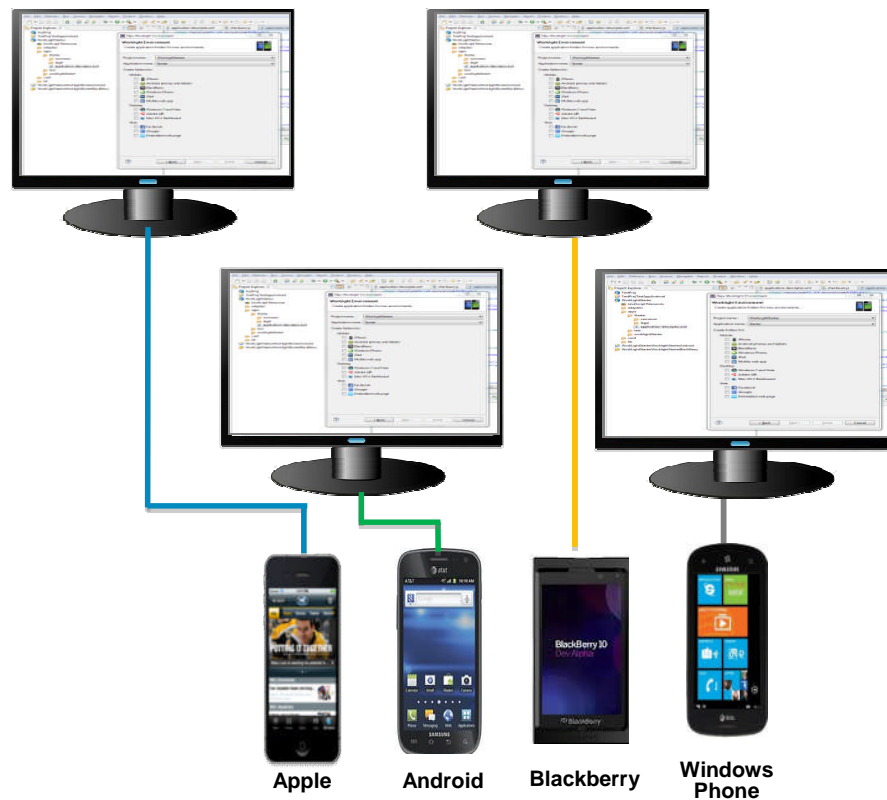




Rapid multi-platform development using a single shared codebase

From the complexity of many...

- Multiple sets of tools & frameworks
- Four codebases to develop and maintain



To the simplicity of one

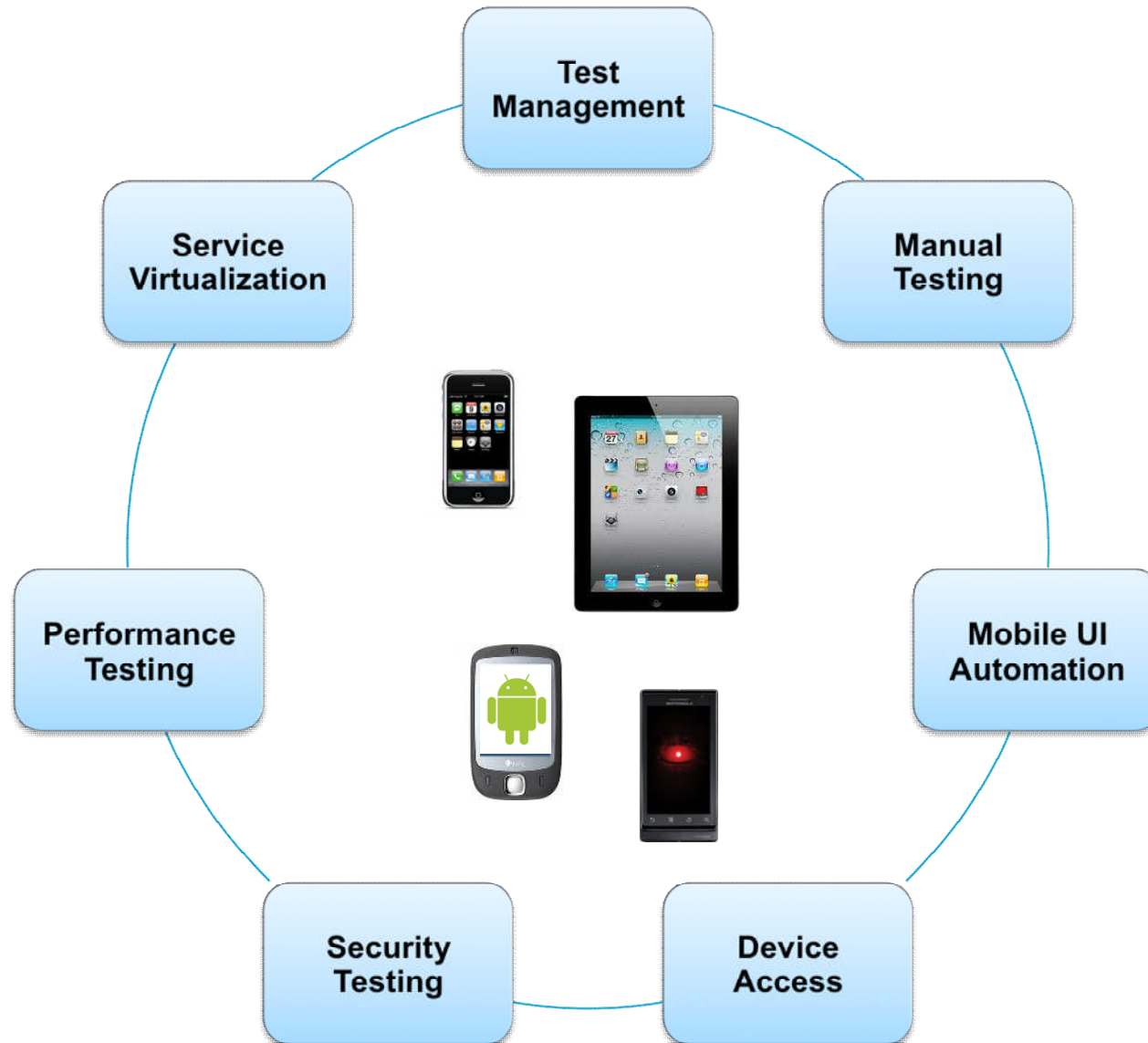
- One development environment
- One codebase to develop and maintain



