

NT Magazine Article

Medical Center at Bowling Green, Kentucky - Data Warehousing With SQL Server

The Medical Center at Bowling Green, Kentucky, is using Windows NT as part of its innovative solution to extract data from legacy databases for analysis with SQL Server. Like many hospitals nationwide, Bowling Green is using a legacy healthcare information system. The center has struggled to meet the decision support needs of the organization because the legacy system's report writer has limited functionality, is difficult to use, and has a negative effect on the response time when reports include large amounts of data. The mainframe system does not support access to all data fields, and it dictates expensive maintenance and support.

The need for a more timely and robust solution led the hospital to The Shams Group, a consulting and software integrator in the hospital industry. In early 1996, Bowling Green began a project to implement The Shams Group's data warehouse and repository software, GALAXY, which resides on a relational database management system running on NT Server. The GALAXY software duplicates the hospital's hierarchical databases, which are based on a proprietary technology called MAGIC, into a relational Microsoft SQL Server database.

Hospital executives can then use Microsoft Access or another ODBC-compliant application as a front-end to view and analyze the data. For example, with a simple point and click, an executive can determine the average inpatient hospital stay and outcome per patient type for each physician, and compare physicians by cost and best outcome.

The relational database also improves the hospital staff's ability to access and index the information and speeds the reporting process tremendously. Reports the hospital was typically generating in 3 days can now be reported in 10 minutes or less.

Bowling Green's legacy network configuration consists of more than 1100 devices, including 800 workstations. Many of these clients are terminals, but the hospital is upgrading these systems to PCs to take advantage of the Windows-based technology. The new NT-based infrastructure gives the hospital credible security and provides a low-maintenance, user-friendly Windows atmosphere for the hospital's managers.

Because NT is not proprietary, the hospital can easily connect its other systems such as its Novell server, which houses some departmental applications, to NT for easy data integration. This feature wasn't possible with previous technologies. Today more than half the NT-based data warehousing application installations are complete, and user feedback has been positive. The hospital has reduced the administrative workload because of the reduced time necessary for performing tasks and will save millions of dollars by turning a multitude of data into a gold mine of information and knowledge, administrators said.