

Is BlueSky's GPS-SIM card ready for prime time?



At the SIMposium, a SIM card industry event last week in Berlin, a start-up called BlueSky Positioning announced an Assisted GPS module that can be fully embedded into a SIM card. The invention made the headlines of the high tech press from Red Herring to The Register and was met by a subtle mix of enthusiasm and skepticism.

Having in mind the size of a SIM card this technology looks like a real breakthrough. Interviewed by GPS Business News, BlueSky Positioning CEO, Risto Savolainen, said: "We have resolved the key technical challenges of putting a GPS in a SIM card: dimension, antenna and power consumption".

Dimension is of course an issue but with the current miniaturization of the silicon this is probably the easiest part in this new technology. However, cramming the antenna into a SIM card normally placed under the metal of the battery looks like a greater challenge. For Timothy Lorello, chief marketing officer at TeleCommunication Systems, a US LBS company: "In our experience the antenna is the trickiest part in the GPS technology. If they really have solved the antenna issue then it is going to be a great product".

It seems that BlueSky Positioning solved this key issue. According to the European Patent Office the company was recently granted a patent for an innovative antenna that provides a way to receive the signal even in proximity to metal elements by using insulators to distance the antenna « electronically from the metal parts ». And Risto Savolainen to add: "there is more than that" on the antenna technology; and "we have also developed intellectual property with our proprietary power consumption technology".

Bob Reynard, CTO of TeleNav and one of the Global Positioning System designers wrote to us in an email: "The technological achievement of adding GPS into a SIM card is impressive. But, before it will be useful to end users, the mobile handset OEMs will need to provide software pathways to the SIM that allow an application to extract the GPS fix data from it ... and perhaps also to provide aiding for it to expedite its acquiring GPS and obtaining a fix."

This is definitely a complex and challenging task to implement a GPS in such a difficult environment, but BlueSky Positioning expects the sensitivity of its module to be around -155 dBm, in the range of the GPS chips on the market today.

A market for GPS SIMs?

This invention is definitely a technological breakthrough but does it mean a great business case? "Our primary application will be E112 for locating handsets doing emergency calls in Europe, and then there will be other vertical applications such as navigation, gaming, etc.", said Risto Savolainen.

According to BlueSky's marketing literature: "following publication of a significantly strengthened EU directive, expected later this year, EU member countries will have just 18 months to implement a law requiring operators to identify the precise location of callers to the E-112 emergency services, potentially to

an accuracy level of just a few metres". If this is really happening this would mean wireless operators have to basically replace all the non-GPS existing phones; definitely a huge market for BlueSky Positioning since its module would offer the same benefit at a tiny fraction of the cost of a new handset. "The cost of our module will be the same or less than other GPS manufacturers these days: below €5" said BlueSky's CEO; therefore a no-brainer solution for the operators.

Nevertheless, BlueSky does not intend to sell directly to the operators, instead its strategy is to sell its module to the SIM manufacturers that have relationships with the wireless operators. This is certainly the right approach because the SIM card is a cutthroat market where prices are dropping, especially for the low end SIM cards. SIM manufacturers are desperately in need of value added features to maintain or increase their prices.

But market experts are not that convinced about E 112 being a real threat to the operators. Lewis Boore, vice president marketing at Nemerix, a European GPS semiconductor company, commented: "E112 implementation will take some times, probably longer than what we are hearing now". And Timothy Lorello added: "The E112 mandate in Europe is not as coercive as in the US. In Europe if the operators deploy a positioning technology they have to make it available for E112, that's it, nothing more. So I don't think E112 will be the main driver for the BlueSky Positioning technology; I would rather think the consumer applications will drive the demand for GPS-enabled SIMs"



Time to market

"Our target is to have our product on the market in the first quarter of 2008", said Risto Savolainen. Indeed, even if the company developed a first prototype and is now working on a second one, there is still a lot of work to be done and BlueSky is less than 10 people. For Steve Andler, vice president of marketing at the US LBS company Networks in Motion, this time to market is not optimum: "While this is interesting, the chances for wide deployment are small, as few carriers would take the time to retrofit phones in the field with new firmware and certification. Many GSM carriers are moving their feature phones to chipsets that include GPS; by the time this product is ready to go into production, it may be too late to catch the wave of integrated devices".

Of course the success of this GPS SIM will depend on the operators, but ultimately it might depend also on the handset manufacturers. The slower they are in launching GPS handsets the bigger the window of opportunity will be for BlueSky.

Monday 30 April 2007
Ludovic Privat