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## DATA WAREHOUSING

# Marketing Muscle

Catalina ups the **targeting** ante with data warehousing appliance

BY DEENA M. AMATO-McCOY

**T**hanks to its expertise in processing consumer data and providing customer-specific analysis, Catalina Marketing has become a strategic marketing partner for the retail industry. When the company expanded its trademark analysis program into an interactive model, however, it quickly became evident that Catalina's legacy data warehouse configuration could no longer support detailed queries across its growing volumes of data.

By transitioning its traditional OLAP configuration to a more cost-effective data warehouse appliance, Catalina achieved faster query speeds and improved manageability. By delving into consumers' purchase behavior, Catalina enables retailers to foster "more effective, cost-efficient promotions than traditional marketing approaches."

Catalina upholds this promise with its Retail Direct Online (RDOL) program. This service enables retailers to transfer their loyalty card and transaction information directly to Catalina which analyzes this data and creates sophisticated marketing campaigns for its retail partners. Catalina Marketing retrieves about 250 million transactions from more than 21,000 grocery stores each week.

In an effort to make the program more interactive, Catalina now enables retail partners to submit data online. "Now retailers can query data in real time and drill down to specific information about their stores," says Eric Williams, execu-

tive vice president and CIO for the St. Petersburg, Fla.-based company. "Armed with this data, they work with us to create promotions and deliver money-saving coupons."

Retailers can deliver these promotions in a variety of ways. Some rely on direct mail or e-mail messages; others deliver these coupons at the Catalina coupon machines placed at retail point-of-sale units. More than 17,500 stores in the United States feature the printers, and another 6,000 are installed internationally.

"Retailers can also use the service to determine which shoppers are defecting from the store," Williams says. "Then they can directly communicate promotions to these shoppers to entice them to come back."

The marketing possibilities are endless, especially with a database filled with robust volumes of data. In fact, there are 425 billion rows of data in one table alone.

## Data volume

"As our [retail] partners continue to grow their businesses and add stores, they also ask us to expand the volume of data available to them," Williams says. "To date, our retail partners can access up to two years' worth of transaction data." Catalina's legacy OLAP data warehouse was having a tough time meeting the demand, however.

"Relational databases can easily be connected to analysis tools and they can process large volumes of data," Williams says. "However, where the challenge lay was in its ability to efficiently handle queries across this large volume of data. Some queries could take seconds, while others could take minutes or more. That is not interactive."

In addition to speeding up its queries, Catalina needed a solution that could provide a lower total cost of ownership. Clearly, it is a costly endeavor to manage a database's processor, related software and storage disks. "There is also a significant cost associated with the people needed to maintain the system," Williams says. "Labor and maintenance costs add up, making it quite expensive."

After some evaluation, Catalina realized it would be more cost-efficient to migrate its RDOL operations to a data warehouse appliance integrated with the company's existing solutions, such as its MicroStrategy business intelligence front end.

## Bottleneck remover

When Catalina began canvassing the marketplace approximately two years ago, the company came across an appliance from Framingham, Mass.-based



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Netezza. “Our enterprise-class appliances take the bottlenecks out of traditional architectures,” says Andy Winans, vice president of retail and CPG for the data warehouse appliance provider.

Catalina asked Netezza to address a laundry list of requirements. “When they brought the product back to us, we did a benchmark test and found the volume of data they could process was staggering.”

After installing the appliance at its corporate office in the summer of 2005, Catalina began transitioning its data warehouse applications onto the Netezza appliance. The next step was to pour its retailers’ daily transaction log (T-log) and loyalty card data into the unit.

“This transaction data encompasses every item purchased at the retailer’s front end and the price paid for each item, regardless of whether a loyalty card was used or not,” Williams says.

Each evening, retailers load their transaction data into Catalina’s system. By logging into a password-protected site, they can go online and use Catalina’s MicroStrategy data mining tools to drill down into billions of rows of data. Here, retailers uncover the answers they seek regarding customer segments, shopping thresholds and targeting opportunities.

**This month’s goal**

To date, 75 percent of Catalina’s RDOL customers are live on the Netezza platform. The marketing company expects its entire customer base to be using Netezza as of this month.

“We anticipate that it will have taken seven months to convert the entire organization from our legacy systems onto the new platform,” Williams says, adding that more than 100 internal and retail users access the system regularly.

Catalina is pleased that these users also are experiencing faster query throughput. “We have seen between a two- and three-fold increase in speed,” Williams says. “Previously, one report could take us more than two hours to run. Now that report takes five seconds.”

Williams also reports a lower total cost of ownership. “The system provides lower costs across many elements. Further, we will not need any additional [human] resources to manage these databases,” he says.

According to Winans, the system can provide a return on investment within six to 12 months.

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