Enterprise Mobility Service Offerings
Emerging Technologies

October 2013

pwc

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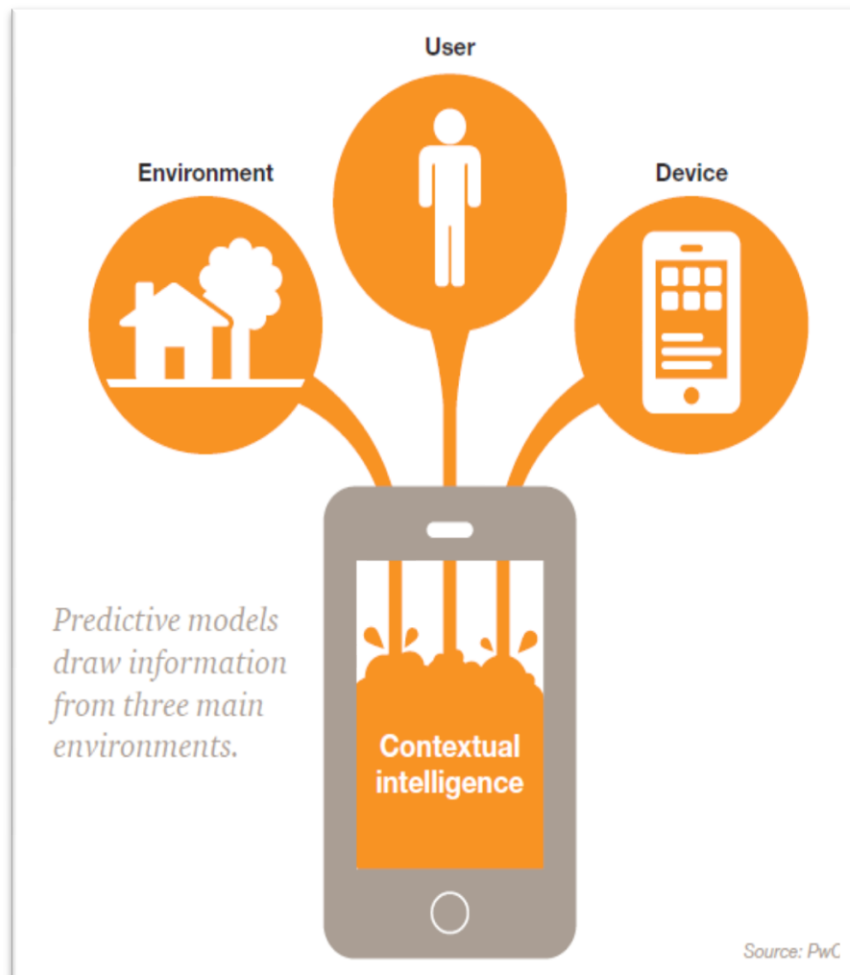
Sections

What is enterprise mobility?

Mobilizing the enterprise systems to empower enterprise workforce with mobile devices to execute their day-to-day activities anywhere anytime

- Providing your workforce with **real time** accessibility to business/time **critical data**

- **Better coordination**/collaboration between employees for improved **productivity & decision making process**

- Execute **business operation on the move** like approval based workflow tasks etcetera

- **Get competitive edge** by enabling mobile users to perform

  - Digital signature capturing

  - Payment Processing

  - Inventory/stock management

  - Real time dashboard based apps tracking critical business operations

- **Location** specific or **contextual** information **alerts/notifications** for your on-field workforce

- **Enable your customers** to access your customer centric information anytime anywhere

Why enterprise mobility matter ?

Every time there is a transformation in the trend and user behaviour, only those organisations that are fittest for transformation survive

User

Environment

Device

Predictive models draw information from three main environments.

Contextual intelligence

Source: PwC

Existing enterprise data/systems turns intelligent when its mobilized.

