

Managing Mobility

BY REBECCA MACDONALD

As broadband and mobile technologies converge, providers focus on delivering a seamless customer experience



There's no question that today's consumers love mobility. The proliferation of "take it with you devices," which began with the notebook computer and has grown to include PDAs, smart phones, MP3 players, portable gaming devices and DVD players, has exploded and shows no sign of slowing anytime soon. Kids spend long car trips watching their favorite DVDs or playing games. Business travelers listen to music on their iPods and work on laptops in airports, hotel lobbies and restaurants. But without question, the most popular "don't leave home without it" mobile device worldwide is the cell phone.

According to research from Wireless Intelligence, a venture between Ovum and the GSM Association, the total number of cellular connections in the world reached 2.5 billion in September 2006, having passed the 2 billion mark just 12 months prior. "The cellular industry took 20 years to reach 1 billion connections, three years to reach 2 billion connections and is on target to reach its third billion in a period of just over two years," says Martin Garner, director of Wireless Intelligence. "Worldwide growth is currently running at over 40 million new connections per month—the highest volume of growth the market has ever seen."

That's not news to telcos. In addition to rolling out IP-based services such as high-speed Internet, IPTV and VoIP to make up for declining revenues in their traditional landline businesses, providers have been merging with wireless companies to capitalize on the market frenzy. Virtually every major telco in the world today has a wireless division. In North America, AT&T owns Cingular Wireless, and Verizon created Verizon Wireless, a joint venture with Vodaphone. In Europe, BT, Orange and Deutsch Telekom all have both broadband and wireless businesses.

Inevitably, these two formerly distinct markets have been moving toward convergence—generally defined

as the ability of mobile handsets to use both a broadband connection as well as a cellular network, referred to as fixed mobile convergence, or FMC. According to research firm IDC, there will be nearly 47 million fixed mobile convergence (FMC) users worldwide by 2010, accounting for \$24 billion in end user revenues. In addition, In-Stat forecasts that more than 200 million Wi-Fi/mobile handsets will have shipped by 2010.

The potential benefits to consumers of these technologies converging fall into two categories. First, FMC will give consumers the ability to use a single phone for both landline and mobile calls. For example, a subscriber who initiates a call at home using her broadband phone service could leave the house, get in her car and drive to another location, without interrupting the call. Additional benefits of this capability include a single voicemail, bill and one set of contacts to maintain. This desire for simplicity is a powerful motivator. A recent research study conducted by ORC International in the UK revealed that consumers are willing to switch their mobile and/or their Internet service provider in order to move to a supplier offering a fixed-mobile convergence (FMC) service. According to the study, more than 40 percent of the 500 consumers interviewed would be prepared to change their broadband provider in order to get a FMC service, and roughly the same percentage would move to a new mobile provider.

The other benefit is that higher bandwidth wireless broadband networks, such as Wi-Fi and WiMAX, enable data applications such as video to be delivered to the mobile handset. However, the market has yet to prove that consumers are willing to pay a premium for these services.

Global Convergence Trends

In Europe, the move toward FMC offerings is already well underway. One company that has been leading the

charge is UK-based BT, a global communications service provider focused on building a “new wave” of business based upon networked IT services, broadband and mobility. For BT, this next-generation strategy is more than just vision—the company claims that this portion of its business grew by almost 40 percent last year and now represents a third of its revenue, at more than £6 billion annually. In 2005, BT introduced BT Fusion, a service that combines the flexibility of a mobile device with the quality and price advantages of a landline phone. The current generation of Fusion phones use Bluetooth technology, and a Wi-Fi variant is also on the way.

“We know that many of our customers enjoy the convenience of their mobile phones when they’re out and about, but switch to using a landline phone when they arrive back home to save money or because they have little or no mobile coverage,” said Ian Livingston, CEO for BT Retail. “We’re now delivering a service that allows our customers to benefit from BT’s great value landline rates with guaranteed coverage at home. You can even set the handset to work at more than one location.”

Once the Wi-Fi version is available, BT Fusion customers will be able to make calls and access the Internet at one of BT’s 8,500 “hotspots” across the UK and Ireland, and more than 30,000 globally. BT has also announced agreements with six cities to become wireless pioneers as part of its plans to create a first phase of 12 Wireless Cities across the UK. People in Birmingham, Edinburgh, Leeds, Liverpool, Cardiff and Westminster will benefit from huge wireless networks, giving them access to information and services.

