

# Sony, Philips Creating RFID Link

Consumer electronics giants are jointly developing a new RFID standard for payments and for communication between devices.

Sept. 17, 2002 -- Royal Philips Electronics and Sony have revealed that they are jointly developing a new radio frequency identification application that they hope will become a standard not just for payments systems, but also for communication between all kinds of consumer devices.

The two companies are calling the new technology "Near Field Communication." They expect to have RFID smart cards and readers incorporating NFC technology ready by early 2004. Sony and Philips envision NFC chips being put in personal digital assistants (PDAs), cell phones, set-top boxes, handheld games, MP3 players and other consumer electronics devices.

"This is going to revolutionize the way people consume services, from pay TV and online games to banking," says Sour Chhor, general manager of Business Line Readers, Philips Semiconductors (pictured). "We think it has a great future."

NFC will be based on Sony and Philips existing smart card technology and will operate at 13.56 MHz. The aim is to create an open standard that lets two NFC-enabled devices share data. Chhor says a business traveler might one day pay for a subway pass in New York or London online and download both an electronic ticket and a map of the subway to his or her cell phone. The phone would then be waved near a reader on the turnstile to gain admittance.

But the technology is about more than just payments. If someone subscribes to an online gaming service, he might store his password and game settings on a smart card. He could then access the service and have it set up simply by swiping a smart card by a reader in a PC at a friend's house or school.

Chhor says the aim is not to compete with Bluetooth but to offer a lower-cost technology that is complementary. Two laptops sharing data using a Bluetooth connection have to be configured to work together. Chhor envisions the RFID chip in one laptop identifying itself to the other and transmitting settings so the two can establish a Bluetooth connection automatically.

NFC would work over short distances -- i.e., 20 centimeters or less. Sony and Philips envision transfer rates of up to 1 MB. Chhor says higher rates are possible but would consume too much battery power. Existing RFID chips cost about \$1 depending on the amount of memory, encryption technology and other factors. That's still cheaper than Bluetooth chips, which cost about \$5 apiece.

One problem with mobile payments systems has been the lack of any standards. Sony and Philips hope NFC will solve that problem. But Chhor says companies making PDAs, cell phones and other consumer devices will adopt NFC because it is cheaper than Bluetooth, because there is a large installed base of smart cards, and because it creates the potential to deliver products and services anytime, anywhere.

"The idea is that the infrastructure will be ubiquitous," he says. "Wherever you will go, you will find an

interface. It will be very convenient for consumers, and that is a unique selling point."

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