IBM MobileFirst Platform



What do mobile testers need?





Mobile User Interface Automation

High quality mobile apps built and tested for a rapidly evolving mobile infrastructure

▪ Mobile Test Automation

- Support for native and hybrid applications running on Android and iOS
- Natural language test and visual test editing
- Simplified IDE and mobile device clients for test authoring, execution, and reporting

▪ Eclipse environment

- Mobile Test Automation
- Support for Selenium web GUI test automation
- Multi-channel test scenarios
- Integration with Rational Quality Manager and the IBM Worklight mobile development platform

▪ End-to-end mobile testing

- Virtualization of middle-tier and back-end systems
- Dynamic instrumentation of mobile applications
- Capture and high-fidelity replay of multi-touch events

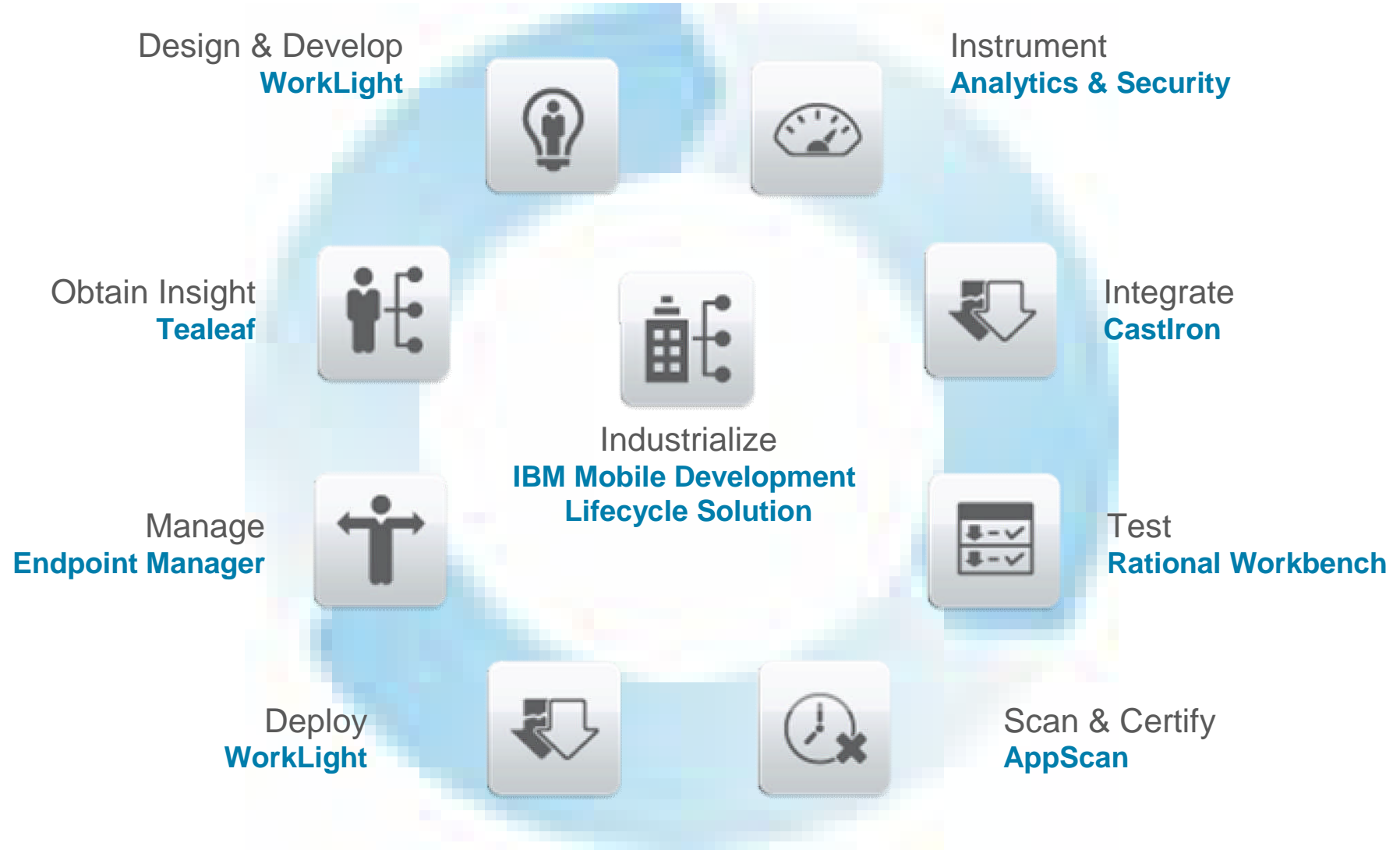


IBM Rational Test Workbench

BETA now
available !



The IBM MobileFirst Development Lifecycle

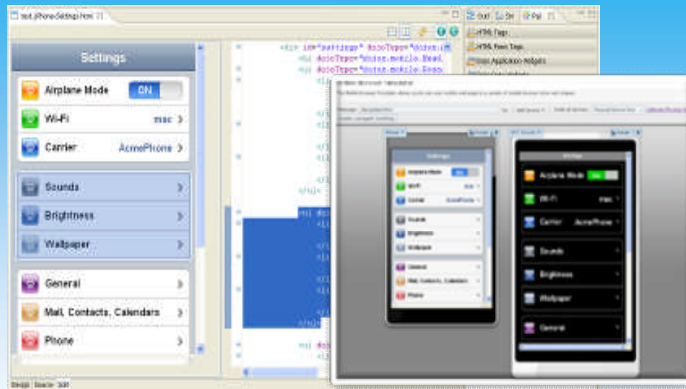




IBM Mobile Development Lifecycle Solution

Decreasing response time to feedback

IBM Worklight

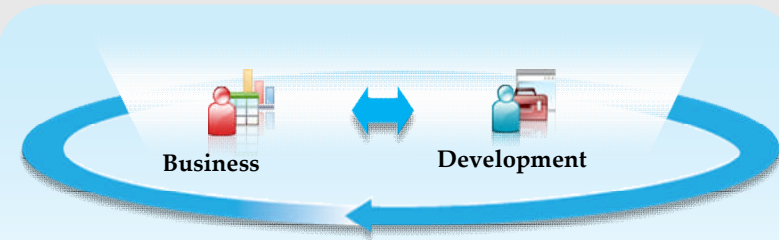


Construct, debug, and test mobile UIs

Mobile Application Platform

+

Collaborative Lifecycle Management



