



IBM MOBILE STRATEGY

Speaker Name, Matthew Perrins, Executive IT Specialist, IBM Software Group

IBM delivers a comprehensive end-to-end mobile solution

1. **Mobile is an enterprise priority that helps transform your business and is driving key client initiatives**
2. **IBM acquired Worklight to accelerate and extend capabilities for development, integration and management of rich mobile applications**
3. **IBM has extensive capabilities in this space with additional new and enhanced offerings including:**
 - **Rational Collaborative Lifecycle Management:** *simplifying mobile app development across platforms*
 - **IBM Endpoint Manager for Mobile Devices:** *unified endpoint management, with integrated mobile security*
 - **Social collaboration software:** *mobile access to enterprise social collaboration*

IBM is a leader in the mobile enterprise space

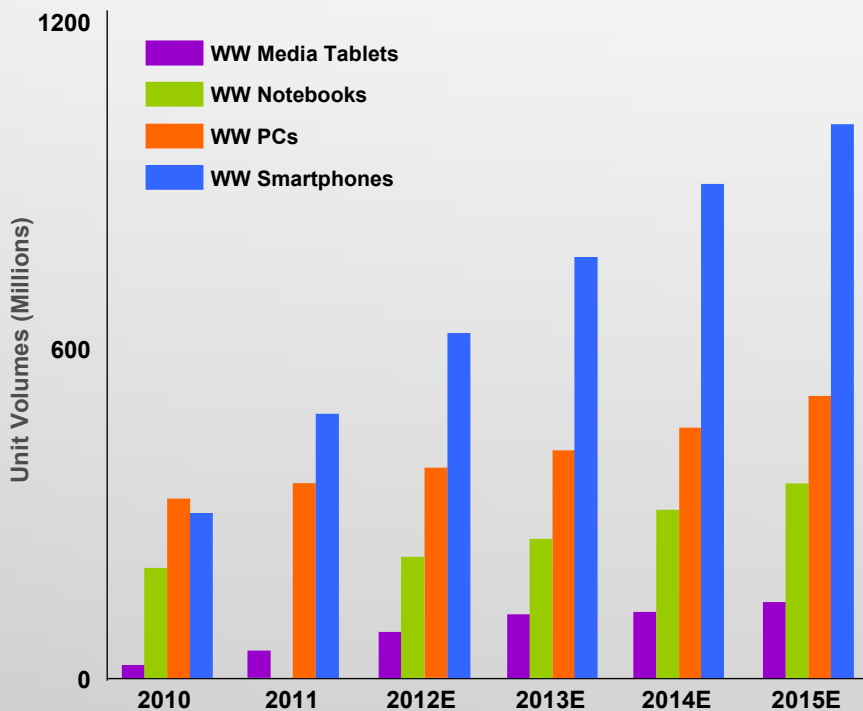


Mobile is a significant component of the evolution of computing



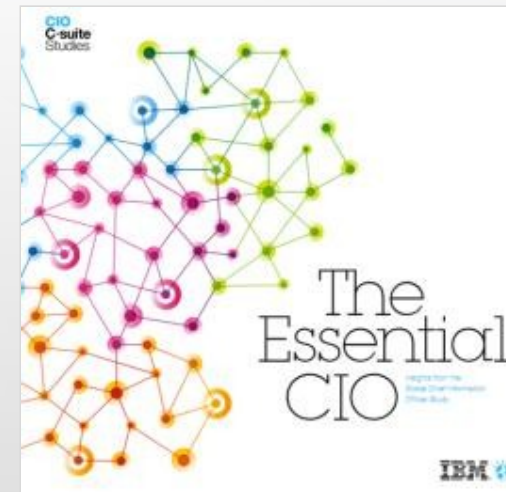
Mobile is an enterprise priority

Growth in Internet Connected Devices



Source: Wells Fargo Securities, January 23, 2012
"Fostering the People: The Shift to Engagement Apps"

Mobile and Cloud are top spending priorities for CIOs¹



Dramatic Growth in Mobile Devices

- Mobile data traffic exceeded voice in 2010²
- Shipments of Smartphones exceeded total PC shipments for the first time in 2011³
- 10 Billion mobile connected devices are expected to be in use by 2020³

¹ 2011 IBM Global CIO Study

² Wireless Industry News, August 26, 2010

³ 2011 Economist

The mobile lifecycle

- Strong demand by LoB
- Higher expectations of user experience with mobile apps
- Lack of best practices guidance on how to deliver mobile applications
- More direct involvement from users/stakeholders in design
- Native programming models are not portable across devices.
- Highly fragmented set of mobile devices and platforms
- Very large number of configurations of devices, platforms, carriers, etc. to test
- Mobile landscape evolves at a much faster pace
- More frequent releases and updates for apps with more urgent time-to-market demands



Mobile presents an enormous set of opportunities...

