

Visa Gives Its Contactless Payment Card Program a Global Push

The credit-card company is promoting its global spec for RFID-enabled Visa credit and debit cards. It has also announced a U.K. rollout.

By Mary Catherine O'Connor

Dec. 6, 2006—Though banks have issued roughly half as many Visa Contactless RFID-enabled credit and debit cards as they have MasterCard PayPass cards (5.5 million versus more than 10 million), Visa is pushing forward on its Visa Contactless program by building it up both in the United States and overseas.

In November, the company released a global contactless-payments specification, which is designed to enable Visa Contactless cardholders from all parts of the world to use their cards at any merchant that has deployed the spec in its RFID-enabled payment terminals. The global specification includes support for Visa Contactless EMV-based cards, which combine RFID technology—for transmitting payment data over RF with an RFID-enabled payment terminal—with EMV, a payment protocol used in Europe and Asia. The spec also supports non-EMV-based contactless cards currently being issued by banks in the United States. In addition, Visa Europe—Visa's European business unit—announced that it is working with issuing banks to roll out Visa Contactless EMV-based cards across the United Kingdom, starting in London, by the end of next year.

EMV is an acronym derived from the names of the three companies that developed it: EuroPay, MasterCard and Visa. It was developed to improve security and enable offline payment transactions. The EMV protocol heightens security by using encryption algorithms to authenticate the card's legitimacy.

EMV cards contain an embedded integrated circuit that stores encrypted information about the account and can process the authentication protocols with the payment terminal. EMV transactions can be done either in online mode, where the payment-processing terminal links with a payment-processing center, or offline, with authentication taking place only between the payment card and the payment terminal. The offline mode is used largely in remote areas by merchants lacking a means of linking their payment systems with payment processors in real time. The issuing bank sometimes requires a cardholder to key in a personal identification number (PIN) to provide a secondary means of identification. Visa Europe does not require the use of a PIN for purchases under 15 euros, though the bank that issues a given Visa EMV card may require one.

The release of Visa's global payment specification is significant, says Stephanie Ericksen, vice president of product and technology integration for Visa International, because once merchants worldwide deploy payment terminals that follow the new specification to communicate with RFID cards, consumers will find their RFID cards interoperable with card readers in EMV and non-EMV markets alike. Non-EMV-based contactless card readers, she explains, will read EMV-based contactless cards without requiring the EMV protocol for those transactions. And EMV-based contactless card readers will read contactless cards from non-EMV markets without requiring full EMV functionality—similarly to how the EMV-based terminals read non-EMV magnetic-stripe payment cards by reading the magnetic stripe on the back of the card only.

"Thanks to this [global contactless] specification, Visa Contactless card users from the U.S. will be able to use their cards in Europe and Asia, and the reverse will be true, as well," Ericksen says. "The Visa Contactless cards issued in EMV markets will be accepted [by payment readers] in the U.S."

This introduction of RFID-enabled EMV payment cards in the United Kingdom will not be the first major rollout of such cards under the Visa brand. In Korea, Malaysia and Taiwan, 1 million Visa Wave cards have been issued since 2005. These EMV cards use RFID technology to transmit payment data and are accepted by 5,000 merchants. For example, commuters in Malaysia and Taiwan pay fares in the public transit systems with their Visa Wave cards. However, the specification the Visa Wave cards follow does not fully interoperate with the global spec Visa has just released. Consequently, payment readers that presently accept Visa Wave cards do not accept Visa Contactless cards issued in the United States. According to Ericksen, merchants in Asia will be upgrading the software in their readers in the near future, allowing them to read both Visa Wave and Visa Contactless cards.

RELATED_ARTICLES Ericksen says Visa is working with hardware providers to certify their payment products to the new global spec. So far, it has certified a banking microprocessor card made by smart-card manufacturer Gemalto. The card can be used as a Visa contact-based EMV card, an EMV-based Visa Contactless card or a magnetic-stripe card. Gemalto says this card will be available in mass volumes to major financial institutions starting in January 2007.

Visa Europe says it will soon begin working with issuing banks to promote acceptance of the Visa Contactless EMV card by retailers throughout the United Kingdom, including fast-food outlets, coffee shops, newsstands, pubs and parking garages. Most consumers, the company says, use cash in these venues but also want fast transaction times. Visa Europe adds that more than 75 percent of cash payments made in the United Kingdom are for amounts less than £10, so the market is ripe for a non-cash alternative method that is fast and convenient. The firm also notes that its decision to work with U.K. banks to roll out the contactless cards beginning in London support its vision of a large amount of cashless commerce being transacted during the Olympic Games, to be held in that country in 2012.

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