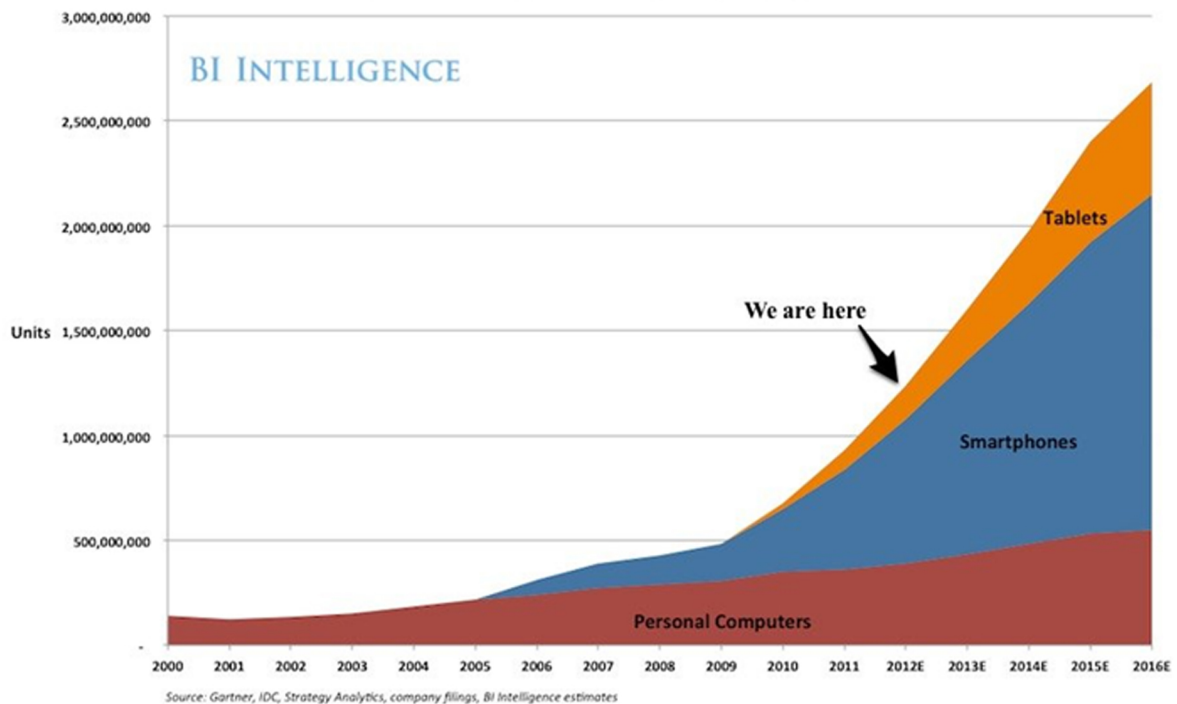Mobile
Development

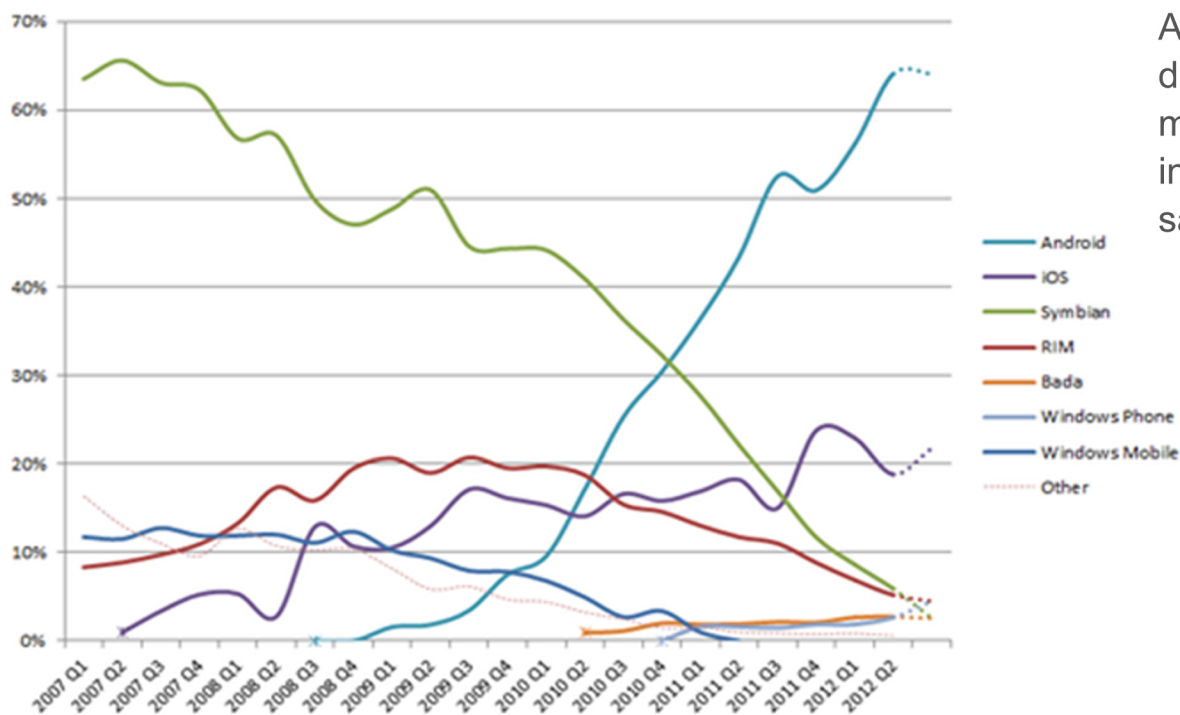# Enterprise Mobile Application Capabilities

# Computing Devices - Rapidly changing Dynamics!

"Smart phone overtook PC sales, including tablets, desktops, and