

MOBILE INTERNET, Internet Evolution or Mobile Revolution?



by Lam Nguyen

The "Mobile Internet" has become one of the hottest topics in the popular media and among technology industry insiders. What is "Mobile Internet," "Mobile Data," "Wireless Internet," or whatever we call the thing that happens when the Internet as we know it collides with the world of mobile telephony?.

Is it a revolution that has suddenly launched European mobile operators into a position of power and propelled wireless equities into the premier positions enjoyed by Internet stocks? Or is it just the logical evolution of the fixed Internet beyond its former 56kbps limits into broadband and the airwaves?

For at least a year, the industry has been tossing around futuristic visions of phone-paid parking meters and remotely controlled ovens, not to mention omniscient virtual concierges who know where you are and what kinds of food you like to eat. Even though the reality of Mobile Internet is more prosaic, the spectacular success (an average of 250K new users each week for the last 4 weeks) of Japanese operator NTT DoCoMo's i-mode Mobile Internet service indicates that there is sizeable demand for such services.

What is the Mobile Internet?

If we want to understand the Mobile Internet and how it will evolve, we need to look at its two component parts. Two of the most influential technological developments in the past five years have been exactly these: the

spread of the Internet and mobile telephony. (See Figure 1) However, the explosions of fixed Internet and mobile telephony in North America and Western Europe respectively have been more or less isolated from each other, creating two divergent habits of data and mobility usage.

The convergence of these two worlds will ultimately revolutionise the way people work and communicate with each other, but until then, the world of mobile Internet will suffer a period of schizophrenia during which people and services approach the converged mobile Internet from two very different directions and with different expectations: Is it Mobile? Is it Internet?

Is it the Internet?

North American users and service providers have built up expectations that Mobile Internet will provide a user experience similar to Fixed Internet. Sprint's decision to call its Mobile Internet service "Wireless Web" is a manifestation of these expectations.

This Netcentricity can be traced back to two key factors. On the one hand is a well-developed fixed infrastructure with ample broadband access potential (cable, DSL, etc). Within this is also a flat-rate pricing structure for local calls and cable access which lends itself to high-volume usage. US cable penetration is at 67%, compared with a European average of under 30%. On the other hand is a market in which the price of relatively high-performance PCs has been low enough to stimulate household penetration to an unequalled 61%. Given high expectations for a mobile Internet offer that would replicate the fixed Internet experience, Mobile Internet as it exists today is an alien product for most North Americans. USA Today took a swipe at the fledgling Sprint Wireless Web, writing, "The screens stink. The access is slow. The offerings are meagre. You have to work your way through menu hell to find things. And all that can be yours if you pay the cellular provider quite a lot of money in access charges." Business Week commented: "Web to go - sort of. Today's Net phones are O.K. for e-mail, but surfing is a chore." Rarely is there any acknowledgement of the possibility that the Mobile Internet simply isn't for surfing.