Business to Enterprise



- Increase worker productivity
- Improved claims processing
- Increase revenue through sales engagements
- Extend existing applications to mobile workers and customers
- Reducing fuel, gas, or fleet maintenance costs that are relevant in particular industries
- Increase employee responsiveness and decision making speed
- Resolve internal IT issues faster
- Reduce personnel cost (utilizing personal owned instead of corporate issued devices)

Business to Consumer



- Improve customer satisfaction
- Deeper customer engagement and loyalty
- Drive increased sales through Personalized offers
- Customer service
- Competitive differentiator
- Improve brand perception
- Deeper insight into customer buying behavior for up sell and cross sell
- Improve in store experience with mobile concierge services

But also brings business and IT challenges

Enterprise Business Model Changes

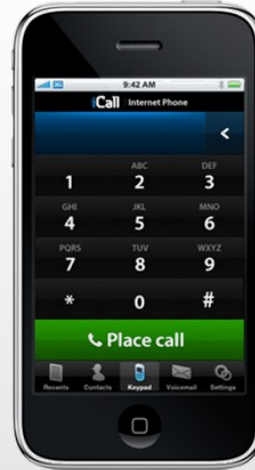
- New business opportunities based upon geolocation
- Anytime, anywhere business transactions
- Importance of social business interactions

App Development Lifecycle Complexity

- Complexity of multiple device platforms with fragmented Web, native, and hybrid model landscape
- Connecting the enterprise back-end services in a secure and scalable manner
- Unique mobile requirements (user interface, connected/disconnected use, version upgrades, etc.)

Mobile Security and Management

- Protection of privacy and confidential information
- Use of client-owned smartphones and tablets
- Visibility, Security & Management of mobile platform requirements



Top Mobile Adoption Concerns:

1. Security/privacy (53%)
2. Cost of developing for multiple mobile platforms (52%)
3. Integrating cloud services to mobile devices (51%)

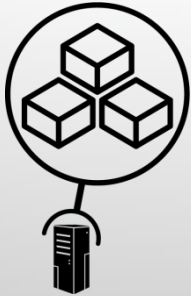


Source: 2011 IBM Tech Trends Report

<https://www.ibm.com/developerworks/mydeveloperworks/blogs/techtrends/entry/home?lang=en>

Customers are focused on a new set of mobile “client initiatives”

Client Initiatives



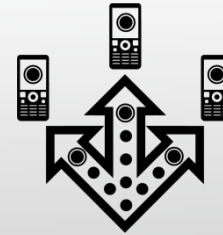
Build mobile applications

Connect to, and **run** backend systems in support of mobile



Manage mobile devices and applications

Secure my mobile business



Extend existing business capabilities to mobile devices

Transform the business by creating new opportunities

ING DIRECT

Save your money®

*ING Canada

News Analysis

ING Direct praises IBM's Websphere for role in its mobile banking app

COMPUTERWORLD

Key Capabilities

- Mobile web app development
- Enterprise data, service, and application integration
- Enterprise-class quality of service

CONCORD HOSPITAL

Concord Hospital improved patch compliance 50%, reduced software license costs 25%, and has not had a single malware infection since implementation of IBM Endpoint Manager for patch management and core protection

Key Capabilities

- Mobile Lifecycle Management
- Device analytics and control
- Secure Network Communications & Management



The Wimbledon App transforms the fan experience at the tournament by combining GPS location data with analytics and live-action feeds of all the tennis action

Key Capabilities

- Strategy and planning services
- Mobile-enabled solutions including analytics, commerce, and social business
- Implementation and hosting services

