

Phones providers aim to replace wallets, IDs

January 5 2011, By Victor Godinez

For many people, smart phones are almost as indispensable as wallets. And soon, your smart phone could replace your wallet. A collection of the biggest wireless carriers, handset makers and software developers are putting their weight behind a technology called near-field communication.

That standard will allow your [cell phone](#) to make payments at a cash register, scan computer chips embedded in ads and posters for discounts and product info, and eventually incorporate driver's licenses and other forms of ID.

"This isn't just about payment," said Jaymee Johnson, director of strategic development at T-Mobile USA Inc. "It's fundamentally focused on transforming the ways customers shop, save and pay."

T-Mobile, [Verizon Wireless](#) and AT&T Inc. recently launched a joint venture called Isis to standardize and promote near-field communication, or NFC, technology and applications.

The technology enables a variety of new applications.

For example, a retailer could embed a paper-thin NFC chip in the price tags on its shelves.

When you wave your NFC-enabled phone over the tag for, say, a digital camera, it will direct the Web browser on your phone to a site with more info about that camera.

The tag could also wirelessly transfer a coupon for that camera to your phone.

So you pick up the camera and take it to the register to pay.

No need to dig out your credit card or cash.

Just swipe your phone, which also contains all your credit card info, over the NFC-enabled register, which recognizes the coupon, applies the discount, and debits your bank account.

Voila, the digital [wallet](#).

Or tap on a tagged movie poster to bring up the YouTube trailer to the film.

Or imagine any of the other hundreds of possibilities once individual app developers start tinkering with the software and writing programs for the phones and chips.

NFC tags could be easily, inexpensively and invisibly embedded in magazines, for instance, to bring up videos or animations related to an article, or in the automobile stickers on a dealership's lot.

DVD cases could have tags attached to let you quickly catalog every disc in your personal library. No need to photograph bar codes or other markers. Just swipe.

If this dream sounds like you've heard it before, it should.

Near-field communication is similar to another short-range wireless technology that was heavily hyped a few years ago but then faded: radio frequency identification, or RFID.

While RFID is used in a few niche consumer applications - highway-toll passes and a small percentage of credit and debit cards, for example - NFC is poised to flood the market.

In fact, if the [wireless carriers](#) have their way, widespread adoption of NFC devices might take only a year or two.

Nokia has been supporting near-field communication for a few years, but the company's [smart phones](#) have limited market share in the U.S.

Now, a host of other manufacturers that do have a big presence in America are about to jump in.

While it will be months before major retailers start including NFC chips in their cash registers and displays, NFC-equipped smart phones are already rolling out.

The first handset maker with a big U.S. presence to adopt NFC is Samsung.

Samsung recently released the Android-powered Nexus S smart phone with a built-in NFC reader.

In fact, it's the first version of Android from Google Inc. to support NFC, and Google is making freely available the tools needed to tinker with that capability.

"We're open-sourcing the NFC software stack, and we've provided Android developers with (application programming interfaces) that will allow them to build applications that take advantage of NFC," a Google spokesman said.

To see how retailers might actually use the wireless chips, Google gave

out NFC tags to retailers in Portland, Ore.

Owners of smart phones with the NFC hardware are able to scan the chips with their handsets to see whatever data the retailer has encoded in the tag.

Johnson at T-Mobile, who's also a spokesman for the new venture Isis, noted that the three carriers have more than 200 million customers among them.

And the turnover rate on the phones those customers own is fantastically high.

"You think about how quickly handsets turn over now. If you have your handset for a year, you're ready to upgrade," Johnson said. "That's a cycle that really works to our advantage in really rapidly turning over a new technology."

Apple Inc., one of the biggest drivers in smart phone trends, is rumored to be implementing NFC hardware in the next version of the iPhone.

NFC requires additional hardware in the device, meaning older phones can't simply get a software upgrade to enable the capability.

But there are work-arounds.

Visa Inc., for example, is working on a standard with Bank of America Corp., JPMorgan Chase & Co., Wells Fargo & Co. and U.S. Bancorp to develop microSD cards with built-in mobile payment capability that could simply be inserted into certain existing phones.

But pushing NFC into the hands of consumers is only half the battle.

The other half is persuading retailers to install the high-tech cash registers and networks needed to connect with these wireless wallets.

Johnson said Isis will piggyback on Discover Financial Services' payment network, which is already accepted at more than 7 million locations nationwide.

But a far smaller number actually accept so-called contactless payments.

Johnson acknowledged that rustling up retail support is critical to making NFC a success but said Isis is pitching NFC as not just a payment tool.

It's also a way for companies to launch interactive loyalty and rewards programs for their customers, and get better, faster data on what products their customers want most.

"That's a story that we're eager to tell and that merchants have been very receptive to," Johnson said.

So far, Isis has not yet announced any merchant partners, but Johnson said announcements will be coming in the first half of 2011.

Johnson declined to say how much money the carriers have invested in building out the Isis network but said it's a top priority.

"This is a big bet," he said. "This is a big opportunity for the carriers."

The one major carrier that's not on board with Isis yet is Sprint Nextel Corp.

Sprint said it is looking at a variety of options for enabling mobile payments, which could include joining Isis.

Near-field communication on handheld devices will initially focus on providing interactive information and mobile payment. But the technology could also one day allow documents such as driver's licenses and passports to be stored digitally on a phone.

"That is the next frontier," Johnson said.

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