THE INTERNET VALUE CHAIN — TWO DIFFERENT MODELS

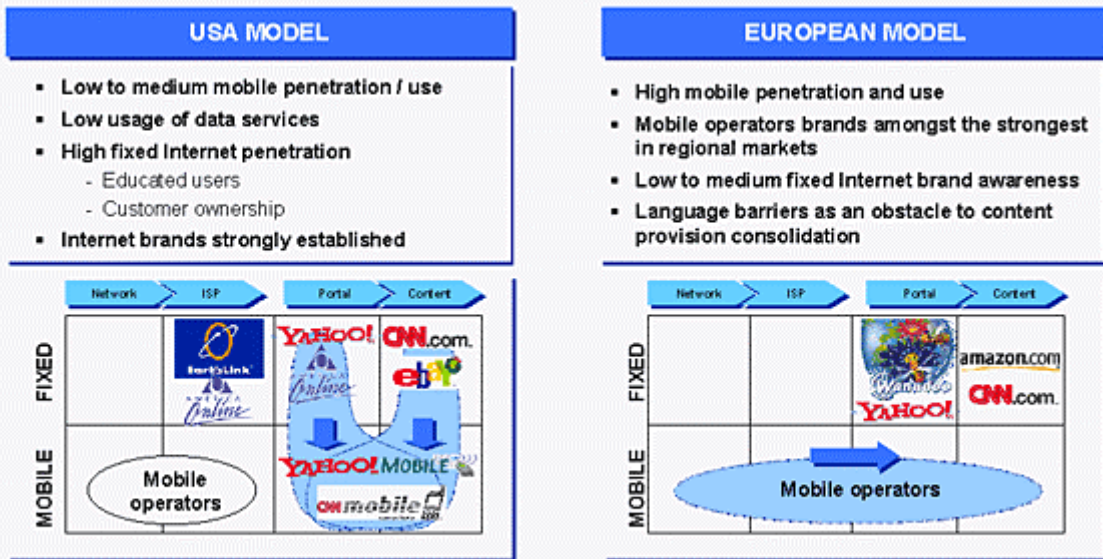


Figure 2

Key Success Factors

Whichever market Mobile Internet service providers are addressing, and wherever they are from, there are a few standard things they all need to do. As the worlds of fixed Internet and mobile telephony converge towards true Mobile Internet, there are some key success factors service providers need to consider. They include:

1) Understand, create and address demand (product development and marketing)

2) Make Money

3) Remove potential bottlenecks and adoption barriers

When Mobile Internet providers go to design and market their services, the most important thing to understand is how the user market segments break down. Although there are obvious user need differences on a geographical basis, it is dangerous to segment this yet immature market simply along a geographical axis. This would be oversimplistic and would preserve the market's current fragmentation against the natural trend towards convergence.