And are looking for a mobile platform that solves their needs

Banking

Insurance

Healthcare

Telecom

Retail

Government

Others

IBM Enterprise Mobile Platform

Business Results

Extending business to mobile customers and workforce

Improve operational efficiencies and reduce costs

Differentiate the customer experience

Enable new services and business models



Workforce Optimization



Product and Service Innovation



Customer Care and Insights



3rd Party Mobility Services



Social Collaboration



User Notification



Location Services



Mobile Payments



Social Mobile Commerce



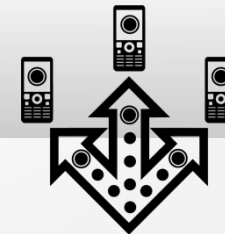
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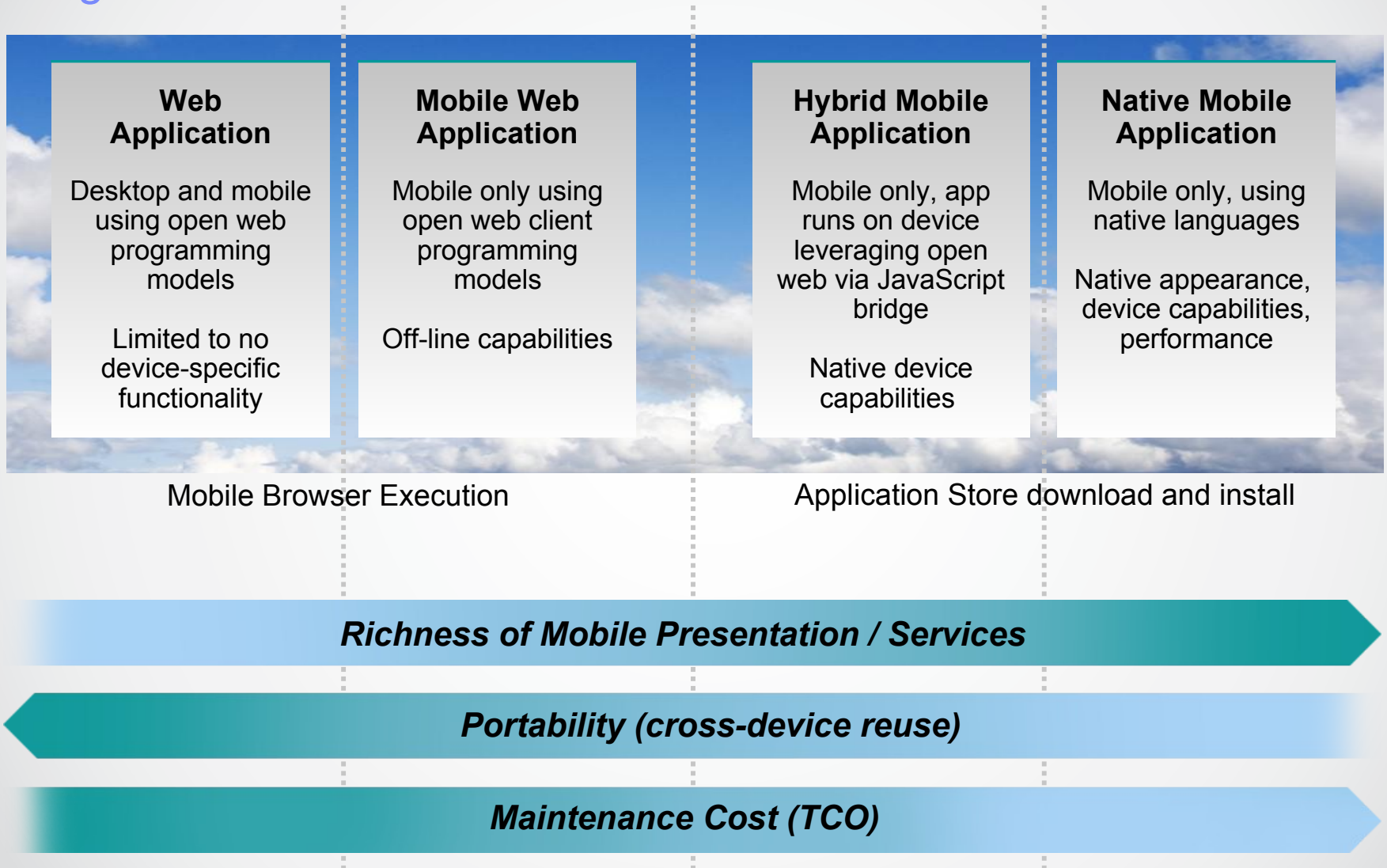
Secure my mobile business



Extend existing business capabilities to mobile devices

Transform the business by creating new opportunities

However, the cost of developing for multiple mobile platforms is rising



IBM announced the intent to acquire Worklight to extend our enterprise mobile capabilities



Worklight : a privately held company based in Tel Aviv and New York that provides a leading open standards based mobile application platform for smartphones and tablets letting you build and iterate mobile apps quickly

IBM and Worklight Together: With the combination of existing portfolio capabilities in Mobile Device Management, Mobile Web Application Development, Integration, Collaborative Tools and Mobile strategy, planning, implementation, and hosting services, with the acquisition of Worklight, IBM can now offer a complete end-to-end solution to enterprises looking to capitalize on the rapidly expanding mobile market.

