

# MasterCard cashes in on Web services

**LABS ON-SITE:** MAPINFO'S ENVINSA TAPS ENTERPRISE APPS, LOCATION DATA TO WIDEN SERVICES RANGE

By Anne Chen

**M**ASTERCARD INTERNATIONAL INC.'S BUSINESS IS BASED ON A GUARANTEE THAT all its cardholders will have access to cash anywhere in the world.

To fulfill that promise, the payment system, based in Purchase, N.Y., deployed a Web-services-based ATM location service that lets cardholders find ATMs in 210 countries and territories, regardless of whether they're using a phone, the Internet or a wireless device.

That decision in 2003 proved good for the company's bottom line as well: Deploying a Web-services-based platform to integrate location data with existing enterprise applications has allowed MasterCard to offer services that provide additional opportunities for customers to use their credit cards.

The ATM locator alone generated a return on investment estimated at more than 1,152 percent in the first six months, according to John Meister, vice president of IS development at MasterCard, in St. Louis, Mo.

"MasterCard takes money and spends it on certain things that will improve the brand or improve acceptance of the brand," Meister said. "Switching to this new ATM location platform has provided significant new revenue opportunities for us."

MasterCard is the second-largest payment system in the United States, and 25,000 member banks worldwide subscribe to it. The company, which reported \$385 million in revenue in 2003, owns the Cirrus ATM network—one of the world's largest, with 900,000 ATMs in 120 countries.

The company's MasterCard and Maestro credit and debit cards are accepted at 22 million locations in 210 countries and territories.

This global presence is one reason MasterCard launched a toll-free number in the 1990s that allows cardholders to enter their phone numbers to locate the nearest Cirrus ATM. The software that powered this telephone-based, ATM location service was written in-house.

In 1997, MasterCard decided to expand its ATM locator service by bringing it

online to MasterCard.com. The company outsourced its online ATM locator to MapQuest.com Inc., of Mountville, Pa. Although member banks helped to cover

the costs, MasterCard was spending more than \$400,000 annually to keep it going, according to Meister.

Because the company was relying on two systems to provide location services, cardholders who logged in sometimes received different directions than did cardholders who called in. On top of that, the separate databases for the Web site and the phone service—updated twice a week—often provided results that weren't accurate: Some users were directed to ATMs that no longer existed. And when

cardholders used the telephone systems, they were often provided with ATM locations that were far from their location—or they received no results at all.

Two years ago, Meister decided to merge the two ATM location systems and bring everything in-house. By using one system to push geographic services to multiple platforms, Meister hoped to increase accuracy while allowing MasterCard to cut costs and retain more control over its data warehouses.

Meister decided the company needed a platform that could support multiple operating systems. And because he eventually wanted to move completely to Web services, he also wanted something that would be flexible enough to support different methods of deployment.

After looking at several vendors' solutions, Meister and his team decided to deploy the EnvinSA Location Platform from MapInfo Corp., of Troy, N.Y.

"We looked at just about everyone out there when we first started choosing a partner," Meister said. "Who knew

what the future would hold if the product became wildly successful? We wanted to talk to [vendors] offering a solution on a variety of platforms in order to really

**Deploying MapInfo's EnvinSA Location Platform, which uses Java 2 and Web services, has enabled MasterCard to deliver ATM location services to cardholders on a variety of platforms.**

scale, and that narrowed the field quickly.”

MasterCard’s IT staff retooled its location applications to work with Envinsa, which uses the Java 2 platform and Web services. Each location-based capability is delivered as a Web service through WSDL (Web Services Description Language), SOAP (Simple Object Access Protocol), UDDI (Universal Description, Discovery and Integration) and XML.

Moving to Web services was important, Meister said, because Web services enable MasterCard to quickly deploy services to multiple platforms.

Since deploying the MapInfo Envinsa platform, Meister estimates that data accuracy has increased by more than 50 percent. Use of the ATM Locator Service has also increased and now averages about 5,000 hits per day. Currently, users who log on to the MasterCard Web site to find the location of an ATM receive the same results as a cardholder who dials the ATM Locator Service.

