

All Together Now

Ohio Savings Bank was founded in 1889, the same year the first electric lights were installed in the White House. During the past century, the Cleveland-based lender has grown to \$10 billion in assets and won a batch of awards for its service and products. Today, Ohio Savings finds itself leading the charge for the economy's new technological revolution: B2B connections.

The bank is leveraging the Internet and an application based on the new

Microsoft BizTalk Server 2000 to integrate its loan processing software with the back-end systems of its mortgage insurance company business partners, including GE Capital Mortgage Insurance and Mortgage Guaranty Insurance.

BizTalk Server 2000 is one of the eight .NET Enterprise Servers that are at the heart of Microsoft's efforts to promote B2B integration. The Enterprise Servers help users develop, deploy and maintain Web-based applications. The other Enterprise Servers include Application

Center 2000, Commerce Server 2000, Exchange 2000 Server, Host Integration Server 2000, ISA Server 2000, Mobile Information 2001 Server and SQL Server 2000. Microsoft's software runs more than 50% of the active online B2B exchanges today, according to Chris Atkinson, vice president of the company's Microsoft .NET Developer Solutions Group.

Ohio Savings' BizTalk-based application, built on top of the Extensible Markup Language (XML)-enabled .NET Enterprise Servers, gives the bank a common language to speak with the systems of its mortgage insurance company partners. As a result, brokers can log on and see the status of their loans as the paperwork travels through the approval process, whether the step is within the bank or with a mortgage insurance company.

In the past, Ohio Savings' mortgage insurance partners provided loan application information to the bank by telephone or fax. The paperwork would disappear in a maze of manual hand-offs. That meant brokers who sent loans through the bank weren't able to easily tell clients how close their loans were to approval.

With the integration of the partners' systems, loans can be processed more quickly, partly because the massive loan information no longer needs to be rekeyed several times by the different entities. "The benefit of being able to electronically exchange data is powerful for everyone," says Jo Ann Boylan, CTO at the bank. "The brokers can see what's going on behind the scenes and that information is at their fingertips via the Internet."

A significant impact

That, analysts agree, represents the real power behind the buzzword of B2B e-commerce. New technology and business pressures are compelling firms to search for new ways to connect with customers, partners and suppliers, through either point-to-point extranets connecting two trading partners or online exchanges connecting vast arrays of businesses.

Making B2B connections is critical.

New technology tools help ease the burden of B2B integration

By Joe Mullich



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Jo Ann Boylan, CTO, Ohio Savings Bank

“Making B2B connections is critical and there is a real competitive advantage to the companies that get there first,” says Randy Covill, senior analyst for e-commerce strategies and applications at AMR Research in Boston. “Once a good business relationship is in place, it’s not easy to displace, because it’s based on trust and the mutual mission and goals of the organizations.”

The first wave of online procurement has largely been about reducing buying costs. However, that is merely the initial benefit of B2B connections. In addition to improved customer service, cutting-edge firms are reaching out to partners to lower marketing costs, reduce cycle times and find new ways to solidify their business relationships.

Just ask Networkworld Exchange, a San

Diego-based online exchange for the food service industry that handles daily orders ranging from \$10 to hundreds of thousands of dollars. The exchange, built on Microsoft technology, electronically links buyers, manufacturers and retail outlets. “One of our buyers was able to cut down his cycle time from five hours to 10 minutes by integrating his back-end systems directly with our systems over the Internet,” says John Schachat, executive vice president and CTO of the company.

Suppliers also benefit through Networkworld Exchange. They can more accurately understand their customers’ businesses, target promotions and surveys, run additional promotions based on the results of surveys, and exchange real-time

data so that customers know precisely what products are in stock.

“Instead of bickering over a few pennies on price, suppliers are keen on the idea of using all this information so that their sales force can show customers how to improve their operations, in everything from their 401K insurance to their systems’ architectural design,” according to Schachat.

B2B and ROI

The cost of a B2B integration system depends on the number of partners and the system’s level of sophistication. A “plain vanilla” B2B integration system with basic transactions and 10 trading partners costs about \$300,000, according to Ken Vollmer, an analyst at Giga Information Group in Cambridge, Mass. More sophisticated solutions with more partners can cost \$1 million to \$2 million, he notes.

Some experts advocate using traditional ROI as the metrics of success. “The companies I’m working with are implementing integrated solutions that tie together supply chains and manufacturing processes closer than in the past,” says Vollmer. “There are no magic measures. The benefits are the same as in the past: The tighter you can link the supply chain with partners, the less safety stock you need. You can achieve 20% to 30% reductions in lead times and faster production processes. Those things can have a significant impact.”

