

# RFID Readers Get Cellular

SmartCode is adding cellular data capabilities to its UHF readers so that the devices can connect wirelessly to a corporate network.

By Jonathan Collins

Dec. 22, 2004—Radio frequency identification (RFID) systems provider SmartCode has integrated cellular data capabilities into one of its UHF readers. The additional capabilities, says SmartCode, means that the reader can be deployed even where there is no LAN connectivity to link it to a corporate network.

The new reader can operate worldwide at 900 MHz, 1.8 GHz and 1.9 GHz and on GPRS (General Packet Radio Service) and CDMA-1X voice and data cellular networks. GRPS operates on GSM cellular systems, which have been deployed worldwide; the data transmission rate over a GPRS network ranges from 9.6 to 155 kilobits per second. CDMA-1X systems, which offer a peak data rate of 153 kbps, are prominent primarily in the U.S. and South Korea. Data services from wireless carriers generally charge at a rate based on the kilobytes of data transmitted, and SmartCode maintains that its readers can be added to corporate wireless accounts.

In the summer of 2004, SmartCode launched a Wi-Fi (802.11) version of one of its reader, but the company explains that sometimes no Wi-Fi network is available and building one is either too costly or not an available option. "We developed the [cellular-enabled] reader for a large CPG manufacturing customer that wants to be able to place readers in its partners retail stores, but not all the stores had LAN connectivity," says Roy Apple, VP of business development at SmartCode, which is based in Tel Aviv, Israel.

By providing readers capable of connecting to enterprise applications over a cellular connection, the CPG manufacturer can track its tagged shipments without having to use the retailers' network facilities or build out network facilities where they are not present. SmartCode says this manufacturer is using more than 10 of the new cellular-capable readers in a trial for a prospective deployment that would be in the hundreds of readers. The cellular-enabled readers can be used to either transmit tag data as it is collected or send data at specific intervals. In the initial trials, the CPG maker has configured the readers to send data every 20 minutes.

SmartCode says it plans to integrate cellular capabilities into a number of its RFID reader models. The cellular-capable versions will be priced less than 10 percent more than their noncellular counterparts. SmartCode says, however, it has yet to fully research the potential market for the new readers.

"This is the world's first such RFID reader, and we don't know how many solutions will be built around it yet," says Apple.

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