

Healthcare e-Procurement: Approaching critical mass

EXECUTIVE SUMMARY

Despite the dot-com bust, many healthcare organizations are still moving ahead with Internet technology to improve process efficiency and information management. One of the fastest growing of these areas is e-procurement. E-procurement involves use of the Web for the purchasing of high-volume supplies, including securing price quotes and the processes of bidding and vendor engagement.

It eliminates the inefficiencies that some associate with face-to-face meetings with salespeople and manual updates of catalogs. E-commerce facilitates the efficient exchange of information between hospitals and suppliers for procurement of goods and services, resulting in streamlined processes, reductions in administrative costs and more efficient healthcare purchasing practices across the supply chain.

As is the case with most IT applications, non-healthcare industries are much further along in using e-procurement than healthcare, but hospitals and health systems are catching on quickly to the inherent advantages of Web-based purchasing.

"E-procurement opens up your business to people you wouldn't normally do business with," because of the Web's ability to transcend geographic and time boundaries, says Jim Keys of First Consulting Group. E-procurement has multiple advantages:

1. Opens up the market to more players and products—an East Coast vendor can compete on the West Coast
2. Reduces the cost of sales, savings that can get passed on to the buyer
3. Reduces cost of procurement by ensuring compliance with contract prices and elimination of manual processing of transactions
4. Results in better information; buyers can lock up sales on the Web, don't have to wait
5. Unties the health system purchaser from a vendor's hours of normal operation

A study conducted by Andersen for Neoforma and Novation, "The Value of eCommerce in the Healthcare Supply Chain" determined that provider organizations could save between 1% and 3% of total supply costs by fully utilizing e-commerce capabilities.

Still, less than 10% of the country's 5,000 hospitals have invested in Web-based e-procurement. That's because, while most organizations have recognized the value of the strategy for nearly four years, it's only been within the last six to 12 months that software providers and trading partners have been able to deliver collaborative solutions that are powerful enough to handle the job, says Gary Peterson, product manager for supply-chain solutions at St. Paul, Minn.-based Lawson, a maker of enterprise-

MARCH 2002
Volume 8,
Number 3

Chairman

Stanley R. Nelson

Executive Director

Shelli Williamson

Editor

Chuck Appleby

Managing Editor

Cynthia Pratt

Advisors

George Conklin

Robert Glaser

Dana Hoffmann

Patrick Jennings

Doug Jones

G. Ward Keever

Bruce G. (Skip) Lemon

Charlotte Miller

Joanne Sunquist

Kevin Wardell

SCOTTSDALE
INSTITUTE

Membership

Services Office:

1660 South Hwy. 100

Suite 140

Minneapolis, MN 55416

T. 952.545.5880

F. 952.545.6116

E. scottsdale@fcg.com

E-commerce facilitates the efficient exchange of information between hospitals and suppliers for procurement of goods and services, resulting in streamlined processes, reductions in administrative costs and more efficient healthcare purchasing practices across the supply chain.

resource planning (ERP) software. The company's latest procurement suite includes e-procurement functionality that enables organizations to leverage the power of the Internet to streamline and automate "real-time" procurement processes.

The role of the group purchasing organization (GPO) in hospital purchasing is significant. Unlike other industries, in which scanning the Web for products to get the best price makes sense, hospitals generally procure products from distributors and suppliers that have won contracts with GPOs, such as Novation or Premier. The products contain prices that are pre-negotiated, so hospitals almost always want to order those products and pay contract price for them. Part of the e-procurement objective is to streamline the ordering process for hospitals, so that they have online visibility into their contract price before they place an order. The Andersen study showed that hospitals can overpay for medical/surgical supplies by as much as 7% because they do not have access/visibility across the hospital as to what the contract price is.

E-commerce is also important for health-care because, for the first time, the hospital and supplier have the opportunity to capture purchasing data and behavior in a format that makes sense (via a report, for example), and then have the opportunity evaluate the data to make decisions that affect/improve business processes. This data, which can be accessed in real time (as opposed to 30, 60 or 90 days later, the current status quo), is transformed into useful information.



