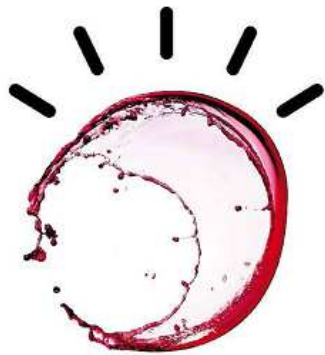




# Degustare la crescita

Un percorso in 4 tappe alla scoperta delle soluzioni IBM

**Strategie e Soluzioni Software  
per il mondo Mobile**

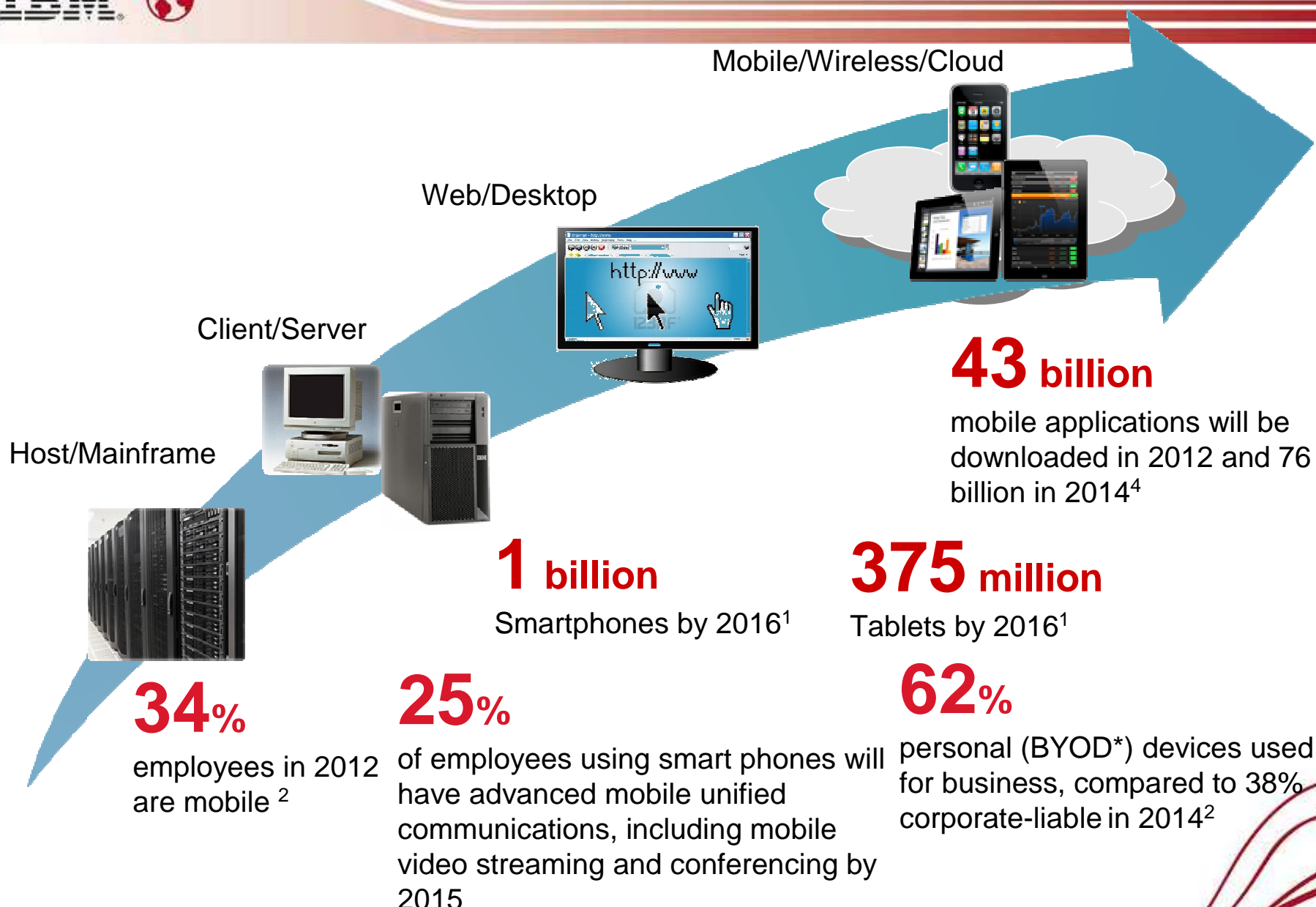




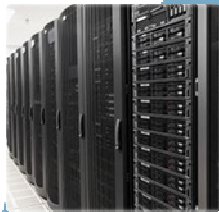
For around 30 years PCs in various forms have been people's main computing devices

Now the rise of smartphones and tablet computers threatens to erode the PC's dominance, prompting talk that a "post-PC" era is finally dawning

The Wintel era - dominated by PCs using Microsoft's Windows operating system and Intel's microchips - is drawing to a close



Host/Mainframe



**34%**

employees in 2012 are mobile <sup>2</sup>

Client/Server



**25%**

of employees using smart phones will have advanced mobile unified communications, including mobile video streaming and conferencing by 2015

