NFC Scores High at Atlanta Arena

A technology trial of Nokia phones, powered with near-field communication technology, made points with sports fans.

By Mary Catherine O'Connor

Sept. 7, 2006—"There was a lot of 'wow' factor," says David Holmes, business development manager for NXP (formerly Philips Semiconductors), regarding feedback received after a recent trial of near-field communication (NFC) technology. Approximately 150 participants took part in the six-month trial, which tested the technology at Atlanta's Phillips Arena (see Sports Fans Use RFID to Pay and Play).

NFC technology uses 13.56 MHz RF signals to transmit data over short distances between mobile devices, or between mobile and fixed devices, for applications ranging from data exchange to electronic payments. NXP, a maker of the chips used in NFC devices, initiated the Atlanta pilot and is involved in or has completed a number of similar trials throughout the world. Other sponsors of the program included Visa, Chase, Cingular and handset maker Nokia.

The participants—season-ticket holders of either the Atlanta Hawks basketball team or the Atlanta Thrashers hockey team—were selected from among those with both a preexisting Chase-issued Visa credit account and a preexisting Cingular Wireless account. In order to gather insights into what the participants liked and disliked about the NFC applications made available to them in the trial, NXP hired independent research firm Catalyst Research & Ideation to conduct participant focus groups. Nokia provided NFC-enabled phones to the participants, which they could use to make purchases (using their Visa accounts) in the stadium, or to download video clips and pictures of their favorite players from NFC-enabled smart posters.

"Responses from the participants were overwhelmingly positive," says Holmes. "We heard things like 'Why did it take so long to get a phone like this?' and 'I can't wait for this technology to become mainstream.'" He believes NFC's ease of use is what attracted the participants, who were given a brief instructional session at the beginning of the trial on how to make payments and download data. "NFC lets them tap into the technology very easily," he explains.

Holmes points out that most consumers' non-NFC cell phones can be used for data exchanges similar to those enabled by NFC, but that few consumers use their phones for this purpose since it sometimes requires navigating lengthy or complicated menus. Using NFC, however, consumers simply hold the phone up to an emblem on a smart poster to initiate a data download.

Holmes says that while consumers didn't express many negative opinions about using the phones, a key discovery from the trial was that the salespeople lacked enough training to feel comfortable processing transactions made with NFC phones at the concession stands. According to Holmes, NXP will address this issue in future NFC trials involving payments.

With the Atlanta pilot complete, the RFID payment terminals and smart posters will remain active in the arena, usable by those consumers who own NFC-enabled phones. Holmes says he doesn't expect many

patrons to use NFC phones during the upcoming hockey and basketball seasons, since there is only one NFC-enabled phone model, made by Nokia, available in the United States. Still, as NFC technology becomes more commonplace—which he says is likely to happen in coming years—more and more patrons will begin using such phones for payments and data exchange.

NXP says it will continue to make NFC products and assume Royal Philips Electronics' role in the NFC Forum, an industry association cofounded by Philips Electronics, Nokia and Sony in 2004.

The NFC Forum currently has 85 members. This organization promotes the development and deployment of NFC technology, and is establishing NFC technology standards. Philips Electronics has retained ownership of 19.9 percent of NXP, with the remainder held by a consortium of private investment firms that paid a combined $10.2 billion in the leveraged buyout. NXP will continue its product development in other types of RFID chips, such as those used in passive RFID tags for supply-chain applications.

Last week, the U.S. Department of State (DOS) said it has selected NXP to provide chips for its new RFID-enabled electronic passport (e-passport) program. The United States is also using chips from Infineon Technologies and Gemalto (see RFID News Roundup). NXP chips are being used in a number of other nations' e-passports, as well.