Here is how

- With the advent of **new device** capabilities the **information** gathered from users are **contextual**

- The **information** is **intelligent** as it carries attributes like **geo location**, user activity, **connectivity/availability**

- Contextual information enables **contextual intelligence** with inputs from **user**, **device** and **environment**

- **Pushing precise & contextual** enterprise **data** to a mobile **user** anywhere anytime **transforms** the way **user executes their task**

Key elements of enterprise mobility adoption
The success-metrics

Key questions for a successful enterprise mobility implementation	**The key success metrics for an successful enterprise mobility implementation are,**
❑ How to identify business processes an enterprise should mobilize first to increase revenue and reduce cost ?	✓ Identifying possible business cases to enable mobile
❑ How to build innovation around workforce and consumers that enhances his/her usage experience ?	✓ Defining a strategic mobility roadmap
	✓ Creating an immersive and affordable user experience
❑ How to implement app distribution and device management to create an agile, compliant and secure mobile enterprise-eco-system ?	✓ Enabling a connected secure and compliant environment
❑ What are the governance, risk and compliance an enterprise should care when mobilizing their enterprise system ?	✓ Forecasting risks and establishing governance model

Section 2
Implementing enterprise mobility

Sections

1.   PwC's enterprise mobility service offerings

Mobilizing the Enterprise - Why & How

1. How to identify business processes an enterprise should mobilize first to increase revenue and reduce cost ?

- Identifying the value and cost driven business processes prioritized based on ROI and end user value adds
- Enabling mobile based Lean management initiatives to improvise supply-chain efficiency
- Existing enterprise systems modernization and mobile/device friendly API optimizations
- Designing, architecting and executing future-proof enterprise applications
- Recommending MEAP or container app framework providers for on-going development
- Architecting enterprise façade to connect with mobile analytics usage patterns from partner vendors/consumers/ customers

2. How to build innovation around workforce and consumers that enhances his/her usage experience ?
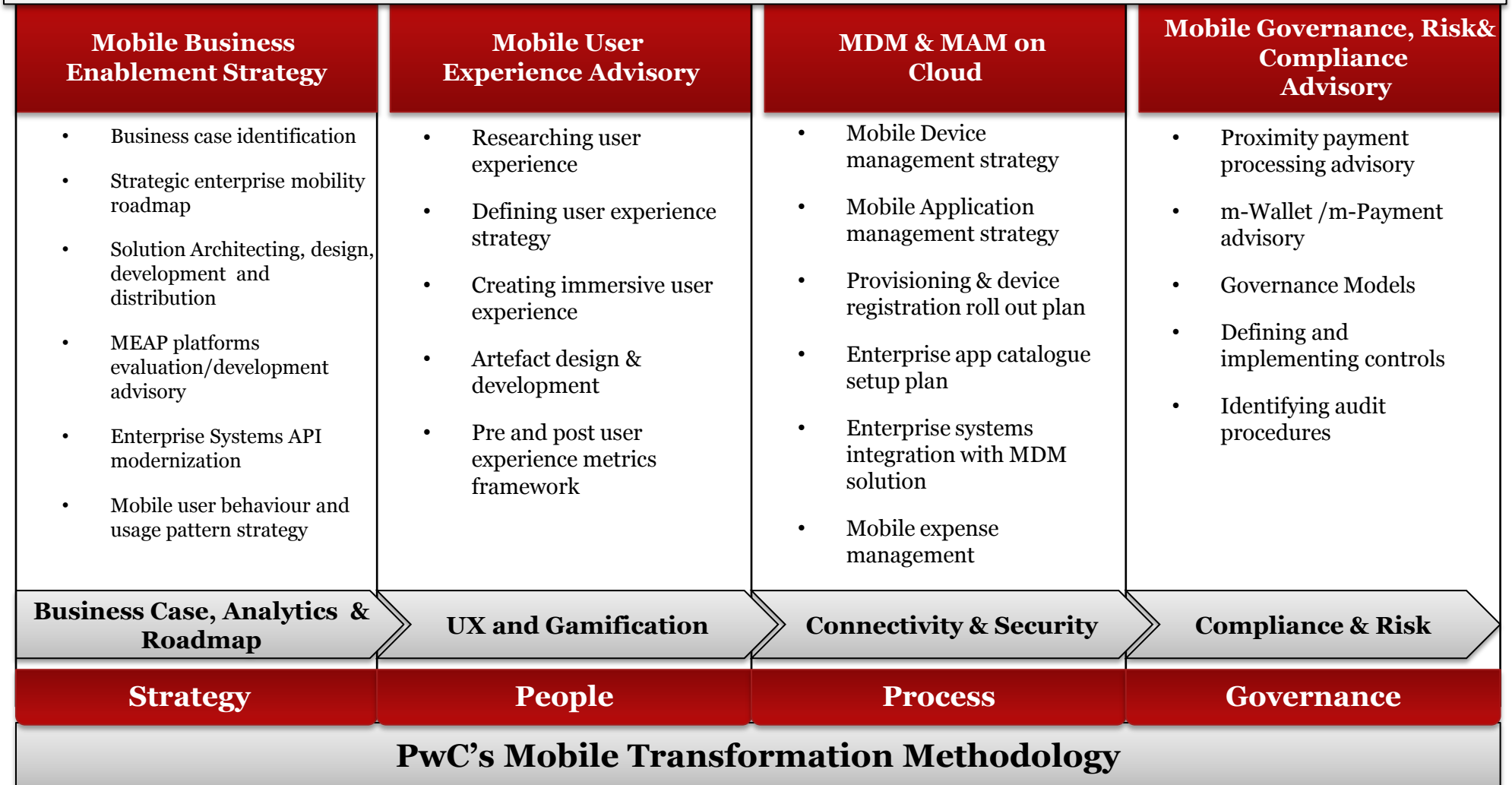
- Empathetically designed applications that can plant excitement in his/her workflow/tasks completion.
- Ethnographically coloured, choice of branded typography, workflow gamification/design to improve quick adoption and shorter learning curve
- Iterative test & measure user experience scorecard
- Mobile usage analytics study enabling further development activities to foresee what's the usage pattern and next desired action

