

# TwinLinx Proposes to Marry NFC and EPC

The French startup is developing an item-level HF/UHF RFID tag combining near-field communication and EPC Gen 2 technology.

By Claire Swedberg

Dec. 19, 2006—The near-field communication (NFC) wireless specification is designed to allow consumers to use mobile phones or credit cards for a number of functions, among them contactless information retrieval or payments. Mobile phone companies, including [Nokia](#) and [Samsung](#), are starting to roll out or pilot the high-frequency (13.56 MHz) RFID technology on their devices (see [NFC Calling](#) and [French NFC Payment Trial Kicks Off](#)).

To date, NFC technology has not yet been paired with UHF RFID capabilities, but startup RFID technology company [TwinLinx](#) sees opportunity in the matchup.

Within the next year, the French company plans to release an item-level RFID tag incorporating both NFC and UHF EPC Gen 2 RFID capabilities. Optionally, the tag could also include a microprocessor allowing users to store data on the tag for a variety of purposes. TwinLinx's founder and CEO, Jacek Kowalski, envisions scenarios in which customers could use their NFC-enabled mobile phones to act as RFID readers and access a variety of services.

For instance, pharmaceutical companies might place a TwinLinx combination tag on a prescription bottle so an RFID reader could gather data about the type of prescription, enabling consumers to receive a text or voice message in order to obtain dosage instructions. In stores, a tag on a CD case could make it possible for customers to hear, on their phones, samples of the music contained on that CD.

In addition, NFC could be used to add extra services or information at the many libraries are already using RFID, says Steve Lewis, TwinLinx vice president of business and marketing, and. "For example, people borrowing books could write their own critique and store it in the tag [on the tag's microprocessor] for other people to read," he says. "Also, a book's return date could be stored. We aim to provide the migration to NFC by not adding additional cost to the tag."

Companies that provide RFID hardware, software and services are quite interested in the technology, says Kowalski: "They love NFC, but they don't know what to do with it." NFC mobile phones and applications, as well as NFC-enabled UHF EPC tags—which would take the place of existing EPC RFID tags—all must come to market for any of the envisioned scenarios to take place.

According to Kowalski, most mobile phone companies will at least be piloting NFC phones by next year, if not making them commercially available. TwinLinx is also developing an applications-development platform for writing software for applications involving the tags. Kowalski expects NFC-RFID deployments to follow shortly after the tags become available in 2007, and is looking to cultivate partnerships with systems integrators and NFC-oriented applications developers.

TwinLinx is testing a version of its NFC/EPC HF/UHF tag with a supplier of publicity posters, Kowalski says, though he declines to name the company or the specific applications they are using. He says his firm is also preparing to sign a contract with an unnamed transport operator in Europe to study whether value can be derived from using the TwinLinx tag in applications for underground train systems.

Kowalski launched TwinLinx six months ago and also founded Inside Contactless, which makes RFID chips compliant with ISO 14443A/B, ISO 15693 and NFC protocols. The new chips will utilize Inside Contactless' NFC technology.

RELATED\_ARTICLES The base NFC/EPC HF/UHF tags will not cost more than existing UHF EPC tags, Kowalski states. However, if the tags have a microprocessor—necessary in about 80 percent of applications involving local data storage—the price would be as much as twice the cost of current UHF tags. Still, Lewis adds, a microprocessor would not be needed in applications where the tag is only being used to read data and deliver instructions, such as directing online visitors to a particular URL.

"We are bringing new value," Kowalski explains. "If you use an RFID chip only for tracking items, the value can be too low to justify the cost."

Copyright ©2005 RFID Journal, Inc. All Rights Reserved