every kind of notebook we can think of. Dropping prices, better hardware and internet connectivity are making smart phones true alternative to the personal computer. The smart phone is becoming a mobile business terminal"
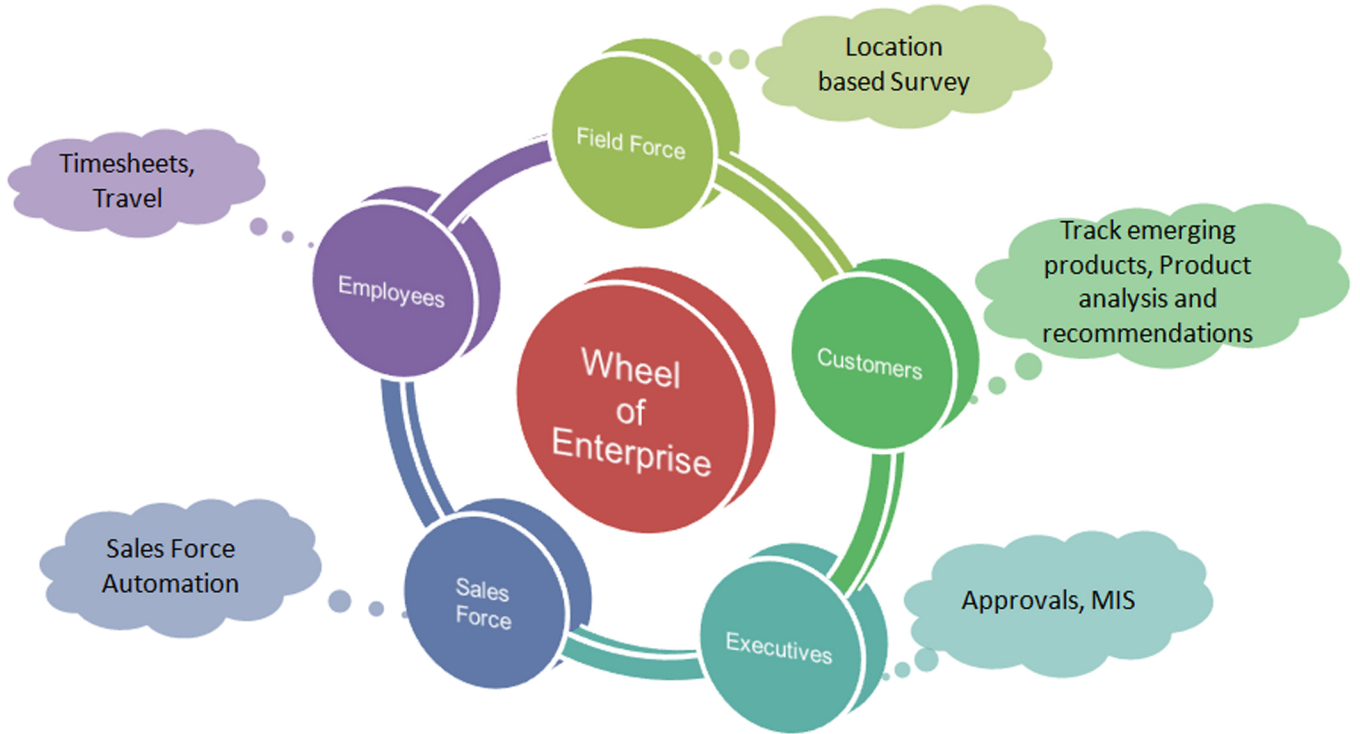