3. How to implement app distribution and mobile device management to create an agile, compliant and secure mobile enterprise-eco-system ?

- Identifying supported devices/platforms based on the business/use case
- Defining the BYOD policies and device registration roll out plan
- Create an enterprise app catalogue to distribute app from a centralized managed location
- Policies to encrypt local storage and over-air data storage and reception
- Defining industry specific compliance policies and governance to ensure security & compliance

4. What are the governance, risk and compliance an enterprise should care when mobilizing their enterprise system ?

- Setting up an compliant and secure environment for the enterprise systems will enable formalizing further development
- Securing mobile payment modes with PCI and other industry grade compliance mechanisms.
- Policy enforced provisioning of the enterprise users and their devices with an industry grade MDM solution
- Being thought leaders in mobility across industries around the globe enables PwC to improvise new threats and risks ahead of time.

PwC's enterprise mobility service offerings

PwC's Mobile Engagement Strategy

Mobile Business Enablement Strategy	Mobile User Experience Advisory	MDM & MAM on Cloud	Mobile Governance, Risk& Compliance Advisory
• Business case identification • Strategic enterprise mobility roadmap • Solution Architecting, design, development and distribution • MEAP platforms evaluation/development advisory • Enterprise Systems API modernization • Mobile user behaviour and usage pattern strategy	• Researching user experience • Defining user experience strategy • Creating immersive user experience • Artefact design & development • Pre and post user experience metrics framework	• Mobile Device management strategy • Mobile Application management strategy • Provisioning & device registration roll out plan • Enterprise app catalogue setup plan • Enterprise systems integration with MDM solution • Mobile expense management	• Proximity payment processing advisory • m-Wallet /m-Payment advisory • Governance Models • Defining and implementing controls • Identifying audit procedures
Business Case, Analytics & Roadmap	UX and Gamification	Connectivity & Security	Compliance & Risk
Strategy	People	Process	Governance

PwC's Mobile Transformation Methodology

Mobile Business Enablement Strategy

Identifying the key mobile business case is crucial for an enterprise and when identified, prioritizing and investing on it phase by phase results better ROI

Business case enablement

- Understanding mobility requirements

- Defining business scope for mobile enablement initiatives

- Building transformational business cases for improved processes and outcomes

- Deriving business value proposition

- Deriving financial value proposition

  - Return on investment and total cost of ownership

- Identifying the challenges, benefits and risks

- Strategic decisions and benefits

- Conclusion, recommendation and next steps

Benefits

1. Understanding the fundamental business need for enabling mobility across the enterprise
2. Identified and prioritized mobile business cases
3. Clear business and financial value propositions
4. Identified challenges and risks implementing the mobility solution

Mobile Business Enablement Strategy (contd..)