Web/Desktop



**1 billion**

Smartphones by 2016<sup>1</sup>

Mobile/Wireless/Cloud



**43 billion**

mobile applications will be downloaded in 2012 and 76 billion in 2014<sup>4</sup>

**375 million**

Tablets by 2016<sup>1</sup>

**62%**

personal (BYOD\*) devices used for business, compared to 38% corporate-liable in 2014<sup>2</sup>

<sup>1</sup> Source: IDC, Forrester Research

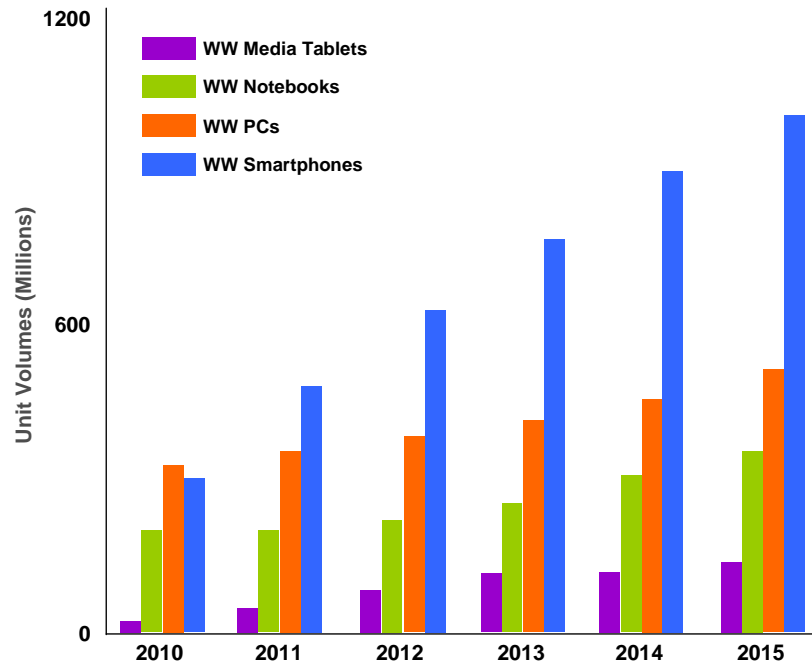
<sup>2</sup> Source: Gartner's Top Predictions for IT Organizations and Users, 2012 and Beyond:

<sup>3</sup> Source: IDC

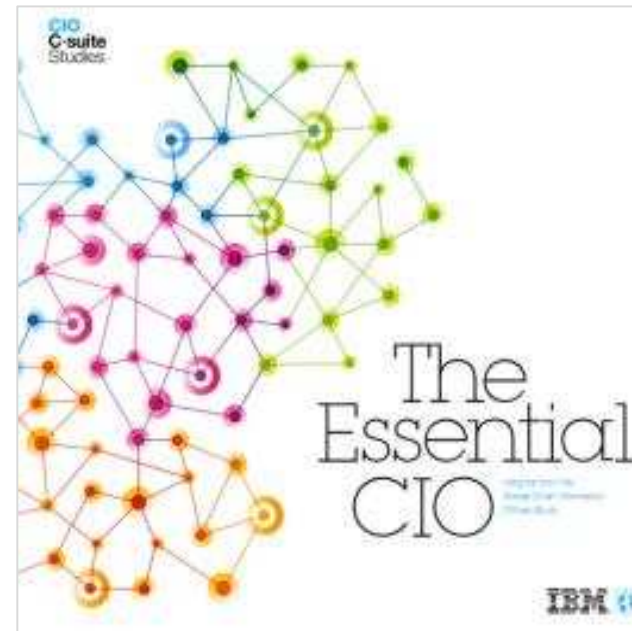
<sup>4</sup> Source: IDC . "Worldwide Business Use Smartphone Forecast and Analysis,"

# Mobile is the new enterprise priority

Growth in Internet Connected Devices<sup>1</sup>



Mobile and Cloud: top spending priorities<sup>2</sup>



## Dramatic Growth in Mobile Devices

- Mobile data traffic exceeded voice in 2010<sup>3</sup>
- Shipments of Smartphones exceeded total PC shipments for the first time in 2011<sup>4</sup>
- 10 Billion mobile connected devices are expected to be in use by 2020<sup>4</sup>

<sup>1</sup> Wells Fargo Securities, January 23, 2012  
"Fostering the People: The Shift to Engagement Apps"

<sup>2</sup> 2011 IBM Global CIO Study

<sup>3</sup> Wireless Industry News, August 26, 2010

<sup>4</sup> 2011 Economist



## 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

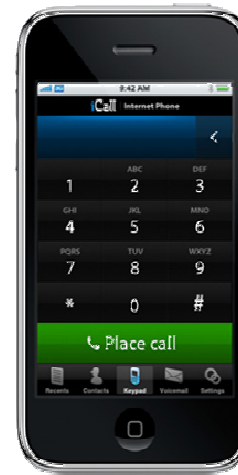
- New business opportunities based upon geolocation
- Anytime, anywhere business transactions
- Importance of social business interactions

### Development Lifecycle Complexity

- Complexity of multiple device platforms
- Connecting the enterprise back-end services
- Unique mobile requirements (UI, offline use, etc.)