**Global Internet Device Sales**

BI INTELLIGENCE

We are here

Tablets

Smartphones

Personal Computers

Source: Gartner, IDC, Strategy Analytics, company filings, BI Intelligence estimates



**World-Wide Smartphone Sales (%)**

- Android
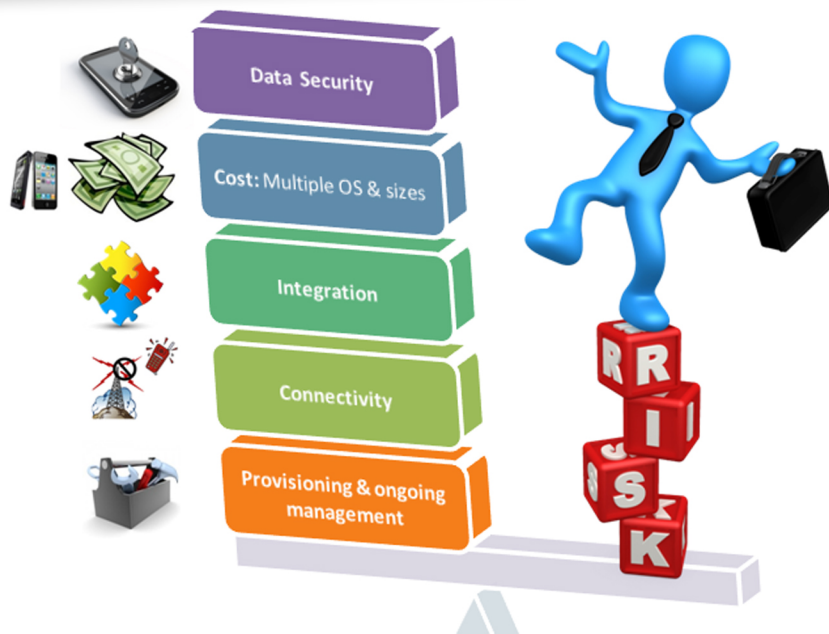- iOS
- Symbian
- RIM
- Bada
- Windows Phone
- Windows Mobile
- Other

Android & iOS are dominating Mobility market with 85% share in new Smart phone sales