Rolling out a planned and sequential enterprise mobility roadmap with a vision will enable the enterprise to transform its business and people.

Enterprise Mobility delivery and analytics roadmap

- Use case rationalization

- Evaluating business and user pain points

- Optimizing the enterprise systems and data structures

- Integration and API Modernization

- Choice of mobile device(s)/platform(s)

- Technology stack & choice of MEAP partner recommendation

- Application design, development, testing & distribution

- Mobile app usage analytics & derive next most likely action

Benefits

1. Understanding the core business processes and mobile enablement touch points
2. Transform your IT systems to Enterprise platforms
3. Choosing the right technology stack & providers for quick time to market
4. Investing on the right use case and rolling out to workforce/customers/vendors

Mobile user experience advisory

User experience is the driving force that creates the "*excitement*" factor in an mobile app, With a well defined user experience strategy, using the app becomes intuitive.

Research existing experience

- Mapping existing experience with business/use case

- Test & measure existing experience

- Empathizing & defining user experience

- Defining the design principles

- Research & Redefine the expected user experience

- Create wireframes & asset submission

Benefits

1. Understanding the existing experience and improvement areas
2. Defined design principles & boundaries
3. Quick prototyping for early assessment on user reactions
4. Iterative approach for better experience over time.
5. Continuous user experience testing & measurement
6. Tangible design deliverables

"Innovations are built around user experiences, and when app design creates a sense of accomplishment/excitement in the user, that is when design transforms user behavior "

Mobile user experience Advisory (contd..)

It's building innovations around experiences

Empathize	Define	Research	Analysis	Synthesis	Frame Solutions

Immersive experience strategy

- Mapping existing experience with business/use case

- User and market ethnographic study

- Research trends and transformational user behaviours

- Empathize and define user experience

- Ideate/prototype to frame solutions

- Innovate across finance, process, technology & offerings

- Realize offerings & create solutions

Pre & post user experience metrics framework

- User experience testing framework

  - User usage observation & interviews

  - Brand visibility testing

  - Typography & colour coding testing

  - Card sorting, paper prototyping and backcasting and so on.

  - A/B testing

MDM & MAM on Cloud
Enabling a connected secure and compliant environment

Mobile device management strategy

- SMS, email or URL over-the-air (OTA) enrolment

- Email, VPN and Wi-Fi profiles

- Device restriction settings

- Remote locate, lock and wipe (full and selective)

- Jailbreak and root detection

- Policy updates & changes

- Compliance reporting

Mobile application management strategy

- Enabling a web based enterprise application catalogue

- Efficient mobile app lifecycle management

- Mobile application level data sand boxing and security

- Enterprise mobile app compliance & enforcement

Benefits

- Easy email access controls
- Corporate directory integration
- Better certificate management
- Established BYOD privacy settings
- Custom Event-based rules engine
- Efficient App management & distribution
- Secure document sharing
- Mobile expense management
- Better mobile app distribution

A cloud based **mobile device management** (MDM) solution with an end-to-end management of **enterprise/personal devices** to secure your enterprise data anywhere anytime.