Traceability across the entire development lifecycle

Open Lifecycle Integration Platform



Application Lifecycle Management

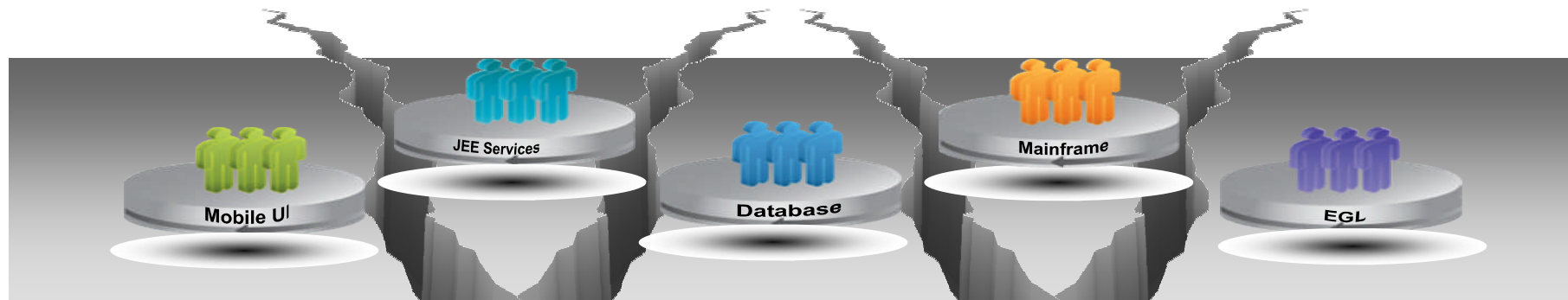
IBM Mobile Development Lifecycle Solution

IBM provides the only comprehensive mobile development solution currently in the market combining a mobile application platform, construction tools, and lifecycle management in one convenient product



Challenge: Integrating with existing systems

- Mobile applications need to connect to enterprise back-end data and services
 - Existing programs and services may need to be refactored to be made consumable by mobile apps
 - Mobile-optimized services have different characteristics than traditional web services (payload size, incremental data access, etc)
- Mobile application development lifecycle needs to bridge the multiple teams responsible for different parts of the mobile application
- Testing multi-tiered mobile applications can be slowed due to:
 - All integrations with back-end must be available to test entire app through the UI
 - Test environments are expensive, difficult and time consuming to configure
 - Difficult and time consuming to isolate defect root cause
 - Agile methodologies need fast iterations but testing delays are becoming a bottleneck