Worklight's mobile platform enables development, integration and management of rich mobile applications



- Founded in 2006 – Grew 151% in revenue in 2010
- One of InformationWeek's "Top 50 Business Technology Companies to Watch"
- Headquartered in New York and R&D Center in Israel



- Dramatically simplified open standards-based extensive mobile app development for multiple devices
- Tools and console for easy deployment and maintenance of mobile apps
- Enterprise integration with features to enable secure device/server connectivity and secure storage on device

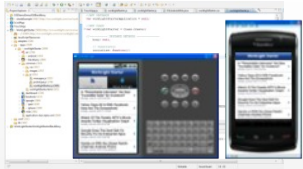


- Mature technology in mobile field (version 4.2)
- Integrated and open solution with development studio, connectivity server, device runtime and management console
- Already integrated with Rational tools and WebSphere runtime



Global customers include: several of the world's leading financial institutions, one of the world's largest healthcare providers, a major international telecommunication service provider, one of the world's largest retailers, a prominent international hotel and one of the largest technology companies

Worklight mobile platform overview



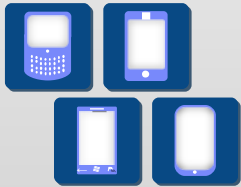
Worklight Studio

A complete, extensible environment with maximum code reuse and per-device optimization



Worklight Server

Unified notifications, runtime skinning, version management, security features, integration and delivery



Worklight Runtime Components

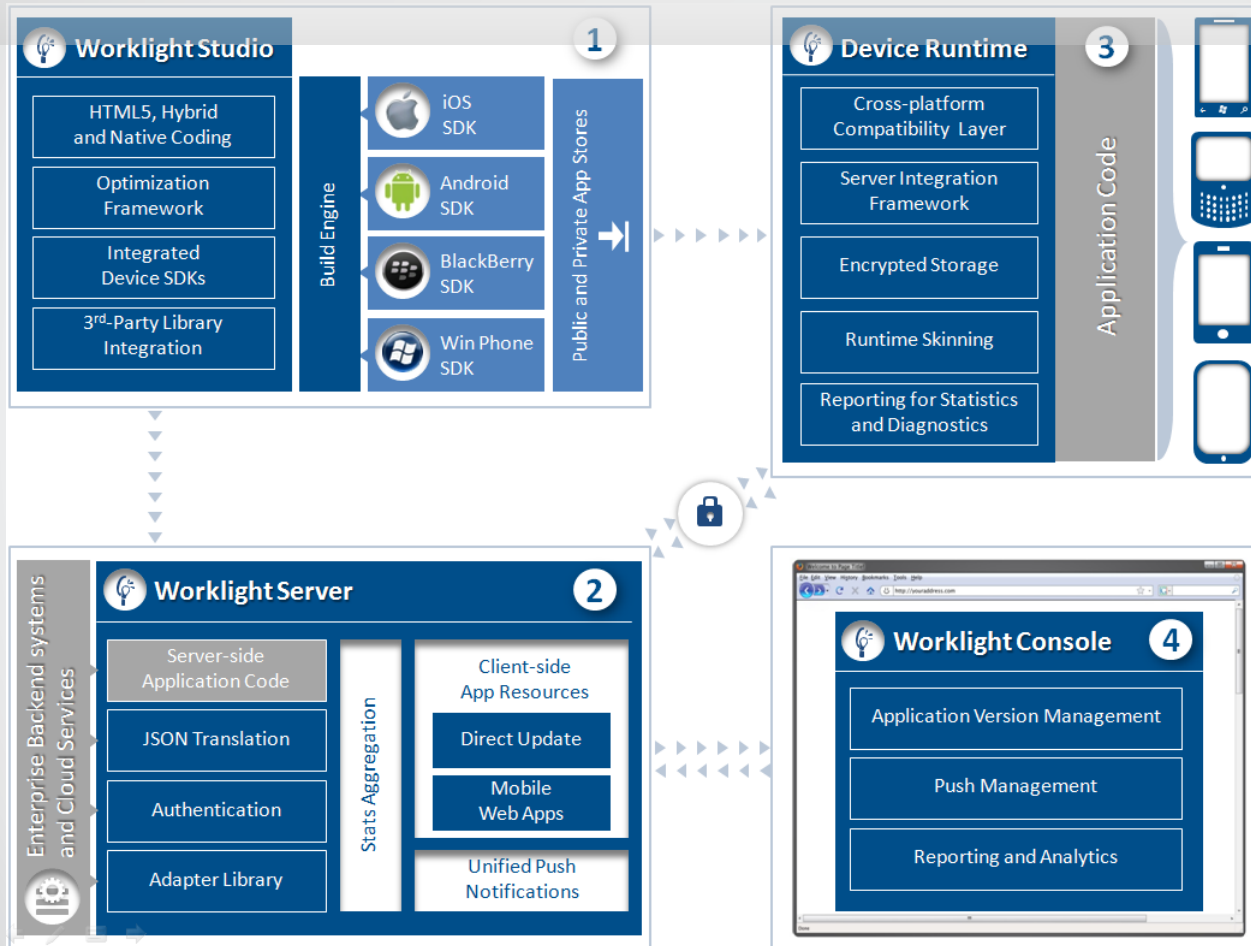
Extensive libraries and client APIs that expose and interface with native device functionality and the Worklight server



