

MOBILE. Imagine paying for lunch or a train ticket with your mobile phone. Now you can, thanks to a contactless technology called Near Field Communication, or NFC.

MOBILE PHONES REVEAL HIDDEN TALENT WITH NFC



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The first application of NFC technology is making payments at merchants. Mobile phones replace bank cards, and offer equivalent transaction security.

Mobile phones have experienced explosive growth around the world in recent years. And yet, the full potential of these devices has yet to be tapped. Now, with Near

Field Communication (NFC) technology (see opposite), mobile phones are poised to become an even more useful part of our everyday lives.

Japan introduced the first NFC-enabled phones back in July 2004 as part of a program uniting about 30 service providers (mobile phone companies, airlines, railways, banks, food vending machine operators, department stores, etc.). The two showcase applications for NFC technology were payment using an electronic purse and transportation. Since then, applications of this new technology have expanded quickly, and have proven a tremendous success. In just three years over a third of mobile phone owners in Japan have snapped up NFC handsets.

France also enjoys fast-paced mobile phone penetration: 77% of the over-15 crowd own a mobile. With the Sagem my700C ContactLess, Sagem Communication is expanding the range of services available via the handset, which is fully compatible with NFC technology.

"There are three main types of applications," explains Olivier Charlanes, head of Sagem Communication's Convergence business unit (part of the Mobile Communication business group). "The first is payment, where an NFC mobile phone simply replaces a credit card, offering equivalent levels of security. All retailers need is a payment terminal that's also NFC compatible. The second application is transportation. Mirroring the electronic Navigo pass used in the Paris mass transit system, it will soon be possible to simply wave your cell phone over a terminal and slide through the turnstile. Thirdly, NFC technology allows mobile phones to pick up information such as bus times or city maps, and even keep track of changing information in real time.

At this rate, it's easy to imagine that mobile phones will soon replace the panoply of cards that stuff our wallets and pocketbooks. Soon all you'll need when you leave for work in the morning are your keys and mobile phone!

Fruitful partnerships

For the past six months, several hundred pilot users in Strasbourg have been using their Sagem my700C ContactLess phones to make everyday purchases (see opposite). Similar trials began in April

on the Grenoble mass transit system. French mobile phone company Bouygues Telecom and transport provider Transdev are both running mobile services in partnership with Sagem Communication, including such applications as transport tickets integrated in the phones, real-time traveler information and even local neighborhood maps displayed instantly on cell phone screens. Sagem Communication is technical coordinator for this vast program.

In Grenoble, the tests are being run on the network of the public-private com-

"NFC-ready mobile phones are all about freedom and simplicity"

pany that runs the mass transport system for the greater Grenoble area. "Sagem Communication is one of the first manufacturers to offer mobile phones equipped with NFC contactless technology," notes Olivier Charlanes. "We intend to run a significant number of trial services throughout France and in Europe, working with mobile phone operators as well as banks, transport companies and SIM card vendors, for example." These trials are expected to culminate with full-scale commercial rollout starting in 2008. ■

VIEWPOINT

Crédit Mutuel bank and Sagem Communication conduct trial in Strasbourg

BERNARD SADOUN
PUBLIC RELATIONS MANAGER, CRÉDIT MUTUEL,
CENTRAL AND EASTERN EUROPE

"Innovation is part of our DNA," says Bernard Sadoun, head of public relations for French cooperative bank Crédit Mutuel's Central and Eastern Europe unit. "Making new technologies available to our customers allows us to expand our range of services." The thinking behind this initiative by Crédit Mutuel-CIC is quite straightforward: today, more people use mobile phones than bank cards. The logical conclusion was to find a way to put the bank card right in the phone. Working with Sagem Communication, the bank began testing the new payment service with selected customers in Strasbourg.

The service is extremely simple: an

NFC mobile phone is equipped with a SIM card programmed to function as a bank card. To pay for a purchase, the customer simply waves their phone in front of the payment terminal. The amount is displayed on the screen and customers enter their password directly from the phone keypad. Nearly 500 Crédit Mutuel-CIC customers began testing the service in mid-November 2006. They can pay for goods from their mobile phone at a hundred retailers equipped with an NFC reader, developed by Sagem Défense Sécurité. The pilot service spans a wide variety of outlets, from bakeries and restaurants to

hairdressers and garages. "Technically, everything is working exactly like it's supposed to," smiles Sadoun. "Even better, our customers are very happy with the simplicity, speed and security delivered by this new payment channel. In fact, what they want most is for more and more retailers to quickly get contactless payment terminals installed."

Buoyed by this success, Crédit Mutuel-CIC plans to broaden the trials next October, working with other banks and new operators in Strasbourg and Caen. The goal is to distribute more than a thousand phones equipped with NFC contactless technology in each city.

FOCUS

NFC CONTACTLESS TECHNOLOGY

Near Field Communication (NFC) technology is part of the large family of applications that enables short-range radio communications between two electronic devices. NFC is a contactless technology, meaning that the devices just need to be within a few centimeters of one another. NFC technology has been developed to ensure compatibility with other contactless technologies such as Radio-Frequency Identification, or RFID. This allows an NFC-enabled device to be used in either passive mode—functioning like an RFID tag, for example—of in active mode. In the latter instance it functions like a data reader and can read the content of a RFID tag. Contactless payment transactions are another example of an active mode application. NFC applications can be split into four basic categories: Touch and Go, where the user only needs to bring the device close to the reader; Touch and Confirm, where the interaction must be confirmed by entering a password; Touch and Connect, when an NFC session is initiated for transfer of data; and Touch and Explore, for NFC devices that offer a choice of functions. As with RFID, the power required is transmitted in the form of radio waves. This means that only a single battery is needed to establish communications between two NFC devices.

Below, the electronic Navigo transit pass now used in the greater Paris area.



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