



## Experts: GPS alone just won't cut it for location-based cell phone services

By **Jacqueline Emigh**

January 13, 2009, 2:06 PM

**Location-based services (LBS) -- delivered to people on cell phones depending on where they're situated at the moment -- are now on the way to becoming more commonplace.**

Yet GPS -- a technology sometimes viewed as just about synonymous with LBS -- just won't be enough, by itself, to make LBS work, according to some of the movers and shakers in the nascent industry.

What are location-based services, anyway? During an LBS forum at CES on Sunday night, Martin Feuerstein, CTO of Polaris Wireless, gave two examples of LBS in Japan, where the services have been around longer. In one of those applications, Domino's Pizza is using NTT Docomo's wireless network to send out discount coupons to people in the local area.

In another service, Japanese train riders are being awakened by their phones when they reach their stops.

Also that afternoon, Napster CEO Brad Ducea told attendees that his company, recently bought out by Best Buy, is exploring LBS implementations such as identifying when customers come in to the store and then electronically conveying alerts about music for sale in the store and concerts in the local area, based on user preferences.

According to the Gartner analyst group, the number of people around the world getting LBS services will skyrocket from 43 million this year to well over 300 million in 2011. This according to another speaker on Sunday, Marwan Jabri, who is the CTO of Dilithium, a company that produces a protocol stack designed to safeguard service-level quality on otherwise "error-prone mobile networks."

The LBS experts agreed that hybrid technology -- utilizing GPS as well as other location-oriented technologies -- will be required for LBS services to really hit their respective marks.

At this point in time, only about 5 percent of cell phones in use are GPS-enabled, anyway. Many legacy cell phones are still around, meaning that LBS services need to be developed which support older Cell ID technology, too, Feuerstein said.

GPS first rose to fame as a way of guiding US troops and weaponry through the deserts of the Middle East, noted Todd Young, VP of marketing for Rosom Corp.

But although GPS might work fine outdoors, a lot of LBS services will be delivered to people in shopping malls and other indoor environments -- or even in subterranean subways, suggested Polaris' Feuerstein.

Feuerstein said that Polaris uses a pattern-match technology called Wireless Location Signatures (WLS) which compares neighbor cell phone strengths and other network measurements against a geo-referenced database that models the radio environment. The system then tries to identify the best pattern match to get an accurate fix on the location of a mobile phone.

"GPS doesn't work well everywhere," concurred David Reid, director of business development for SiRF Technology. SiRF offers a technology called SiRFDirect which integrates GPS with the company's "Dead Reckoning" navigation sensors.

Technical problems associated with getting messages to targeted cell phones will only be intensified when mobile video becomes more widespread, contended Rosom's Young.

GPS becomes less effective "as you move away from high strength [TV] signals," according to Young.

Rosom has been developing femtocell-based "TV-positioning" technology for use in LBS services such as ad-supported video broadcasts and geo-targeted emergency alerts.

[http://www.betanews.com/article/Experts\\_GPS\\_alone\\_just\\_wont\\_cut\\_it\\_for\\_locationbased\\_cell\\_phone\\_services/1231873596](http://www.betanews.com/article/Experts_GPS_alone_just_wont_cut_it_for_locationbased_cell_phone_services/1231873596)