



**PREMIER, INC.**  
NETEZZA IN ACTION

## Advancing the Quality of Clinical Care with Robust Data Analysis

As an organization that provides informatics services and solutions to 1,500 hospital facilities and hundreds of other healthcare sites, Premier's business is based on its ability to deliver the most in-depth and easily accessible information about healthcare. Premier, Inc. is a strategic healthcare alliance owned by 200 of North America's leading hospital and healthcare systems; its mission is to help those organizations leverage data to make more informed decisions so they can deliver the best possible clinical care.

### The Opportunity to Innovate

Premier's ability to deliver the highest quality data to healthcare providers is contingent on the speed, reliability and depth of data it can capture and analyze within its data warehouse platform. In 2003, Premier saw the opportunity to develop an industry-leading data delivery solution by leveraging a new kind of data warehouse – Netezza's data warehouse appliance.

Until that point, Premier had been very limited in terms of the level and detail of analytics that could be performed on its data and, thus, delivered to clients. The company could not easily access all of its data which made it impossible to establish logical mapping procedures, to run daily analyses, or to develop detailed reports at a sufficient speed. Simply put, the incumbent system performed very poorly; near real time analytics were not feasible. Worse, Premier was plagued with regular required upgrades which were becoming increasingly expensive. The company needed a change and Premier began to seek out a data warehouse that could provide multi-dimensional-like response time for dashboard analyses, the capability for rapid development, and quick execution of business intelligence (BI) reports.

So when Netezza introduced its data warehouse appliance, promising huge performance gains along with simplicity and lower total cost of ownership, Premier was intrigued. After learning more about Netezza's architecture and undergoing an extensive proof of concept, the company was convinced that this data warehouse appliance would perfectly align with Premier's business objectives.



### Company Profile:

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- Premier, Inc.: healthcare alliance comprised of 2,200+ US hospitals and 63,000+ other healthcare sites that work together to improve healthcare quality and affordability
- ClinicalAdvisor™: flagship Premier product offering the leading clinical efficiency and quality performance benchmarking application in the industry

### Business Challenge:

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- Need to provide clients with up-to-date information for accurate and timely healthcare quality improvements

### Application:

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- US' most comprehensive repository of clinical, financial and outcomes information

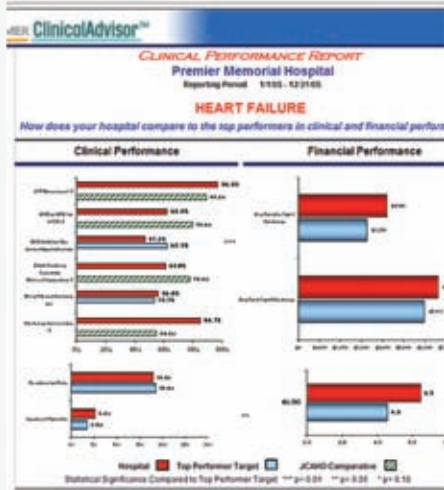
### Solution Benefits:

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- Drives continuous clinical quality improvement by offering massive volumes of detailed data to healthcare providers on demand
- Multi-terabyte ELT processing in near real time dramatically reduces time to refresh data for clients; enables Premier to readily identify best plans of action for hospitals
- More than 6,000 users can directly access 8 billion records capturing hundreds of attributes about 150 million patients

“Our customers are touching Netezza every single day.”

Chris Stewart  
Senior Architect  
Premier, Inc.



Sample ClinicalAdvisor report

“By loading staging data directly into Netezza and using SQL scripts to perform much of our ETL processing directly against the database as a complement to our ETL engine, we were able to dramatically reduce the time required to refresh our data warehouse for our customers.”

Gary Feierstein  
Senior Director of Architecture  
Premier, Inc.

### The Largest Clinical Repository in the World

Today, Premier runs the largest clinical repository of its type in the world, powered by the Netezza appliance. By offering massive volumes of detailed clinical information to hospitals and other healthcare service providers through a variety of specialty products, Premier drives continuous clinical quality improvement. For example, Premier's flagship ClinicalAdvisor™ product offers the leading clinical efficiency and quality performance benchmarking application in the healthcare industry. Its power lies in its ability to quickly provide critical performance measurements against a comparative database. With ClinicalAdvisor, hospitals can access actionable information such as detailed comparative clinical outcome measures, clinical resource utilization, and transaction-level cost data to help develop plans to improve both process and outcomes in their organizations.

