

October | 2008

Microsoft®

momentum

The Magazine for Midsize Business

BizTalk for all

Sudbury hospital's
healthy choice

License to learn

Ivanhoe Cambridge
brings it home

STAND OUT

Bombardier Recreational Products
rolls with SharePoint

Yves Dauphinais,
Bombardier Canada

An IT World Canada Publication PM 40063800

An Advertising Supplement to IT World Canada Publications

Build once, deploy to all

Sudbury Regional Hospital grows with BizTalk Server

BY GERRY BLACKWELL

The Canadian healthcare industry has been in perpetual crisis for – well, forever. The crisis in a nutshell: too many sick people, not enough money. Which is why innovative healthcare organizations such as the Hôpital régional de Sudbury Regional Hospital (HRSRH) in Sudbury, Ontario are increasingly turning to Microsoft BizTalk Server to help enable new strategies for reducing costs by sharing information and IT resources.

“In healthcare, which only spends about 2% of total budget on IT, every dime we can save is a big, big advantage,” says HRSRH CIO, Gaston Roy.

IT manager Stephen Lloyd adds, “We have a strong internal application development team that primarily works in Microsoft’s .Net environment, so we were looking for a platform that fit well with our existing skill sets.”

BizTalk Server, Microsoft’s integration platform for connecting applications and systems, is helping the Sudbury hospital and its regional partners – and many other healthcare organizations – save more than a few dimes. It’s also a platform on which they can continue to grow and implement new sharing initiatives.

“There is so much transformational change happening in healthcare right now,” says Michael Lonsway, president of Dapasoft Inc., the Toronto based business solution provider that helped HRSRH ex-

ecute a new regional IT resource-sharing initiative. “And BizTalk in many cases plays a vital role.”

The HRSRH project is typical. Sudbury Regional, the amalgamation of three city hospitals, is a substantial organization in its own right with 3,582 employees, a medical staff of 250 and 527 beds. Roy’s department manages 150 servers and over 2,000 workstations spread over a multitude of facilities, including four hospital sites. Since 1999 it has also been the cornerstone of a larger regional organization, the North Eastern Ontario Network (NEON), a consortium of 13 corporations (16 hospitals including Sudbury) with over 1,500 beds, many in small northern communities such as Chapleau, Wawa and Cochrane.

The new BizTalk environment at HRSRH allows NEON members to share data from a centralized Hospital Information System (HIS) with two separate Regional picture archiving and communications systems (PACS) and many internal and external systems and agencies.

The HIS, hosted in Sudbury, includes registration and Clinical Information services as well as a full financial suite. “It’s a very comprehensive system with a lot of different services,” Roy says. The two Regional PACS – one in Timmins, one in Sudbury – digitally store and transmit diagnostic images over the network.



Stephen Lloyd (Left),
Gaston Roy,
Sudbury Regional Hospital

Business Process Management

The centralized hospital information system reduces duplication of effort and expense for members. Roy notes that it was important to reach critical mass to justify investment in such a system. "That creates cost savings and also makes staff sharing possible."

The project, completed in just six months by Dapsoft and HRSRH, went live June 10, 2008. "We actually haven't done an official business case to show the return on investment," Roy says. "From our perspective, it's a given."

Without BizTalk, integrating systems at the 13 sites with the new centralized applications would have meant building individual point-to-point links between each pair – one piece of code for each link. With BizTalk, each system communicates with the integration server, which mediates conversations with the centralized applications.

Roy estimates the cost to build point-to-point interfaces at between \$8,000 and \$10,000 each. The cost to build an interface to BizTalk is a little more – \$15,000 to \$20,000. But in this project, which interconnects about 100 systems across 16 sites, BizTalk eliminated the need for dozens of point-to-point interfaces.

That's not untypical for deployments of this product. "We think BizTalk is very uniquely positioned as an integration engine," says Lonsway. "Certainly there are alternatives, but what we're seeing and hearing from a lot of our customers is that they're focused now on BizTalk."