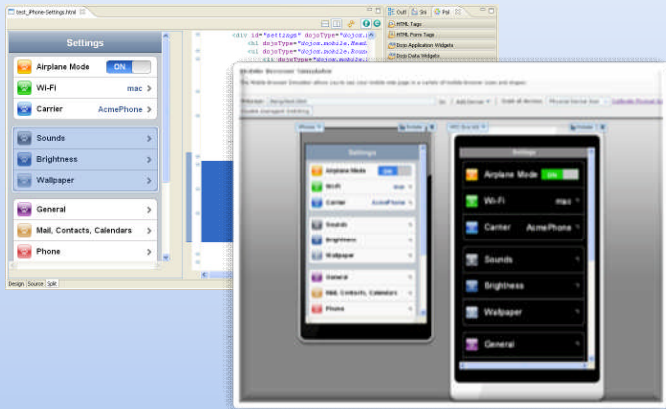




Rational Developer for zEnterprise with IBM Worklight

Design, code, build, test, and deploy mobile apps that run on a wide variety of mobile platforms; extend existing back-end services and data to mobile apps

Integrated multi-platform development environments



Construct, debug, and test mobile UIs



Refactor and extend existing logic on enterprise platforms (System z, Power) as mobile-consumable services

IBM Worklight will be included in the following IDEs (for development purposes only):

- Rational Developer for zEnterprise
- Rational Developer for Power Systems
- Rational Application Developer
- Rational Software Architect



RDz provides a complete set of System z Development and Test capabilities

Integration with Team Concert for Lifecycle and Source Management

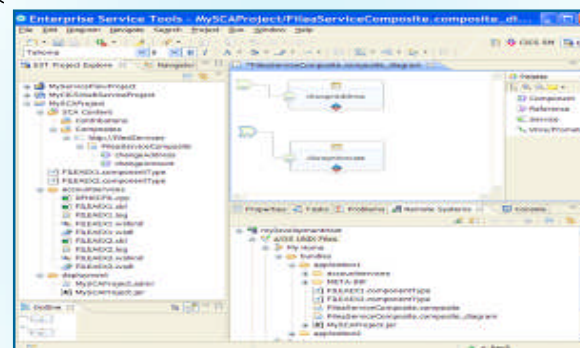


A modern IDE for productive development of cross-platform applications written in COBOL, PL/I, ASM, Java, EGL or C/C++ in System z CICS, IMS, DB2, Batch applications

Access to typical System z sub-system functionality in z/OS, CICS, IMS, DB2, WAS



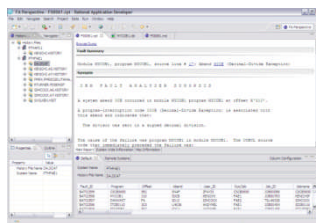
Integration with RD&T for flexible access to System z environment



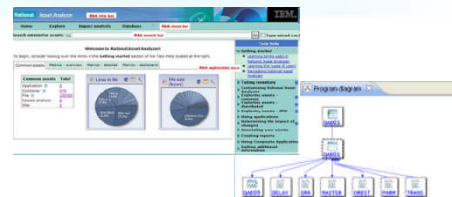
Robust Mobile Development in conjunction with Worklight



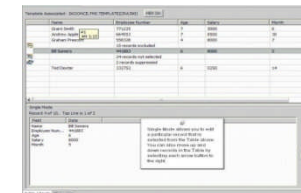
Integration with Fault Analyzer for Dump Analysis

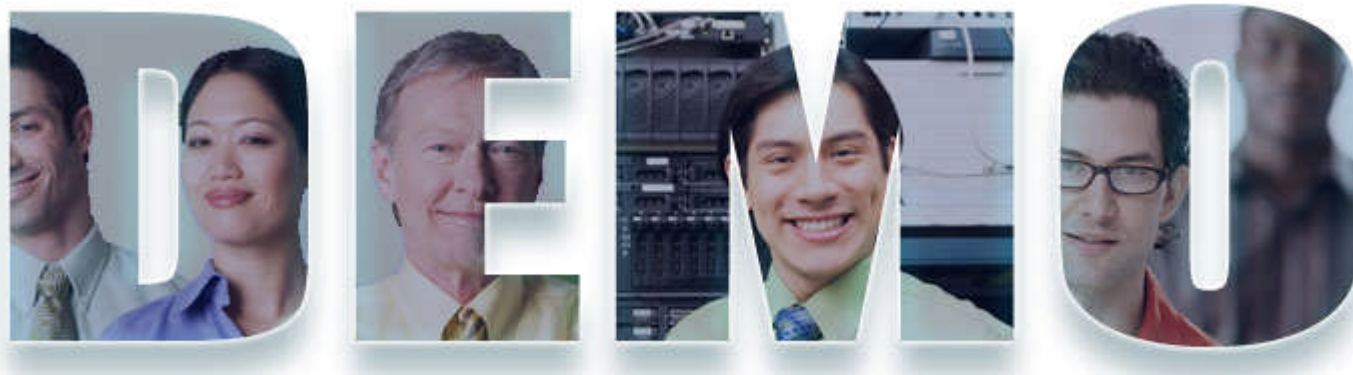


Integration with Asset Analyzer for Application Understanding and Impact Analysis