### Mobile Security and Management

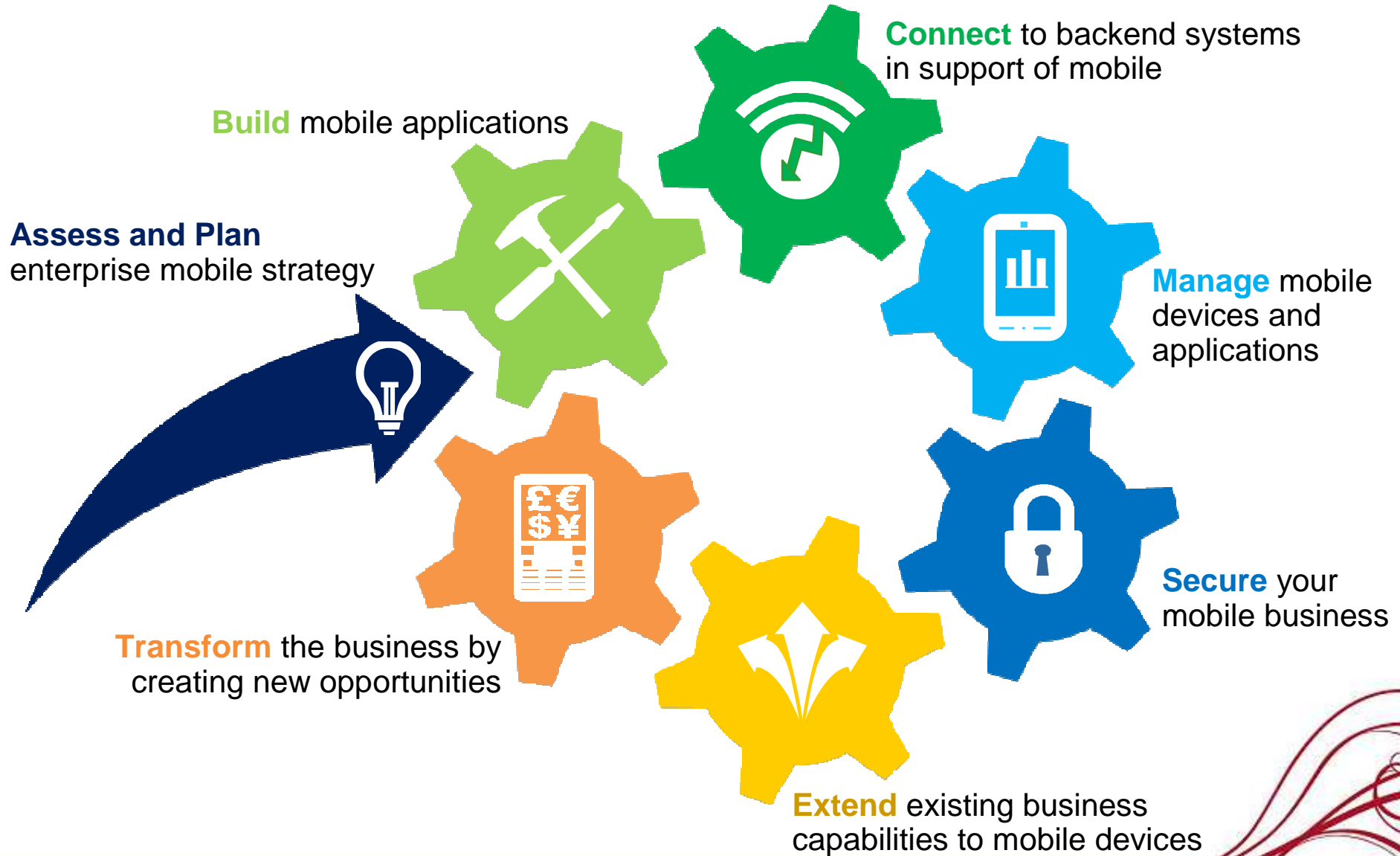
- Protection of privacy and confidential information
- Use of client-owned smartphones and tablets
- Visibility, Security & Management of mobile platform



### 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%)

# Addressing the whole mobile lifecycle





# IBM Enterprise Mobile Platform

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



3<sup>rd</sup> Party Mobility Services



Social Collaboration



User Notification



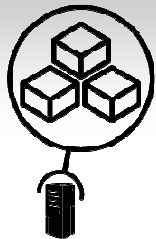
Location Services



Mobile Payments



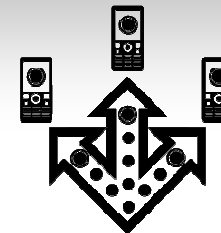
Social Mobile Commerce



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

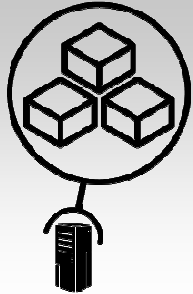


**Manage** mobile devices and applications  
**Secure** my mobile business



**Extend** existing business capabilities to mobile devices  
**Transform** the business by creating new opportunities

# Mobile client initiatives



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



Save your money®  
 \*ING Canada

News Analysis

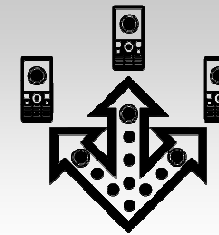
ING Direct praises IBM's Websphere for role in its mobile banking app



