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Data



Answer man: Netezza's
Jitendra Saxena.

Speed Demon

Netezza's computers can do only one thing—but they do it very, very fast.

JITENDRA SAXENA'S TINY COMPUTER COMPANY, NETEZZA, will do all of \$40 million in sales this year, but Saxena has a message for data warehousing giants like IBM, Oracle and Teradata: Be afraid. "When it comes to performance, none of them can touch us. They can't even come close," Saxena says.

Founded in 2000 in Framingham, Mass., Netezza (pronounced "net-EE-za," Urdu for "results") sells a refrigerator-size machine specially designed for analyzing massive amounts of data. A Netezza computer is useless for general purposes, yet for data warehousing it's supremely fast, zipping through terabytes in seconds.

"People tell me, 'Look, I've been in the business for 25 years, and there's no magic bullet.' Then they see this machine and their eyes open up wide," Saxena says.

At Shoppers Drug Mart, a Canadian drugstore chain, queries that took 40 hours to run on an IBM data warehousing system now run in 30 minutes on Netezza. "We're getting up to 80 times the performance," says Donald Parker, chief information officer at Shoppers Drug Mart, in Toronto, who says his company is phasing out the IBM product. "Netezza is phenomenal. This is not a small change. This is radically different. The system is even better than what Netezza claims."

The secret lies in Netezza's design. Instead of shuttling files back and forth between a computer and a disk storage system, the place where traditional systems bog down, Netezza puts computing power on the disk drives where data are stored. Each drive has its own microprocessor, plus a Xilinx field-programmable gate array chip with a scaled-down database program burned into its circuits. The chip queries the data right at the drive, passing back only the correct answers to the main computer, which runs Netezza's own database software program. The machine runs faster because fewer files are flying back and forth.

Netezza's top-end model boasts 650 hard disk drives and 676 microprocessors. It holds 27 terabytes of data and costs \$10 million. The low-end model, at \$300,000, uses 60 microprocessors and holds 400 gigabytes.

Though the guts of a Netezza machine are dauntingly complex, Netezza claims its boxes need far less babysitting and therefore cost less to operate than general-purpose computers. "This is the new way of doing things," Saxena says. "Instead of having separate hardware and software, you have an integrated appliance."

AT&T Wireless and Orange UK chose Netezza boxes to analyze customer call records. (Orange is also an investor in Netezza.) TJX Cos., owner of T.J. Maxx and Marshalls department stores, scours supply chain data using Netezza.

Epsilon, a junk mailer in Wakefield, Mass., was a 35-year user of big IBM computers to analyze complex databases for banks, phone companies and hotel chains. But last year Epsilon switched to Netezza boxes, which run 20 times as fast as IBM's biggest computers and cost less than half what IBM charges, says Michael Coakley, a vice president at Epsilon.

Executives at Teradata dismiss Netezza, saying its boxes are hard to upgrade and too puny to handle enormous data warehouses like the ones it has built for Wal-Mart, FedEx and Dell. Teradata systems can handle hundreds of terabytes. Saxena promises a 100-terabyte Netezza machine in a year or so.

Saxena, 59, an engineering graduate of the Indian Institute of Technology, holds a master's degree in engineering and a master's in business administration. A veteran of minicomputer maker Data General, Saxena in 1983 founded a software company called Applix. He left Applix in 2000, before cofounding Netezza, which to date has raised \$53 million in venture capital.

Worldwide spending on data warehouse systems was \$15.5 billion last year, according to market researcher IDC. Saxena expects his sales to grow 150% in 2005, to \$100 million. "I'm sure we can become a \$1 billion company," he says. "The next wave in business is about understanding data at a much more granular level. We call it the power to question everything." — *D.L.*

NETEZZA
The Power to Question Everything™