



*"We needed a solution that could integrate information into any remote EMR, be highly secure, simple to implement and supportable across a large physician population with limited resources.*

*The Novo approach met the criteria in a way that other solutions and technologies we researched could not."*

*Tina Wakim  
CIO Northside Hospital*

**W**ith more than 1,700 physicians serving more than 300,000 patients annually, Northside Hospital provides medical services on multiple campuses across North Metro Atlanta.

For several years Northside had noticed a new trend emerging: the rapidly increasing adoption of EMR's in physician practices.

Several high-referring practices had requested direct integration to their EMRs. Northside was determined to provide this capability in order to maintain their strong physician relationships.

While researching the Return on Investment that EMR integration would provide, an informal survey uncovered that almost 40% of the top 50 affiliated practices (by volume) had or were implementing an EMR within the year.

The physicians wanted lab, radiology and pathology reports, discharge summaries, ED reports and surgical notes directly integrated into the patient chart in the EMR.

Northside Hospital recognized that providing direct integration to physician EMR's could potentially drive lower costs while increasing security, patient safety and physician business.

The team at Northside Hospital began researching solutions to build an **information exchange and interoperability** infrastructure for their affiliated physicians who were adopting an EMR.

Success was dependent on the system being able to accomplish several things:

- It must work with existing Northside applications - and any of a variety of EMR's in the community.
- It must automatically capture, deliver, and integrate hospital data directly into the remote EMR.
- It must be scalable across a large community of physicians using current IT staff and resources.

The team researched conventional approaches like portals, secure messaging and peer-to-peer technologies, but ruled them out due to the inability to meet all of the needs listed above.

In early 2004, Northside Hospital piloted the Novo Grid to build their EMR information exchange and interoperability infrastructure.

The grid approach offered many advantages to Northside:

- It was quickly installed in just a few weeks, with little impact on the IT staff.
- Hardware investments were minimal, requiring only two inexpensive Web servers.
- Its security model exceeded HIPAA requirements for information exchange.
- It provided remote implementation, management and support features to enable Northside to easily manage and audit all exchanges.

In the year since the system went live, the Novo approach has shown value in many areas.

- It has provided a single system to address the diversity of EMR's and technologies in the community.
- It is manageable with existing staff...adding a new practice takes only a few hours...and the system has never lost information.
- The non-technical interface allows physician support staff to ensure that every result is properly delivered. Audit trails are maintained for months.
- It has increased satisfaction from physicians that use the system.
- It has proven to increase outpatient testing business from the participating physician.
- It can serve as the infrastructure for future collaborative efforts.

Soon, other advanced exchanges will be piloted. For example, prenatal records from affiliated OB's will be distributed and synchronized between the office EMR and Northside Hospital in the summer of 2006, ensuring that these critical records are available and up-to-date at all times.

The Novo Grid at Northside Hospital continues to prove the viability of this exciting new approach to EMR information exchange and interoperability networks.