

## **Machines communicating via RFID and Bluetooth connections could help save the telecom sector, says Forrester.**

June 17, 2002 -- The mobile telecommunications industry is in trouble, particularly in Europe where billions of euros were spent on spectrum licenses that may never pay off. What can turn things around?

A new report by Forrester Research suggests that the future of the industry is not in facilitating more communications between people using mobile phones, or even making it possible for people to surf the Web on mobile computing devices. It's in moving the data that will come from billions of machines communicating with each other via RFID and Bluetooth connections.

The report, "Invisible Mobile Reignites Mobile Telecom," was written by Lars Godell, a telecom analyst in Forrester's European unit. Godell says he was investigating future trends that may have a positive impact on Europe's struggling mobile telecom industry. He learned about RFID and the work the Auto-ID Center is doing from a colleague in the U.S.

"We think RFID is very promising," says Godell. "We believe in technology that is good enough, rather than technology that is perfect, and we think RFID is going to have a big impact in a lot of areas."

The report explains why the mobile telecom industry is in trouble. Revenues are expected to fall 15 percent per mobile phone user between 2000 and 2005 and the high cost of upgrading to 3G technology will cause operating profits for the average operator to "fall in 2003, disappear in 2007, and resurface only in 2013."

The report says that "invisible mobile" -- which Godell describes as mobile communications without human intervention -- will link up hundreds of billions of network endpoints and restore growth to the mobile telecom industry over the next five to 20 years. "Enterprises, as well as chip makers, equipment makers, solution providers, and telcos, will all benefit," the report says.

Godell envisions billions of RFID tags transmitting information to readers connected by Bluetooth access points. The data can then be sent over the mobile telecommunications infrastructure to be acted upon.

He gives the example a newborn baby that is equipped with an RFID tag for identification and wrapped in a blanket that checks her body temperature and heartbeat. If the baby gets a fever, an alarm gets communicated wirelessly, first to the hospital's doctors and nurses using Bluetooth technologies and subsequently to the hospital's drug suppliers and the baby's family over the broader mobile network. It all happens automatically, with no human intervention.

The report points out that there are many more machines than humans, and they will likely communicate with each other much more than humans do. The average person may make eight mobile phone calls a day, but a machine might update its location every few minutes.

Of course, the mobile telecom industry has been plagued by hype, and some bearing G3 scars are already accusing Godell of hyping the next big thing. "I don't agree that I'm doing that," he says. "I'm giving a realistic time frame, which is five to 20 years. It is starting now, but it won't have a big impact for a while. It will take time for the chips prices get low enough and systems are implemented."

The important thing, according to Godall, is that telcos and the end users companies start looking at the potential of such applications so they are prepared for when RFID is widely deployed.

"The report is a call to action," he says. "End user firms and mobile operators need to be prepared for something big to come. In the process, a lot of the challenges will be overcome because of the real business benefits such systems can provide."

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