M2M: Bonanza for Network Operators?

By
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Are machine-to-machine (M2M) technologies and applications finally getting the attention and respect they deserve? Over the past few CTIA shows the amount of exhibition floor space dedicated to M2M has been steadily rising. So have the number and sophistication of M2M products and services being offered. But in the past it seemed that many in the wireless industry weren't paying much attention, and that's understandable; classic M2M applications like asset tracking just don't have the glamour and excitement of, say, the glitzy competition among smartphone providers.

This year, however, veteran CTIA show attendees may find it hard to resist spending some time in the M2M Pavilion. The attraction is found in some recent market studies that point to spectacular growth in M2M revenues over the next few years. For example, in a study released late last year the UK-based market analysis firm Machina Research predicts that global M2M revenues will reach $1.2 *trillion* by 2022.

Even if this prediction proves to be wildly optimistic, it is clear that M2M is going to be a very big business. But it is by no means certain that today's wireless network service providers will be able to cash in. The Machina Research study also predicts that only about a third of total M2M revenues will go to service providers, and of that only a paltry $9 billion will be for basic cellular connectivity. The bulk of service revenues will go to providers of the various industrial and consumer services that M2M enables. What's worse, that $9 billion will be spread over 2.6 billion M2M connections in cellular networks, which translates to a measly annual revenue of about $3.46 per connection

If the Machina Research study is to be believed, the M2M industry will become a global behemoth over the next few years, but wireless network operators will need to do much more than simply provide connectivity if they want to be major players. The big question is, where can they most effectively apply their talents and investments to earn a bigger slice of the growing M2M pie? The M2M field is growing and changing so rapidly that there are no obvious answers, but there do appear to be a couple of current clues.

First, one of the biggest growth areas anticipated for M2M is in the "smart home," with appliances that talk to one another, heating and cooling optimized for efficiency, and improved

security systems. Wireless communications for the smart home will most likely use Wi-Fi, Zigbee, or some other unlicensed short range technology, but I suspect that one of the biggest consumer attractions will be the ability to remotely monitor and control smart home functions. That's where network operators can make substantial inroads. Most obviously, they can provide devices that enable interconnection between the home and cellular networks. Then, of course, users will need applications for their smartphones that give them access and control over their home networks. At last, the vacationing family won't have to worry about whether they left the oven on! In fact, remote smart home management is but one example of a potentially huge subset of M2M apps – "machine to human" if you will – that could readily be provided through a smartphone.

Another area where savvy network operators might be able to bolster their M2M revenues is provision of enterprise solutions. "Smart cars," for example, will provide a growing number of features and functions enabled by M2M connectivity. Think On-Star on steroids. But that connectivity will have to be provided everywhere, and car manufacturers don't want to have to equip every vehicle with multi-band, multi technology devices to use LTE in big cities and 2G SMS in rural areas. The several nationwide network operators should be able to develop cost-effective solutions, perhaps with more sophisticated smart car communications being provided through the driver's smartphone.

One way or another, the potential of M2M is simply too big for wireless network operators to ignore, but capitalizing on that potential will require proactive innovation and commitment of resources. We'll see if interest turns into action.