

# WWWD THURSDAY

Sportswear

## Ross, Bon-Ton Speed Data

By Denise Power

The appetite for business intelligence that reveals a competitive opportunity or insight has never been greater. At Ross Stores, those tasty nuggets of knowledge are now served up 20 times faster, giving buyers more agility.

Getting answers to questions like, "Are green sweaters outselling blue?" no longer takes a weekend of number-crunching, as was the case last year, before Ross moved its business intelligence software to a new technical platform. Buyers don't have to wait until Monday to review sales trends; they can run those analytical reports when they want and if they see an item selling fast in one region, they can jump on an opportunistic buy to boost profitability.

Ross Stores, the country's second-largest off-price retailer, is able to sell brand names at lower prices because its buyers purchase later in the cycle than other retailers and can take advantage of manufacturer overruns and canceled orders.

"We act out in the market every day to capitalize on opportunities," said Michael Kobayashi, senior vice president and chief information officer of the \$5.6 billion chain. Complex merchandise performance reports that had taken days to process on the old platform now take five minutes on the new one. Simpler queries are even faster.

"We know that 70 percent of queries come back in 10 seconds," he said, "and 96 percent within a minute," now that Ross is using a new breed of technology called a data warehouse appliance. The system, used by more than 500 Ross employees, was developed by Netezza of Framingham, Mass.

Unlike a traditional data warehouse, which calls for sizable investments in hardware, software and storage capacity from multiple vendors, a data warehouse appliance integrates all those components into one platform, including professional services, from a single vendor. Some companies prefer this approach because it obviates the finger-pointing that can come with a multi-vendor system, and provides "one throat to choke" when things go wrong.

Other retailers venturing into this territory include Sears Holdings, which purchased a data warehouse appliance from DATAlegro of Aliso Viejo, Calif., and Bon-Ton Stores, based in York, Pa., which is using a platform that Hewlett-Packard just introduced.

A data warehouse appliance is less expensive and simpler to set up than a traditional data warehouse, Kobayashi said.

"Traditionally, IT has had to spend a lot of time on what I would consider the more technical aspects of getting a data warehouse or business intelligence system up and running. It was complex; we spent a lot of time on performance and data modification," he said. "In this new environment, we have spent less time on that and we've been able to spend more time on the business, which is more relevant and exciting."

Plus, fewer database administrators are needed on staff to keep things humming as the volume of data grows. Today, Ross' data warehouse appliance stores nine terabytes of historical information. Weekly uploads of new data are 50 times faster, and that improves "up time" — the system's availability to hundreds of business users.

"As systems grow and business requirements are added and data are increased, the cost of maintaining and developing that system grows along with it," Kobayashi said. "For us, it was, 'How do we continue to build capability and not have the cost increase?'"

Kobayashi did not specify how much less the appliance technology costs than a traditional data warehouse. However, he said moving business intelligence software off Ross' Sun-Oracle data warehouse and onto the Netezza platform freed so much capacity that the retailer deferred purchase of storage space through all of 2006 and much of 2007.

The appliance is a compelling new entrant to the data warehouse world, he added. "I would say the concept struck me quite hard. I thought it had immediate applicability," he said. "The evaluation of the concept took us a lot longer." Ross first tested the system in September 2005, went live in a limited fashion five months later and converted fully in May 2006.

The attractive price of data warehouse appliances has not gone unnoticed by traditional data warehouse vendors such as Oracle, IBM and Teradata, said Donald Feinberg, database analyst for Gartner Inc. of Stamford, Conn.

"One thing that is interesting and enticing about [appliance] vendors is, they are cheaper," Feinberg said. Major vendors are not only adjusting pricing, but are beginning to offer appliance platforms of their own to compete with market newcomers like Netezza and DATAlegro. This does not mean retailers will abandon traditional data warehouses, only that they will invest in data warehouse appliances to complement their existing systems.

Bon-Ton is doing precisely that, said Jim Lance, senior vice president and chief information officer for the \$3.4 billion department store chain. Bon-Ton's acquisitions of Saks' Northern Department Store Group and Elder-Beerman doubled its size twice in three years, and data processing demands rose exponentially.

"That began to put pressure on our data warehouse environment, so we needed an alternative to handle the additional volume from stores," said Lance. After a test showed Bon-Ton could expect speed improvements up to 13 times faster, the retailer moved its vendor sales and performance reporting software from its IBM data warehouse to Hewlett-Packard's Neoview platform in September.

After that, Bon-Ton moved a highly complex merchandising application to Neoview, Lance said. "This provides the ability for merchants to create a virtual style group," he said. "They can mix and match various styles and colors within the assortment to create their own reporting group to examine an outfit as it appeared in a catalogue and track other attributes of the merchandise, by location." This free-form type of analysis gives merchants the ability to analyze their business however they want, unlike traditional data warehouses that are designed to process highly structured queries.

"Merchandising is not the same in all families of business," Lance added. With the flexibility of the new system, merchants at Bon-Ton's various banners, such as Carson Pirie Scott, Bon-Ton and Elder-Beerman, can customize their analytical reports in ways that suit them best.

Moving the merchandising application to the new system, which stores 7.3 terabytes of data and can scale up as needed, freed 25 percent of capacity on Bon-Ton's IBM data warehouse. That's more than \$1 million in processing and storage capacity that can be used for something else, Lance estimated.

Bon-Ton's strategy is about choosing the right technology platform appropriate for specific needs, Lance said. "The business intelligence role within our company is very critical to our success. We don't believe you would find any retailer who would say they know enough about their customers and the performance of the merchandise assortment."