Wireless Financial Services: ROI

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Wireless means many things

- Cellular (Today)
  - 2-way Paging
  - Private Data Networks
- Cellular (Future)
- Bluetooth
- Wi-Fi (LANs)
- Point-to-point Radio
- Laser

Data Rate:
- 9.6 Kbps
- 64 Kbps
- 144 Kbps
- 384 Kbps
- 2 Mbps
- 10 Mbps
- 1 Gbps

Mobility:
- Private Data Networks
- Infrared
- Bluetooth
- Wi-Fi (LANs)
- Point-to-point Radio
- Laser

A variety of forces influence the present and future of wireless services

- In core technology and infrastructure, a broad array of non-complementary technologies and standards has led to a fragmented landscape (esp. outside of Europe)

- In devices, the ever-present promise of convergence is propelled by manufacturers seeking higher margin products

- The carrier industry is challenged by large capital costs and a virtually deregulated competitive environment that has led to irrational pricing

- Governments play a key role in spectrum allocation and distribution

- Consumer behavior is planted firmly in voice telephony, and to a growing extent (esp. in Europe and Asia), for simple messaging services

- The over-hyping of “M-commerce” etc. has been led by a broad coalition seeking the Next Big Thing

- Enterprise applications continue to grow, but outside of a core constituency, are challenged by the current IT spending environment
ROI

- R, Demand
- Supply
- I
- Our experiences
Wireless Financial Services

- Low interest in mobile financial services
  - And almost non-existent penetration
- Interest is much higher for urgent and location based services: navigation, email, yellow pages, instant messaging, weather, travel
  - But even though expressed interest is higher, actual usage is very low
Consumer behavior is ultimately a key driver, and is very different in the US

**US**
- Slower cell phone adoption (40%)
- Very low data usage
- Messaging (in youth market especially) via PCs, e.g., AOL Instant Messenger, ICQ, Yahoo! messages, MSN
- High PC/Internet penetration (80% and 55%)
- Internet transactions and commerce
- Relatively large market for PDAs (12%) – though almost none are wireless-enabled (<.1%).
- **Most commuting by car.**
- **Multiple PCs in home, with youths 15+ having own devices**

**Other industrialized markets**
- Higher cell phone adoption (62-75% in Europe)
- SMS contributes 10% of revenue to European carriers with 40% usage
- Broad adoption of DoCoMo i-mode (2.5G) in Japan but dominant use is “short e-mail”
- Cell phone is dominant device. Very low PDA penetration.
- **Most commuting by public transport.**
- **Much lower multi PC penetration. Smaller living spaces.**
Wireless applications and platforms are fragmented

- Short Messaging (SMS)
  - The “killer app” so far, with >1B Messages per month in Europe
  - US growth likely to be tied to integration with Instant Messaging, e.g., AOL, ICQ, Yahoo!, MSN

- Email
  - Mainly in US, extension of web mail (Hotmail, Yahoo!mail) or enterprise mail to mobile devices.
  - RIM leads this category

- WAP
  - has not had broad adoption (and virtually none in US)
  - Proprietary systems - mostly US

- Payments
  - Use of cell phones as payment and authentication devices
The evolution of wireless standards and technologies is ultimately driven by applications.
Messaging is the “killer app”

- Instant Messaging
  - Multiple service providers
  - 50MM users in the US
  - Heavy users skew young

- SMS
  - Broad adoption in Europe (and variants elsewhere, e.g. Japan)
  - Very small penetration in the US so far – will require integration with IM to take off

- Email
  - True mail functionality is better served on PDAs
Our strategy for wireless

- In June 2000 we set out a strategy based on two assumptions
  - Consumer adoption of wireless data services would be slow
  - Enterprise applications might have a positive effect on productivity and customer experience

- We set out on a course
  - Support limited, low-cost pilots of consumer services
    - Q&R wireless trading
    - Wireless HomeLink
  - Experiment with enterprise connectivity in two areas
    - Wireless access to email and other PC productivity tools: RIM, Palm
    - Wireless sales support tools: Celeris, Leasing
One Approach: In-House Solution

- We developed a text-based interface for wireless PDAs to HomeLink, Fleet’s existing Online Banking application.
- Chance to learn/gain wireless experience
  - Limited initial release (PDAs using the Palm OS) allows us to gage customer adoption rate of wireless technology.
- Lowest Cost
  - Developed for under $100,000 (internal salaries & security audits) versus potential project cost over $2 million for outsourced solution.
- Short development cycle
  - Developed/tested Palm OS interface in 3 months.
- Eliminated risk of unstable vendor environment.
Our Experience: Homelink

- Customers have been slow to adopt
  - Total number of customers to download the Palm PQA for HomeLink exceeded our limited expectations. However, average monthly usage is low and falling.
  - Brokerage launched in Spring 2000 but discontinued the trading service last month.
    - Very few (<7% of original enrollments) customers were active in January 2002.
    - Even fewer (<3% of original wireless volume) orders were placed since its launch in 2000.

- Active wireless HomeLink customers do like the application
  - They login an average of 3.3 time per month
  - 22% perform an average of 1.9 transfers per month
  - 16% perform an average of 2.9 Bill Pays per month
Our Experience – Q&R

- Description
  - Partnered with vendor to build wireless application, which launched in April 2000
  - Allowed clients to place trades or view their balances and positions with their wireless devices

- Lack of adoption
- High expense to support the system
- Vendor related problems

- Still provide Alerts Center which allows users to receive Market, Price, and Portfolio alert by receiving email or wireless alerts in either HTML or text format.
Conclusions

- ROI can work if $I$ is kept small
- US adoption is likely to be slower than in the rest of the industrialized world
- Adoption overall has been overestimated