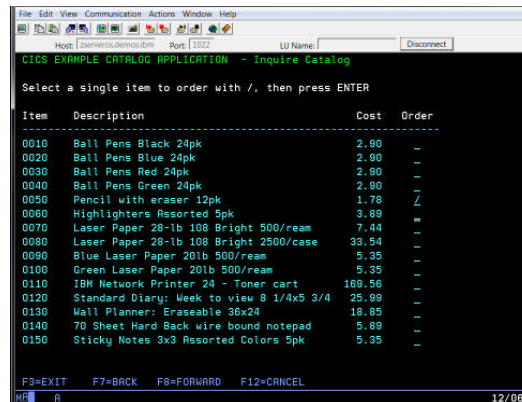
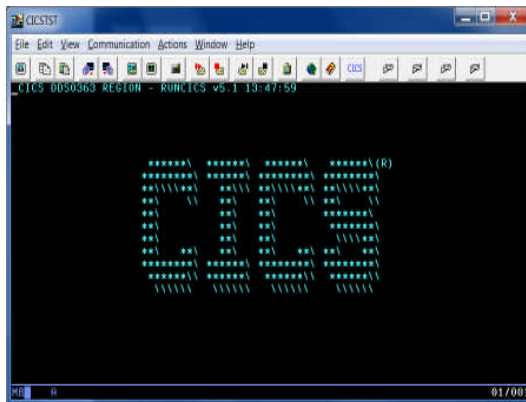
Integration with File Manager and Fault Analyzer for file and test data handling and Dump Analysis



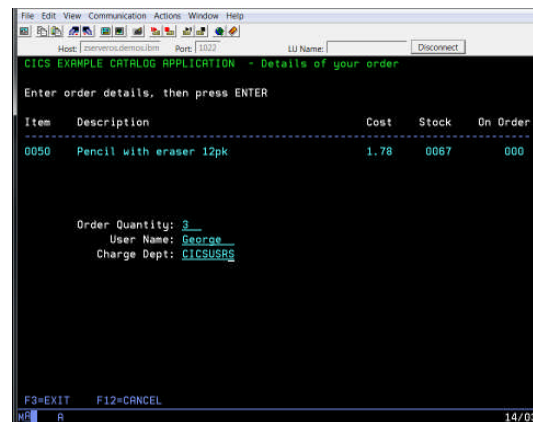
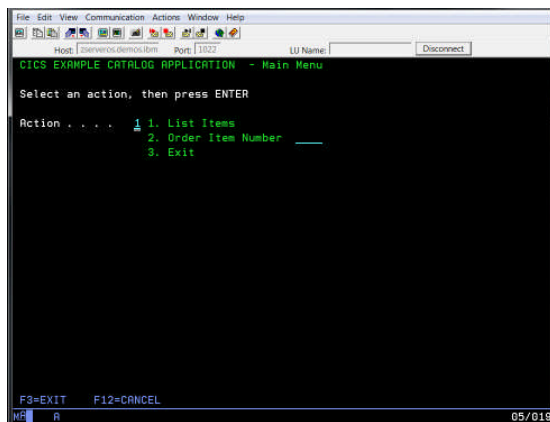