# Wheel of Enterprise Mobility: Market Research



Location based Survey

Timesheets, Travel

Field Force

Track emerging products, Product analysis and recommendations

Employees

Wheel of Enterprise

Customers

Sales Force Automation

Sales Force

Executives

Approvals, MIS

# Business Challenges : Mobility



Data Security

Cost: Multiple OS & sizes

Integration

Connectivity

Provisioning & ongoing management

RISK

# Our Solutions

- Secure connectivity
- Data encryption on device
- User authentication

**Data Security**

- Device provisioning Remote data wipe
- Upgrades controlled by central Administration / App market
- Device monitoring

**Provisioning & ongoing management**

**Cost:** Multiple OS & sizes

**Integration**

- Hybrid Apps
- Open source frameworks

**Connectivity**

- Interfaces built for Integration with multiple databases
- Integration with legacy systems

- Local storage
- Background data synchronization

# Available Options ...

# Mobile App Development

**Native App Development**
Best in class performance, Smooth user experience, Superior access to device-side capabilities.

**HTML5 (Web) App Development**
Generalized for multiple platforms an best for API based implementations

**Hybrid App Development**
Best of both worlds (Native and Web Application). Reduces mobile application cost and enables access to device-side functionality.

**MEAP**
Enterprise

grade solution framework for scalable, reliable and complex mobility solutions. Provides synchronization,

# Quick comparison - Hybrid VS Native

|  | Native | Hybrid ( Web Kit) | Xamarin |
|---|---|---|---|
| Resources/Cost | Independent app for each OS. High Cost. | Generic App for all OS. Less Costlier as compared to native. | Core L:ibrary is common but UI layer is independent for each OS ( Native). High Cost |
| Ux | Fluid transition and smooth flow between screens. | The screen transitions are with glitches. | Fluid transition and smooth flow between screens. But it may be little slow compared to pure Native App. |
| UI | Native UI with predictable behavior. | The behavior differs with devices. Unpredictable behavior at times. | Native UI with predictable behavior. |
| Device Rotation | The application adapts smoothly between portrait and landscape mode. | The application behavior between portrait and landscape mode is not user friendly. | The application adapts smoothly between portrait and landscape mode. |
| IDE | Matured IDE | Maturing IDE with limitations. | Maturing IDE with limitations (Xamarin Studio or Visual Studio) |
| Device properties | Full access to device capabilities. | Limited access to device capabilities. Need specific handling for Android back button. | Full access to device capabilities. |