Worklight Console

A web-based console for real-time analytics and control of your mobile apps and infrastructure

Worklight provides rich mobile middleware functionality



Run-time capabilities provided on the server and device:

- Strong authentication
- On-device encryption
- Back-end integration
- Push notifications
- Data collection for analytics
- Application updates
- Runtime skinning
- Support for B2E, B2B as well as B2C

Worklight provides open and extensive development environment

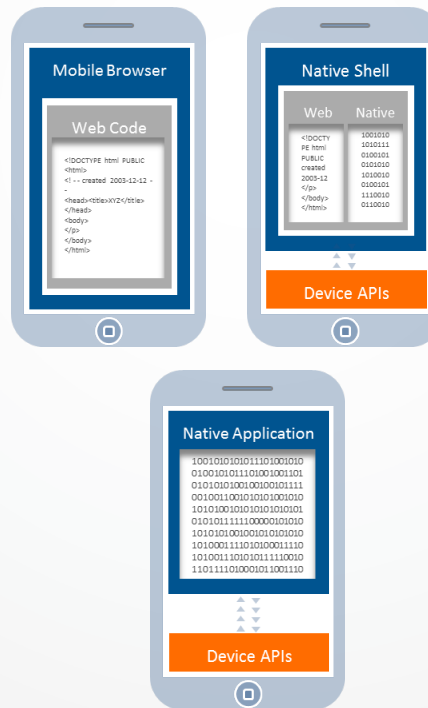
App development using native and/or familiar web technologies:

- HTML5
- CSS3
- JavaScript

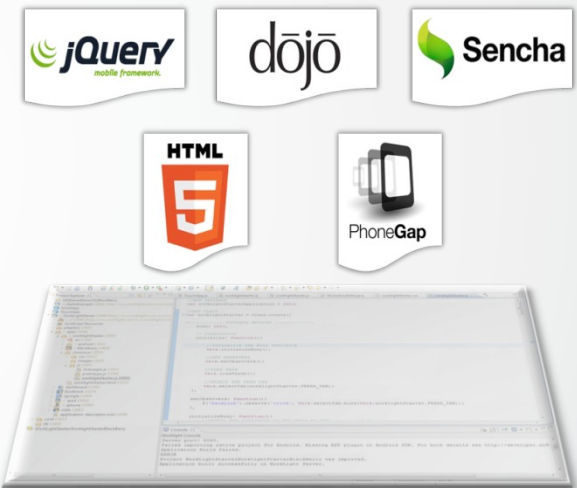


App delivery in variety of forms:

- Mobile Web app
- Hybrid app
- Native

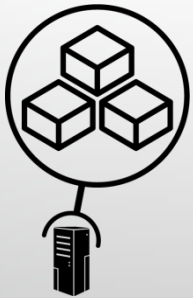


Compatible with prominent HTML5 libraries and tools:



IBM delivers comprehensive end-to-end mobile solutions for the enterprise in the market

Client Initiatives



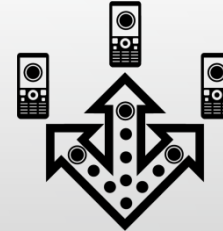
Build mobile applications

Connect to, and **run** backend systems in support of mobile



Manage mobile devices and applications

Secure my mobile business



Extend existing business capabilities to mobile devices

Transform the business by creating new opportunities

Build & Connect

- Development and testing of mobile apps (native, hybrid, web/HTML5/Dojo/[Sencha/jQuery](#))
- Traceability and collaboration across requirements, code and testing
- Tools for Mobile Software Development Lifecycle (SDLC)
- **Large shared codebase across multiple devices and environments**
- **Integrated device SDKs**
- **Runtime skinning for apps**
- **Enhanced** connections to enterprise data and apps
- **Integration with device capabilities**
- **Packaging and publishing mobile apps for app stores and marketplaces**
- **Unified push notification framework**
- **Aggregated user statistics and event reporting for monitoring and analytics**

Manage & Secure

- Device analytics and control
- Mobile environment analytics
- Endpoint & data protection
- Secure network communications & management
- Mobile lifecycle management
- Provisioning & configuration management
- Private app stores and Catalogs
- Device inventory & policy management
- Mobile security & Access management
- Mobile security intelligence
- **Encrypted local device data storage**

