

# Extending Your Wireless Reach for Anytime, Anywhere Access to Mobile Applications

*Tim Scannell*

*Principal*

*Shoreline Research*

## Why is Mobile Access So Important?

- Today, there are close to 103 million mobile employees in the U.S. and an estimated 878 million worldwide.\*
- Up to 71% of the companies in the U.S. plan to expand their mobile workforce in an effort to improve communications and interactions with customers and be more competitively positioned to follow up on customer inquiries and leads.\*\*

\* *In-Stat and IDC Figures*

\*\* *BPM Forum*

## What Factors are Driving Mobile Access?

- Faster access to business critical applications
- Improved productivity (transforming wasterful and expensive downtime into productive uptime)
- A closer relationship with customers by allowing you to respond to their calls, emails and instant messages faster and more accurate

## What Factors are Driving Mobile Access?

- Mobile information- and idea-sharing and mobile team collaboration
- Tighter control and more productive relationships with employees in the field
- More efficient management of expense reporting, scheduling and other administrative duties faster and more accurately

## What Factors are Driving Mobile Access?

- A challenging economy and tighter budgets
- Increased customer demands and competitive forces
- An increasing need for '*just in time*' customer service and deliverability
- A more connected and pervasive supply chain, where mobile connectivity and fast, reliable access to information is a mandate.

# Mobile Business Data Services to Generate \$100B by 2012\*

- 10 out of 30 of the fastest growing occupations are mobile
- Fastest growing occupation is healthcare and mobile health services

# Who is at the Forefront of Mobility in the Enterprise?

## Businesses:

- By extending their back-office automation to the field

## Independent Software Vendors (ISVs) and SaaS providers

- Providing virtual services and 'cloud computing' capabilities

## Manufacturers

- Competing on a global stage with local services and sales

## Service/Distribution/Transport-based businesses

- Inherently mobile, driven to 'real time' customer services

# Mobile Business Data Services to Generate \$100B by 2012\*

## Businesses:

- Extend their back-office automation to the field
- Enhance Service/Distribution/Transport-based businesses that are inherently mobile
- Manufacturing competes against low-cost global with local service/sales
- Supply chains live by mobility – Where are my supplies?  
When will they arrive? Has my next order been received?

# Mobile Business Data Services to Generate \$100B by 2012\*

## Independent Software Vendors (ISVs):

- Deliver application mobility
- Enable applications for users outside the four walls
- Extending their applications to use the power & economics of carrier-delivered devices

# Mobile Business Data Services to Generate \$100B by 2012\*

## Carriers:

- Deliver more value (content) to their business customers
- Capitalize on data & location infrastructure
- Sustain and increase ARPU in the face of commoditization

# Primary Wireless Communications Alternatives (Data and Voice)

- Cellular
- WiFi (802.11 a/b/g/n)
- Proprietary (Public Safety)
- Personal Networking (Near Field, etc.)

## Emerging:

- WiMAX
- Ultra Wide Band
- Hybrid WiFi

# Cellular Is Top 'Pipeline' Choice for Mobile Applications and Mobile Resource Management (MRM)

## Leading Applications areas:

- Financial
- Sales Force
- Field Force
- Transportation
- Pharmaceuticals
- Public Safety
- Healthcare

“The financial world has one of the most voracious appetites for information when measured in the number of bits distributed by various communications channels throughout the globe. This data is changing constantly and must be continuously updated.”

- *Satellite Today*

## Financial Industries

Oppenheimer deployed Blackberry devices--which tap into the company's Seibel CRM systems-- to about 1,250 of its top wholesalers in August 2007.

By late fall of 2007, about 95% of the wholesalers were using the devices.

The biggest surprise so far? Younger investment stallions are not the biggest users of mobile technology because of the way they manage their clients and territories

# Why Financial Industries Rely on Pervasive and Reliable Wireless

Wireless and mobile devices seen as **‘risk mitigators’**, rather than just connectivity and messaging systems.

\*\*\*

*"They allow our investment staff to stay in constant communications with the trading desk and other personnel. They help mitigate risks as opposed to just being email redirectors."*

*- Joe Piotrowski  
VP and development manager  
MFS Investments Management  
Boston, MA*

# What the Financial Industries Don't Like About Current Wireless Access

- Unreliable coverage and connection
- Store and forward synchronization (band-aid approaches)
- Restrictive cellular plans and contracts
- Unnecessary confusion and complexity
- Cost (more of an issue today..)

# What the Financial Industries Don't Like About Current Wireless Access

"The biggest challenge is how to make the user interface easy and the experience painless, since users are not willing to put up with lots of delays and complexity. What users want to see is something that is instantaneous."