# Xamarin Platform
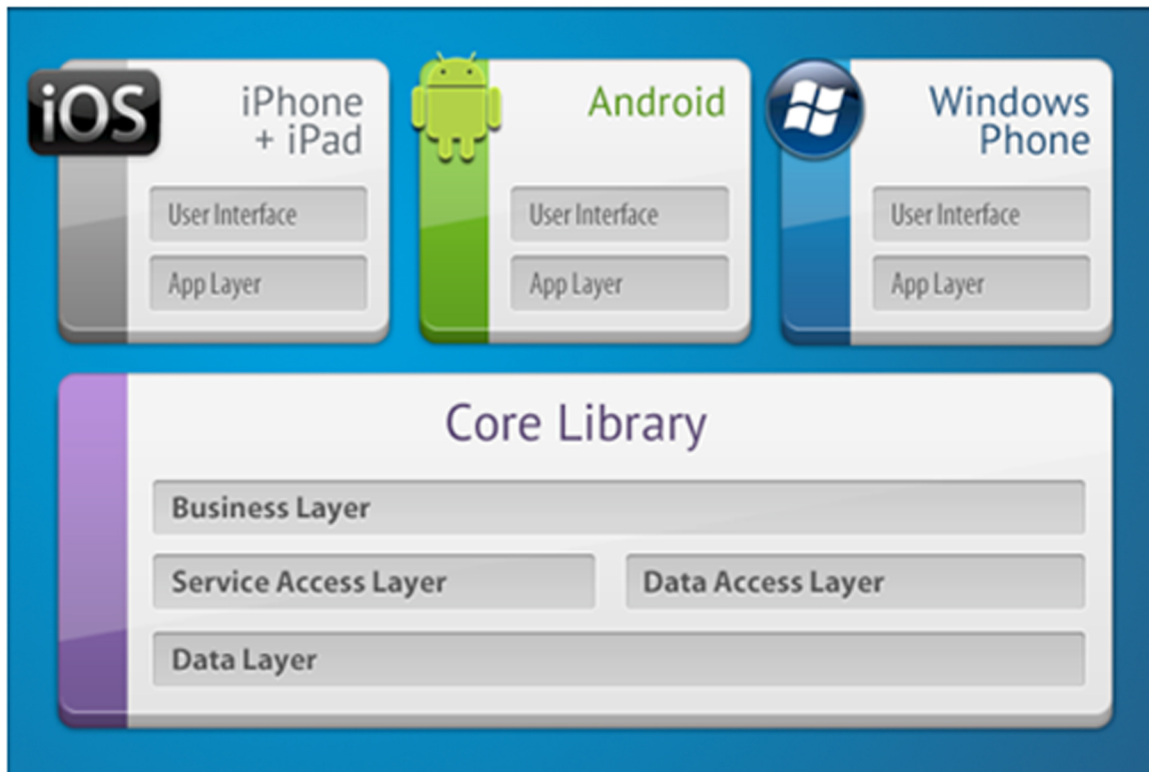


# Mobility Solutions Overview
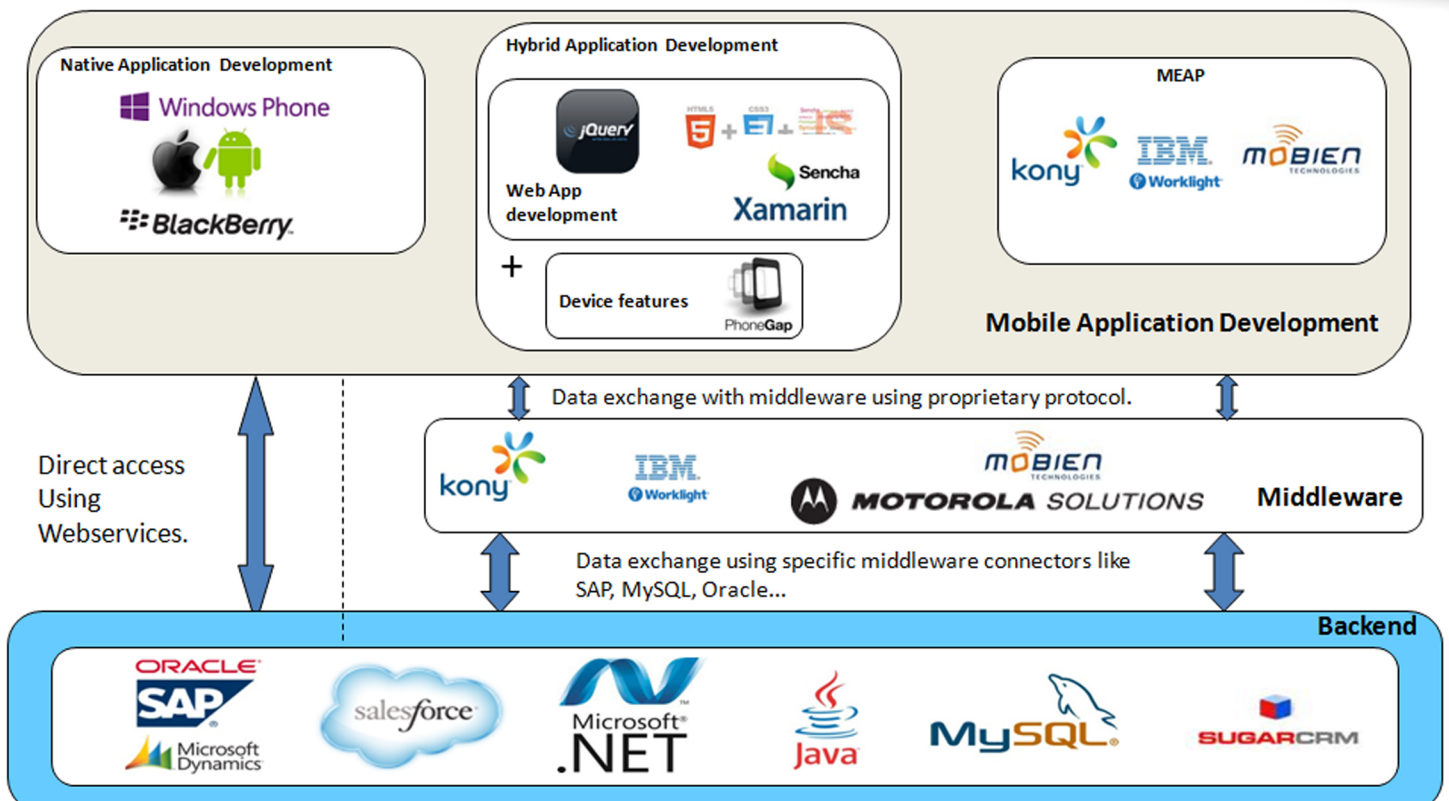
# Increased effectiveness of E-commerce Business

## Requirement

E-commerce retailers need increased visibility into taking their Business to next level.

- Is e-commerce site displayed correct price? How to reach more customers ?
- Are competitor's activities impacting promotion success?
- While phone ordering practices are conducted, labor costs are high and delays and mistakes are happening. Customers are not happy.

## Solution

- The solution is on Android & iOS platforms
- With a combination of a native mobile app , coupled with native mobile camera and barcode/ QR code scanning capability.

