



# Gas Supplier Redefines Customer Service By Taking Purchasing to the Web

With all the cyber-hype going around, it's easy to wax cynical about the effectiveness of electronic commerce. But, as BOC Gases has discovered, Internet and intranet applications, when carefully planned, can have a measurable impact on a company's bottom line. BOC, a world-leading supplier of industrial gases, worked with IBM Global Services to create an Internet-based application that makes it easier for customers to reorder gas products and helps them reduce the cost of supply chain management. The company's initiative has paid off handsomely: one of its major customers, which used to deal with 14 gas suppliers, has consolidated nearly all its gas purchases with BOC. Other customers are being brought online as well.

*"Our prerequisite was that whoever developed the service was going to host it... IBM... was the only company that offered both software development and server operations."*

*—Fulton Wilcox, Director of Consulting Services, BOC Gases*

BOC Gases, a division of British Oxygen Company, is a global provider of gas products, ranging from oxygen, helium and nitrogen to argon, CO<sub>2</sub> and specialty gases such as neon and other products for the electronics market. Food processing, healthcare, biotechnology and electronics are just a few of the industries

that rely on gases from BOC. According to Fulton Wilcox, BOC's director of consulting services, the company has been encountering increasing demand for its commodity gas products, and much of this demand is coming from the R&D community.

### **The problem: Too many vendors, too much paperwork**

One of the company's major R&D customers is a world-renowned technology institute. For its comparatively small size, the institute is a very large consumer of gas products, spending more than \$1 million a year on industrial gas for approximately 800 research projects. Although accounting and purchasing had always been centralized, researchers were relatively autonomous in ordering industrial gas. Consequently, the institute found itself dealing with 14 different

<b>Applications</b>	Internet-based procurement and accounting system
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<b>Services</b>	IBM Global Services application development, Internet hosting
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<b>Hardware</b>	RS/6000
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providers.

### **BOC's service initiative**

BOC saw an opportunity to claim a larger share of its customer's business by offering to relieve the institute of a major portion of the administrative burden associated with gas procurement, thereby lowering the cost of ownership. "We proposed to the institute that if they appointed us to be their 'gas manager,'



*With so many services and processes relying on a steady supply of industrial gases, BOC's Internet ordering has become a major competitive advantage.*

BOC would take care of all of the supply of gases for the institute," Wilcox says. The idea was that BOC would supply the majority of the institute's industrial gases, and track gases from third-party vendors as needed. All of the cylinders would be tracked by serial number, and BOC would charge the cost of the gas and the cylinder rent directly into the institute's books, according to its accounting rules. At the same time, they would continue to send regular invoices for payment.

The institute welcomed BOC's proposal, which contributed to its overall effort to streamline administration and reduce costs. Internet ordering was conceived as a means of encouraging people on campus to approach the vendor consolidation in a positive manner.

### **A complete solution from IBM**

Because BOC had no off-the-shelf solution for Internet ordering, Wilcox and his team looked for a vendor who could help them put the system in place. "IBM was not the only company we approached, but it was the only company that offered both software development and server operations," Wilcox says. "We were particularly concerned about having a situation in which the software was developed by one company and the server was provided by another, and we'd end up with contention between the two parties. Our prerequisite was that whoever developed the service was going to host it, and that meant providing support 24 hours a day, seven days a week. I was also very insistent on working with a vendor that has the same high-speed access to the Internet backbone as our customer has."

### **Designed for performance**

BOC worked closely with IBM Global Services to design a customized high-performance Internet ordering application that would be geared to repeat buyers. "We were not looking to catch the eye of someone who is surfing the Web," Wilcox explains. "The last thing our customers want is to go through a bunch of pictures and verbiage just to place another order for gas."

IBM Global Services wrote the code for the application, which dynamically configures itself to the customer's account profile, including the particular product set, contract

prices and payment method. To maximize application performance, graphics were kept to a minimum.

Two main security mechanisms were implemented: Kerberos—a private-key encryption technology—as a means of validating that users logging in are authorized to make transactions, and American Express (AMEX) procurement cards, which ensure that purchasers stay within their spending limits. AMEX and the customer developed the security component of the software, which was integrated into the system by IBM. The application runs on an RS/6000 server, supported by IBM Global Services.

### **Advantages to BOC**

Through its re-engineering efforts, which include implementing BOC's Internet ordering system, the institute expects to save approximately \$250,000 a year. For its part, BOC has also realized significant benefits:

- Increased revenues
- Simplified account management
- Reduced paperwork
- More efficient gas distribution
- References from satisfied customers

BOC has found that, in addition to accepting orders, the Internet provides an efficient means to fill them as well. For example, the company takes advantage of the Internet to relay orders from the IBM server to its internal server, where the orders are processed.

### **Extending the benefits to other customers**

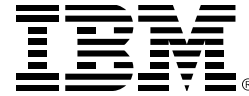
The services that BOC and IBM have developed are applicable to many of BOC's markets. A power company recently expressed interest in Internet ordering, and it was easy for BOC to oblige. It simply cloned the catalog and order entry functions that were used for the research institute and uploaded the power company's contract information into the catalog.

BOC also plans to extend its Internet ordering philosophy to its dealings with its own suppliers and vendors. The fact that the ordering system runs over the Internet gives BOC an easy way to spread the word. Demonstrating the system to customers, prospects and BOC employees anywhere in the world is as easy as giving them an Internet address.

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