

THE NILSON REPORT

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U.S. SMART CARD BREAKTHROUGH Mass issuance of microprocessor-type chip cards of the *contact* variety faces an insurmountable obstacle in the short run — the minimum \$5 billion cost to replace or upgrade the installed base of 11 million stand-alone POS terminals, as well as to revamp the other front-end services and back-end processing systems that currently support magnetic-stripe card readers. However, new technology now available could trigger mass issuance of *contactless* smart cards — those that use a built-in radio antenna to transmit data to a receiver in close proximity, but don't make direct contact with a chip reader.

VIVOTECH has manufactured a radio-frequency-based reader/writer device that attaches to a stand-alone POS terminal or integrated electronic cash register. The \$100 peripheral receives data from a transponder laminated in a contactless card — everything contained in Track 1 and Track 2 of a magnetic stripe, as well as additional security information. The peripheral connects to a permanent insert in a POS terminal's mag-stripe reader slot, leaving enough space for swiping a conventional mag-stripe card. This allows contactless transactions to be processed just as if they were initiated by a mag-stripe card. Setting up a Vivotech device takes less than five minutes, and merchant acquirers don't need to make any adjustments in their back-end processing systems in order to begin accepting proximity payments. Vivotech's radio-frequency device is



being tested in Orlando, Florida as part of MasterCard's Paypass proximity-payments project which involves contactless smart cards issued by Citibank, MBNA, and Chase. MasterCard's contract is not exclusive, and Vivotech is already working with other card companies in Europe and Asia.

The company incorporated in May 2001 and received \$5.5 million in venture capital in August 2002 — 91% from Alloy Ventures, which is based in Silicon Valley. Vivotech can also provide a receiver device for infrared proximity payments generated by mobile phones or other handheld devices. Like the contactless smart-card device, it piggybacks on the existing mag-stripe payment card infrastructure. Prior issues: 779, 777, 776, 762, 757, 747, 745, 731, 728, 727, 710 □

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