## Business benefits

- Improve effectiveness and consistency of selling activities
- Accurate pricing and invoicing
- Ensure effective stock management
- Improve competitive Intelligence
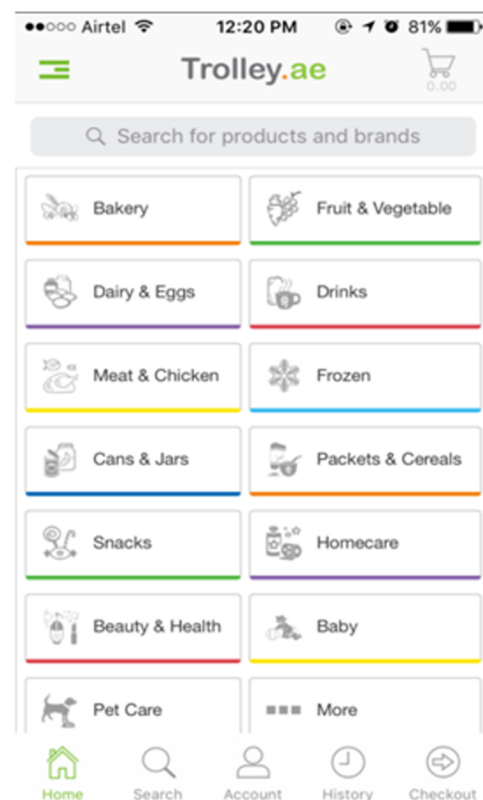
# Next Generation Messaging App

## Requirement

Develop next generation Instant Messaging app with Message, Audio Call/Video Call, Sticker Sending facilities

- Many current Instant Messaging platforms don't have HD Video calling facility.
- Can we use Instant Message apps to track our friends and family members ?
- While in-store visual merchandising audits are conducted, labor costs are high and delays in getting data.

## Solution

- The solution is on Android & iOS platforms.

