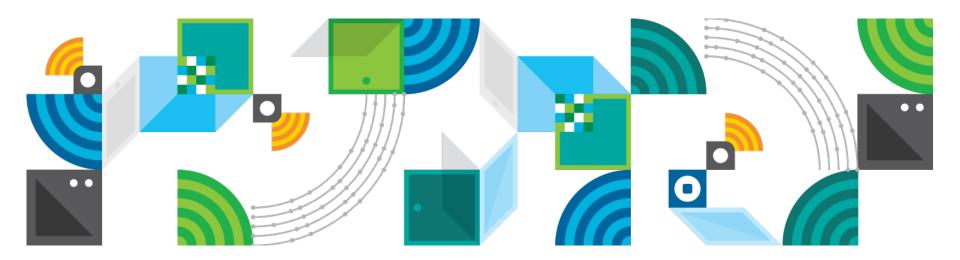


# **Getting to a MobileFirst Strategy**





Our key themes today

(1) Mobile is transforming business processes

(2) Capabilities for a next generation digital platform



### Five mobile trends with significant implications for the enterprise

# 5. Mobile enables the Internet of Things

Global Machine-to-machine connections will increase from 2 billion in 2011 to **18 billion** at the end of 2022

Leverage Industry Transformations

Deepen

**Engagement** 

Transform the value chain and business operations

**1. Mobile is primary 91%** of mobile users keep their device within arm's reach 100% of the time

# 4. Mobile must create a continuous brand experience

**90%** of users use multiple screens as channels come together to create integrated experiences

Drive Revenue and Productivity Deliver
Contextually
Relevant
Experience

2. Insights from mobile data provide new opportunities

**75%** of mobile shoppers take action after receiving a location based messages

### 3. Mobile is about transacting

Customers

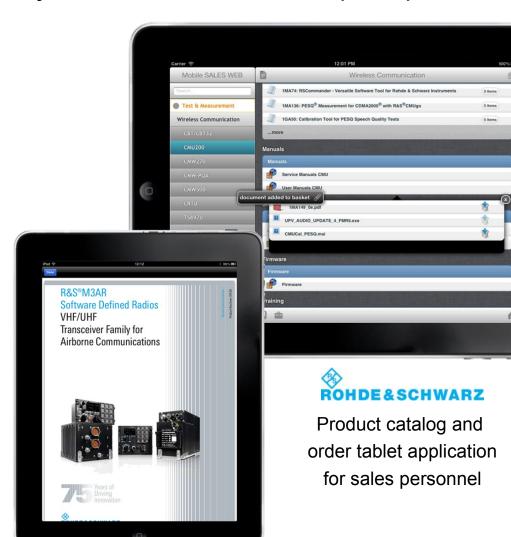
**Partners** 

**Employees** 

**96%** year to year increase in mobile cyber Monday sales between 2012 and 2011



### Objective #1: Enhance enterprise productivity



- Enable anytime access to enterprise data and functions
- Design for mobile: leverage sensors, context, and convenience to accelerate productivity
- Leverage new form factors to optimize IT delivery for rolebased needs of the workforce
- Attract new millennial talent to the enterprise



### Objective #2: Transform processes for customer interaction

### Example: Elmec IT equipment lease management

Scan equipment at



Access administrative and technical



Semplicemente affidabili

Find and fix location discrepancies ... (logged at B, actually located at A)



View contract terms, technical and



Call time-and-location aware support numbers, open support



Ecommerce integration: View related products and special offers—place orders from smartphone





### Objective #3: Extend the enterprise's business network in new ways

Credit card provider aggregates offers from



Offers are scoped by geolocation for "augmented



- Instant access to information (orders, customer history, etc.) provide a more seamless experience to the end customer when multiple parties participate in a business process
- Provides new channels for 3<sup>rd</sup> party goods & services to surface to the end user [the "app store" analogy is everywhere!]





