Pipeline

Knowledge Is Power

No Strings: Managing Emerging Wireless
By Tim Young

It's a big, wide world out there. Communications were once limited to earshot and sight-range. Then they were allowed to travel as far as a cable could stretch. Eventually, they entered the air and became both invisible and pervasive in a way few could have dreamed of before.

The growth of the wireless market is, of course, fueled by two seemingly disparate facets of the communications space. The first facet is composed of the markets in which legacy networks were never rolled out (or were rolled out, but later dug up and sold for scrap), in which wireless has emerged as easier and less expensive to extend, bill for, and even defend than traditional wireline networks. The other facet is at the opposite end of the spectrum, in which users have access to legacy systems, as well as cutting edge video and data, and want to match that user experience on the go. While the first group is a major market in terms of sheer quantity, the ARPU of the latter camp is truly attractive.

Changing Devices

Oh, how the device world has shifted. When the iPhone was introduced, few handsets had committed so fully to touchscreen functionality. Screens were often unwieldy and inaccurate, and it generally just made more sense to go with keypads. Post-iPhone, it seems like every device has a touchscreen. The Blackberry Storm has an entire ad campaign structured around their touchscreen! (And buttons that click! Click, I say!)

However, user interface isn't the only thing that's changing with new devices. User behavior, too, is changing. iPhone users, for example, demonstrate behavior that is fundamentally different from that of the users of traditional handsets when it comes to data consumption. According to a study done by Australian mobile analytics firm Amethon, an average iPhone browsing session consumes an average of six times the data as the average mobile browsing session. In addition, the average page views of the iPhone users were higher than not only other mobile users, but desktop users as well. Visit durations, in addition, were higher on iPhones than on mobiles or desktops.

The study was done over two weeks in August 2008, sampling over 5 million mobile browsing sessions. The study concedes that much of the additional use was likely due to users showing their new gadgets to friends and family members, and the increase in data rate was likely due to streaming video. I'll add that iPhone users (especially early adopters) may include techie types with a natural proclivity for mobile data consumption, only enhanced by their new toy.

However, all caveats aside, the data is substantial.

More handsets are making their way onto the market. HTC and T-Mobile were optimistic that sales of the Android-powered G1 would top a million units by the end of 2008. In addition, Australian store Kogan has announced an unlocked Android-powered smartphone known as the Agora. The phone is bound to shake things up when it is released at the end of this month.

In addition, there is talk of Apple moving into the WiMAX/WiBro space with some sort of device (likely to be a MacBook and/or iPod rather than an iPhone. At first, anyway.). In addition, HTC, maker of the G1, is hoping to have Windows Touch and Android WiMAX devices sometime next year.

New Networks

And what of the state of WiMAX and its South Korean cousin WiBro? While it's clear that WiMAX is a solid option as a last-mile technology in historically underserved areas, it still has a way to go as a wireless technology. In the US market, Sprint WiMAX provider Xohm launched in Baltimore in the end of September. Xohm will, it turns out, be merged with Clearwire, and, as of December 1, 2008, the Sprint and Clearwire projects will be branded as "Clear." The venture has received investments from Time Warner Cable, Intel, Google, and others.

However, is WiMAX doomed to be outmoded in the near future? Dr. Hossein Eslambolchi, former CTO of AT&T and industry visionary, reported in his keynote at TM Forum's Management World Orlando show that wireless internet will become more and more pervasive. However, while Eslambolchi was once hopeful for the promises of WiMAX, he is now convinced that LTE (Long Term Evolution) will win out in the end.

Is he alone in this assumption? Blogger Dean Bubley sees the WiMAX vs. LTE race as actually having three horses in it: WiMAX vs. LTE vs. the Global Economy. Bubley points to the growing number of devices for WiMAX on the horizon, as well as the Xohm/Clear launch, as positives. Meanwhile, he mentions that LTE is being pushed to the side by providers like Verizon and DoCoMo, and is having legal problems over spectrum rights in Europe. However, at this point, even though LTE looks hobbled, WiMAX is doomed to patchiness pending more widespread rollouts, which are likely to also be slowed by the state of the economy.

Clearwire, for its part, has released statements alluding to the "war" between LTE and WiMAX, saying that "Mobile WiMax and LTE have a lot in common. Far more in common in fact then either of these

technologies have with today's 2G and 3G technologies." Furthermore, Clearwire leaves the door open for embracing LTE as it matures, but sticking with WiMAX for now.

Keeping it Running

OSS/BSS professionals probably find it hard to read the above without giving some thought to what new and different services new devices and networks provide, and how those services can be provisioned, maintained, monitored, billed for, etc.

One of the key elements to consider is QoS. Users spending massive amounts of money each month on unlimited voice and data plans are unlikely to tolerate slow 3G network speeds or other problems they may have ignored otherwise. Furthermore, I've heard remarks from people in passing that they really loved their slick new smart phones until they realized that they weren't terribly good phones. Great data receivers. Decent mini-computers. Less-than-stellar for voice calls. That's a problem.

In addition, billing and charging models have to stay agile as companies attempt to dodge economic woes and keep ARPU high. While few consider cell phones a luxury anymore, expensive data plans may be downgraded when it's renewal time as things tighten. Keeping a tight leash on billing mishaps, maintaining positive customer interaction, and keeping billing transparent are all keys to reducing churn.

At the end of the day, the simpler model of wireless communications that pervades much of the world is proof that simple services can be profitable, too, and that services should be agile enough to match demand. With solid OSS/BSS support, advanced wireless services will likely continue to grow and change, even in uncertain times.