MDM & MAM on Cloud – Solution overview
Enabling a connected secure and compliant environment
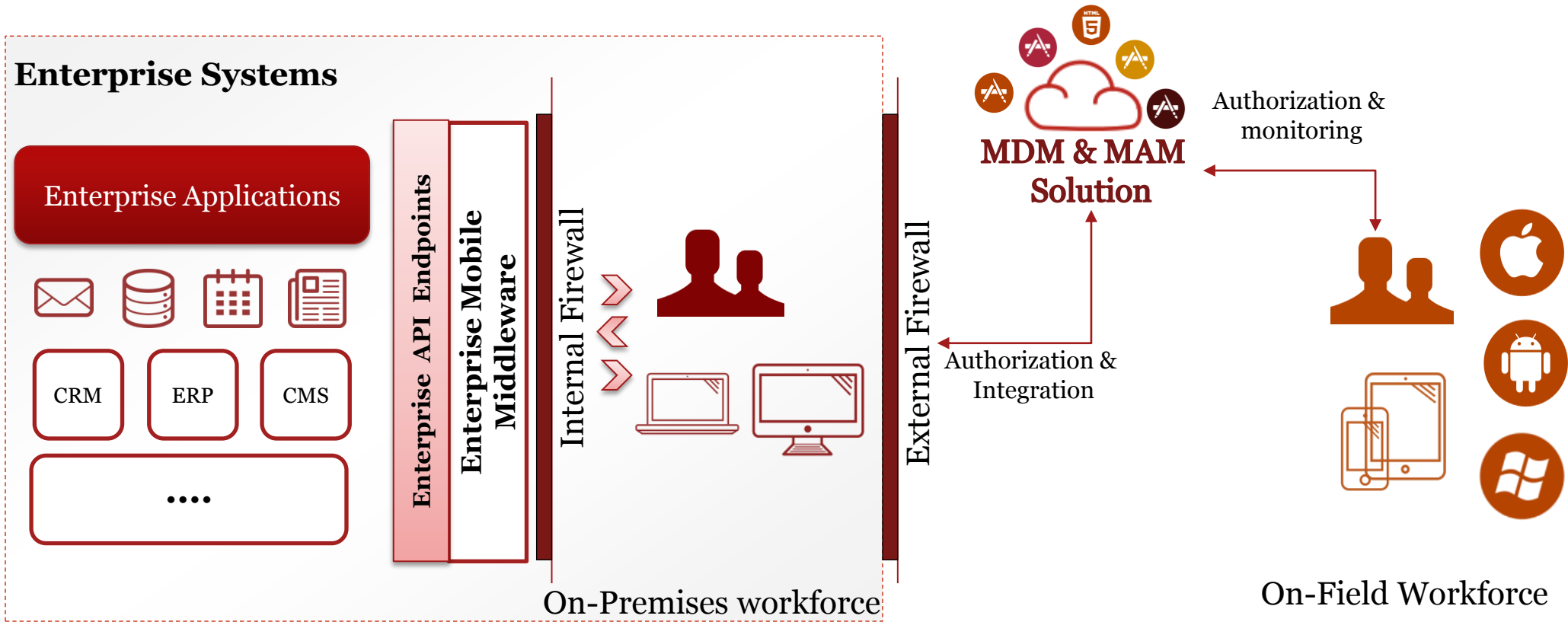
Mobile governance risk and compliance advisory
Forecasting the risks and establishing governance models

- Proximity Payment processing advisory

  - Mobile wallet and mobile payments processing strategy

  - In-app digital goods selling plan & execution

  - Apple passport receipts integration

  - Google/Paypal wallet integration

- Establishing governance models

- Defining and implementing controls

- Defining audit procedures and audit plan

Section 3
PwC Expertise

Sections

1. PwC thought leadership

2. Citations

Thought leadership and publications

Our thought leadership on mobility with a global as well as local perspective is manifested through numerous publications around this focus area

PwC's viewpoint on Mobile Financial Services in India

The PwC Mobile Innovations Forecast: Making sense of the rapid change in mobile innovation

