

Netezza introduces new pricing, enhancements to its range of data-warehouse appliances

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IMPACT REPORT

10 April 2006

Netezza has changed its pricing model to make system extensions more flexible and cheaper. It has also introduced enhancements across its range of Netezza Performance Server (NPS) data-warehouse appliances in a bid to further challenge incumbents. There are ongoing enhancements to the speed at which data can be loaded into and taken out of its appliances. In the newly announced release, performance has reportedly been doubled to enable data load/unload speeds of 500GB an hour. The company also claims it has doubled querying performance and has improved the ability to handle mixed-load environments.

In general, the startup continues to build momentum, with 57 customers now on board, some of which were direct wins against **NCR's Teradata** data-warehousing division, as well as **IBM** and **Oracle**. The financial services sector is also more of a focus for the startup because it now has a direct sales force to go after this market.

Impact assessment

The message

Netezza claims to have improved handling of mixed-load environments and to have doubled data load/unload speeds and query performance in all three ranges of its data-warehouse appliances. A new pricing model aims to expand deployments for less than \$40,000 per TB of data.

Competitive landscape

Although Netezza's closest rival is fellow data-warehouse appliance startup Datallegro, executives report that Oracle continues to be its main competitor. Aside from Oracle, Teradata is the incumbent it tends to encounter most frequently, followed by IBM. Sand Technology is another rival, as is Microsoft SQL Server 2005 and Kognitio's WX2 warehouse (formerly WhiteCross Systems) which also has an appliance-like architecture. Greenplum and its open-source-based warehouse platform is another potential competitor, although not one Netezza currently encounters. Sybase's IQ database also provides competition.

The 451 assessment

The introduction of so-called Materialized Views enables organizations to run smaller tactical queries and thereby extends the use of Netezza's appliance range beyond its traditional role for complex, high-performance ad hoc analysis. The new pricing regime should also enable it to upsell to existing customers, and add new ones, more quickly and easily. But although it will undoubtedly speed up sales cycles, we wonder whether average deal sizes will drop from the current \$1m level as a result.

Context | Netezza has doubled its installed base in the past year and now has about 57 customers. More than 35 of these accounts have already deployed one or more data-warehouse appliances, and a further 10 customers are in deployment phase. Customer segmentation analysis remains the primary use for these systems, followed by clickstream analysis. Revenue and net income for the startup are unavailable, but we do know that average deal sizes have stayed constant over the past year at roughly \$1m.

Although retail, outsourced analytics and the telco sector continue to provide the bulk of business, Netezza started targeting the federal government sector with a dedicated sales force last year. It has now applied the same sales strategy to the financial services sector where it previously sold through partners. In general, executives report that sales engagements have shifted from early-adopter customers to more conservative organizations in recent months.

Besides new enhancements and a new pricing strategy, Netezza's data-warehouse appliance range has been certified to work with an increasingly large number of third-party tools and applications. Certified ODBC drivers are now available for 13 partner products including those from **Hyperion Solutions, Cognos, Informatica, Information Builders, SAS Institute, IBM and Sunopsis**. Netezza is also forging closer relationships with existing partners **Business Objects** and **MicroStrategy** to deepen integration links. The startup has 185 employees, up from 170 in June 2005, and is continuing to hire in sales and customer support.

Products | Netezza has three data-warehouse appliance ranges: the NPS 5000 series, NPS 8000 series and NPS 10000 series. The NPS 5000 series is for entry-level deployments since it's a half-rack system with a capacity of up to 3TB that doesn't require a full datacenter. The NPS 8000 series is its flagship range and has five models: the smallest is the 8050z, which is a one-rack system with a 2.75TB capacity; the largest is the 8650, a 6-rack system with a 33TB capacity. The NPS 10000 series comes in two flavors. NPS 10400 is a four-rack system with a 50TB maximum capacity, and NPS 10800 is an eight-rack system with a 100TB maximum capacity.