**Manage** mobile devices and applications  
**Secure** my mobile business



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



**Extend** existing business capabilities to mobile devices  
**Transform** the business by creating new opportunities



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

- Mobile web app development
- Enterprise data, service, and application integration
- Mobile Technology Preview features

## Key Capabilities

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

## Key Capabilities

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



# IBM mobile software solutions





# IBM mobile enterprise apps

- A comprehensive suite of mobile solutions
- Device appropriate interfaces for the leading mobile devices – smartphones and tablets
  - iOS
  - Android
  - BlackBerry OS
  - Windows Mobile
- Supported by enterprise governance and security capabilities





## IBM mobile enterprise apps

### Business Intelligence & Analytics



Coremetrics for Mobile



IBM Cognos Mobile

### Social Business & Collaboration



IBM Lotus Notes Traveler  
(email, calendar, contacts)



IBM Connections (social)



IBM Sametime (IM, UC)



IBM SmartCloud Meetings



IBM Symphony (doc viewer)

### Business Process Management



IBM BPM for Mobile

### Commerce



IBM Sterling Integrator Mobile



IBM Sterling Store Associate Mobile



IBM Sterling TMS Carrier Mobile



IBM Sterling Field Sales Mobile



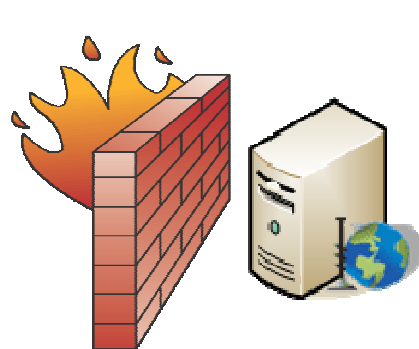
IBM Sterling Order Management



IBM Sterling Control Center Mobile

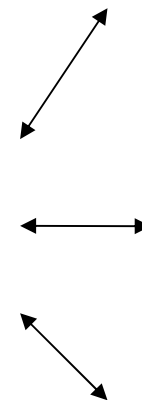
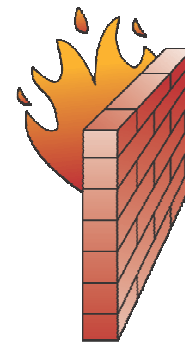
## Secure email & social collaboration

- Mobile security software for enterprise application connectivity
- Clientless HTTP single sign-on services via a SSL secured tunnel for communication to specific HTTP application servers
  - No need to open general VPN access to all intranet servers
- Supports iOS, Android, Symbian, PC's and other mobile devices
- Strong authentication and encryption