Our global perspective on Mobile Operators and Handset Manufacturers

Technology Forecast

A comprehensive and holistic view on enterprise mobility

Our point of view on BYOD and how it can work for companies

A study and viewpoint on the current state and future of VAS in India

Our perspective on how to seize the Mobility Moment

Mobility Citations
Domestic

Client	Business Problem	Project Impact and Outcomes
Major Indian Life Insurer	The traditional method of capturing customer data was cumbersome, time-consuming, error-prone and required a great deal of rework in terms of re-entering all data from physical forms to the computer. The client recognized the need to use mobility solutions to empower their agents in the field, and needed help in moving to a mobile platform for their agents.	The PwC team designed a sales toolkit mobile application for agents that had context-aware prospect management options, customer data, tools like benefits illustrator & insurance needs analysis, proposal tracking and custom reporting. The app also had customized alerts like customer birthdays and policy renewal alerts.
Major Fertilizer company in India	With growth in business and to expand their business activity across India the client felt the need to automate their sales and distribution activity to shorten the sale cycle and enhance customer satisfaction along with a clear visibility of inventory. A mobile solution was required for their sales force agents catering to both traditional dealer-retailer network as well as direct customers.	PwC's solution provided the sales force with a secure, real-time sales force automation system on their mobile devices, integrated to the company's ERP (SAP) system. This solution achieved the objective of empowering the sales force with real time access to customer and sales-related data, improving their efficiency as well as customer satisfaction.
Large Retail Chain in India	With phenomenal growth in the Indian retail industry, the client was looking for a convenient and differentiated shopping experience to attract and retain customers through a a queue-busting solution integrated with its existing POS platform, to reduce queue waiting time at POS, enhance customer experience, increase POS efficiency and boost footfall to sales ratio for the stores	PwC designed and implemented a mobile POS solution for the retail chain that served to provide customers with a convenient and differentiated shopping experience, which led to increased customer loyalty and attracted new customers.
FMCG Major in India	The company wanted to provide their mobile workforce with timely and secure access to business data especially around client and route details, sales figures and targets. An offline mode was also required since connectivity was unreliable at times.	PwC designed and developed a mobile solution pilot for customer executives that could access relevant business data in a reliable and secure manner to promote efficiency in the field and improve customer relations.
Major Automotive Manufacturing company in India	The traditional emailed reports to management were not optimized for viewing on a mobile device and were not getting the job done. An optimized for mobile reporting solution was required which would address the needs of the management and decision makers of the company.	PwC designed and developed a secure and optimized mobile reporting solution pilot for the management integrated with the SAP Business Objects reporting platform. This greatly improved the usability quotient of the management reports, and as a result the report contents were consumed on a more regular basis, leading to better awareness and decision making.

Mobility Citations
International – Business Strategy

Client	Business Problem	Project Impact and Outcomes
Leading Payments Network	The client was looking to better understand the emerging mobile payment market and was interested in testing the economic viability of partnering with U.S. wireless carriers.	PwC defined potential business models using an evaluation framework and conducted a high-level customer LTV analysis to assess potential profitability and model sensitivity.
Major U.S. Bank Holding Company	The client desired an understanding of the existing mobile space to protect their market share and minimize impact on their interchange revenue.	PwC evaluated industry trends, identified potential future-state scenarios, and recommended tactics which the client could use to react to outside threats.
Major U.S. Retail Bank	The client lacked an understanding of who in the U. S. and in their customer base was likely to adopt mobile banking. They wanted a tried and tested approach on how they should address mobile within their business.	PwC performed customer segmentation to identify potential users, developed a customized approach with selective customer differentiation, and prioritized offerings based on business benefit.
Major Integrated Healthcare Company	The client lacked organizational alignment on goals and objectives as well as on an approach to recognize and assess the benefits of supporting mobile services.	The PwC team articulated a clear mobile health definition, illustrated trends in mobile health, and defined a strategic prioritization framework.
Top 8 Major Health Insurer	The client required market research to validate existing mobile health offerings, refine future mobile opportunities, and a "voice-of-customer" approach regarding emerging technology.	PwC conducted 10 focus groups totaling 90 participants and surveyed ~2,000 consumers across 4 geographic markets to understand customer motivations, attitudes, and preferences.
Leading Telecom Company	The client sought to penetrate the market for industry-specific wireless data applications without an understanding of which industries would benefit most from wireless data or which opportunities represent the largest revenue potential.	The PwC team identified the top 20 processes across 8 industries that could benefit from mobile data, and developed process flows, ROI calculations, and market sizing for wireless enablement in 5 of these industry-processes.