Meet me in the materials chat room

The e-procurement process works something like this: A materials manager posts her hospital's contract for dressings—tapes, band-

ages, gauzes—or other supply item to a Web room with the comment, "I need qualified quotes" for such-and-such a material, equipment, supplies or furniture put out for bid. In response, vendors electronically post at the site price quotations that are protected from viewing by competitors.

Security measures ensure that communications go only to the people designated to receive them. However, security is more of an issue in terms of the pricing quotes coming back than the bid going out.



Jim Keys



"Essentially, you can do your shopping on the Web," building agreed-to pricing

into the Web transactions, says Keys. Of course, should a materials manager desire to interview a new vendor, it's still possible to have a sales person drop by for a face-to-face visit.

By getting better compliance with contracts and streamlining the procurement process under e-procurement, a 300-400-bed hospital with an annual supply budget of \$30 million can easily save 5%—realistically it could cut as much as 10%—which would amount to \$3 million, equivalent to several staff or two high-tech scanners.

"Saving \$1.5 to \$3 million by better procurement practice is something I can sell to any hospital in the country," says Keys.

Kicking the tires on a new CT scanner

While e-procurement conceptually applies to all supplies, hospitals are not typically going

to buy major capital equipment like CT scanners or ICU monitors over the Web. “Clinicians want to see and touch those types of devices. High-tech investments don’t seem to fit into e-procurement,” says Keys.

On the other hand, high-volume supplies like plastics, emesis basins, water pitchers, syringes, needles, dressings, tapes and orthopedic soft goods qualify. Implantables such as artificial hips and knees and pacemakers typically are not good candidates for e-procurement because the sales process associated with them is more complicated and the end-user requires heavier clinical input. Again, doctors and nurses need to touch and feel such devices as part of an evaluation.

Companies like San Jose, Calif.-based Neoforma Inc., 45% of which is owned by VHA Inc., host private (or sponsored) Websites specifically for facilitating e-procurement transactions. Nashville, Tenn.-based Medibuy and Westminster, Colo.-based Global Health Exchange (GHX), a supplier-backed firm, also offer that service. This “digital marketplace” has undergone a huge shakeout from a little more than a year ago, when there were nearly 60 players.

ERP vendors view the digital marketplace vendors as complementary to their own efforts, and are developing their products to work with technology from vendors like Neoforma. Besides Lawson, PeopleSoft, HBOC and other large ERP vendors are rushing to get software with e-procurement capability to market.

Faced with a potential loss of customers, GPOs like Novation and Premier have recognized the need to offer e-procurement services, says Keys. Premier tried for two years to launch an e-procurement product but eventually sold it to MediBuy, with whom they

now have a cooperative venture. “You see the GPOs trying to develop cooperative relationships with e-procurement companies to bring e-procurement to hospitals,” he says.

All in all, says Keys, “You’re starting to see the marketplace come together.”

Sutter Health finds gold



John Hummel

John Hummel, VP of IS and CIO at Sacramento, Calif.-based Sutter Health, began two years ago to create a B2B (business-to-business) connection on the Web,

independent of B2B providers. Using Lawson’s e-procurement suite—a fundamental EDI suite on the Internet that has since been upgraded to XML language (an interface language that allows for direct database-to-database connections)—Sutter has been able to switch about half of its current purchases to e-procurement.

That’s a lot, considering Sutter has \$4.5 billion in revenues and its 33 hospitals cover all of northern California, a diverse area from San Francisco east to the Gold Rush foothills. Sutter needed an ERP solution to centralize its financial and procurement operations for its 65 business units. Today, with about half its hospitals hooked up, including physicians, Sutter conducts these transactions through B2B connections that were developed internally with the vendor. Sutter, however, is now switching to the Neoforma’s Internet marketplace. By 2003, Sutter expects to have all of its facilities ordering supplies through the Web connection.