The service generated an estimated \$5 million in revenues last year, accord-

ing to Meister, who said that figure is expected to continue to rise as MasterCard expands the service beyond North America.

Deploying the location-based platform has enabled MasterCard to drive traffic to new ATMs—and businesses—more effectively as well. Convenience stores and

Now, by typing their location into their cell phones, Telus subscribers can receive a text message with the address of the nearest Cirrus ATM.

With cellular companies tapping GPS coordinates to pinpoint the location of a caller to within 50 feet, MasterCard hopes to be able to provide ATM location services without requiring cell phone customers to manually provide their ZIP code or street location. The company hopes to begin providing wireless services in Europe and the United States within a year, Meister said.

MasterCard also uses MapInfo software internally to conduct data

scrubbing to determine, for example, how close two MasterCard client businesses are to one another.

“The platform allows us to grow, which is important because the number of customers that use the service grows faster than I realize,” Meister said. “It’s a great position to be in.” e

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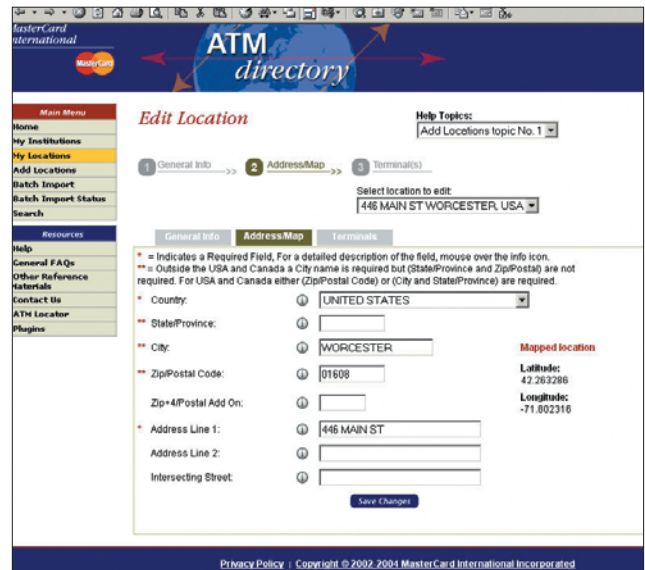
retail outlets that own ATMs, for example, can increase business by listing their location in MasterCard’s directory, Meister said.

“Our goal is to help customers, bank issuers and card issuers build volume at their acceptance locations or at their ATMs,” Meister said. “Since the software is very easy to manage and use, as soon as a new ATM location is added, it’s very easy for an administrative person to update the system with that information.”

### Wireless on way

USING WEB SERVICES and Envinsa, MasterCard has extended its service to the wireless arena. Last year, the company partnered with Telus Corp., a cellular carrier based in Vancouver, British Columbia, to provide mobile customers with the ability to use the wireless Web to locate ATMs.

Using middle-ware written in-house at MasterCard, the carriers can use the company’s Web services to provide location-based information.



MasterCard cardholders can find ATMs based on their geographic location.

### Case file

- ▶ **Company** MasterCard International
- ▶ **Location** Purchase, N.Y.
- ▶ **Issue** MasterCard was using two vendors to provide online and telephone-based ATM location services, respectively; the company wanted to find a way to offer consistent, up-to-date information to cardholders, regardless of the platform they were using
- ▶ **Solution** MasterCard decided to deploy Web services that would enable the company to use location-based services to deliver ATM locator information to multiple platforms
- ▶ **Tools** MapInfo’s Envinsa Location Platform; Unix; Microsoft’s Windows NT; Sun Microsystems Inc.’s Java
- ▶ **What’s next** MasterCard currently offers the location-based ATM finder via cell phones in Canada only; it plans to expand the service to markets in Europe and the United States

Source: eWEEK reporting

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