Mobility Citations
International – Technology Strategy

Client	Business Problem	Project Impact and Outcomes
Global Card Payments Company	The client lacked a long-term view of how to improve digital customer experience. In addition, the client's digital servicing capabilities were significantly behind that of the competition.	PwC created a 3-year strategy defined for web, mobile and e-mail channels across 20 geographies. The strategy included organizational, IT, and process recommendations requiring a combined investment of $100M.
Major U.S. Bank Holding Company	The client needed to know the mobile banking options available to them, particularly in support of the "thin-branch" model. The client wanted business and IT recommendations that could be implemented within an 18-24 month timeframe.	PwC developed a landscape overview which defined baseline mobile functionalities and a plan for how to move to a more virtual/hybrid operating model.
Major Retail Bank	The client needed assistance in the development of an overarching strategic mobile roadmap, an integrated multi-channel strategy, and control over their customer experience other than their Firethorn platform.	The PwC team developed a value-chain aligned assessment of needs, organizational and execution guidelines, a high-level prioritized functionality list, and a high-level CBA to assess impact
Top 8 Major Health Insurer	The client did not have a clear view of their members' mobile usage or mobile propensity. They also lacked a prioritization framework in order to assess the viability of mobile capabilities.	PwC articulated and defined a comprehensive mobile strategy, a mobile prioritization framework, and built a business case that resulted in full project funding.
Top 8 Major Health Insurer	The client did not have capabilities to successfully manage a mobile organization, secure funding for large transformational projects, coordinate business needs with multiple stakeholder groups, or market mobile to drive adoption.	PwC worked with multiple stakeholders to build a robust cost benefit analysis, managed to ensure business timelines were met, supported the marketing organization, and assisted in the creation of a mobile organization with teams focused on mobilization and execution to support waves of mobile capability release

Mobility Citations
International – Mobilization & Execution

Client	Business Problem	Project Impact and Outcomes
Top 8 Major Health Insurer	The client needed help defining a mobile test strategy and identifying key implementation tasks. The client's testing team was understaffed and had limited knowledge of mobile applications.	PwC defined a comprehensive mobile test strategy, addressing concerns around scope, testing approaches, technologies, tools, timelines, roles, responsibilities and stakeholder approval
Top 8 Major Health Insurer	The client needed help initiating technology-related tasks to implement foundational mobile capabilities. The client also wanted to evaluate potential mobile vendors.	PwC analyzed approaches for developing robust mobile solutions (mWeb, SMS, and App Development) and evaluated the benefit of vendor versus in-house solutions for the client.
Global CPG Company	The client wanted to implement a CRM SFA platform that would support future business enablement and facilitate additional functionality with low business risk and minimal customization.	The PwC team helped implement an SAP CRM SFA and Mobility solution for the food service division, enabling the ability to centrally plan and distribute sales opportunities to sales representatives.
Global Security Solutions Company	The client's mobility implementations were plagued with connectivity issues and usability concerns; the client lacked the ability to scale current solutions to other parts of the organization and the ability to use newer mobile devices to further improve existing capabilities	The PwC team collaborated with stakeholders from across multiple business units to create an evaluation criterion and select the best fit mobile enterprise application platform (MEAP) for the client's current and future needs.
Department of Health in an African country	A large city was finding it difficult to manage a growing population of diabetics, resulting in a major public health problem for the state.	The PwC team demonstrated that Mobile devices were pivotal in increasing hospital appointment compliance; an SMS prototype system was developed to send appointment and medication reminders to patients' mobile phones, dramatically improving health from increased compliance
National Intercity Passenger Rail Operator	The client needed to establish support processes for new eTicketing mobile hardware, as well as identify a mobile device management solution to satisfy audit, security, and asset management needs.	The PwC team worked in conjunction with stakeholders to select a mobile device management vendor, created support processes and documentation for internal and third-party organizations chosen to support the deployment, and completed project planning activities to execute pilot phases in preparation for national deployment.

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Thank You