Premier receives data from all different sources – including more than 600 hospitals – and uses one Netezza appliance to perform ELT (extract-load-transform) and cleansing processes. The data is then loaded onto the external-facing Netezza system, which Premier's clients have direct access to. As Chris Stewart, Senior Architect at Premier, stated, “Our customers are touching Netezza every single day.”

Gary Feierstein, Premier's Senior Director of Architecture added, “By loading staging data directly into Netezza and using SQL scripts to perform much of our ETL processing directly against the database as a complement to our ETL engine, we were able to dramatically reduce the time required to refresh our data warehouse for our customers.” With the new ELT (vs. a traditional ETL) approach, logical mappings are restated with each data release, data moves from the cleansing system in a timely manner, processes are comfortably completed within their allotted time window and Premier can expand its data assets. Netezza's ability to handle multi-terabyte data loads in a real-time setting enables Premier to readily identify the best plans of action for many hospitals and patients.

Premier can also run reports with amazing speed on Netezza; billions of rows and terabytes of data can be queried with impressive flexibility and overall performance. As Stewart said, “We're moving heaven and earth for each report!” Premier has more than 6,000 active users that can readily access the system, running more than 25,000 reports each month. Premier now collects 150 million patients online, four billion patient charge records and eight billion total records that collect hundreds of attributes about each patient. The Netezza database supports one million aggregated data records, along with billions of detailed data records.

When meeting with the Netezza team, Stewart commented, “You are the business. Data is our business. What we do is to provide data to improve clinical care... You have empowered the next phase of analysis.”

In addition, Premier's Help Desk no longer has to spend endless time determining why customer reports will not return, the database administration (DBA) staff can devote its work to development instead of operations, the organization has more time for in-depth Q&A before releasing data, and more tests can be run on new applications before launching. Internal analyst productivity has also improved, as they can use workstation tools for packaging instead of data crunching, and operational data loads no longer run to the end of their processing windows. In short, Premier has become a much more efficient organization by increasing productivity and reducing time spent on performance issues and troubleshooting.

“We’re moving heaven and earth for each report!”

Chris Stewart  
Senior Architect  
Premier, Inc.

### **Premier’s database accommodates:**

- 6,000+ active users
- 25,000 reports per month
- 8 billion records collecting hundreds of attributes about 150 million patients

To Netezza:


“You are the business. Data is our business. What we do is to provide data to improve clinical care... You have empowered the next phase of analysis.”

Chris Stewart  
Senior Architect  
Premier, Inc.

### **Sustainable Success with Continuous Clinical Quality Improvement**

With the analytic advantage that Premier has from its Netezza-powered platform, the company is building innovative products that help it further leapfrog other industry offerings.

For instance, as the government applies increasing pressures on healthcare providers to deliver more and more data for compliance regulations, many hospitals have had to shift their priorities from constantly improving the quality of care to maintaining their databases and reporting on data in a timely fashion. Luckily, Premier’s state-of-the-art analytic platform can help. To ease the strain on hospitals, Premier launched a new set of reports in July 2009 which are unprecedented in the industry. These reports offer recommendations for improving clinical quality in addition to providing the standard information previously included in Premier’s reports. This new feature allows hospitals to improve the quality of their care while still meeting the increasingly stringent government regulations.

With its Netezza-powered analytic platform, Premier is well-equipped to serve the healthcare industry for years to come. Even as regulatory requirements grow and healthcare becomes increasingly available to citizens, Premier will be able to serve up near real time information so healthcare providers can continuously improve the quality of care. 

### **About Premier**

The Premier healthcare alliance is more than 2,200 U.S. hospitals and 63,000-plus other healthcare sites working together to improve healthcare quality and affordability. Owned by not-for-profit hospitals, Premier maintains the nation’s most comprehensive repository of clinical, financial and outcomes information and operates a leading healthcare purchasing network. A world leader in helping deliver measurable improvements in care, Premier works with the Centers for Medicare & Medicaid Services and the United Kingdom’s National Health Service North West to improve hospital performance. Headquartered in Charlotte, N.C., Premier also has offices in San Diego, Philadelphia and Washington.



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**About Netezza**

Netezza (NYSE: NZ) is the global leader in data warehouse and analytic appliances that dramatically simplify high-performance analytics across an extended enterprise. Netezza's technology enables organizations to process enormous amounts of captured data at exceptional speed, providing a significant competitive and operational advantage in today's data-intensive industries including digital media, energy, financial services, government, health and life sciences, retail and telecommunications. Netezza is headquartered in Marlborough, Massachusetts and has offices in North America, Europe and the Asia Pacific region. **For more information about Netezza, please visit [www.netezza.com](http://www.netezza.com).**