

Latin America's wireless transition - learning from others

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In Latin America, mobile phones are popular. Few use wireless Internet. Nevertheless operators are upgrading networks to handle anticipated growth. Closely watching other markets, LA operators avoided unlimited data plans, so once users exceed their plan's limit, service continues, but connection speeds slow down and carriers limit the performance. Since most LA mobile phone users are prepaid, carriers need imaginative ways to lure users into data. Networks with decentralised intelligence help operators gather information to enhance the user experience and facilitate mobile advertising.



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No savvy executive would turn down a chance to peer into the future for a glimpse of what hot products his users will clamour for over the next couple of years. That is especially true in communications, where rapidly evolving technology and shifting consumer moods keep everyone guessing. Happily, there are some corners of the wireless world where players do have access to a crystal ball of sorts, and even if its visions are somewhat murky, helpful guidance is possible.

In Latin America, mobile phones are popular, but the wireless Web is a relative infant. On average, fewer than five per cent of mobile

phone users now subscribe to mobile data services. While most countries have 3G network service, coverage and data traffic are light, but growing. Network operators know that they are on the verge of an explosion in demand for wireless access to YouTube, Facebook, Twitter and countless other Internet-based destinations and understand they must handle the capacity issues unleashed by consumer enthusiasm for smartphones and the mobile Internet.

Worldwide, the wireless data explosion is breathtaking. Wireless analyst Chetan Sharma estimates that mobile data revenues were 26 per cent (US\$220 billion) of 2009 worldwide

mobile revenues. Informa Telecoms & Media predicts that the combination of smartphones and mobile broadband networks will push global wireless industry revenues to exceed US\$1 trillion by 2013.

Latin American operators are moving to expand and upgrade networks to handle anticipated growth and can learn from experience elsewhere the best path to success. One lesson already learned is to avoid offering unlimited data service plans. AT&T, the US carrier that partnered with Apple to introduce the iPhone, saw the stunning sales success that triggered a smartphone boom. But iPhone users and their taste for video

downloads taxed AT&T's wireless network to the point where the carrier had to stop offering unlimited data plans. Other carriers are also abandoning unlimited data plans.

In Latin America, that shouldn't be a problem because nearly all carriers already offer plans that have 'soft limits' on how much capacity a user can use. Whether a plan limits use to 250 megabytes a month or ten gigabytes, once the user exceeds their limit, the service continues, but the carrier slows down connection speeds and limits the performance.

As North American carriers upgrade their 3G networks to fourth generation (4G)/Long-Term Evolution (LTE), their Latin American counterparts are focusing more on expanding their 3G networks and, in some cases, moving to High Speed Packet Access (HSPA+). While there are a few pilot 4G projects in Latin America, few expect commercial rollouts of 4G service until the end of 2012. Latin American carriers have time to plan ahead with an eye toward making their networks smarter. So they can accommodate increased demand when it arrives, in the most economical way possible.

In North America, carriers are learning that the boom in smartphones and the mobile Internet poses a real threat to their central role in the wireless world. People with BlackBerries, Androids and iPhones can become quite enamoured of their handsets and the applications they get from the iStore or Google. Smartphone users often don't think much about their carrier until they suffer a dropped call or other service outage. Thoughtful North American carriers seek to counter this by providing smarter service. Their networks will know the user, their habits and location.

This capability could offer services a person might not even have thought of themselves, something Amazon has done for years in suggesting books or music a user may like. A smartphone might generate a message about a spouse's birthday on the horizon, for instance, when a user walks by a store where they often purchase gifts.

In Latin America, the personalized mobile Internet may take a different twist. Because four out of five Latin American mobile phone users use prepaid plans, carriers need imaginative ways to lure users into data services. One route may lie in partnering with content providers to raise revenue from a source other than the user.

With a user's permission, a content provider might offer advertisements along with streaming video or social network sites. Revenue from those ads could supplement what the user himself pays for data services. It is a long way before this alternate business plan becomes a reality, but it's something most Latin American network operators are thinking of. So they need to raise their priority for upgrading their networks to become as smart as possible. If operators don't develop networks with decentralized intelligence that combine information about content and context to enhance the user experience and open a mobile advertising market, someone else will.

Latin Americans already have access to iPhones, and Apple's fascinating gadgets are likely to grow more popular. In launching its iPad in North America this summer, Apple updated its privacy policies on collecting user location data. It was a move aimed at enhancing location-based service applications and also seen as part of Apple's move into mobile advertising.

As users carry their iPhones or iPads past a Starbucks or a Pizza Hut, it's likely their device will offer coupons for a free latte or slice of cheese and pepperoni to entice them into the store. Carriers with smart networks that enable such targeted marketing can expect to get some revenue, but if the transaction uses a network that is little more than a 'dumb pipe', the carrier may be left out of the revenue-sharing equation.

By giving applications developers network intelligence about who the user is, what kind of handheld device is being used, where the user is located, and so on, the carrier not only enhances the user experience, but also opens the market to more players. That gives consumers more choices and also assures the network operator a primary role in wireless service. Research by Nielsen earlier this year found that while using most wireless applications, users are largely indifferent to the applications' origins; they embrace those supplied by Google, Apple or Microsoft as readily as those offered by a wireless network operator.

Carriers have little choice but to add capacity to their networks as their users demand it, but how they upgrade their networks may play a huge part in how successful they will be a few years hence. These aren't decisions that one can postpone. In Latin America many network operators already find that backhaul

has become a bottleneck even though increased capacity demands spawned by the wireless Internet are still fairly light. Many who once got by on four or eight megabytes of backhaul capacity are upgrading to 45 megabytes.

Because they also want to offer policy control systems to users, many Latin carriers include deep packet inspection in their upgrades to the packet core network.

Converting from a network designed to handle voice traffic and SMS to one that can accommodate YouTube, Hulu and Facebook requires a flatter hierarchical structure. This not only enables the carrier to provide sufficient bandwidth economically, but enhances the quality of the user's experience. Packet networks, especially Carrier Ethernet networks, can scale to a high bandwidth economically. They handle the bursty nature of data traffic while still accommodating voice traffic.

In North America, data traffic already exceeds voice traffic on wireless networks, and Latin America is essentially travelling down the same road. Operators in Brazil are bracing for a tenfold increase in data traffic over the next two years.

One factor that could accelerate wireless Web popularity among Latin Americans is that in many areas fixed Internet has either poor coverage, high prices or low performance. In some countries, such as Uruguay, it is estimated that as many as 90 per cent of wireless broadband subscribers use data cards or dongles, which is a testimony to the mobile Internet.

Latin American business people have already perceived the competitive advantage in using wireless connections to stay in touch with colleagues as they travel. Enabling people located in physically separated locations to freely collaborate and improve efficiency should become very popular with Latin American Managers.

While challenges facing Latin American wireless operators are somewhat different from those of their neighbours in other parts of the world, many of the opportunities presented by the smartphone/wireless broadband boom are similar. Latin American wireless executives may benefit by their colleagues' experience elsewhere. ●