CICS Application Walkthrough

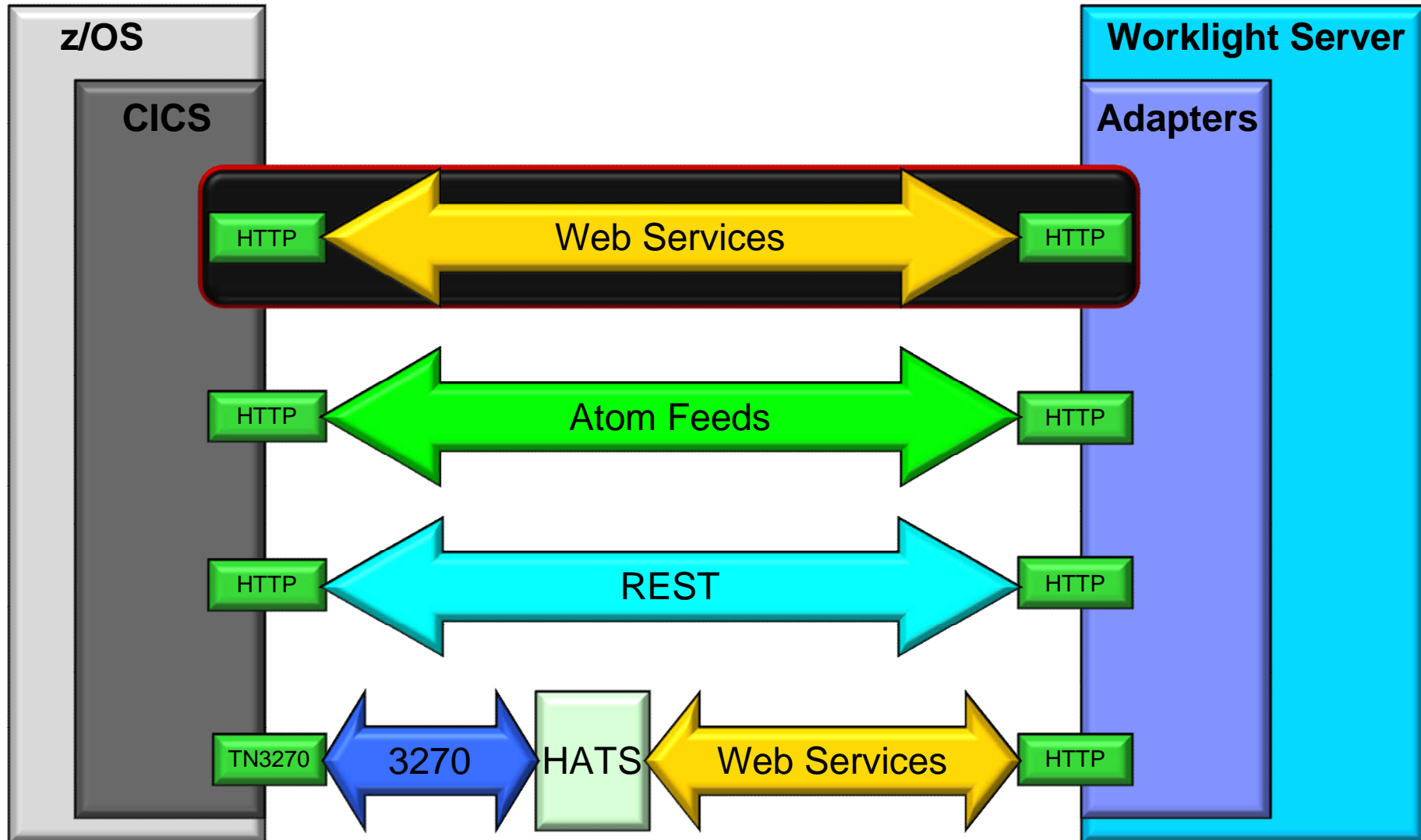


- CICS Catalog Manager Application
 - COBOL based CICS application
 - VSAM File
 - Separate Presentation Logic and Business Logic
 - Callable Interface - Commarea