Mobile  
Connect  
Server

*Or use 3<sup>rd</sup> party  
mobile VPN to  
connect*



Social File sharing  
Communities - Profiles  
Social Networking



Instant Messaging  
Web Conferencing  
Doc / Apps Sharing



eMail & Calendar  
Collaboration

# IBM mobile software solutions

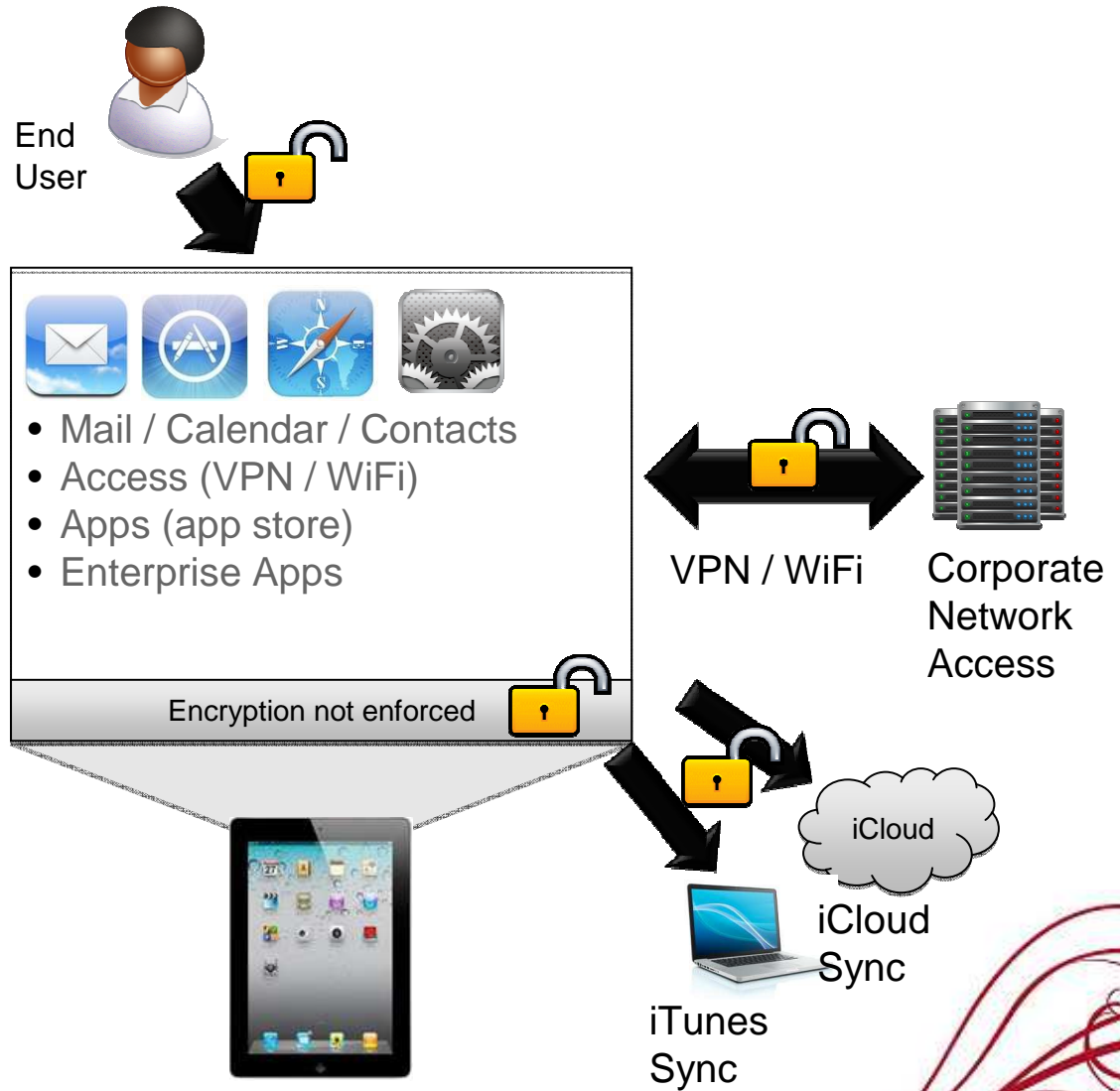




# The Problem

## Security & Management Challenges:

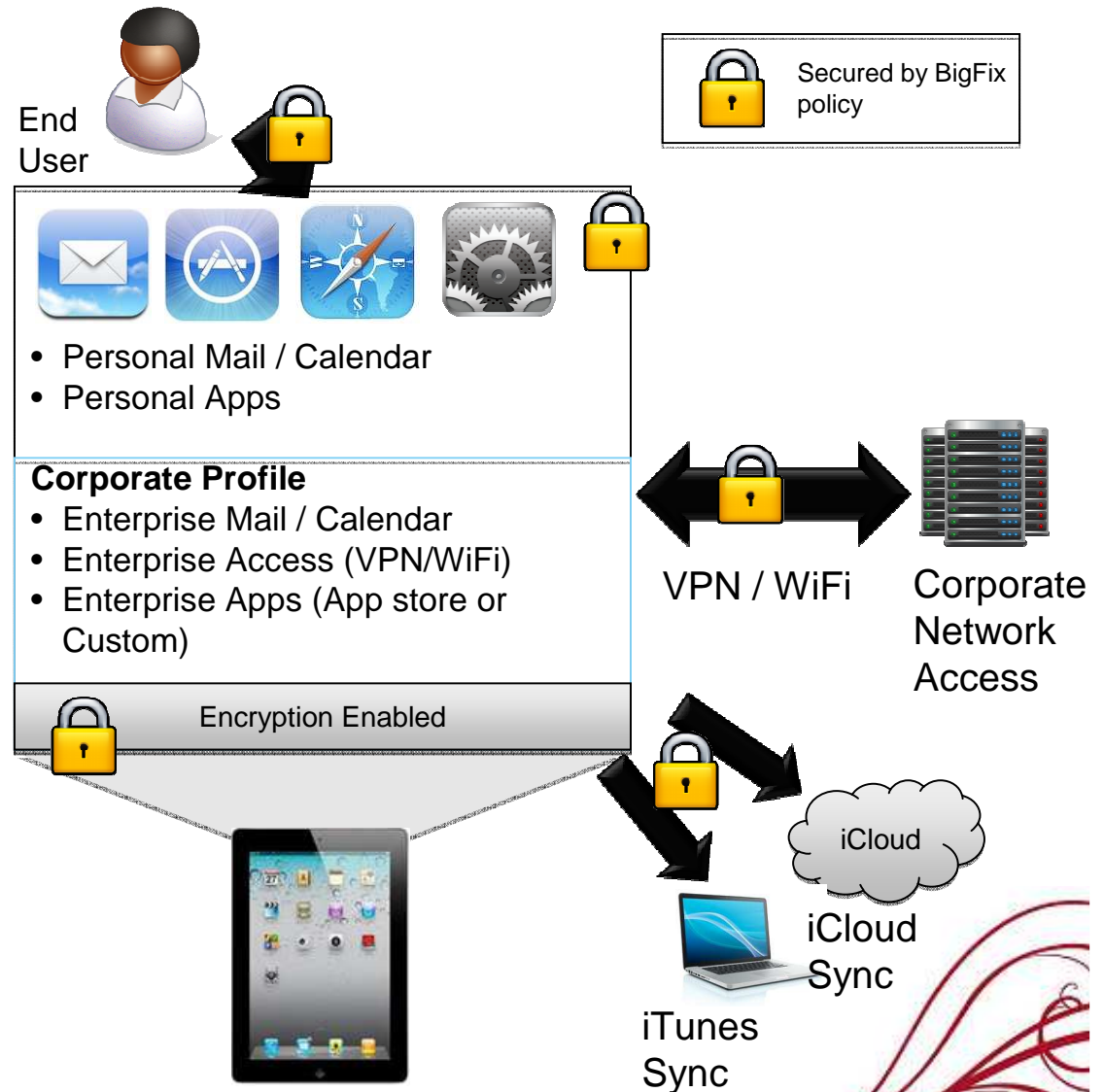
- Potential unauthorized access (lost, stolen)
- Disabled encryption  
Insecure devices connecting to network
- Corporate data leakage