This is partly because many have already standardized on Microsoft products and the Microsoft application development environment. "BizTalk is just a very familiar technology for them," Lonsway says. "It's also very cost effective compared to competing products."

At HRSRH, building the computing environment around Microsoft products, including SQL Server and Exchange, is the rule. "One of our principles as an IT department," Roy says, "is that we're going to select a single vendor as much as possible and then maximize the use of that vendor."



The latest project had its origins last year. HRSRH and NEON were already using BizTalk Server 2004. But 18 months ago the HRSRH realized it was on the point of significant, rapid growth, both in terms of membership – with as many as nine more corporations joining – and the scale and extent of planned data and resource sharing.

"We understood that this kind of growth meant we needed to completely re-evaluate the design of our Integration engine infrastructure," Roy says.

The solution: upgrade to the latest version, BizTalk Server 2006, then do the integration work using the new environment. BizTalk 2006 includes many functional enhancements and provides the kind of rock solid, infinitely scalable platform needed by an organization poised for growth. It also included a new feature, a Micro-

"For our customers BizTalk is very cost effective." Michael Lonsway

soft-developed Health Level 7 (HL7) accelerator, an EDI-like set of industry standards governing how healthcare systems exchange data. At its simplest the accelerator, a development tool that incorporates learnings and best practices from dozens of projects, establishes field naming rules and conventions. The Sudbury hospital had been using a third-party accelerator.

"It works just like BizTalk and it scales the same way as BizTalk, which will make it easier to manage future growth," says Ramraj Rajkumar, the Dapasoft technical architect who designed the SRH system. "With a third-party vendor, some of that scalability might be lost."

Microsoft itself recommended SRH use Dapasoft, a Gold Certified Partner focused on healthcare, government and the manufacturing sector. The firm has made a name for itself, especially in healthcare, as a master BizTalk developer and integrator.

"Dapasoft is a fantastic example of a gold partner," says Chris Brakel, Microsoft Canada's product manager for e-business. "They not only understand our technology, they also help us understand their markets. Dapasoft has built a lot of expertise on top of BizTalk in healthcare."

Dapasoft's maturity and industry expertise were crucial because a key requirement of the project was that HRSRH's IT team be able to manage the new environment itself. This was not the case with the old environment – to the hospital's considerable cost.

"So Dapasoft wasn't just involved in the design and implementation process," Rajkumar says. "We were also working with their IT team, managing the knowledge transfer, giving them a head start on best practices."

Despite a tight time schedule, the integration project completed on time and on budget. All key targets were met "pretty much flawlessly," Lonsway says, including, crucially, the self-management required.

"They have the peace of mind of knowing they have a mentor to support them in time of need," Rajkumar says. "But on a day-to-day basis, they're more than capable now of managing their environment themselves."

The benefits that HRSRH and NEON are already reaping from the new environment are impressive. More important are the benefits it will deliver going forward.

"With this new environment," Roy says, "we can now tell our [NEON] partners, 'Don't go out yourself and build [what's] needed. We'll build it together and share through the BizTalk interface.' So build once and then deploy to all. It means a lot of costs avoided."

And application and system integration are just the tip of the iceberg. BizTalk can do more, enabling and simplifying business intelligence (BI) and workflow optimization applications.

"As a hospital we've made a strong investment in business intelligence," Lloyd says. "Our integration engine infrastructure will play a role in the expansion of BI in the future."

The platform includes workflow functionality that allows it to monitor data passing through the integration engine and apply rules to trigger actions. One possibility is a BizTalk-enabled triage system. It could analyze patient registration information gathered by the HIS and automatically generate e-mails or pager alerts to caregivers.

BizTalk easily has the largest unit share of the integration engine market, Brakel says, with 250 customers and counting in Canada and over 7,000 worldwide. It's just that in healthcare, BizTalk has the opportunity to help solve a crisis that affects us all. And possibly even save lives.

For more information on this, visit:
www.microsoft.ca/magazine