Sutter needed an ERP solution to centralize its financial and procurement operations for its 65 business units.

This “digital marketplace” has undergone a huge shakeout from a little more than a year ago, when there were nearly 60 players.

E-commerce is important for healthcare because, for the first time, the hospital and supplier have the opportunity to capture purchasing data and behavior in a format that makes sense (via a report, for example), and then have the opportunity evaluate the data to make decisions that affect/improve business processes.

While Sutter initially used its own portal for those purchases, it is now confident that Neoforma has built up enough interfaces with vendors to support Sutter's needs. Hummel says Neoforma's ability to incorporate XML language and accommodate the transaction code sets used between vendors both large and small is critical to its appeal.

"We see that as a big plus in healthcare. Neoforma has enough volume to influence vendors to build these interfaces and, especially, adopt XML. With B2B you want to look downstream right into the vendor's inventory database. That leads us to XML links. Even on a batch-processing level, XML benefits us by providing direct access from our database to a supplier's database. With XML, the system can handle native transactions without having to change the format back and forth," he says.

Everybody's got a favorite suture

"If plant operations needs, say, a specific motor, they can look in the W.W. Grainger database and know with certainty that there are three in Seattle, mark them for purchase and then have them shipped without having to call or find out later that the inventory was wrong. It saves you time, reduces errors and improves the efficiency of contracting by having the contracts, pricing and orders all done automatically," says Hummel.

A common problem with hospital purchasing is that each physician tends to favor his own particular brand of sutures, as an example. Multiply that times the hundreds of thousands of supply items ordered and it's easy to see how a hospital can lose track of volume-based discounts and contract changes under a manual system. By automating the process, "We can reduce our expenses and even be much more proactive within our

accounts-payable and now can more consistently get our discounts for paying within 10 days," says Hummel.

He says it's too difficult to break out specific savings from e-procurement but since starting the centralization, smart contracting, consolidated purchasing and electronic hookups, Sutter has saved more than \$20 million.

Memorial Healthcare System, Hollywood, Fla.



Dennis Miller

Memorial Healthcare System in Hollywood, Fla., in 1997 installed an ERP system, including a materials-management procurement application. "For our

IDN, a centralized purchasing function was key to standardizing contracts, vendors and pricing across the enterprise," says Dennis Miller, CIO at Memorial, which has three hospitals, 1,180 licensed beds, 55,000 inpatient admissions per year and 675,000 outpatient visits per year. Net revenues are \$700 million.

Memorial, which served as a beta site for a Web-based ERP system in 1997, installed the e-procurement capability on its intranet, where 800 users can access it to order supplies. Memorial was able to accommodate all requisitions on the intranet by 1998, with users able to display templates for their particular departments that allow them to specify ordering information.

Memorial is an equity owner/member of Premier, so it has multiple Premier purchasing contracts loaded into the system, which recognizes authorized vendors and automatically turns a requisition into a purchase order. All orders are sent via EDI (electronic data interchange) at 2:30pm each day to Owens & Minor, Memorial's major med/surg supplier, and eight other trading partners. At 5:30 the following morning, the ordered goods are delivered to Memorial's receiving dock and to the department that ordered them.

A good warehouse is an empty warehouse

The health system's central supply department keeps only a basic set of supplies on hand. "Our warehouse is empty," says Miller. "To make this work you need a very centralized purchasing function. I've seen other IDNs where each hospital has their own purchasing contracts. Not here."

The benefit of such centralization is that it standardizes products so that Memorial can get the best possible volume/price discount. Also, the organization can eliminate the costs of maintaining an inventory of purchased but unused items.

"There's a lot of money to be saved by not using seven kinds of the same type of supply," says Miller.

E-procurement currently is limited to 10 of Memorial's suppliers for orders and five of those suppliers for electronic invoicing. "Not all suppliers are ready to send you an electronic invoice. But when they do, it saves us from having to enter a paper invoice line by line. There's no keying into the system. It matches order quantity, receipt quantity and price without ever having been seen by a human being," says Miller.