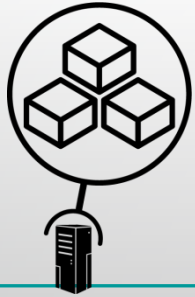
Extend & Transform

- Strategy and planning services
- Mobile-enabled solutions including analytics, commerce, and social business
- Implementation and hosting services
- Pre-built analytics, commerce, and social business apps
- IBM Interactive user interface design services
- Physical device management services

*Blue pen = what Worklight brings

Mobile client initiatives: Build and Connect

Client Initiatives



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Customers can now build enterprise mobile applications that:

- Run on multiple mobile devices
- Connect to enterprise back-end applications and information systems
- Fulfills fast time-to-market requirements and can be rapidly updated with new releases
- Deliver high quality user experience

New and Enhanced!

Rational Collaborative Lifecycle Management – accelerating mobile app development across platforms

Enabling customers to build and connect to back-end systems

New and Enhanced!

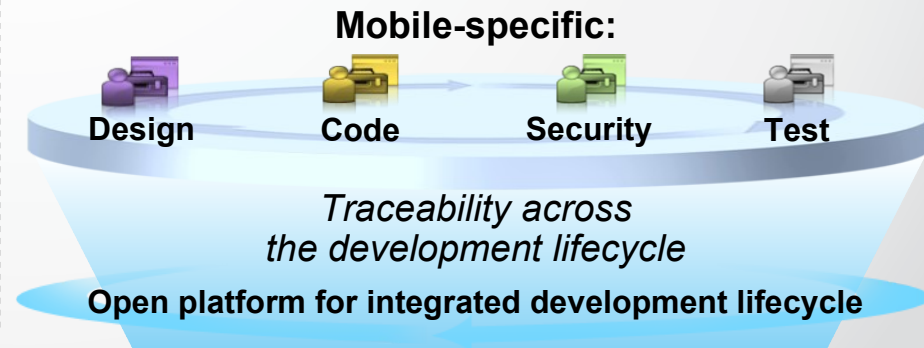
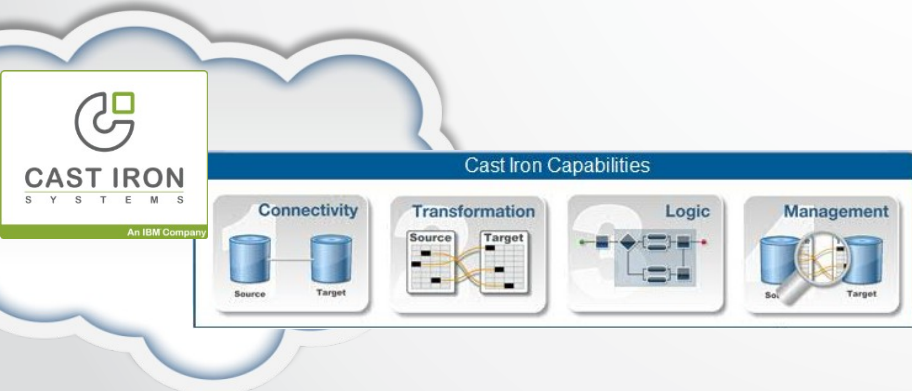
Rapidly connect mobile apps with the Cloud and Back-end systems

IBM acquired Cast Iron in May, 2010

- Centrally manage all integrations and connect information from a variety of Cloud and on premise applications
- Simplified “configuration, not coding” approach to connecting cloud, on premise and mobile applications across devices
- Rapid cloud integration for real-time access to back end data across application platforms

Accelerate mobile application development with Rational Collaborative Lifecycle Management

- Traceability of development activity across entire project lifecycle
- Real-time planning that is consistently accurate and up-to-date
- Tightly integrated with mobile code development capabilities
- Centralized code sharing and distributed mobile app build
- Integrate and manage full range of mobile testing tools and techniques



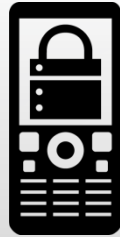
Mobile client initiatives: Manage and Secure

Client Initiatives



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Customers can now:

- Use IBM Endpoint Manager for mobile visibility, security and management
- Use IBM Security Access Manager to authenticate and authorize mobile users and devices
- Utilize managed services for complete mobile landscape management

New!

