



Clalit Health Services



Migration to SQL Server 2005 Strengthens BI Vitality at HMO

Clalit Health Services has a long and storied history of doing things in a big way. Established over 90 years ago, Clalit is Israel's largest health maintenance organization (HMO) and the second largest worldwide. As such, it's only natural that Clalit also operates one of the world's largest and most advanced medical business intelligence (BI) systems.

"At the heart of our BI system lies a 1.5-terabyte data warehouse. Most of the organizational data within the warehouse is focused on patient-related data - such as members' laboratory tests and medicine consumption - that helps us deliver better medical care to our patients," says Rachel Berkovich, BI Department Manager at Clalit.

Clalit Health Services is the leading health organization in Israel, and one of the largest and most progressive providers of medical care worldwide. Through its 14 hospitals and over 1,200 primary and specialized clinics, Clalit provides comprehensive medical care to 3.8 million insured members, constituting a majority of Israel's population. Clalit is the only health fund in Israel with a countrywide network of state-of-the-art pharmacies, dental clinics, laboratories, and diagnostic imaging centers. Israel's respected position in the world of medicine is largely attributable to the vision, commitment and expertise of Clalit Health Services.

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In order to upgrade its already expansive BI infrastructure, in 2005 Clalit turned to its team of IT partners - including Microsoft, Unisys, EMC and Ness Technologies - to implement an ambitious database project. Clalit chose to migrate to Microsoft SQL Server 2005, and in so doing, became one of the world's first organizations to successfully run the platform on such a large scale.

Cutting-Edge Migrations

Clalit's advanced, large-scale BI infrastructure did not come about without careful planning and forethought. To reach the cutting-edge infrastructure that is in place today, Clalit undertook several key migration and other projects over the past few years.

In 2003, for example, Clalit and Microsoft undertook a benchmark analysis at Ness' labs and established the need for a major upgrade to Clalit's BI system. With the assistance of Ness and its other partners, Clalit forged ahead and moved to a 64-bit MS SQL Server 2000 database platform running on Unisys ES7000 servers. Intended to achieve tight integration between Clalit's OLAP and relational data warehouse, the project led to a more flexible development environment, improved performance, and reduced total cost of ownership (TCO).

But that was just the beginning. In 2005, Clalit decided to undertake another database migration project, mainly to streamline its BI system administration. The main objectives of the project included an upgrade from SQL Server 2000 to SQL Server 2005 Enterprise Edition (on the same Unisys servers), a move from MS OLAP 2000 to MS OLAP 2005, and the introduction of the SQL Server Data Mining feature for improved business intelligence. Once again, Clalit turned to Ness to conduct preliminary benchmark testing at Ness' labs.

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SQL Server 2005 Proves its Worth

"Even though our SQL Server 2005 migration was one of the world's first implementations of its size, the process went very quickly and smoothly," says Mazal Tuchler, Data Warehouse Manager at Clalit. "Within just a few months of conducting a benchmark analysis with Microsoft in Redmond, we successfully went live in October 2005."

The project not only was implemented rapidly, but also provided significant database administration benefits. "The main project driver was to improve system manageability and maintenance via the new table-partitioning capability offered by SQL Server 2005. While we previously had a difficult time managing tables with hundreds of partitions, we could now easily manage multiple tables treated as a single entity," Tuchler explains.

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The migration also provided Clalit with several unexpected, and no less significant, benefits. "The real surprise was on the performance side," Tuchler relates. "We were overwhelmed to discover that we achieved 40% improvement in response times for database queries. Since our organization supports tens of thousands of queries per month, these faster response times mean that those managers and analysts who run them are much more productive, while system availability has improved tremendously. Taken together, these factors have a big impact on lowering our database infrastructure's total cost of ownership."

Additional benefits have been provided by SQL Server 2005's data-mining capabilities. Implementing one of the world's first data-mining projects utilizing the SQL Server 2005 database environment, Clalit is identifying elderly patients most likely to suffer from deteriorating health in the near future. "By leveraging advanced data-mining tools, Clalit is proactively providing preventive medical care to improve our patients' lives," Tuchler says.



About Ness Technologies

Ness Technologies (NASDAQ: NSTC) is a global provider of end-to-end IT services and solutions designed to help clients improve competitiveness and efficiency. Ness specializes in outsourcing and offshore, systems integration and application development, software and consulting, and quality assurance and training. With 7,000 employees, Ness maintains operations in 15 countries, and partners with over 100 software and hardware vendors worldwide. For more information about Ness Technologies, visit www.ness.com.