DATA VS. MOBILITY NEEDS MATRIX

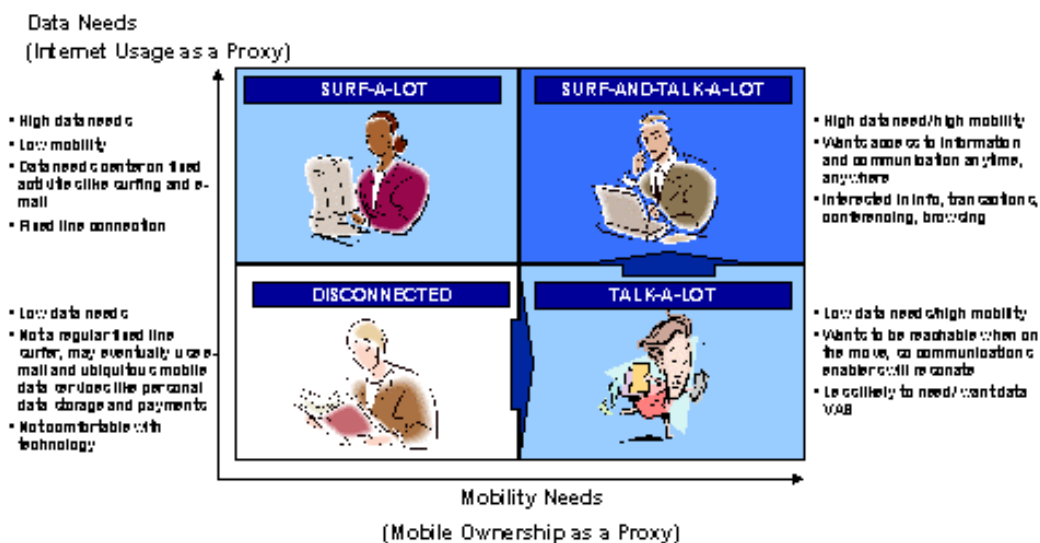


Figure 3

Understanding and Addressing Demand

When we look at the market in terms of a matrix (see Figure 3), with mobility needs on one axis and complexity of data needs along another axis, the key axis for prioritising addressable markets is actually mobility, and not depth or complexity of data needs. In other words, it is less likely that an avid Internet surfer with little or no mobility needs will need or believe in a need for Mobile Internet, at least in the early stages. This is the segment who will not enter the market until Mobile Internet becomes ubiquitous, playing a part in almost every aspect of our lives through telematic or payment agent applications, or as a repository of other personal data (medical information, gym memberships, etc.). They represent the new demand segment, who won't participate in Mobile Internet because they need to be mobile, but simply because Mobile Internet may become a near-default way of handling everyday transactions, whether commercial or personal. But how can Mobile Internet service providers address the current demand? This is where the second axis comes in: depth and complexity of data needs. From Figure 3 above, according to the mobility axis, the target segments are the "Talk-A-Lots" and the "Surf and Talk-A-Lots." We can further refine this segmentation if we return again to our somewhat crude geographical segmentation and make the following generalisations: North American demand is characterised by a need for ubiquity of personal data (agendas, email, address books) which until now has not included a dimension of mobility (although this is quickly changing), while European demand revolves around mobility.

Early developments support these generalisations: on the one hand, in North America, heavy-hitting Internet players like AOL and Yahoo! are trying to duplicate their dominance in the new world of mobile services, while in Europe and Japan, mobile operators are trying to extend

their control over current subscribers who are already heavy users of SMS services (messaging, push-type alerts, banking applications). Simply because North American users want and expect Mobile Internet to be Wireless Internet doesn't mean that this is all service providers should focus on developing for the North American market. It does mean that strong players in the fixed Internet world who wish to maintain their relevancy for the future need to make moves toward mobile, as Yahoo! and AOL have already done. In the longer run, and for the bigger picture, North American users will need careful education about the value of Mobile Internet services beyond the Wireless Internet.

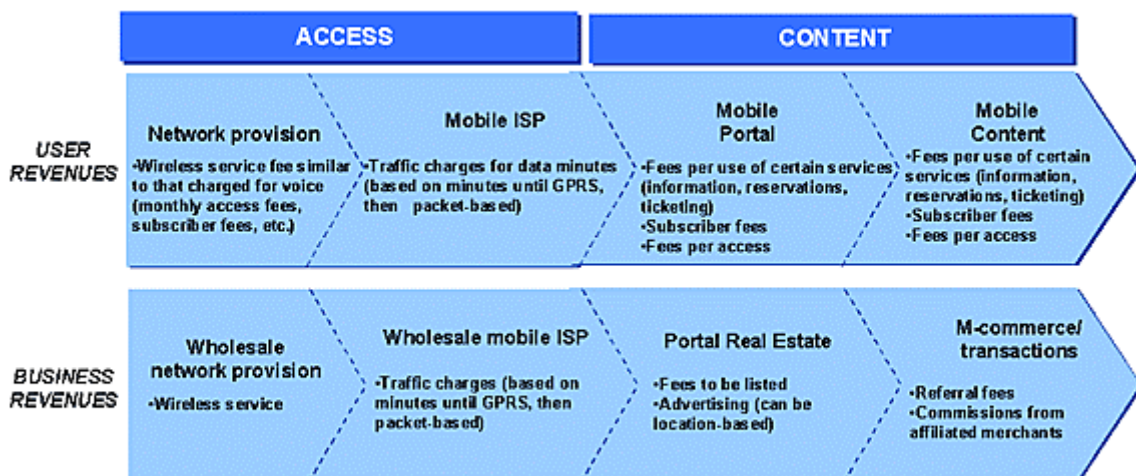
Interestingly enough, if creating services is mobile-centric (operating more along the mobile axis than the data/Internet axis), service providers can learn a few lessons from the way the Internet has been marketed in the US and in Europe. The biggest challenge is how to attract new users, users who probably have never had a phone, and may have never used the Internet. Here, we can take a page from AOL's book: be simple, hide the technology. Despite the scorn of the Internet-savvy, AOL's ultra-friendly Internet service has surpassed 23 million subscribers, hardly a feat to scoff at.

Making Money

Mobile Internet services represent a unique opportunity for Internet companies and mobile operators to realise new sources of revenue. For the first time in a long while, content and access providers will have opportunities to break into the other's share of revenue without having to create separate businesses. They are also faced with an opportunity only barely explored in fixed Internet-making money for content. (See Figure 4) But for both content and access providers, defining the business model remains a major obstacle.