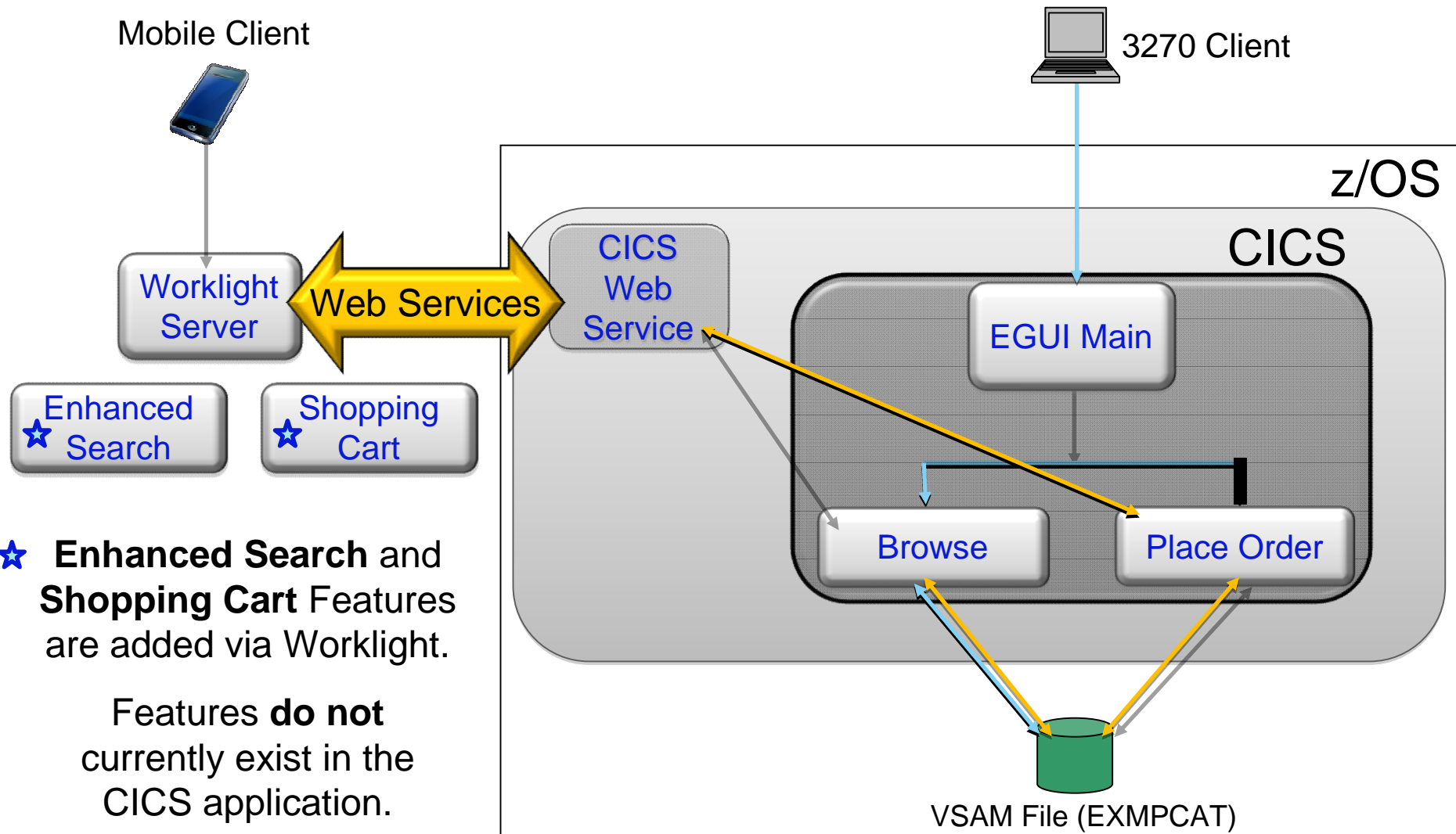


CICS Connectivity Options





CICS Web Service Enabled App



★ **Enhanced Search** and **Shopping Cart** Features are added via Worklight.

Features **do not** currently exist in the CICS application.



ClearBlade is an Enterprise
Mobile software and services
company.



CLEAR BLADE

Mainframe to Mobile™

Enterprise
Mobile



Systems
Integration



Business
Intelligence



ClearMonitor: Example



ClearMonitor™

- Manage your z/OS® job queues from your mobile device
 - Find appropriate jobs using filter view
 - Inspect results in spool files
 - Submit or resubmit jobs as appropriate

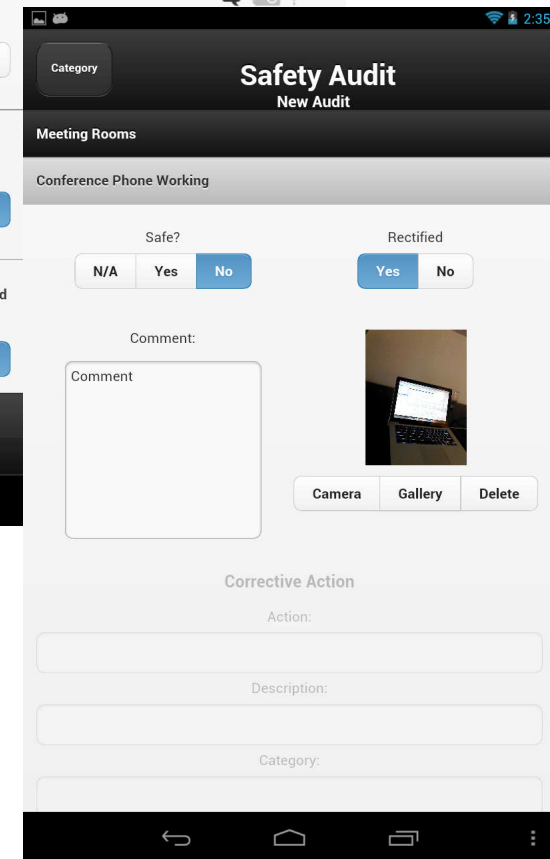
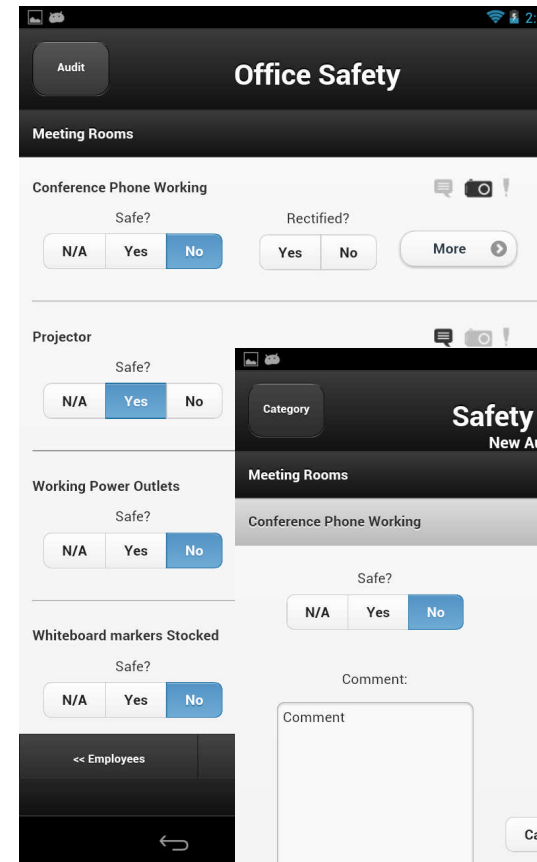


Demo



ClearAudit™

- A framework for building enterprise mobile audit apps
 - Customized for industry verticals
 - Oil and Gas
 - Healthcare
 - Engineering
 - Government
 - etc.
 - Built on Worklight leveraging
 - standard adapter model
 - performant UI library





Mainframe to Mobile Method:

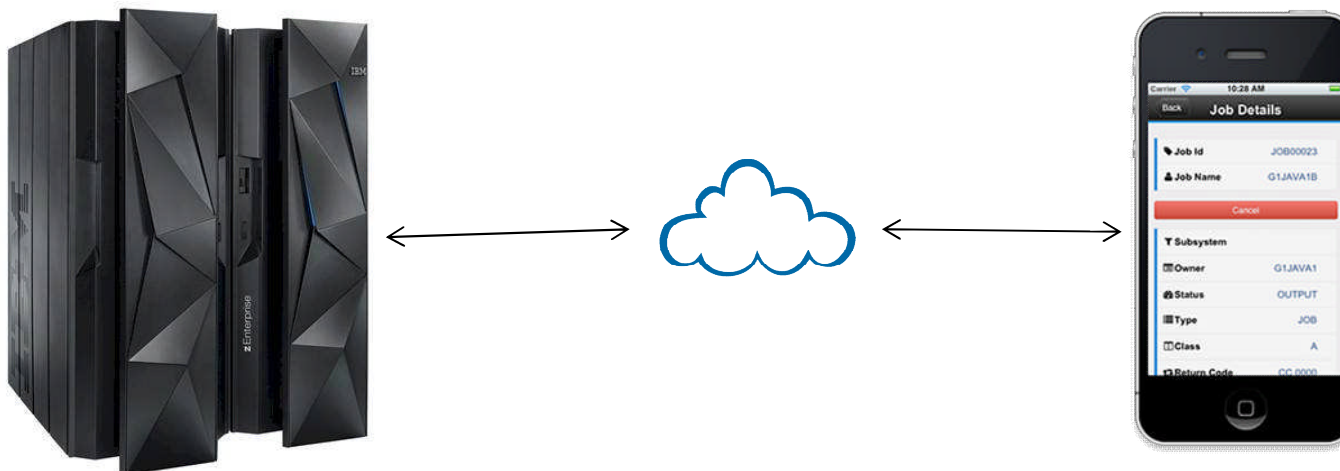


■ Mainframe Statistics

- Over 300 billion lines of mainframe code in production today
- Massive opportunity for exposing core business information and function

■ Mainframe to Mobile

- Leverage the reliability and security of the System z
- Understand existing applications and infrastructure
- Develop Enterprise Mobile applications that extend your applications





Mainframe to Mobile™ Method

- **Proven** architecture and deployment model
- **Accelerate adoption of technology**
(Worklight, Tealeaf, Commerce, Cordova, WebSphere, GOOD, Tivoli, CICS)
- **Simplify** development with seeded design
- **Complete**
 - Design
 - Mobile App
 - Analytics (Data)
 - Integration (Modernization)





Mainframe to Mobile™ Method

Domain Model

Eclipse Project

App

Impact Conference Sessions

Date	Time	Room	Session Title
Inner Circle			
Wed, 1/May	02:15 PM 03:15 PM	Venetian Bellini 2106	Fresh Concepts in Mobile Application Development
Main Tent			
Wed, 1/May	05:00 PM 06:00 PM	Venetian Palazzo L	Addressing the Challenges of Mobile Application Testing
EXPO Theater Session			
Mon, 29/Apr	1:45 PM 2:15PM	Venetian Exhibit Hall C	ClearBlade Lessons Learned Building Enterprise Mobile Apps
Solution Center – Mobile Expo			
28/Apr to 2/May	5:00pm Monday to 2:00pm Wed	Venetian Exhibit Hall C M13	ClearBlade Enterprise Mobile Exhibit

Innovate Conference Sessions

Date	Time	Room	Session Title
Mon, 3/June	01:45 PM 02:45 PM	Dolphin - Asia 3	Continuously Build and Test Mobile Apps to Respond Faster to Feedback
Tues, 4/June	04:15 PM 05:45 PM	Dolphin – Northern E2	Mobile-ize your Mainframe CICS Applications with Smarter Development Tools
Wed, 5/ June	11:00 AM – 12:00 PM	Dolphin - Asia 3	Welcome to Designing for Mobile Devices
Wed 4/June	4:15PM – 5:15PM	Dolphin – Oceanic 7	Case Study: Lessons Learned from Big Ugly Migrations
Tues, 4/ Jun	3:00PM – 4:00PM	Dolphin – Northern E4	Fortune Top-50 Bank Uses Rational Test Workbench to Automate Web Service Testing



Hack-a-thon – Join Us!!!

sponsored by:

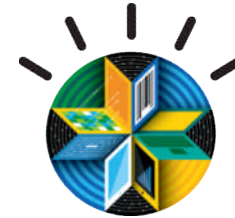


more info @ - [//www.clearblade.com/hack](http://www.clearblade.com/hack)

A map of the Southeastern United States, including parts of Texas, Louisiana, Arkansas, Tennessee, Alabama, Georgia, South Carolina, and Florida. The map is overlaid with large, bold, blue text that reads "Hack-a-thon for Mobile Enterprise June 14, 2013". A white coffee cup is positioned on the left side of the map. Two inset images show city skylines: "Austin" in Texas and "Raleigh" in North Carolina.



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Thank you!

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