

## Suppleye and IBM team to streamline the supply chain for small surgical businesses.

### Overview

#### ■ Challenge

*Inefficient manual processes at ambulatory surgical centers were leading to reduced profitability and more chance for error.*

#### ■ Why Become an

##### **On Demand Business?**

*Streamlining the supply chain to remove potential error enables client efficiency and responsiveness.*

#### ■ Solution

*A first-of-its-kind streamlined solution for surgical centers that replaces manual processes with a simplified, automated supply chain/information tracking system.*

#### ■ Key Benefits

- 92 percent reduction in ordering time
- 95 percent reduction in data entry error

#### » On Demand Business defined

An enterprise whose business processes—integrated end-to-end across the company and with key partners, suppliers and customers—can respond with speed to any customer demand, market opportunity or external threat.



#### A new trend in healthcare

Ambulatory surgery centers (ASCs) are handling an increasing number of surgical procedures in the United States. Today, when a patient requires cataract surgery, he or she doesn't usually visit a hospital. Instead, they go to an out-patient facility.

These ASC business operations are lean and focused on efficiency. In a typical day, doctors at an ASC may perform as many as 15 surgeries. To keep staffing costs down, employees serve multiple functions. For example, a surgical nurse may also be tasked with administrative duties, such as pulling supplies, as well as processing supply replenishment orders at the end of the day.

*“We’ve been very impressed with IBM. Even though we’re a very small company, they’ve treated us like we’re an important customer.”*

—Perry Cain, VP, CTO, Suppleye

### On Demand Business Benefits

- Reduction in ordering time of 92 percent
- 95 percent reduction in data entry error and administrative issues
- Low-cost hardware and software help customers derive maximum value from IT investments
- Flexible system enables clients to use almost any vendor, to order anything
- Enhances regulatory compliance

Suppleye.com (www.suppleye.com), a 12-person company based in Ohio, serves this market with a streamlined supply chain solution that is simple and low-cost yet highly effective, which is very appealing to efficiency-minded ASCs. Suppleye's solution delivers value to the customer through a business process that directly addresses the difficulties faced by ASCs, rather than adoption of costly technology.

"These are smaller facilities, with not a lot of employees, and there's considerable downward price pressure. There's not much motivation for them to purchase a complex, expensive system," says Perry Cain, vice president and CTO of Suppleye. "When they do make large capital investments, the money goes toward surgical equipment, not administrative support and compliance. So one of our key goals was to keep the offering simple and affordable."

### A cumbersome manual process

Because of the high rate of surgeries, supplies such as lens implants and consumables must be reordered daily. The process for this has been largely manual and time-consuming, with a significant chance of error.

In the case of a facility performing cataract surgery, for example, a large stock of lens implants is kept on hand. When an implant is used, the facility calls the manufacturer, which sends out a replacement, along with an invoice.

Each implant bears a unique serial number, which is typically a long, alphanumeric string of as many as 30 characters. The facility has to either phone the manufacturer and read this number, or write it on a form and fax it. In some cases, there are adhesive labels on the packaging, which are affixed to the fax form.

In addition, the FDA requires tracking of individual implants as well as patient information and surgical logs, which involves more manual recording of information and paperwork.

### From pen and paper to automated input

Suppleye teamed with IBM to create an innovative business process, enabled by leveraging IBM technology, that attacks the major bottleneck in the system—manual processes and paperwork.

Each facility is equipped with handheld barcode scanning devices that dock to ordinary PCs running a supporting application. The barcode scanner is used to record a wide variety of information, from implant data (including serial number) to information for the surgical log, to patient data.

*"Our customers are reporting a 95 percent reduction in data entry errors and administrative issues. It's a win-win-win for everyone."*

—Perry Cain

When a patient arrives, the usual information (personal details, insurance information and so forth) is entered in the traditional way. The application then produces a barcode associated with that patient.

In the operating room, there is a wall chart of barcodes for common log entries and other information. The nurse no longer needs to record information manually; the patient barcode and information barcode are scanned, and the surgical log is filled out using the standard barcodes located on the wall chart.

The scanner is docked to the PC, which downloads all of the information into the application's database. The staff then connects to the Suppleye Web site using a standard Web browser, and that day's orders are transmitted automatically. Suppleye passes this information on to the manufacturers, who are set up to receive it via prior arrangement.

