

ABSTRACT

A major national retailer implements the Trillium Software System® as part of its CRM and e-Business initiatives.

PROJECT

Data Consolidation
Call Center Automation
CRM
e-Business

INDUSTRY

Retail



Harte-Hanks
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SOFTWARE**

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THE COMPANY

**MAJOR
NATIONAL
RETAILER**

In business, timing is everything.

This is especially true in the combative retail sector, where deep-pocketed buyers have converged with the e-business economy to provide stores with an unparalleled opportunity to garner more sales and attract new customers.

How hot is retail e-business? A recent study by Dataquest says the worldwide business-to-consumer e-commerce market reached \$31.2 billion in 1999, up from \$11.2 billion in 1998. The report adds that the e-business market will experience explosive growth through 2003, when revenue is expected to surpass \$380 billion.

While those dollar figures represent a lot of blue jeans and big screen televisions, leveraging e-business to position retailers for maximum growth isn't always easy.

Take the case of one major U.S. retailer. Hamstrung by its existing transaction-based business IT system, the company thought its e-business system could do better.

Realizing that the best information that its current system could reveal was the amount of transactions by date, product, and location, the retailer wanted to shift its data gathering operation from a transaction-based system to an e-business system that emphasized a customer-based viewpoint. Besides knowing what sold, where and when, the company wanted to know instantly who was buying its merchandise. It also wanted a consistent customer view across all of its diversified businesses, including retail, catalog sales, credit cards, and consumer financial services. The retailer determined that a customer data cleansing and identification strategy was required for this transformation.

THE CHALLENGE

The retailer wanted to merge flexible customer identification logic into its new e-business environment, thus enabling the system to be tailored to its business rules. Intuitive, knowledge-based software could, for example, determine whether a person with a credit card registered to an alternative address (such as a mailbox or a student living in a university dorm) was the same person, or related to others with the same credit card account. Using flexible pattern-matching logic, the system could also judge whether a person who bought an item on the company's Web site, was actually the same person who had previously purchased items at a store location. The result would allow the retailer to identify buying patterns by customer and demographic group, which in turn would open up opportunities to sell additional products and services.

The retailer's three-member internal team was able to complete the initial migration in less than 16 weeks, with the system initially running by week five.

The new system also required a multi-platform solution that could run equally well interactively in a real time environment, and in batch mode on the mainframe. The retailer was already experienced with client/server technology, having deployed WindowsNT Servers and Windows 95 clients throughout much of its corporate network. Like most large enterprises, it also had various mainframe-based applications serving each major unit of its business, such as credit cards and consumer finance. Again, like most major enterprises, it had few tools for aggregating data across business units outside of high-level financial reporting.

In order to provide the unified customer view, the retailer required:

- a distributed approach that would integrate information with all of its legacy systems;
- an easy-to-use solution that would not involve significant staff training; and
- processing capabilities that would allow the necessary batch routines, for high-volume, periodic file maintenance, and interactive on-line capabilities that would allow the company to capture complete updated information when it was most available—while the customer was on the phone or on the company's Web site.

THE SOLUTIONS

Enter Trillium Software and the Trillium Software System, designed to help IT professionals deliver a focused and accurate view of their customers by providing clean, standardized and accurately matched customer data.

The retailer chose the Trillium Software System after a comprehensive review process. The difference? In the end, the Trillium Software System's ability to run in any mode on all of the retailer's computing environments convinced the retailer's IT managers. They also viewed the software favorably for its flexible, modular cleansing and matching logic, which would allow the retailer to tailor data cleansing procedures to its business rules.

Trillium Software began by integrating its solution into the retailer's customer data management environment. In the first phase, a Windows-compliant Visual Basic front end was written for deployment to end users such as telesales representatives and marketing staff. It was designed to run on Windows 95 desktops in a client/server environment with WindowsNT Server and Microsoft SQL Server relational database.

On the mainframe, COBOL routines were written to allow the Trillium Software System to run in batch mode against a mainframe IBM DB2 relational database.

The Trillium Software System's support of CORBA distributed objects made systems integration a snap. Standard business objects include customer identification, customer record update, and customer business/transaction activity. Services are provided to common Visual Basic end user applications throughout the enterprise that aren't hard-wired to any particular data source. The approach lets the retailer integrate existing systems without uprooting them and the modular approach allows system modification without recoding.

The second implementation phase included integrating the Trillium Software System's callable functions for customer data cleansing, validation, address geocoding and relationship matching with a mainframe-based call center environment. The call center supports customer transactions from the retailer's catalogue business. The callable modules enable new records created in the call center application to be cleansed and matched online, one record at a time, against the retailer's master database. The retailer can instantly recognize any relationship with a customer or household. The IBM mainframe application accesses common functions of the Trillium Software System over a TCP/IP network that reside on separate Windows NT Servers. Each record is cleansed and matched against the customer database, and the result is returned to the user of the call center application.

The third phase included extending The Trillium Software System's external WindowsNT environment to accept transactions and new records from the retailer's e-commerce Web site. New purchase transactions created by customers on the Web site are also standardized and matched against the customer database via the Trillium Software System and Windows NT Server. This enables the retailer to know in real time whether the customer has a relationship with the company and to take appropriate marketing actions. The e-commerce Web site is a Java-based environment that has been fully integrated with the Trillium Software System's online architecture. Trillium Software also offers additional support for distributed objects, including modules for CORBA, COM+ and Enterprise Java Beans.

THE RESULTS

For the retailer, the implementation was short and sweet. In fact, the retailer's

three member internal team was able to complete the initial migration in less than 16 weeks, with the system initially running by week five.

Production results were just as impressive. The Trillium Software System's flexibility allow the retailer to perform mundane tasks not possible with the previous mass mailing cleansing system. The retailer's IT managers have been thrilled that the Trillium Software System does not need to be run from scratch with each new direct mail campaign.

The e-business campaign also has been a success. Two hundred million names and addresses have been cleansed by the system. Ultimately, the Trillium Software System will be deployed on multiple WindowsNT servers and over thousands of Windows 95 desktops, and it will run in the background as part of normal order entry and customer service applications.

Scalability has been easy, too. The same solution that was developed for prototype on an WindowsNT machine rapidly scaled up to the MVS mainframe with little or no modification. Timewise, the migration was accomplished in a matter of weeks. The solution, designed to benefit every employee who deals with a customer, will require little if any training, because it has been designed to work in the background with the applications that end users already know. The bottom line: in less than one year, a small development team has delivered a solution that will transform one of the nation's largest diversified retailing organizations from a transaction-driven to a customer-driven business, just in time for the e-business boom.

With more than 450 customers worldwide, Trillium Software provides the industry's leading software solution for cleansing and standardizing global customer information in e-business, CRM and Internet applications.

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