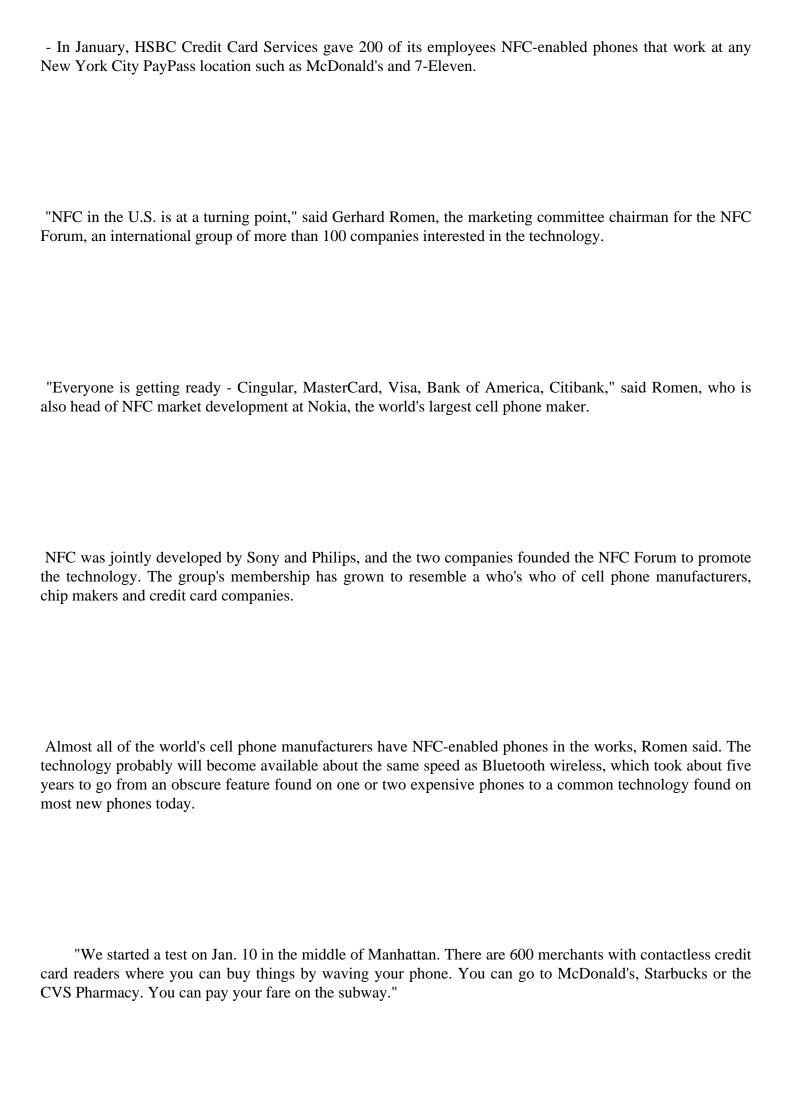
## by Jonathan Sidener At last year's World Cup soccer matches in Germany, spectators entered by waving an electronic card near a reader. Once inside, they could get directions to their seats by holding the card near another reader. While the high-tech tickets were part of a demonstration of a technology called Near Field Communications, or NFC, the little wireless chips that made it all work were familiar to many of the fans. WIRELESS WALLET - NFC, also known as Near Field Communications, takes its name from its extremely short-range wireless transmissions. The technology is beginning to pop up across the country. CNS Illustration by Cristina Martinez Byvik. In many parts of the soccer-loving world, consumers also embrace cell phone technologies. In much of Europe and Asia, people use NFC-enabled cell phones to buy snacks from vending machines, pay for public transit and replace paper tickets for movies and other events. In the part of the world where we prefer the oddly shaped American football, we reach for pocket change, not the cell phone, when we want a bag of chips or a candy bar.

'Near Field' technology' may change the way we use cell phones

That may be about to change.
NFC, which takes its name from its extremely short-range wireless transmissions, is beginning to pop up across the country. Cell phone manufacturers and carriers along with credit card companies are beginning to do more than talk about the technology:
- In New York, MasterCard and Citibank are testing NFC as a replacement for paper tickets.
- Cingular is testing Nokia's 6131 NFC phone, which it plans to offer to consumers. Cingular hasn't announced a timetable for the new phone.
- Northern California's Bay Area Regional Transit is wired with NFC readers that will let owners of enabled phones bypass the ticket booth.
- In Dallas, Nokia and MasterCard have given 500 consumers NFC phones to test at local 7-Eleven convenience stores.



NFC transmissions have built-in security because a smart card or phone has to be held within an inch or two of a reader to complete a transaction, Romen and others say. Putting the technology in a phone adds more security than a smart card, Romen said.
The phone allows the NFC feature to be turned off when it's not in use. It also provides for password protection and user approval before a transaction is completed.
"Think of it as a credit card with a display, a keyboard and a secure Internet connection," Romen said.
Romen said Nokia sees NFC as a natural progression of cell phone technology, after such enhancements as Web browsers, advanced operating systems such as Java, high-speed data transmission and memory cards that store photos and music.
He said that for many people, the cell phone has replaced wristwatches, alarm clocks and digital cameras, so replacing the wallet is a logical next step.
NFC technology is off to a good start and should have strong growth over the next several years, according to ABI Research.