All appliances use RedHat Linux as their operating system and PostgreSQL as the underlying database. The appliances optimize SQL using Netezza's massively parallel streaming architecture known as Intelligent Query Streaming. The query function and management is implemented in silicon and provides data streaming at the disk levels. The systems also perform direct table scans instead of using database indexes. The overarching aim of the appliance is to shorten the path – and therefore increase the speed – between the query and the result by placing processors next to each storage device.

One of the main enhancements now made across all ranges is an increased ability to handle mixed-load environments courtesy of a new function called Materialized Views, which provides cross-database access. It effectively works by loading more data onto the disk drives in the data-warehouse appliance. A new optimizer in the system then takes a quick scan of the statistics of the table in the database to get the most up-to-date view and therefore the most optimal query path.

Netezza has improved the speed at which data can be loaded/unloaded into the appliance. It claims to have doubled the load/unload speed to 500GB an hour and significantly improved query performance. Other improvements include new support for ANSI sequences and ODBC Version 3.5, and broader support for international character sets. An NPS System can now reportedly handle 200 different character sets and can provide translations between them on the fly.

Pricing | Netezza has also changed the pricing structure across all three ranges. Where customers previously bought a one-rack or two-rack system and then scaled up to, say, four racks as the volumes of data for analysis grew, it has now introduced a less linear pricing model. Customers were reportedly squeezing data onto the smallest appliance possible. But the new pricing model is designed to stop that from happening by enabling them to expand systems at a cost of less than \$40,000 per TB of data. It means customers can double the number of massively parallel blades (or Snippet Processing Units, as Netezza calls them) they need when data volumes grow, without incurring the same costs.

Competition | Although executives report they have now won a number of deals against Teradata, the incumbent operates at the high end of the data-warehousing market, where Netezza's sweet spot is customers with 2-10TB of data to analyze. This is a market also being targeted by fellow data-appliance startup **Datallegro** – although we believe it has far fewer customers than Netezza.

Data-warehousing and BI consultancy firm **Kognitio** acquired UK data-warehousing veteran **WhiteCross Systems** in September 2005. The acquired WX2 warehousing platform shares similarities with Netezza NPS system since it's a database optimized for data warehousing that also runs on commodity blade servers. Although Netezza has never encountered WX2 in competition, we wonder if it will once Kognitio ships a version of WX2 for mixed-workload environments in the third quarter of 2006.

Oracle remains a potent threat, as does IBM. Both vendors released appliance-like bundles last year combining servers, storage and databases into a single offering. Oracle's Database Packs combine its 10g database with **Sun Microsystems** hardware while Big Blue's Balanced Configuration Unit (BCU) is a pre-configured package utilizing its eServers and TotalStorage hardware and data-warehousing software. Netezza reports that it has never encountered Oracle's Database Packs competitively, and that it sees BCU fairly infrequently.

Netezza is also an IBM partner and works with IBM's WebSphere Information Integration division (formerly **Ascential Software**) in data-warehousing installations where it reports it has a good shared footprint. Big Blue also recently introduced a new version of its warehouse software, Data Warehouse Edition 9.1, which is designed to simplify a DB2-based warehouse installation by bundling and integrating many of the necessary analytic tools into the database.

Microsoft SQL Server 2005 is another formidable rival and one that has been gaining ground as a platform for warehousing. **Sybase** IQ and Sand's DNA data warehouse are less direct rivals. **Greenplum** is currently targeting the low end of the market where customers want to analyze 0.5-1TB of data, which could explain why Netezza never encounters Greenplum competitively.

SWOT analysis

Strengths	Weaknesses
Enhancements to more fully support a mixed-workload environment open up the possibility of using NPS systems for their original purpose – complex queries – as well as simple database queries thereby enhancing appeal.	Data appliances are still an evangelical sell that require much hand-holding in the sales process. Although Netezza's burgeoning installed base proves it's up to this challenge, some customers are still unlikely to want to buy new warehouse technology from a startup.
Opportunities	Threats
The new pricing regime should enable it to more easily extend existing implementations as well as court new customers with more flexible pricing options.	IBM, Oracle and Microsoft continue to provide hefty competition as the database players that operate most often in Netezza's heartland.

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