## Business benefits

- Single Solution for HD Video Call, Audio Call, Sticker Sharing, Chat with many other features
- Ability to track friends & family members and visibility of Map
- Improve interaction among users.
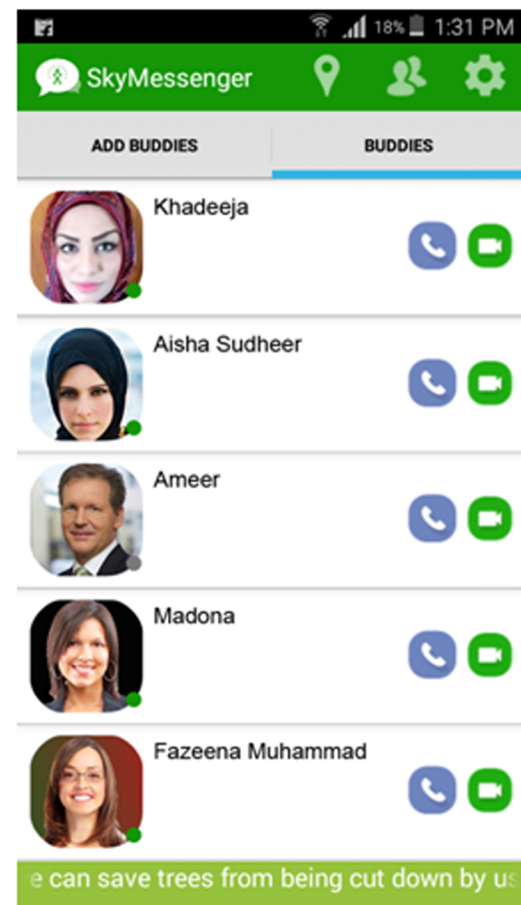
# A leading Bank, India

## BUSINESS SITUATION

- Client wanted to have an dashboard application for its executive for tracking performance of different divisions based on multiple parameters

## SOLUTION

Digital Minds used its THIN Client – RICH Client approach for developing an iPad based solution which provides

- Performance views classified into Historical, segment wise, Product Wise and the entire Network

- In each of the views user can further drill down into following parameters Deposits, Advance, CASA, Actual NPA and C/D Ratio

- Solution also provides access to Micro and Macro Economic news along with different stock quotes and Forex Rate movement

## RESULTS

- **High Performing application**
- **Integration with multiple systems  - Bank's Backend, Stock News, Forex**

# Mobile Testing for Large Financial Firm

## About Customer

India based large Insurance and Financial service: Company uses multiple channels to provide services to their customers. Recent increase in the mobile usage triggered delivering services using mobile web browsers. Users will be able to log on to their account and perform transactions using mobile browsers on the move.

## Challenges

Following challenges are faced to achieve successful testing of application on mobile phones:

- Huge mobile phone base which supports web browsing
- Difficulty in procuring and managing mobile phones.
- Difficult to execute test cases manually on phone due to small keyboard
- Defect logging – Not able to provide screen snapshot of the errors
- Power management – Charging the phones at appropriate times

## Our Solution

- After exploring multiple options with pros and cons finally used cloud mobile application testing platform. This platform provides the following benefits:
- 24/7 access to large group of mobiles with major India Mobile phone service providers
- Testing done on PC remotely by logging into their mobile lab
- Reporting and collaboration features helps for better reporting of the defects
- Phone features including camera features can be accessed.

## Engagement Highlights

- Client did not purchase phones. Top 20 phones that were used by clients are tested at every release of the application. These 20 phones changes based on the new phones available. Over 50 different phones are used to test till now.
- No need to purchase talk time or data plans from cellular service providers
- No need to maintain inventory of the physical hand sets
- Easy and effective reporting of the defect related information.

**Digital Mind Technologies Corporate Headquaters**

1111, North Plaza Drive, Suites 465

Schaumburg, IL - 60173

Desk: 1847 463 9300

Fax: 1800934 6716

www.digitalmindstech.com

info@digitalmindstech.com