REAL WORLD CASE 1

Celanese Chemicals and Others: Wireless Business Applications

Chemicals. Like most executives in the chemicals industry, the upper echelons of Celanese Chemicals Ltd. (www.celanesechemicals.com), are fairly conservative, says Bill Schmitt, the director of e-business at Celanese. "Anything that looks or smells like bleeding-edge technology makes us pretty nervous," he says. But the $3 billion chemicals company was comfortable enough with hand-held devices and wireless LANs to adopt the technology primarily as a productivity tool for their salespeople in the field. Now the Dallas-based company is looking at wireless technology to speed maintenance at its chemical plants.

"When you run continuous production units, time is money," Schmitt says, When a pump goes down, for example, maintenance workers travel through football-field-size plants by foot or bicycle to inspect the problem and then travel back to the control room and storage room to arrange for repairs—which could take up to an hour, he says. Soon, however, employees will use Hewlett-Packard Pocket PCs to report problems and arrange for repair equipment to be brought to the site.

Finance and Investments. Soon after launching its first wireless offering in 1998, Fidelity Investments (www.fidelity.com) realized that wireless subscribers were very attractive customers. "They have more assets, they're more financially active and more tech-savvy," says Joe Ferra, chief wireless officer. That appealing and profitable combination keeps the Boston-based firm listening to its customers' demands for new wireless features and monitoring their use of every new function.

Today the company's wireless offering, Fidelity Anywhere, lets over 170,000 customers get real-time stock quotes, make after-hours trades, short-sell, and, with phone-integrated BlackBerry handhelds, call a Fidelity rep with the touch of a button.

Ferra says security remains a paramount concern, and Fidelity continues to "look at what's out there" in terms of security standards. But right now it relies on encryption and authentication developed using the Handheld Device Markup Language. The firm even chooses which functions will be offered on each type of device based on security concerns, browser capabilities, and the latency of wireless transmissions. But Ferra says that once security challenges are met; "I'm convinced this will become a predominant way that people conduct their business with us. These devices are convenient, more reasonably priced, and easier to use than ever before."

Manufacturing. Automotive and aerospace plants lead the manufacturing pack in wireless device use, with about two-thirds of all companies actively using the technology. General Motors Corp.'s Cadillac and Buick assembly plants mounted wireless handheld-size computers from Symbol Technologies Inc. on forklifts so drivers can wirelessly collect and transmit data from the factory or warehouse floor. The forklift operators can also receive work instructions and updates without leaving their vehicles.

The wireless network is expected to save $1 million at one GM assembly plant, according to a company statement. After nine months of wireless use, forklift operators now average 60 to 70 deliveries a day, double the number of deliveries they were making before the system went live.

Retailing. Retailers are old-time users of wireless technology for communicating between the checkout counter and the backroom and mobile point-of-sale terminals. But today's wireless technology can improve inventory accuracy, fight fraud, and increase sales. Forward-thinking retailers are venturing into RFID (radio frequency identification) technology, which involves chip-embedded tags that hold more information than a bar code and don't require direct contact with a reading device. But most retailers are holding off on full-blown implementations because of the poor economy, the high cost of RFID equipment, or complicated supply chains.

RFID readers mounted on display shelves in stores can survey item tags and send inventory data to back-end systems rather than relying on point-of-sale data or manual counts. In the stockroom, a tagged box's contents can be identified without opening the box.

While retailers such as Wal-Mart Stores Inc., and Target Corp. have piloted RFID tags on boxes and pallets, retailers that manufacture their own clothing lines are experimenting with individual garment tags. But at 25 to 50 cents apiece, the cost of individual tags is keeping item-level RFID at bay for many retailers. "I foresee the use of RFID at the item level in five to seven years," predicts a representative of Alien Technologies, a leading designer of RFID technology. "I foresee more applications used for RFID for the carton and pallet level. We are not anywhere near being able to provide retailers with a 5-cent or penny tag. The technology is just not there yet."

Case Study Questions

1. What is the business value of wireless technologies in the chemicals and automotive manufacturing industries? What other manufacturing applications might benefit from wireless technologies? Why?

2. What are some of the business benefits of wireless technologies in finance and investments? What other applications would you recommend? Why? Check the website of Fidelity.com to help you answer.

3. What are some of the business benefits and challenges of using wireless technologies in retailing? What are some other applications that might be beneficial to consumers, as well as retailers? Why?