



MARSHFIELD CLINIC NETEZZA IN ACTION

Marshfield Clinic and Netezza partner to deliver a healthcare data warehouse that is heads and tails above the rest

One of the largest private medical practices in the U.S. leverages Netezza for its strategic data warehouse platform, enabling near real-time analysis of millions of patient records.

Marshfield Clinic is one of the largest private, multi-specialty group practices in the United States, providing primary, secondary and tertiary care in more than 40 locations throughout Wisconsin. In addition to patient care, its operations include an applied science and laboratory business, a clinical research foundation, an HMO, a commercial software division and other units.

The Clinic uses a Netezza appliance as its strategic data warehouse platform to support clinical decision making, healthcare management, research and quality improvement throughout the Marshfield Clinic system. Its system provides the lifetime repository of all lab and radiology results, billing and claims records, office visits, procedures, discharge summaries and other records, including 97 million patient diagnoses and lab results dating back to 1960.

Meeting Many Needs

The data warehouse accommodates about 6,700 users, including more than 750 physicians who depend on it to support the Clinic's Electronic Medical Record (EMR) system for 2.5 million patients. Using the power of Netezza together with business intelligence tools, healthcare professionals across the organization perform comprehensive analysis of clinical, operational and financial data to monitor and improve performance. Clinic researchers are also better equipped to perform sophisticated longitudinal analysis across patient populations, treatments and outcomes for new insights and improved care.

Marshfield Clinic chose the Netezza appliance for its tremendous performance gains and scalable, cost-effective approach to data warehousing. It replaces an earlier system that was unable to keep pace with growing data volumes from patient accounts, insurance records, office visits and lab results; and due to the need for rapid and accurate response. In addition, costs to maintain the existing system had become exorbitant.



MARSHFIELD CLINIC.

Application:

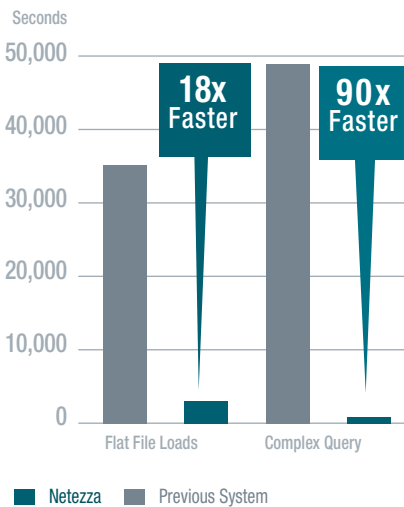
- Electronic Medical Record system for healthcare management and quality improvement

Benefits with the Netezza System:

- Near real-time response for clinicians as they provide patient care – queries run 10-90x faster
- Detailed analyses enabled across entire patient populations and their associated treatments and outcomes
- Industry-leading platform at a fraction of the cost of alternative solutions
- More efficient workforce – existing staff can handle more data without time-consuming tuning

The Value of Performance

Netezza is making a difference at Marshfield Clinic, facilitating faster processing of flat file loads and queries, along with Natural Language Processing (NLP) to mine EMR documents for information about conditions, diagnoses, procedures and treatments. Netezza's parallel processing allows Marshfield Clinic to analyze many millions of patient records in the EMR system simultaneously and more cost effectively than what was possible before. Sequential flatfile loads run about 18x faster than before, and queries return anywhere from 10-90x faster. This translates into fast, comprehensive understanding of patients from any location, at any time.



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Carl Christensen,
Chief Information Officer,
Marshfield Clinic


Since migrating to the Netezza platform, queries run ten to 90 times faster – from hours to minutes, minutes to seconds. Queries that would never finish now execute flawlessly. This is a huge benefit to physicians and other caregivers, because during literal life or death situations, they can’t wait hours for answers to their questions. For instance, a visiting nurse can use the Marshfield/Netezza solution to find out on the fly if his patient has ever experienced a reaction to red food coloring before, and/or how many other instances of that reaction have occurred in the past ten years anywhere in the state.

“Analyzing our financial and operational performance and our clinical information helps the Clinic provide for our patients’ needs – now and in the future,” said Carl Christensen, chief information officer at Marshfield Clinic. “Netezza’s performance in terms of handling data loads and query responses is tremendous, improving our responsiveness, and represents a fraction of the initial and long-term cost of older enterprise data warehouse approaches.”

Platform for New Opportunities

The Netezza platform also plays a key role in Marshfield Clinic’s Clinical Information Systems division, which aims to help other healthcare providers replicate Marshfield Clinic’s success. Marshfield Clinic markets its healthcare data warehouse and EMR solutions to other hospitals and clinics, recommending Netezza as its preferred healthcare data warehouse platform. As the Clinic’s platform of choice, Netezza provides an integral part of best practice solutions that provide fast analysis across huge volumes of patient data to detect patterns, understand trends and facilitate decision support.

Marshfield Clinic recently purchased a second Netezza system for its Biomedical Informatics Research Center (BIRC), one of three usability laboratories in the U.S. for healthcare information technology. BIRC is staffed by a team of PhD informaticians that study ways to improve organizational processes and clinical workflows, and the institution sees great promise in analyzing workflow patterns through data mining. Using the Netezza platform, they will be able to conduct their research without previous limitations of time, query complexity or data volume.

Marshfield Clinic’s Netezza-based solution underscores the critical need healthcare organizations have for cost-effective data warehouse options that can quickly analyze data for clinical, operational or regulatory requirements. With its patented streaming architecture and appliance simplicity, the Netezza platform is the price/performance leader for medical centers like Marshfield Clinic, helping them thrive, expand and improve care delivery using the intelligence in their data. 



Netezza Corporation

26 Forest Street, Marlborough, MA 01752

+1 508 382 8200 TEL

+1 508 382 8300 FAX

www.netezza.com

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 Northern Virginia, Canada, the United Kingdom, Germany, France, Japan, Korea, Australia and Singapore.

For more information about Netezza, please visit www.netezza.com.