Hollis Bischoff, an analyst with the META Group Inc. in Stamford, Conn., argues that preparing an ROI study takes disproportionate time away from strategic and tactical planning for imple-

Networkworld Exchange's tech infrastructure

Visual Studio

Active Server Pages

COM Objects

SQL Server 7.0

Windows NT Server

Windows 2000 Server

mentation. She says companies should determine the set of business drivers that require the impetus for a Web presence and use those results to gain funding and approvals.

Solving the integration challenge

Those kinds of win-win scenarios are the holy grail of B2B integration. Connecting disparate systems is no easy task though. The potpourri of challenges includes complex and inefficient business processes, incompatible data formats and legacy-system interfaces.

The .NET Enterprise Servers and Microsoft's n-tier architecture solve the integration problem among various sub-systems, says Michael Saucier, CTO and founder of Sequencia, a Phoenix-based manufacturer of automation and enterprise integration solutions.

"One way would be to plug in a middleware solution and connect the applications together," he says. "Microsoft, on the other hand, permits the infrastructure to arrive automatically with the develop-

ment architecture. So instead of spending 50% of our time gluing disparate applications together, we can now spend that time writing value-added application code."

Sequencia's processPoint.com portal is an Internet-based trading exchange that uses BizTalk Server 2000 and XML, the Microsoft BizTalk Framework, to integrate the systems and processes of hundreds of manufacturers and their customers. The site permits users to contract manufacturing of their products by matching their needs with available manufacturing capabilities.

Security and privacy are also of paramount concern in any integration project. All components of the Microsoft n-tier architecture are encryptable. The architecture offers a secure socket layer and a public key infrastructure based on standards. BizTalk Server 2000 and Exchange 2000 Server "are compatible with any public key infrastructure method and certificate mechanisms that ship with Windows 2000," Saucier says. "We [could] become a certificate authority and

provide a method for companies to do business securely."

Exchanges must battle a host of other issues as well, such as aggregating the content from different suppliers' catalogues. "Companies often build their systems based on widely different architectural assumptions," says Uttam Narsu, an analyst with Giga Information Group. "Building a connection to a business partner or exchange requires a deep understanding of your internal systems. And as the Y2K situation showed, a lot of people don't understand their systems too well."

Finding a common language

Another challenge is finding a common language for describing terms, a test many refer to as the "semantic interoperability" challenge. This allows an application to know the context in which a term is used—for example, knowing that the "TEMP" designation in a data file refers to a temporary worker, rather than a weather forecast.

Because BizTalk Server 2000 uses XML data formats, two entities speaking different languages can communicate with each other. BizTalk Server is a business process orchestration server that coordinates distributed processes that may take from seconds to months to unfold, comprising applications on a variety of platforms, including Windows, UNIX and mainframes. It can take data from an XML-enabled system and move it to any electronic data interchange (EDI) system or a mainframe application that speaks only in flat files. Companies can build sophisticated applications on top of this foundation.

Such capabilities help make the integration challenge of establishing and managing sophisticated B2B relationships over the Internet quicker, easier and cheaper, proponents say. In addition, BizTalk Server 2000 can help speed up the integration process, allowing companies to integrate the e-commerce application with other necessary applications in as little as six weeks. That's a far cry from the past, when it could take many months to integrate an e-commerce application into an organization's billing and warehousing systems.

BizTalk Server 2000 operates with Windows 2000 messaging services and directories without requiring a great deal of custom coding. That's a key reason CapitalStream.com, a Seattle-based company servicing the entire financial supply chain, selected the technology. BizTalk Server 2000 replaces a telephone-and-fax-based credit scoring and approval system that requires rapid action to meet the needs of banks and users.

Jeff Dirks, executive vice president and COO at CapitalStream.com, says that BizTalk Server meets the tough balancing act of getting to market quickly while providing a scalable and interoperable e-commerce infrastructure.

Cultural changes

The next wave of B2B integra-

tion—process improvement—promises to change entire industries. Take the hospitality supplies industry, which spends \$50 billion a year on everything from king-size beds to tiny bottles of shampoo. Exchanges in this market segment must manage the entire procurement process, handling product selection, ordering, payment, reporting fulfillment and tracking. All of this must be accomplished through one easy-to-use, preferably Web-based solution that connects hotel buyers, franchisers and suppliers.