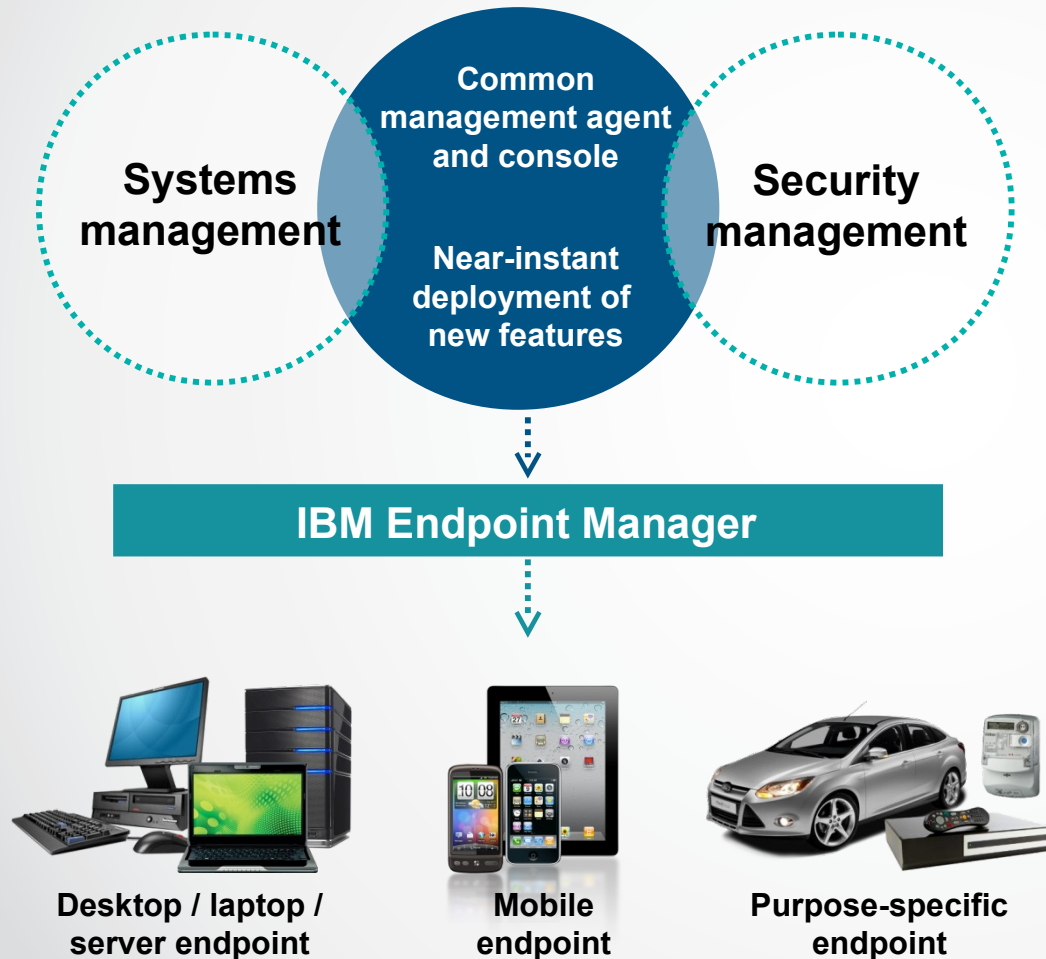
IBM Endpoint Manager for Mobile Devices –
extending visibility, control and automation for mobile

Extending visibility, control and automation to mobile devices

IBM Endpoint Manager for Mobile Devices

Building on the July 2010 BigFix acquisition

New!



Available March 2012:

- Advanced management for iOS, Android, Symbian, and Windows Phone
- Unified management automatically enables VPN access based on security compliance
- Integration with back-end IT management systems such as service desk, CMDB, and SIEM
- Security threat detection and automated remediation
- Extends IBM's existing 500,000 endpoint deployment

Mobile client initiatives: Extend and Transform

Client Initiatives



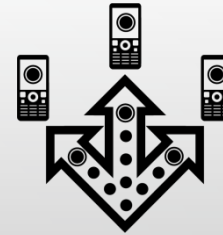
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Customers can now

- Use our strategy and planning services to build a mobile strategy and transform their business
- Use our industry frameworks and solutions delivered via software, strategy, managed services and business process consulting
- Use mobile to engage their own customers in new ways with WebSphere Commerce and IBM Social Collaboration software

New and Enhanced!