You can't buy just anything you want

So far, so good. "We're very happy with the system. Until I talked to other CIOs, I didn't realize how far ahead of the game we were. There isn't any downside to speak of. It might be a downside to the user because they can't buy just anything they want," he says.

The obstacles to e-procurement include the fact that not all suppliers are ready to go electronic. Some can't receive electronic orders or send an e-invoice. "With those we're trading with electronically, we can receive catalogues electronically," says Miller, who expects vendors this spring to come out with tools for electronically filtering catalogs based on a customer's supply needs.

That filtering process will be built around Memorial's list of approved products. "We've worked very closely with medical staff on standardizing these items," he says.

Connecting out of the box

EDI standards have governed electronic transactions between healthcare trading partners for the last 15 years. The most commonly used EDI transactions are for:

1. purchase orders (form #850)
2. purchase-order acknowledgement (#855)
3. advance ship notice (#856)
4. electronic invoice (#810)
5. electronic catalog (#832)

Lawson's Peterson says the company has about 200 customers using its EDI Standard software, which provides "out-of-the-box connectivity" from procurement applications to a majority of major healthcare trading partners. The trend is clearly toward Internet-

By getting better compliance with contracts and streamlining the procurement process under e-procurement, a 300-400-bed hospital with an annual supply budget of \$30 million can easily save 5%-10%, which would amount to \$3 million, equivalent to several staff or two high-tech scanners.



Gary Peterson

based procurement. “People are starting to move more to the Web rather than batch processing because it enables real-time flows of information such as price and availability checks and access to vendor-managed content,” he says.

The latter eliminates the need for a hospital to assign as many as a dozen staff to the task of continually adding, deleting and updating thousands of products and prices in the internal item master (catalog). Instead, a hospital can “punch out,” in industry parlance, from its materials management system to a particular supplier’s Website for the updated information.

“Many hospital customers have told us that they did not want to manage that catalog content for high-volume, low-dollar purchases,” says Peterson. Indeed, most suppliers are beginning to offer Websites tailored to particular customers. For example, a hospital may be interested in only 600 of the 150,000 catalog items from a supplier like Corporate Express. It can therefore configure its custom Website to include just the contracted products it wants with pricing shown that reflects the agreed-upon, customer-specific contract price.

A CFO’s nightmare

Websites customized for a buyer’s particular needs reside on suppliers’ own sites and ensure security through digital certificates and 128-bit encryption, which prevent outsiders from entering into a customer’s catalog.

“Most major vendors—Dell, Boise Cascade, Office Depot, for example—maintain a custom catalog for individual hospitals or IDNs with pricing negotiated just for them. They can punch out, see pictures, see their contracted items and prices,” says Peterson. Such centralized capability eliminates the likelihood of a CFO’s nightmare: employees loose on the Web ordering supplies in an uncoordinated and unchecked manner.

And all transactions still flow through the rules-based approval process, incorporated in the organization’s materials-management software, so buyers can’t overspend or buy items they’re not supposed to. ERP software maintains an audit history of all orders and transactions, flagging discrepancies between contracted prices and actual prices charged.

Peterson estimates that a small hospital can invest in an entry-level e-procurement package for as little as \$50,000 if they already have an ERP platform. With cost savings, an organization can recoup the investment in as few as six to 12 months, he says.

The silver bullet and the Golden Price

For large IDNs that spend more than \$500 million annually on supplies, implementing a best-practices ERP system—including e-procurement—can easily save 1% or more of that budget, or more than \$5 million a year due to better prices from more competitive bidding, improved compliance to contracted prices and more efficient procurement processes. In fact, analyst studies have indicated that procurement “process” costs can be reduced by as much as 70% when moving from manual procurement processes to fully automated e-procurement processes.