Orange, the communications brand owned by France Telecom, also recently launched a converged service called “Unique Phone.” Customers get unlimited free calls at home to Orange mobile handsets and landlines, and can choose from three handsets:

Motorola, Nokia and Samsung. Didier Lombard, president and director general of the France Telecom Group, says, “Today, people use the phone in a different way. With broadband, the use of Internet, mobiles, voice-over-IP and high-definition technologies for sound and vision, our communication habits are changing very rapidly. Unique Phone re-invents the telephone by unifying fixed and mobile worlds.”

However, the first to launch a large-scale trial of an FMC service in

According to research firm IDC, there will be nearly 47 million fixed mobile convergence users worldwide by 2010, accounting for \$24 billion in end user revenues.

Europe was the French alternative communications provider Neuf Cegetel. The company says that its TWIN GSM/Wi-Fi hybrid telephone enables subscribers to save between 10 and 30 percent on their mobile phone expenditure, while providing broadband access at speeds of up to 11 Mbps. By pressing the Wi-Fi button, consumers can automatically connect the phone to their Neuf Box (a residential gateway), or to a Neuf Wi-Fi community access point, allowing the subscriber to make calls at the same price as calls from a landline phone. Where there is no Wi-Fi coverage, the TWIN operates as a traditional mobile phone, using a GSM network.

Convergence is taking hold in other parts of the world as well. Korea Telecom’s OnePhone service has succeeded in gaining more than 160,000



customers within months of its commercial launch. In South America, Brasil Telecom has launched Telefone Único, a service that allows customers to receive and make fixed and mobile calls on the same handset when connected to an access point. The access point and handset used in the Telefone Único—the V3 Único—were developed in partnership with Motorola.

In North America, however, providers have been moving much more cautiously. In 2006, T-Mobile became the first and only mobile operator in the U.S. to introduce a dual-mode service that allows users to make cellular and Wi-Fi calls from the same handset. Currently, the T-Mobile HotSpot @Home service is available only in the Seattle area on a trial basis, and costs \$20 more per month on top of a customer's regular cell phone plan. It also requires that customers purchase one of two dual-mode handsets, the Nokia 6136 or the Samsung T709, both \$50 with a two-year contract and a voice plan of \$39.99 per month or more.

What Do Customers Want?

While the vision of FMC is all about delivering simplified services to consumers, the reality of delivering converged services is not quite so simple. For example, just the process of

switching a call between cellular and broadband networks—seamlessly—presents significant challenges. From the industry's point of view, wireless and wireline businesses have traditionally represented separate worlds. Their sales, marketing, operations and billing centers are completely separate. The services run over different networks. Broadband provider strategies have centered on maximizing the throughput of the "pipe" into the home. While wireless networks are used to move content around within the home, the emphasis has been mainly on getting bandwidth to the home with initiatives like fiber to the curb and fiber to the home.

Wireless carriers, on the other hand, are busy packing as many features and services as possible onto the one device that goes everywhere with consumers—the mobile phone. They are more concerned with increasing the bandwidth and reliability of their networks, including new 3G and 4G initiatives, as well as Wi-Fi and Wi-Max.

For the most part, consumers couldn't care less about which network technology wins out, or whether content comes from their broadband provider or from their wireless provider. From the consumer's point of view, it's all about the experience. They just want to make calls and access their information, whenever and wherever it is most convenient at that point in time. Research shows they also want better service for the devices they already own. A quick Google search for "customer service woes" returns more than 2.5 million hits. And in a recent poll, about 85 percent of more than 2,500 Americans surveyed by Harris Interactive said they've become so flustered with customer service "they've ended up swearing, shouting or experiencing chest pains." Slightly more than half responded that not being able to get a live person on the phone was their greatest frustration, and seven out of 10 people polled said representatives

weren't trained adequately.

Fortunately, service providers are listening. According to a Frost and Sullivan survey commissioned by Amdocs of 200 industry decision makers in the telecom, cable and satellite industries, nearly 67 percent of respondents plan to increase their spending on customer service enhancements over the next year, with the average investment increase projected at 31 percent.

Consumers are also tiring of lugging multiple devices around and paying for multiple services to work with those devices. Today's business traveler is typically armed with a laptop, mobile phone and an MP3 player. Every day, consumers have to worry about syncing their mobile phone contacts and calendars with their PCs and landline phones. And if a customer downloads a video onto a PC, they're pretty much stuck watching it there—moving it to the TV is still an exercise only for dedicated technophiles.