"We believe the key driver of B2B commerce will be the ability to enable buyers and sellers to move to a full spectrum of business functions—from basic to complex—online, and in so doing reengineer and streamline these processes,"

says Mark Mutkosky, an analyst with Deutsche Banc Alex in Baltimore, Md., who recently wrote a report entitled "Hospitality B2B: Enter the Revolution."

Ravi Kalakota, author, academic and veteran of the e-commerce industry, sees the Microsoft platform, including Site Server 3.0 Commerce Edition and SQL

Lessons learned about B2B exchanges and legacy integration

- **Partners are probably more ready** and will provide less resistance to integration than you think, according to Jo Ann Boylan, CTO of Ohio Savings Bank.
- **Tools that do both** forward and backward integration are necessary, notes Ravi Kalakota, author, academic and veteran of the e-commerce industry.
- **Integrating with others** requires a deep understanding of your own systems, says Uttam Narsu, an analyst with Giga Information Group.
- **Now is the time to learn** about the XML standard, Kalakota says.
- **By utilizing a common protocol**, partners can quickly integrate an electronic exchange of information regardless of the exact platform their own systems run on, making business integration possible, says Ohio Savings' Boylan.
- **Link the supply chain as tightly as possible.** This will reduce lead times and quicken production processes, thereby requiring less safety stock, says Ken Vollmer, an analyst with Giga Information Group.

Extranet or Marketplace?

By 2003, Merrill Lynch estimates that online exchanges will capture more than 20% of the \$2.5 trillion marketplace of B2B commerce. Today, however, most B2B integration is done through point-to-point extranet solutions. And with many analysts predicting a coming shakeout in the online exchange industry, settling on a B2B integration strategy can be tricky.

Ken Vollmer, an analyst with Giga Information Group in Cambridge, Mass., notes that exchanges are ideal for certain transactions, such as auctions and bidding. "If you are exchanging highly confidential data, most companies prefer to use an extranet," Vollmer says.

Exchange proponents, however, claim resistance from clients who don't want the burden of connecting to potentially hundreds of suppliers through a proprietary solution. "Many of our client companies are small and can't afford a big infrastructure investment," says Michael Saucier, founder and CTO of Sequencia, a Phoenix-based company that runs processPoint.com, an exchange for manufacturers.

Microsoft's BizTalk Server 2000, which provides a platform to exchange data in different formats, includ-

ing Extensible Markup Language (XML), electronic data interchange and flat files, can eliminate one concern for IT directors deciding with which exchanges to interface. "BizTalk allows you to create a generic integrator in an inexpensive way," says Ravi Kalakota, author, academic and veteran of the e-commerce industry. "That way you don't have to do a proprietary interface with only a few exchanges."

Officials at Petrocore.com, a Houston-based information exchange for the petroleum and gas industry launched by PricewaterhouseCoopers, say the BizTalk initiative will spread adoption of the XML technology by all application software vendors. The use of XML, in turn, will allow Petrocore to interface with other oil and gas product/services exchanges.

Analysts agree that users should make sure the exchanges they partner with have an XML-based strategy to link to back-end systems. Only 10 of the 600 exchanges tracked by Boston-based AMR Research currently have application integration built in. Most exchanges still need to telephone, fax or e-mail orders they receive. —J.M.



What to tell the suits

- Look for business drivers rather than strict ROI projections in justifying projects
- Make sure exchange partners have a back-end integration strategy; most don't
- Act fast. Integrate now because business relationships are hard to displace, says Randy Covill, senior analyst for e-commerce strategies and applications for AMR Research
- Look for bigger benefits rather than simply reducing buying costs
- Expect integration to reinvent work flow and business processes

Server 7.0, as key elements in a successful hospitality B2B exchange. The Microsoft offerings provide not only the speed of development, but also the degree of integration required by an exchange. "In the old days, all the properties in the hotel business had centralized procurement. Everyone faxed in orders and someone in the central office rekeyed that [data] into a green-screen terminal," he says. As a result, one out of every three orders could be wrong.

With the Microsoft platform and the unique business model of B2B exchanges, managers can immediately reduce the time and money spent placing and processing orders and provide the trending information they need to make more effective purchasing decisions. Says Kalakota: "We are already starting to see cultural changes emerge." ☐

Joe Mullich is a freelance writer in Glendale, Calif., who has written for InformationWeek, Internet Week, Reader's Digest and many other publications. He can be reached at joemullich@aol.com.