*- Adrian Iosifescu*

*VP of IT*

*The Blackstone Group*

# Inconsistent Wireless Coverage Can Negatively Impact Mobile Productivity

- Cellular coverage spotty and not always available
- Result is lost information, lost control and lost customer opportunities
- ‘Store and Forward’ alternatives are sub-optimal..resulting in transaction delays and delayed revenues
- Cellular reliability an issue in congested urban as well as rural areas
- Cost a major factor when roaming outside network

“Creative vendors may offer a satellite communications module or onboard data bases to enable operations when wireless service is unavailable.”

Mobile satellite may be one of the most misunderstood wireless alternatives in the enterprise.

# The Rise of Mash Ups and Mash Apps

Companies increasingly rely on a mix of wireless alternatives

## Reasons:

- Better coverage and reliability
- Improved customer service
- Faster transaction exchanges
- Better interaction with front office
- More up-to-date corporate shared resources

# Evolving IP Changes Wireless Landscape Paves Way for Mobile Satellite

- Allows running a range of different applications - voice, video and data - all on the same network or multiple networks
- One multi-option network to manage and provide training for users
- Multi-Protocol Label Switching (MPLS) - labels attached to every IP packet - speeds delivery process (router doesn't need to look up the packet's destination); Legacy applications can run on IP networks.
- Mobile satellite emerges as hybrid option: Can be used individually, as an edge connection, or a middle-mile alternative (between terrestrial systems)
- One vendor and one bill to pay (as part of mobile 'mash up')

# The Rise of Mash Ups and Mash Apps

## Field Force Management

Track, Monitor, Locate  
Workforce Management  
Mapping & Navigation  
Alerts & Messaging  
Business Intelligence  
& Reporting  
Route Accounting

## Field Service Automation

Scheduling & Dispatch  
Capacity Control & Planning  
Supply Chain Management  
Route Accounting  
Remedy & Troubleshooting  
Schedule & Event  
Confirmation  
Signature Verification  
Forms Processing

## User Profile: Burger King



Second-largest fast food restaurant chain in the world. More than 11,600 restaurants in all 50 states and in 73 countries and U.S. territories worldwide.

Relies on cellular and GPS to track shipments from suppliers to local outlets maintain food quality, and comply with federal, state and local regulations.

Wireless also used to alert stores about deliveries, eliminate errors and pilferage, provide security for drivers, feed information back into the supply chain (critical for 'close margin' businesses).

## User Profile: Health First



A group of three hospitals located in Florida's Space Coast, recognized as one of the top integrated healthcare networks in the country. Uses multiple wireless technologies, including stationary and mobile satellite to connect and communicate with more than 45 hospitals and remote units.

Cost-savings a driving factor, since wireless is a much less expensive option than dedicated circuits or fiber-based connections (using Cisco dense wave division multiplexing (DWDM) fiber).

"We wanted to retain that edge among our competitors, create a more robust wireless environment, and provide 100% coverage in all our facilities."

- Kevin Johnson  
Wireless Administrator

## Mobile Satellite: The Right Technology at the Right Time

The number of mobile subscribers worldwide is expected to reach 5.2 billion by 2011.

*- Infonetics Research.*

Cellular carriers are actively looking at combining their services with complementary wireless technologies such as Wi-Fi and mobile WiMAX, and mobile satellite.

Mobile satellite systems emerge as a reliable complementary communications technology, and key element in an enterprise-wide mobile communications strategy.

**Benefits:**

- Mobile systems are are lightweight, portable and compatible with today's business and Internet protocol (IP) standards
- Most systems have an extremely small footprint
- High-speed voice and data connectivity through a global network of 4<sup>th</sup>-generation geo-stationary satellites.
- Mobile satellite coverage is worldwide, relatively inexpensive when compared with global cellular
- Reliable option to counter the performance problems inherent to cellular and Wi-Fi coverage

## The Increasing Cost and Performance Benefits of Mobile Satellite

Price for mobile satellite-based voice communications using the I-4 network less than \$.99 cents/minute – much less than a cellular call that may be routed through out-of-network service providers or subject to unpredictable international tariffs and fees.

The per-megabyte price for data, when roaming internationally, is also roughly the same as GPRS or Blackberry-type services.

## A Dependable and Reliable Communications Option

Mobile satellite phones and modems perform in situations where cellular networks may be disrupted or damaged (during natural disasters such as hurricanes, earthquakes and floods).

This ability not only positions mobile satellite technology as an ideal alternative for first responders, but as a reliable option for any company involved in mission critical applications.

## Measuring the ROI of Mobile Satellite Communications

Most companies look at the cost of a device as well as the charges related to the IT services used to support the system.

A better model is based on measuring the cost of doing without a reliable communications alternative - which involves a lot of intangibles and variables like missed opportunities and incomplete interactions with customers.

The Best Solution: One that Gets Information into the Hands of Users and Customers Fast and Without Too Much Fuss.

"We look for solutions that have the least impact, but can best maximize a user's time."

*Hazem Gamal  
Oppenheimer Funds*

# Questions

Tim Scannell  
*Principal*  
Shoreline Research