

TransUnion

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—Emmett Zahn, group vice president,
U.S. Information Technology

INDUSTRY

Financial Services

KEY BENEFITS

- Significantly reduces cost of adding CPU power for new applications
- Reduces query times on primary reports from six hours to one
- Improves data-loading speed to sustain customer service-level-agreements

SYBASE TECHNOLOGY

- Sybase® IQ
- Sybase PowerDesigner®
- Bradmark Surveillance DB for Sybase

As a global leader in credit and information management, TransUnion creates advantages for millions of people around the world by gathering, analyzing and delivering information. For businesses, TransUnion helps improve efficiency, manage risk, reduce costs and increase revenue by delivering comprehensive data and advanced analytics and decisioning. For consumers, TransUnion provides the tools, resources and education to help manage their credit health and achieve their financial goals. Through these and other efforts, TransUnion is working to build stronger economies worldwide. Founded in 1968 and headquartered in Chicago, TransUnion employs more than 4,000 employees in more than 30 countries on six continents.

WHEN THE DATA IS THE BUSINESS

For marketers, providing the right product to the right person at the right time is one of the keys to business growth. This is especially true for marketers at financial services and credit card companies. In the past, determining who and what to market to was a fairly unsophisticated process. With the vast availability of data, today’s marketers use credit criteria, risk scores and multiple decision levels within the parameters of federal law, to better identify and target customer prospects with up-sell and cross-sell by making firm offers of credit.

Several of today’s sophisticated financial services marketers use TransUnion’s Custom Processing Service to run queries against a database of 280 million credit consumers to help match their direct mail campaigns with a certain consumer’s marketing profile. The solution creates targeted lists based on the profile and total number of consumers the marketer wants to reach. By providing the lists to marketing executives at financial services and credit card companies more quickly, TransUnion is helping its customers reduce costs, increase response and activation rates and most importantly, increase revenue and the profitability of their marketing campaigns. However, the combination of an ever-growing database, marketing sophistication, greater segmentation and increased demand for faster list turnaround, coupled with stringent regulatory requirements, TransUnion recognized it needed to upgrade portions of its information technology infrastructure.

“Given our database’s size and the number of filters some customers select, today’s queries require more processing time and power,” said TransUnion’s Emmett Zahn, group vice president, U.S. Information Technology. “We ran queries while our mainframe conducted an extract-transform-load (ETL) process and realized we needed to update our infrastructure to meet our customer’s ever increasing time sensitivity.”

The company turned to Sybase for possible solutions. The company was specifically interested in Sybase IQ and Sybase PowerDesigner. It also considered adding additional Unix servers to its infrastructure. The company was interested in Sybase IQ because of its ability to share data across database instances and Sybase PowerDesigner for its ability to produce a physical model from a logical model and its seamless integration with Sybase IQ. Additionally, the new Unix (AIX) servers were ideal because of their compute power-to-cost ratio as well as vertical and horizontal scalability.

After formally meeting with Sybase, TransUnion decided to conduct an in-depth proof-of-concept (POC) using Sybase IQ loaded on Unix servers. Together, they ran a six-week POC using a full-sized copy of the mainframe data to ensure the new system would handle the data and perform as well as the mainframe.

“We wanted to run several simultaneous ETL jobs to make sure the Sybase IQ data would match the mainframe data and make sure the data was clean,” said Zahn. “We also wanted to make sure what we could generate enough query performance from Sybase IQ to allow us to continue to meet our service level agreements without incurring a large hardware cost.”

REDUCES DATABASE LOAD PROCESSING TIME

During the POC, TransUnion ETL process extracted approximately 3 terabytes of data from mainframe-based datasets. The process occurred every three to ten business days. The ETL tool then processed this extracted data and forwarded it to Sybase IQ for loading—taking only about 12 hours—a testament to both Sybase IQ and the Unix servers.

“The database loads occur on a different server than the queries, which allowed us to keep our databases current without sacrificing query performance. We also have the flexibility of adding CPUs to the server to reduce the load time even further,” said Zahn. He added, “The multiple query server solution also allows us to scale by either adding additional CPUs to the existing servers, or by adding additional servers.”

FAST QUERY RESPONSE TIMES

During the POC, Sybase IQ consistently completed executing 120 of TransUnion’s primary query tests in just over one hour utilizing 8 CPUs. Tests were conducted utilizing 2, 4 and 8 CPU configurations, which revealed a near linear reduction in query times as the CPUs were doubled.

REDUCED STORAGE NEEDS

The POC also tested the technology’s ability to compress data. Although the raw data adds up to 3.3 terabytes, Sybase IQ compressed it to approximately 700 gigabytes—an 82 percent compression rate. This feature alone allowed TransUnion to save on storage cost because it needs less storage space to hold the same amount of data.

“After several successful runs, we migrated our Custom Processing Service to Sybase IQ and went live,” said Zahn.

MIGRATING APPLICATIONS TO SYBASE IQ

TransUnion found that running loads on Sybase IQ and Unix (AIX) servers consistently takes less time than its mainframe. In fact, every time TransUnion doubles the number of CPUs, the load-time is reduced by half.

TransUnion also explored migrating some of its applications off the mainframe. It wanted to determine whether an alternative solution running its secondary applications could accommodate the applications without a large investment in CPU power. Sybase IQ’s track record in business intelligence prompted the company to consider a data warehouse powered by Sybase IQ.

NEXT STEPS

After deploying Sybase IQ, TransUnion added Surveillance DB for Sybase from Bradmark Technologies. The software is a cross-functional set of monitoring tools with a common interface that allows TransUnion to monitor and maintain Sybase IQ while also ensuring all users receive the level of service they need when submitting queries.

TransUnion also started using another Sybase product, PowerDesigner, to standardize data modeling for business processes and for metadata. The company also is in the process of determining which of its other applications it will migrate over to Sybase IQ.

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