

LTE Emerges

By Tim Young

LTE: Long Term Evolution. The name, itself, is evocative of a movement within the industry that is faraway, and perhaps a bit nebulous. It seems, at first glance, to be yet another buzzword indicating a quixotic goal for an industry that cannot keep up with its own marketing campaigns.

That perception, however, is a false one. LTE is not a pie-in-the-sky formula for tomorrow's mobile services. It's a tangible goal for tomorrow that, in some areas, is here today.

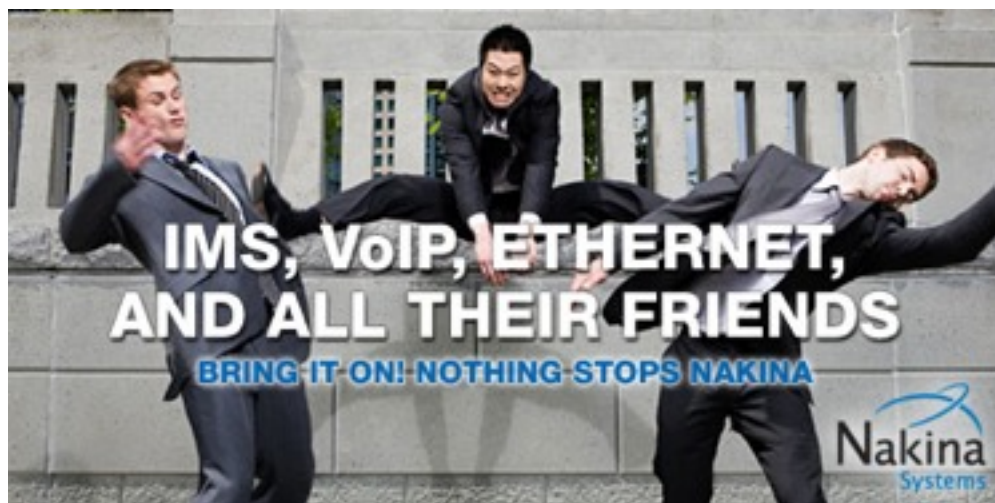
And why not? LTE offers myriad benefits for operators. It promises more efficient use of bandwidth, which is welcome news for heavily taxed networks, carrying far more data than ever



That's no small order, but it's one that LTE is capable of delivering on in a way that previous mobile technologies have been largely unable to.

And how far off is this technology?

With announcements late last month that TeliaSonera has unveiled the first active 4G LTE



before. It offers greater flexibility, which can help improve time-to-market for new services. It offers an opportunity for operators to meet the needs and wants of their consumers, who roundly demand more services with greater speed and reliability than ever before.

network (in Scandinavia), LTE became very much a technology for today, as well as for tomorrow.

For those carriers who have not begun live LTE deployments, the technology is still just around the corner. However, they're working at breakneck

speed to be the next past the post with a live LTE deployment.

NTT DoCoMo has begun work on its LTE infrastructure, and hope to offer data services across it by the end of 2010. The Japanese giant skipped over HSPA+ as an interim measure, forging ahead towards LTE.

Meanwhile, DoCoMo competitor Softbank announced that it will lean on WiFi as a complement to LTE as it turns to every outlet available to satisfy user demand for data.

In North America, AT&T announced that it, like DoCoMo, would skip over HSPA+ and plunge headlong towards LTE, hoping to have LTE in place in a meaningful way by 2011. Verizon aims to have LTE offerings in place somewhat sooner, hoping to

Many other providers (Telus, KDDI, Vodafone, Orange, etc) have spoken out about their commitment to the technology, as well.

When can we expect it to be widespread? Perhaps not in 2010. While TeliaSonera was able to pull the trigger on LTE before the 2009 calendar ran out, and many other providers hope to get something tangible off the ground by the end of 2010, it will likely be 2011 before the technology becomes widespread, in earnest.

Part of the delay, according to TM Forum President Martin Creaner at Management World-Americas 2009, has to do with operators looking for some sort of standardization from the LTE community in the next 6-9 months.

Challenges



Let us **accelerate** your time to market

ASK CONCEPTWAVE ABOUT ...

- multi-play orders
- exception order handling
- centralized dynamic catalog
- processing millions of orders

www.conceptwave.com

Empowering Service Orders
Proven, high performance order and catalog management solutions.

make it commercially available next year.

T-Mobile, meanwhile, is still working on its HSPA+ offerings, but, as it was one of the very first providers to demonstrate LTE well over a year ago, is still very much committed to the technology as its choice for 4G offerings.

The challenges that LTE brings with it are many, and there are many ways in which the OSS/BSS set must aid the consumer.

In his BSS Report this month, our own Ed Finegold reports that billing systems are ready for LTE and are waiting for the technology to catch up. However, Finegold, citing sources at Intec, reports that policy management is not quite so ready for

prime-time. That's one area in which carriers need to coordinate with BSS vendors to step up their game.

Other challenges abound. With LTE comes an increase in the overall complexity of the devices that consumers use on a day-to-day basis. That, after all, is the whole point of LTE: To enable users to access unparalleled services wherever they go.

However, the increase in complexity will be a challenge that device management solutions in the IT space will have to scramble to compensate for. To the extent that the automation of the configuration and management of these devices is possible, it should, of course, be pursued. However, end-users have a knack for painting themselves into corners in attempting to troubleshoot problems with their devices, and greater complexity brings with it a greater likelihood for device management mishaps.

In addition, LTE brings with it the challenges of a mixed network design. While new network elements are being bought into the fold with new technologies, the existing network must be considered, as well. It's up to the OSS providers to ensure that the new generation of network elements is taken care of while the legacy network that will still handle much of the bandwidth across the network landscape is incorporated into the overall picture, as well.

Furthermore, the issue of network capacity (as highlighted in an article appearing elsewhere in this month's issue) remains a formidable one. LTE deployments aid the network in being more efficient, but still encourage an overall increase in the volume of bandwidth being consumed by subscribers. That's an area in which the OSS/BSS community must aid providers in meeting demand.

As we enter 2010, we do so with the promise of a new technological juggernaut just in the distance.

TeliaSonera has fostered its first rays breaking the horizon, but there's still a massive amount about LTE that has yet to be revealed. Will it live up to its promise?

We'll see, as Long Term Evolution continues to evolve.