

# French NFC Payment Trial Kicks Off

In the city of Caen, retailers are testing a payments system using mobile phones equipped with near field communication RFID tags.

By Mary Catherine O'Connor

Oct. 21, 2005—For the next six months, 200 residents of Caen, a city of 150,000 located in northwestern France, will have a new way to pay for groceries and other goods, thanks to a field trial of RFID-enabled cell phones.

Participants in the trial, which began this week, can now use Samsung D500 mobile phones to pay for goods at a Monoprix supermarket, a Galeries Lafayette department store and nine other retail locations in Caen. The retailers are equipped with RFID-enabled payment terminals provided by point-of-sale terminal manufacturer Ingenico.

To make a purchase, a customer tells the cashier he or she would like to pay using the phone. The cashier readies the register to receive payment info via RFID, then the customer simply waves the phone in front of the terminal.

Orange, the mobile telecommunications arm of European telecom network operator France Telecom, provided the RFID-enabled phones. Orange worked with Cofinoga, the consumer credit division of Groupe LaSer, and Groupe Galeries Lafayette—parent company of Groupe LaSer, Monoprix and Galeries Lafayette—to link the testers' Cofinoga accounts to the phones. The 200 testers, all of whom had preexisting Orange mobile phone subscriptions and Cofinoga accounts, were selected by Orange and Groupe LaSer.

Testers can pay for parking at select Park Vinci lots throughout Caen, and more commercial outlets may join the trial during the coming months. France Telecom, Orange, chipmaker Royal Philips Electronics and handset manufacturer Samsung all worked with Groupe Galeries Lafayette to develop the trial.

"Simply put," says Christophe Duverne, vice president at Philips Semiconductors, "Groupe LaSer asked Orange to put the content of a mag stripe credit card into a cell phone." Philips provided Samsung with the technology needed to enable the D500 phones to transmit payment information securely over radio frequency, using near field communications (NFC).

This technology, developed by Philips and Sony, is a standard way for mobile electronic devices to communicate wirelessly with other such equipment.

A number of technology providers, including Samsung, LG, Microsoft, Motorola, NEC, Panasonic, Siemens and Texas Instruments (TI), have joined Nokia, Philips and Sony to form the NFC Forum. The forum provides a platform for its members to develop and maintain specifications for interoperable data exchange and protocols for NFC devices.

NFC devices can transmit encrypted payment information to payment terminals, in a manner similar to that used with RFID-enabled credit cards. In addition to having an NFC-compliant tag—which stores a unique ID and transmits encrypted data at 13.56 MHz using the ISO 19082 air interface protocol—NFC devices include a smart card microcontroller that can be used to store security applications, such as keys and security codes, to protect payment information. This allows NFC devices to store data on multiple payment options. The ISO 18092 standard is also compatible with the ISO 14443 A standard, the same standard used by RFID-enabled payment terminals being installed by a number of U.S. merchants. These include CVS pharmacies, Regal Cinemas and 7-Eleven and Sheetz convenience stores (see The Cashless Reality and All CVS Stores to Offer ExpressPay).

An NFC device can function not only as an RFID tag but also a reader, enabling it to pull data from tags embedded in objects. For example, testers in Caen can also use their NFC phones to read IDs from tags embedded in select movie advertisement posters, then use their phones to connect to the Internet and download a trailer for a movie.

Following the six-month trial, Groupe Galeries Lafayette, along with the technology partners involved in the project, will review the results and feedback from testers to decide whether to roll out the payments system on a permanent basis and extend it to other stores. The company's Galeries Lafayette division operates 58 stores, while the Monoprix arm runs 231 locations.

According to Duverne, Philips is also working with a cell phone manufacturer and mobile service provider and retailer in the United States on a similar field trial. This project will reportedly be rolled out in the coming weeks.

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