### Workforce segmentation: driving the next level of productivity With IBM as an example

### Customer Facing IBMer

#### Characteristics

- Sales, Consulting, Project Management
- Highly mobile

#### Current IT Environment

- Most have laptops for ease of travel
- Approx. 2/3 regularly use Smartphones
- Collaboration tools usage is very high.

#### IT Requirements

- Access intranet resources with mobile device
- Needs lighter weight laptop or tab.
- Elexibility in e-mail guota

#### Growth market employee in support role

### Characteristics

- Customer support, application delivery
- Works from IBM\_offices

#### Current IT Environment

- Many use Desktops

- Requires low cost workstation
   Simpler software update solut
   Limited remote access and
  mobility needs

#### Manufacturing employee

#### Characteristics

- Manufacturing and Hardware development
- Works in plants and labs

#### Current IT Environment

- Uses shared workstations
- Low use of smartphones and collaboration tools

#### IT Requirements

- Simpler software update solution
- Critical members need Smartphones for monitoring

#### Research and Dev. IBMer



#### Characteristics

- Researcher, Software and Hardware developers
- Works from IBM\_offices or home offices

#### Current IT Environment

- Most have high powered workstations
- Collaboration tools usage is high
- Early adopters of new technology

#### IT Requirements

- Requires powerful workstations for development
- Interested in using personal Smartphones



### Basic application users

#### Characteristics

- Admin, Support, Operations, Finance, HR
- Works from IBM offices

#### Current IT Environment

- Most have laptops with basic capabilities
- Collaboration tools usage is moderate
- Uses pre-defined set of applications

sametime, office productivity tools and some business applications

#### Employee in executive role



### Characteristics

- Highly mobile
- Frequent travelers

#### Current IT Environment

- Most have laptops for ease of travel
- Most use Smartphones regularly
- Collaboration tools usage is very high

### Requirements

- Access intranet resources with mobile device
- Needs lighter weight laptop or tab
- Requires basic set of applications

Additional Personas: \* IBM Office based employee \* Work at home employee \* Frequently travelers and acquisition employees \* Employee with high technology adoption \* Low technology adoption \* Employees with accessibility requirements



## IT delivery for mobile: how it differs from the web

Web	Mobile
Monolithic apps	Many task-oriented apps
Mouse & keyboard driven	Multiple sensors driven (touch, camera, GPS, etc.)
Least common denominator browser approach	(1) Many different endpoint combinations (type, OS, screen sizes, etc.); user experience highly tailored to the device
Centralized server execution	De-centralized intelligent endpoints
Centralized code distribution & controlled rollout	(2) Loss of control over distribution (e.g., app stores) and environment (e.g., client OS versions)
Trusted execution behind the firewall	(3) Code runs in an environment outside of the enterprise's control (consumers, BYOD)
Always connected	Many times offline or limited bandwidth
Optimized remote load	Optimized local responsiveness
Static context	Context (e.g., location, speed of travel) varies and is being exploited to create new experiences



### Considerations for IT delivery of applications

- Business & IT must deliver a multi-channel experience (form factors, device types, and touch points) that is consistent, cost effective, and compelling
- Mobile experiences seamless cross device & service. How to enabling marketing, line-of-business, and customer support to deeply understand the customer experience and improve it?
- User & field driven development processes that ensure IT builds the right and most effective user experience (maximize user acceptance!)
- How to facilitating skills transition or access to talent so applications can be sourced cost effectively
- Open technologies as a means of protecting IT (and the business) from rapidly changing technology & delivery models
- Transforming an organization's innovation process & operational capabilities for rapid, repeated mobile delivery



### Management & security problem areas for mobile

### **Develop and Communicate Formal Mobile Strategy, Policies**

BYOD:
Efficiently acquire,
deploy, secure, manage,
and de-provision devices



2

Security Intelligence: Protect devices from malware, data theft



**PUBLIC WIFI** 



**INTERNET** 



TELECOM PROVIDER



App Protection: Test, deliver and manage security-rich apps



MOBILE APPS



WEB SITES





**PRIVATE WIFI** 



SECURITY GATEWAY Asset & Expense
Management:
Actively manage
corporate device
purchases, service
contracts, usage