“The silver bullet is to automate all the processes of order management and enable

One study showed that hospitals can overpay for medical/surgical supplies by as much as 7% because they do not have access/visibility across the hospital as to what the contract price is.

users to obtain the “Golden Price,” the correct contracted price out there for a purchase order,” says Peterson. Many hours are wasted in accounts payable departments trying to reconcile discrepancies between purchase order and invoice price. Making sure that the right price is on the PO eliminates significant wasted time and allows organizations to focus scarce resources on value-added activities.

There’s a huge untapped market. He cites statistics showing that the average healthcare organization has EDI connectivity to only eight to 11 vendors but does business with 22,000. “We’ve achieved some electronic connectivity, but we obviously have a long way to go before we get all suppliers on board. The digital marketplaces are helping. If we build one connection to Neoforma, we gain connection to 200 or 300 suppliers.”

‘Embrace and extend’



Bob Zollars, chairman and CEO of Neoforma Inc., says his firm can connect to any legacy system or materials management system the hospital uses—Lawson, HBOC, PeopleSoft—and then link it via the



Bob Zollars

Web to their suppliers. The result lowers process costs because the Web replaces paper, fax and phone orders. As part of the arrangement, Neoforma gives hospitals a set of reporting tools that consolidate a lot of information, some of which they have not had access to previously.

Neoforma’s strategy is to “embrace and extend” a hospital’s existing system so that the

hospital can avoid having to invest in costly upgrades. The company’s products include:

- Order Manager—allows users to quickly check the status of their orders to identify problems or modifications, reducing the number of costly, time-consuming order-processing errors
- Sourcing Catalog—enables suppliers to display their product catalog within the Web marketplace, allowing hospitals to source new products. It facilitates standardization and contract compliance.
- Contract Viewing—provides access to GPO contract portfolio, enabling hospitals to search and view contracts, products and prices
- Report Manager—provides information to hospitals and suppliers for more efficient supply-chain management, leading to cost reductions and increased savings. Multiple reports are available that offer consolidated and detailed views of usage, purchasing and pricing.

Since connecting its first customers in the fall of 2000, Neoforma has secured 443 hospitals live on its system, with another 220 contracted hospitals yet to be implemented. The company has 181 suppliers under contract, including GE, J&J, Allegiance, Owens & Minor, McKesson, Becton Dickinson and Abbott.

Neoforma charges hospitals a \$10,000 one-time connection fee. “We make it invisible to the hospital,” says Zollars. After a technology audit, Neoforma converts the backend of a hospital’s system over a two-week period, half onsite and half offsite.

“What makes this worthwhile is that the traditional supply chain is so wasteful and inefficient,” says Zollars, who cites the Andersen study finding that e-commerce

A study conducted by Andersen for Neoforma and Novation, “The Value of eCommerce in the Healthcare Supply Chain” determined that provider organizations could save between 1% and 3% of total supply costs by fully utilizing e-commerce capabilities.

The average healthcare organization has EDI connectivity to only eight to 11 vendors, but does business with 22,000.

could bring 10% cost savings across healthcare in the supply chain studies.

Not if, but when

Three years ago, software for conducting e-procurement—both from the ERP (buyer) side and from the supplier side—wasn't mature, was cumbersome to use and there weren't enough supply vendors involved. Now that's changing. Says FCG's Keys, "It's going to come, especially with ERP vendors

like Lawson making e-procurement capability work so well in their software. Materials managers know this is the way to go." Another sign of the trend is that med/surg distributors like Owens & Minor are starting to use e-procurement as a means to market their distribution services.

Adds Keys, "The reason we know e-procurement is coming to healthcare is because it's worked so well for so long in other industries."



ARE YOU REGISTERED?

Scottsdale Institute Annual Conference

April 18* – 20, 2002

**Marriott Camelback Inn ~
Scottsdale, AZ**

*Special sessions for Executive, Clinical and IT Leaders

The benefit of centralization is that it standardizes products so that Memorial can get the best possible volume/price discount. Also, the organization can eliminate the costs of maintaining an inventory of purchased but unused items.

"There's a lot of money to be saved by not using seven kinds of the same type of supply."