# The Solution

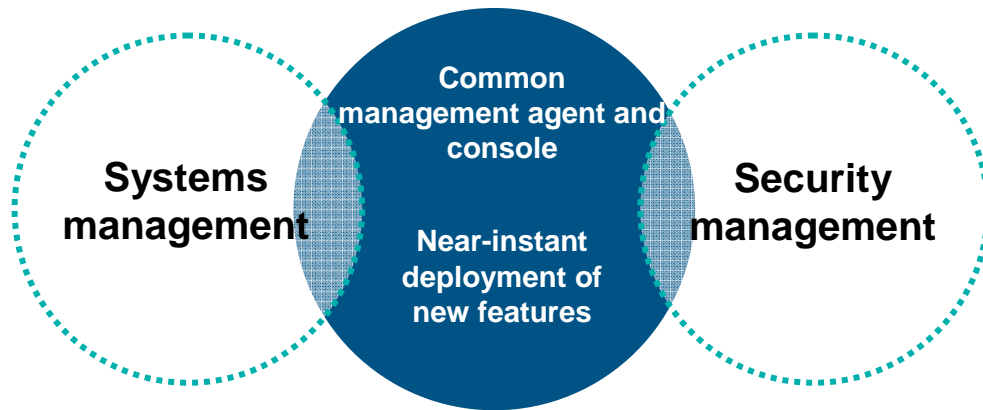
## IBM Endpoint Manager for Mobile Devices:

- Enable password policies
- Enable device encryption
- Force encrypted backup
- Disable iCloud sync
- Access to corporate email, apps, VPN, WiFi contingent on policy compliance!
- Selectively wipe corporate data if employee leaves company
- Fully wipe if lost or stolen



# IBM Endpoint Manager for Mobile Devices

*Builds on IBM's July 2010 BigFix acquisition*



**IBM Endpoint Manager**



Desktop / laptop / server endpoint



Mobile endpoint

**New!**

- Device management via **Android** agent, **iOS** APIs, **Lotus Traveler**, **Microsoft Exchange**, and **Office 365**
- Complete device **hardware and software inventory** in near real-time
- A '**single device view**' enables IT personnel to easily view device details and take required action
- **Web reports** provide at-a-glance mobile device deployment overviews
- Data usage tracking and configuration of roaming settings aids in **expense management**
- **Pass mobile device data** to network management, service desk, asset management, and security and compliance systems

## Securing sensitive data

- **Unified compliance reporting** across all devices
- **Configure security settings** such as password policy, encryption, WiFi, iCloud sync
- Multiple **authenticated device enrollment** options, including LDAP/AD integration
- **Full wipe, remote lock, map device location, and clear passcode** options if device is lost or stolen
- **Whitelist / Blacklist** apps and automate alerts, policy response
- **Detect jailbroken / rooted devices** to notify users, disable access
- **Integrate with mobile VPN and access management tools** to ensure only compliant devices are authorized



Multiple user communication and alert methods, including Google Cloud Messaging (GCM), enables users to be part of the security solution.

## IBM internal BYOD initiative



### Extending Corporate Access

*“IBM's BYOD program “really is about supporting employees in the way they want to work. They will find the most appropriate tool to get their job done. I want to make sure I can enable them to do that, but in a way that safeguards the integrity of our business.”*

**Jeanette Horan, IBM CIO**

### Customer Needs

- Support BYOD for a variety of mobile platforms securely for a highly mobile population
- Scale to hundreds of thousands of devices

### Key Features & Outcomes

- 120,000 mobile devices, 80,000 personally owned, supported in months
- Integrated Notes Traveler, IBM Connections, IBM Sametime, and IBM Endpoint Manager



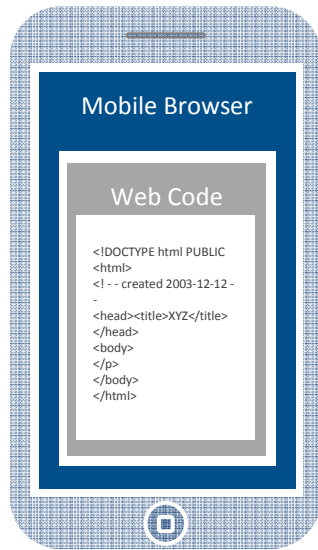
# IBM mobile software solutions



# Mobile application models

## Browser Access

Written in HTML5  
JavaScript and CSS3.  
Quick and cheap to  
develop, but less  
powerful than native.



Browser Access

## Hybrid Apps - Web

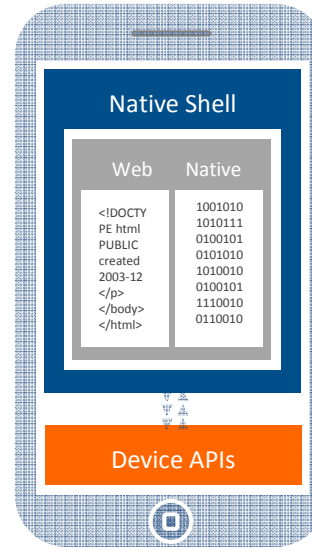
HTML5 code and  
Worklight runtime  
libraries packaged  
within the app and  
executed in a native  
shell.