Secure Access:
Manage users and
access to enterprise
apps and data

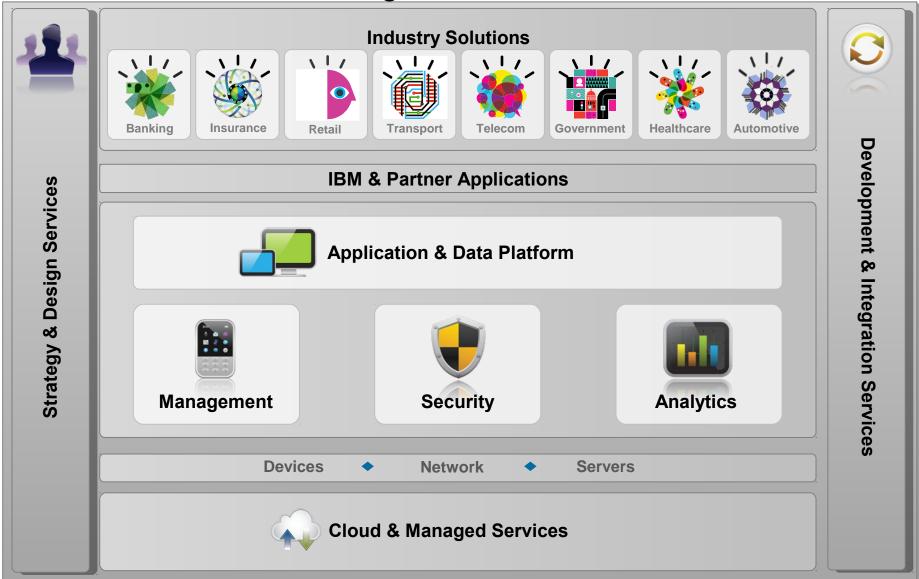


**Deliver an Adaptive Security Posture** 

10

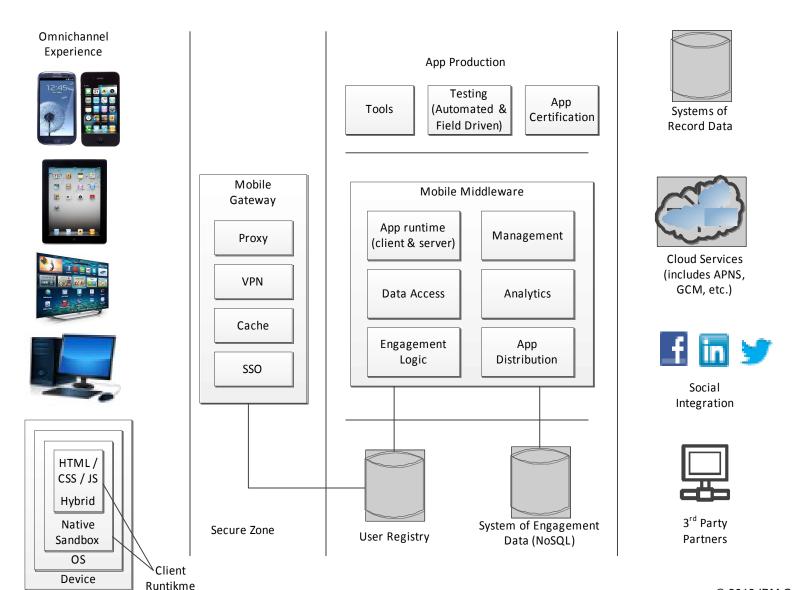


# IBM MobileFirst Offering Portfolio





### What a mobile architecture looks like





# The IBM mobile application development lifecycle



####