The Suppleye solution uses a full range of IBM hardware and software. Two IBM eServer™ xSeries® 220 and one IBM Netfinity® server run all applications and house the data. The Web-based application is based on the IBM WebSphere® family of products, which securely (by means of 256-bit SSL encryption) serves data to Suppleye's customers via the IBM HTTP Server.

Suppleye uses IBM DB2 Universal Database™ to store customer data, as well as massive amounts of internal data used in the everyday operations of the company (such as invoicing, customer service logs and patient implant registrations). In addition to the custom tables required to store this information, Suppleye utilizes many IBM DB2® user-defined functions (UDF), triggers and complex table relationships to maintain the data's integrity.

"We've been very impressed with IBM, not only their products and support, but their entire approach," Cain notes. "Even though we're a very small company, they've treated us like we're an important customer."

#### **A highly adaptable solution**

The beauty of the Suppleye system is that it allows the surgery center staff to tailor the service to fit their own needs. They can create a customized product list that includes only what they need, from any vendor with which they choose to do business. It's literally possible to set up the system so that it can be used to order almost anything...from surgical and office supplies to sandwiches from a local deli.

---

## **Key Components**

---

### *Hardware*

- IBM eServer xSeries 220
- IBM Netfinity

### *Software*

- IBM DB2
  - IBM WebSphere
  - IBM HTTP Server
- 

---

## **Why it matters**

---

*Suppleye.com, a small business serving small businesses, has devised a low-cost, simple, streamlined supply chain solution using IBM technology that enables its ambulatory surgical centers to process patient information and reorder supplies far more efficiently, while improving compliance and reducing error.*

---

At the other end, Suppleye works with vendors to pass along order information by the vendor's preferred method...EDI, XML, fax or e-mail. "An important part of our investment in the system was creating the logic to read a wide variety of manufacturer barcodes," says Cain. "That lets us do business more easily with a greater number of vendors."

Cain says that the system's flexibility has led to greater capabilities than originally envisioned. "Originally we intended to offer our solution to implant manufacturers as a way to make their supply chain more efficient. But then we realized that both manufacturers and ASCs could benefit tremendously in all sorts of ways."

FDA reporting requirements are a case in point. The government requires each implant manufacturer to keep records on all implanted devices, should they need to be accessed in the future. In the past, this entailed the ASC manually filling out a standardized form for each surgery, and then sending these forms in batches to the manufacturers where they would be scanned and stored in a database. With the Suppleye solution, the information is captured automatically as part of the routine; Suppleye then automatically creates an electronic version of the form and transmits it to the manufacturer.

This streamlined process provides numerous benefits. There's a reduction in reporting error because the ASC does not fill out the forms manually. And there's a reduction in workload for both the ASC and the manufacturer because the entire paper-based manual process has been eliminated.

### **Simplicity that works**

The system is an excellent example of taking existing technology and putting it to an innovative use. "We didn't break any ground on the technology front," Cain says, "but we did see a way to greatly benefit our clients using simple, low-cost tools. The results are impressive: We're seeing a 92 percent reduction in ordering time, which translates to much greater efficiency for the customer. And for regulatory compliance, our customers are reporting a 95 percent reduction in data entry errors and administrative issues. It's a win-win-win for everyone."

Suppleye is keeping close watch on technological developments, particularly those related to wireless technology. Bluetooth-enabled devices are on the horizon, and Suppleye will be taking advantage of RFID technology as it enters widespread use. "RFID is certainly coming. We know IBM will be ready to support it, and so will we," Cain says.

### **For more information**

Please contact your IBM representative or IBM Business Partner.

Visit us at:

**ibm.com/ondemand**



© Copyright IBM Corporation 2006

IBM Corporation  
Global Solution Sales  
New Orchard Road  
Armonk, NY 10504  
U.S.A.

Produced in the United States of America  
7-06  
All Rights Reserved

IBM, the IBM logo, ibm.com, the On Demand Business logo, DB2, DB2 Universal Database, eServer, Netfinity, WebSphere and xSeries are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.

Many factors contributed to the results and benefits achieved by the IBM customer described in this document. IBM does not guarantee comparable results.