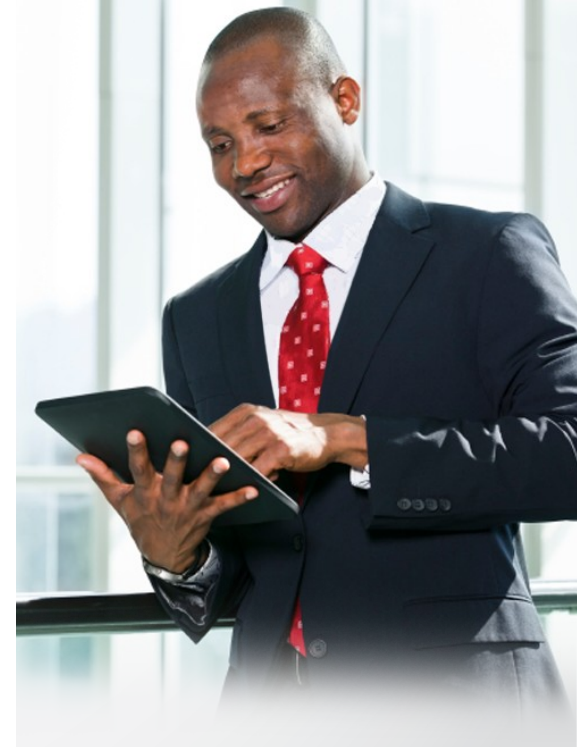
Social collaboration software – mobile access to enterprise social collaboration

Extending desktop social collaboration to mobile devices

A comprehensive suite of mobile solutions for social business - with device-appropriate interfaces for Smartphones and tablets including: Apple®, Android, Research In Motion® BlackBerry®, Nokia

In 2011: 44 collaboration software releases

- **IBM Lotus Notes Traveler** -- push email, calendar, contacts
- **Real-time collaboration** – IBM Sametime IM chat and online meetings or via IBM SmartCloud for Social Business
- **IBM Connections** social software for access to your professional network
- **IBM Lotus Symphony Viewers** for viewing business documents
- **App dev software for HTML-based mobile apps and sites** – IBM Lotus Domino XPages and IBM WebSphere Portal Mobile Experience



IBM has a presence in today's mobile app store ecosystems

Some of the IBM apps currently available for download from the Apple App Store

Social Business



IBM Lotus Notes Traveler
(email, calendar, contacts)



IBM Connections (social)**



IBM Sametime (IM, UC)**



IBM Lotuslive Meetings



IBM Symphony (doc viewer)

Business Intelligence & Analytics



Coremetrics for Mobile



IBM Cognos Mobile

Commerce



IBM Sterling Integrator Mobile



IBM Sterling Store Associate Mobile



IBM Sterling TMS Carrier Mobile



IBM Sterling Field Sales Mobile



IBM Sterling Order Management
Administration Mobile



IBM Sterling Control Center Mobile



IBM Sterling InFlight Data
Management Mobile



IBM Sterling Document
Tracking Mobile

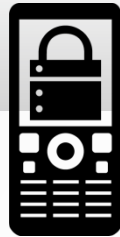
** Also available in Android Market

IBM offers a broad set of complementary mobile service capabilities

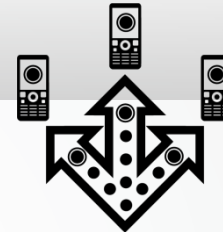
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Services

- Mobility, Security and Unified Communications consulting services
- Mobile Application Platform Management
- Campus Wireless Network Services
- Managed WLAN
- IBM GBS – Security and Privacy practice
- IBM GTS Mobile Enterprise Services (Mobile Professional/Mobile Worker)

- Mobility and Security Consulting services
- Telecom Expense Management
- Information Security Assessment
- Hosted Mobile Device Security Service
- IBM GBS – Security and Privacy practice
- IBM GTS Mobile Enterprise Services (Mobile Professional/Mobile Worker)

- Unified Communications Services
- Mobile Application Platform Management
- IBM GTS Mobile Enterprise Services (MAPM)
- IBM GBS – Strategy & Transformation and Mobile Solutions Practice

IBM mobile portfolio at a glance

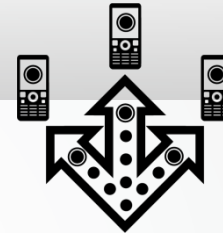
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IBM Sample Offerings

- Cast Iron
- IBM Rational Application Developer
- WebSphere Application Server Web 2.0 and Mobile Feature Pack
- IBM Websphere Portal Mobile Experiences
- IBM Lotus Domino XPages
- Green Hat (an IBM company)
- Worklight

New and Enhanced!

New!

- IBM Endpoint Manager for Mobile devices
- IBM Rational AppScan
- IBM Security Access Manager
- IBM GBS - Security & Privacy practice
- Identity Manager

New!

- Unified Communications Services
- Mobile Application Platform Management
- IBM GTS Mobile Enterprise Services (MAPM)
- IBM GBS – Strategy & Transformation and Mobile Solutions Practice
- Social Collaboration Software
- IBM Lotus Notes Traveler
- IBM WebSphere Commerce V7.0 Feature Pack 4

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