



Catalina

Deploys ER/Studio to establish modeling standards for the data warehouse

Overview

Catalina leverages one of the world's largest, transaction-level, shopper-data warehouses to develop, deliver, and measure shopper and patient-driven engagements to approximately 90M households and 130M health consumers, annually. Media distribution channels include 50,000 food, drug and mass locations worldwide, including 18,000 US pharmacies. Catalina is based in St. Petersburg, Florida, with operations in the US, Europe and Japan.

Catalina delivers real-time insights to manufacturers from point of sales systems, enabling the delivery of targeted coupons and promotions to consumers. In business since 1983, the company maintains more than 2.5 petabytes of information to which it adds data on more than 300 million retail transactions per week. When a consumer makes a purchase with a loyalty card at one of 50,000 grocery, drug or mass-merchandise stores in the U.S., Europe and Japan, insight from Catalina's database enables manufacturers to offer targeted promotions based on past purchases.

Catalina's customers include manufacturers such as Coca-Cola, Kellogg's, Nestle, Kraft Foods, and Procter & Gamble; and retailers such as Kmart, Kroger, Walgreens, Ralph's, Safeway, Stop & Shop, Target, and Winn-Dixie. Catalina's technology is very advanced; the company uses the Netezza platform, IBM's data warehouse appliance for high-performance parallel data processing and analytics. Catalina calls its database, "One of the world's largest transaction-level, shopper-data warehouses." It tracks patterns of consumer shopping by geography, market area, chain store and ZIP code and helps to predict the success of promotions in changing purchasing behavior.

Analytics within the database help Catalina to make accurate predictions. Data-driven analysis based on predictive models enables a coupon redemption rate as high as 25%. These models consistently generate higher returns over un-modeled targeting.



APPLICATION

- Transaction-level shopper-data warehouse

TOOLS USED

- ER/Studio Enterprise

Challenge

Although Catalina maintains some of the largest, most advanced and complex databases in the world for its business, the company's data modeling tools were not keeping pace. The development team was searching for a new toolset that could provide broader and better DBMS support, specifically for the Netezza platform.

"We were using workarounds to make our existing modeling tool work, because they didn't provide all the services we need," said Kelly Carrigan, Vice President of Data Warehousing and Infrastructure at Catalina. "But those workarounds were not efficient or ideal."

Additionally, the team needed an automated web-based interface for the data models to provide more visibility and allow self-service browsing and searching of the data structures for developers and business users.

"We support hundreds of databases across multiple DBMS platforms, and hundreds of operational and BI applications that connect to those databases," said Carrigan. "Database models that we publish for our application developers range from normalized data models to star schema models. The enormity of what we're dealing with requires advanced methods for reporting and publishing, and much more visibility than we've had with our legacy tools."

Carrigan said his team had been using DBArtisan already, and another company with which Catalina had a joint venture had standardized on ER/Studio. "We had some exposure to the tool throughout our joint venture," said Carrigan. "We tested out the Portal features and Netezza support during an evaluation, and it worked as advertised."

CHALLENGES

- Replace legacy modeling tools with a new solution that provides broader support for DBMS platforms such as IBM Netezza
 - Support hundreds of large, complex databases as well as operational and BI applications connected to those databases
 - Gain visibility into database models and structures
 - Improve web-based reporting and publishing capabilities
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*– Kelly Carrigan,
Vice President of Data Warehousing and Infrastructure at Catalina Marketing*

Solution

Catalina's development team deployed ER/Studio as the data modeling tool for all its databases, which range from hundreds of Gigabytes to tens of Terabytes. Carrigan estimates that the largest database the company uses to model for ad hoc users and BI applications is around 30 Terabytes in size. That's a ton of data. Fortunately, said Carrigan, ER/Studio can handle the challenge. Built-in automation of routine modeling tasks in ER/Studio enables users to analyze and optimize database and data warehouse designs rapidly, while a server-side model management system and Web-based Portal help to increase team productivity by sharing, documenting and publishing models and metadata to distributed teams. Multiple users can exchange information about data and business process modeling projects with real-time, concurrent access, enabling greater collaboration on business requirements, designs and data models among cross-functional teams, all while enforcing standards.

Using ER/Studio, developers can diagnose and understand the impact of changes, as well as define and reuse common data elements across projects to promote standardization and create a modeling environment with flexible concurrent licensing options and self-service reporting for end-users. ER/Studio enhances visibility and information quality across enterprise systems with round-trip engineering and complete database lifecycle support.

Additionally, ER/Studio includes a built-in Model Validation wizard to QA models and performs both process and true conceptual modeling. Administrators can assign versions to data models as they are developing and refer to previous versions when refining or updating the current model, if necessary.

At the time of rollout, about 10 to 20 of Catalina's DBAs and developers switched to using ER/Studio. "Our business users will leverage it, as well, as they begin to point ad hoc query tools and BI applications into the data warehouse during development," said Carrigan. Catalina's various development teams and users will access ER/Studio using centralized licensing with optics into who is using the software and easy distribution and sharing of ER/Studio licenses across the team.

And with tens of Terabytes of data to manage and manipulate, the ER/Studio Portal will be critical to helping Catalina's development teams and DBAs to communicate and collaborate. The browser-based Portal provides self-service, web-based search and reporting for accessing and querying the ER/Studio Repository. Cross-model and repository-wide data definition and object searches improve developers' understanding of metadata, object whereabouts and data usage. Pre-installed business and technical reports, as well as custom reporting features, are included. "ER/Studio provides the ideal combination of a feature-rich, browser-based Portal with Netezza support and ease of use to enable effective collaboration among our developers and DBAs," said Carrigan. "It helps us keep up with our vast, complex databases and develop products that satisfy our customers' needs."



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Marketing*

Results

With ER/Studio, Catalina's development team now has state-of-the-art modeling tools to match up to its state-of-the-art database environment. ER/Studio has significantly improved upon the team's modeling capabilities within Netezza, while providing new administrative features that make the team more efficient. Migrating the data models to the new platform was seamless and uneventful. "The ER/Studio support technician made it very easy," he said.

Equally important, ER/Studio delivers the enhanced visibility the team needs to collaborate more productively and save time. Network-managed licensing will enable developers to quickly run ER/Studio without the typical installation and license allocation friction, and Carrigan expects this fast, trouble-free access will save his team time and hassle.

"ER/Studio's delivery platform for license management is a cinch, compared to how we were doing it before," he said. "It's exciting that we finally have the tools to keep pace with the data warehousing technology we've had in place all along. Our modeling capabilities are in lockstep with our database now."

RESULTS

- Implemented state-of-the-art modeling tools that will keep pace with Catalina's advanced data warehousing environment
 - Enabled deeper modeling capabilities specific to Netezza, while providing new administrative features and efficiencies
 - Easily and successfully migrated all data models from existing modeling platform to the new platform
 - Provided developers, DBAs and business users visibility and improved collaboration through the Web-based Portal
 - Simplified license management by providing centralized, licensing automation and usage tracking for ER/Studio
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