Downloadable

## Hybrid Apps - Mixed

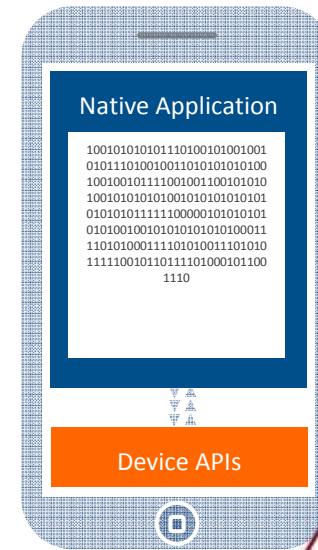
User augments web  
code with native  
language for unique  
needs and maximized  
user experience.



Downloadable

## Native Apps

Platform-specific.  
Requires unique  
expertise, pricy and  
long to develop. Can  
deliver higher user  
experience.



Downloadable

# Open and extensive dev environment IBM Worklight

App development using native and/or familiar web technologies:

- HTML5
- CSS3
- JavaScript



App delivery in variety of forms:

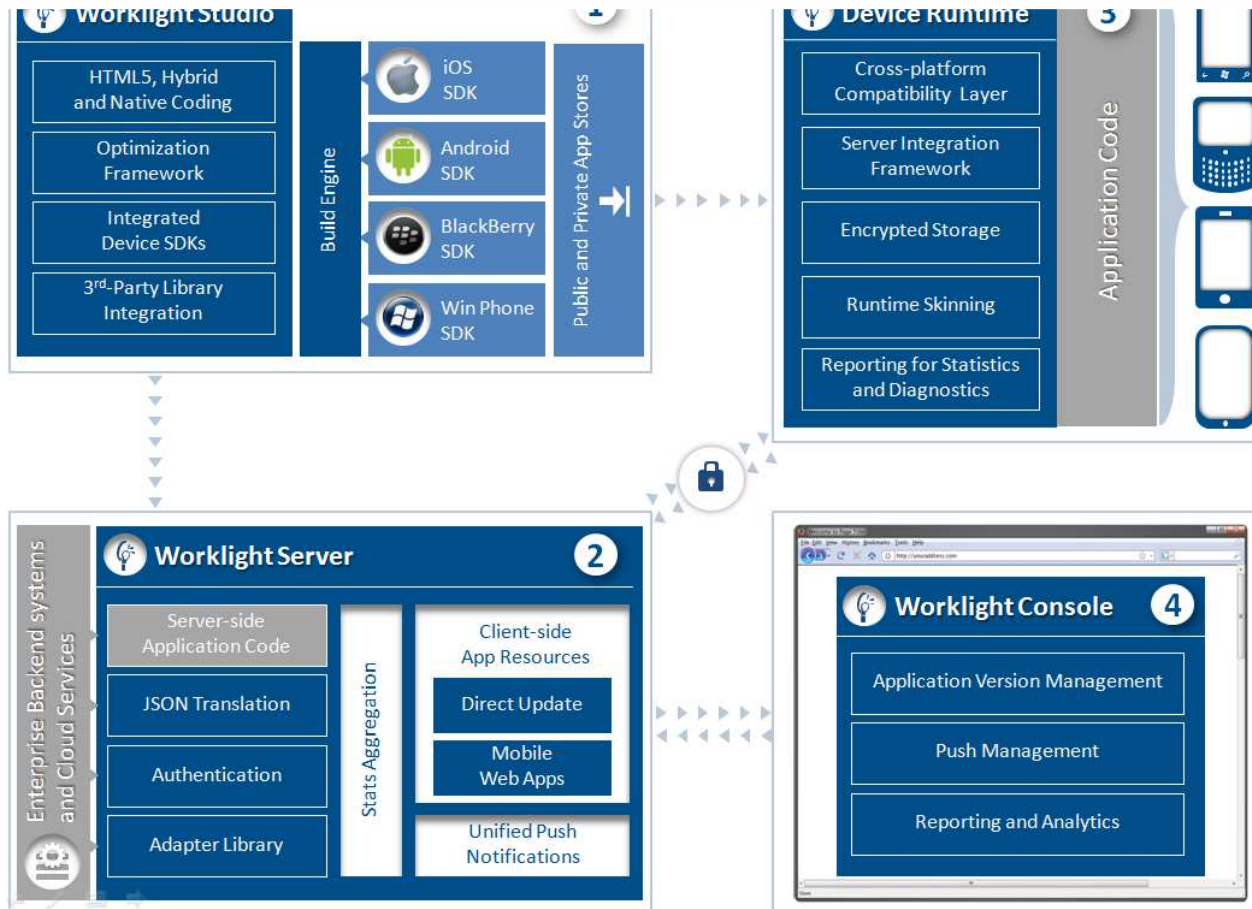
- Mobile Web app
- Hybrid app
- Native



Compatible with prominent HTML5 libraries and tools:



# Rich mobile middleware functionality



Run-time capabilities provided on the server and device:

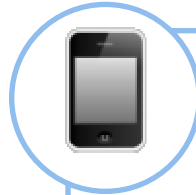
- Strong authentication
- On-device encryption
- Back-end integration
- Push notifications
- Data collection for analytics
- Application updates
- Runtime skinning
- Support for B2E, B2B as well as B2C

## Building an effective multichannel web



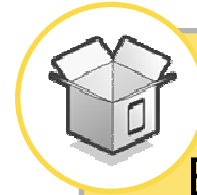
### Web Sites

Integrated content/application s into a unified web experiences optimized for desktop browsers



### Mobile Web

Optimized for mobile browsers (phones, tablets) using themes and responsive web design



### Mobile Hybrid

Extending web experiences to include on-device capabilities and app stores with entitled **IBM Worklight** capabilities

**NEW!**

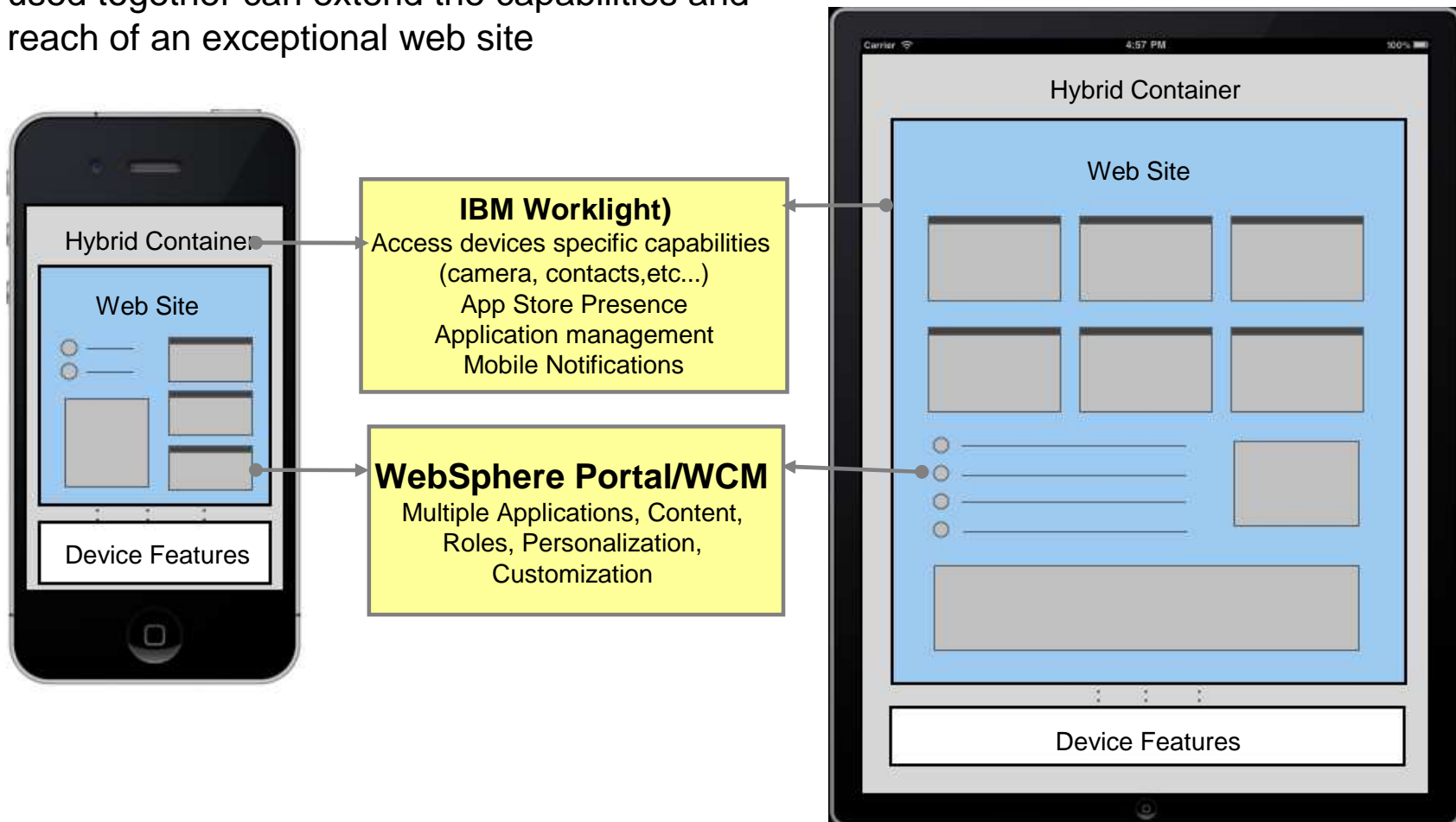
**Strong multichannel capabilities today...**

***...extended even further!***



## An hybrid approach example (1/2)

WebSphere Portal/WCM and IBM Worklight used together can extend the capabilities and reach of an exceptional web site





## IBM Mobile Foundation



### Includes

- IBM Worklight
- IBM WebSphere Cast Iron
- IBM Endpoint Manager for Mobile Devices

### Plus New Service

- IBM Software Services for Mobile Foundation

## Addressing the whole mobile lifecycle