SOURCES OF REVENUE — PRICING MODELS

ILLUSTRATIVE



Source: DiamondCluster International

Figure 4

Despite the exciting new sources of revenue Mobile Internet opens up, as shown in Figure 4, service providers need to be careful about user reactions, especially in North America and among seasoned Internet users. Internet users all over the world are used to getting free content, and may initially rebel at the thought of having to pay for apparently inferior access to content which has always been free. In North America in particular, usage of mobile voice services has been depressed because of the difference in pricing models between fixed and mobile voice: accustomed to paying a flat monthly fee for unlimited local calls, the concept of paying per minute to do the same on a mobile has not been easy to swallow. Between these two considerations, and a growing general perception that Mobile Internet is just another way for operators to squeeze users, pricing structures and models will need to be considered very carefully.

Making Sure Subscribers Can Subscribe

Maybe the biggest obstacle for Mobile Internet service providers is distribution, from physical distribution of handsets to negotiating content deals with carriers. For all the subscriber excitement, the ultimate determinant of whether this demand will or can be satisfied still seems to rest with the equipment manufacturers. Recent supplier problems with meeting market demand in Europe does not suggest an optimistic outlook. Nokia has had difficulty meeting aggressive production and delivery schedules of its Mobile Internet-enabled terminals. Groundbreaking operators have found themselves forced to return shipments of faulty, or non-robust Mobile Internet-enabled handsets rushed to market.

The cost of the units to the end user will be a more significant problem than it has been for voice services, simply because WAP handsets cost quite a bit more than voice-only handsets. The issue of handset subsidisation is particularly crucial in North America, where cheap PCs and free Internet access make expensive handsets and per-minute access to an inferior wireless Internet product doubly offensive. Service providers must not only consider distribution of physical equipment, but also the distribution of content to different types of terminals, from Palm personal digital assistants (PDAs) to WAP-enabled mobile handsets. Each of these different terminals requires a different configuration of content, not simply for presentation and layout reasons (although these too are important), but also for actual reception of the content. IDC's heady estimate of 1 billion mobile terminals by 2003 is only applicable to those providers who can address all the form factors.

The most important distribution issue, however, has to do with mobile operators and their position in the value chain. Operators today occupy a privileged position in the Mobile Internet value chain, the likes of which only

existed in the world of Fixed Internet back in the days when AOL and Prodigy were no more than Bulletin Board Systems. Then, as now in the Mobile Internet, users dialled in directly to proprietary content wholly controlled by the service provider. Because of this, the service providers controlled every bit of the user's experience, and were able to leverage this for revenue-generating purposes.

In the early stages of the Mobile Internet, mobile operators will have a similar stranglehold on mobile content, and especially on that crucial piece of real estate, the mobile portal. Even though most operators have decided to allow their WAP gateways to be open, i.e. allowing users to access any WAP sites they wish, interface limitations and a lack of a functional WAP search engine will severely restrict extra-portal activity. Therefore, to gain a space on the operator's portal is of utmost importance. Mobile operators have seen enough of how the fixed Internet works to know that control of a user's homepage can be worth quite a lot, especially when what they fear most comes to pass, the commoditization of data access. Even on the fixed Internet, less than 15% of European Internet users change their home pages, guaranteeing mobile operators a virtual monopoly of control over their users if they can maintain control of the portal. So far, attempts to bypass the operator portals and hardwire content into the handsets themselves have met with little success. Early moves by Nokia to line up some well-known content providers met with such operator resistance that Nokia hastily backed down. These early defeats can only mean that there will be better attempts at a later stage. The determination of content providers to get around the delivery bottleneck issue points to the importance of a successful distribution strategy.

Conclusion

It is clear that the world of Mobile Internet is not simply an advanced stage of Internet evolution, but rather an entirely new world shaped by mobility. Taking the fixed Internet "to go" for North Americans and extending the functionality of the mobile handset for Europeans will offer a degree of success in the near term by offering users the services they expect to see, but do not truly leverage the unique and revolutionary qualities of Mobile Internet. If the Mobile Internet is allowed to flourish, and the new-breed pure-play Mobile Internet players of tomorrow are allowed to rise amongst the online giants and behemoth operators of today, there will come a day when it is such a part of daily life that it will become invisible.

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