What providers must realize is that consumers aren't really asking for more services. For example, you won't hear many consumers say, "What I'd really like is an interactive service that lets me order products I see in an ad with my cell phone!" What consumers do want is simplicity. They want to streamline their digital lives, unburden themselves from multiple devices and make the devices they do own more useful with better, more seamless access to their services and content.

This requires a degree of visibility and control that most providers don't have today. In fact, in a recent report, communications industry analyst firm The Yankee Group asserts that more than 70 percent of FMC-driven initiatives will fail. "Fixed-mobile convergence has clearly emerged as a disruptive trend affecting communication business models, the distribution of content along the value chain and the development of advanced

new service offerings,” said Philip Marshall, vice president of wireless/mobile technologies. “Most FMC solutions will fail—and those that cannot transform their fundamental business models to embrace disruption will be the victims.”

Designing for Simplicity

To help ease the transition, The Fixed-Mobile Convergence Alliance (FMCA) is bringing together a global alliance of telecom operators with the objective of accelerating the development of convergence products and services. Underpinning these efforts are the FMCA’s technical and commercial work streams, which specify common operator wireless-cellular convergence requirements in areas such as converged applications for an enhanced user experience, service capabilities, handsets, network architecture, roaming, access points and gateways, as well as segmented market requirements with in-depth user scenarios. The output of these sessions are the FMCA Product Requirement Definitions (PRD), detailed technical papers centered on key convergence technologies such as Bluetooth, Wi-Fi and SIP (Wi-Fi and WiMAX). “The FMCA’s objective is to abolish the distinction between fixed and mobile for our customers, providing superior wireless services irrespective of the underlying fixed or mobile networks,” says Ryan Jarvis, former FMCA Chairman.

One company that is well-positioned to help operators deliver a seamless experience is Austin-based Motive, Inc. The company, which currently provides broadband and mobile management software for wireline and wireless operators, specializes in making complex technology products and services easy for consumers to use and for providers to manage. For example, BT Retail, a division of BT, has deployed the Motive Home Device Manager™ (HDM) solution to improve the service activation and assurance of BT’s Business and Home

Hub offerings. Motive HDM is integrated into BT services, enabling the company to remotely manage customer premises equipment (CPE) to instantly activate new services such as home networking, VoIP and IPTV.

“Providing good customer service remains our top priority as we roll out new services,” said Stratis Scleparis, chief technology officer for BT Retail. “Motive’s software effectively manages the technological nervous system that makes up a home or business network, while hiding this immense complexity from our customers. This greatly reduces the burden on our customer support operations, and provides our customers with a high-quality, trouble-free digital experience.”

BT plans to use Motive HDM’s intelligent automation to strengthen its next-generation services, including BT Fusion. “Convergence in both customer experience to drive satisfaction and customer management to reduce costs is critical to us as a leading ISP,” said Scleparis. “Motive’s vision of the future in these areas aligns very closely to our own.”

Including BT Retail, more than 14 service providers worldwide have selected Motive HDM to manage their next-generation broadband services. Since it became available in 2005, HDM has emerged the clear winner in the majority of competitive tenders for device management.

“As the competitive broadband market in Europe becomes increasingly saturated, next-generation services are the key for driving new revenue and growth, which is why Motive HDM has seen tremendous uptake,” said Bruno Teuber, vice president of sales, EMEA, APAC and worldwide channels at Motive. “Motive HDM allowed BT Retail to quickly bring a sophisticated new service to market, provide large-scale automated CPE firmware upgrades, and avoid problems that typically plague new service deployments.”

According to Ben Geller, director of industry marketing at Motive, using those same capabilities to help providers manage mobile devices is a logical next step.

“As wireless and wireline technologies continue to converge, the ability to deliver a consistent, seamless customer experience across devices and services is emerging as a key competitive factor for service providers. Motive will offer providers the ability to manage both wireline and wireless services with a unified management platform, tools and interfaces purpose-built for consumers and operations personnel.”

Consumers couldn’t care less about which network technology wins out, or whether content comes from their broadband provider versus content from their wireless provider. From their point of view, it’s all about the experience.

If providers embrace Motive technology for their wireless offerings with the same enthusiasm they have in their wireline markets, that will be good news for the company—estimates from Ovum put the market for mobile device management at nearly \$700 million through 2009.

Of course, the real beneficiaries will be consumers. With fewer devices to tote around and increased investments in customer service, consumers may finally get what they’ve been asking for all along—simplicity. ☺

Rebecca MacDonald is editor of Broadband 2.0 Magazine. She can be reached at editor@broadband2.com.