



## Case Study

### Bluetooth Wireless Printing is the Latest Advancement for Frozen Foods Pioneer

#### At a Glance

**Industry:**

Consumer Goods

**Market:**

Food and Beverage

**Application:**

Home Delivery

**Products:**

- 700 Series mobile computers
- Wireless printers



#### SCHWAN'S

**At 50, Schwan's Still Delivers with a Twist**

As a young man in the 1950s, Marvin Schwan saw his parents struggle to make a living in their small-town Minnesota dairy. Determined to help the business survive government price controls that threatened bankruptcy, he loaded 14 gallons of ice cream into an old Dodge panel van and sold it door to door in the rural communities north of Marshall, Minn. Over the years, Schwan's business grew to provide premium products, personalized home delivery and rural electrification programs that brought freezers to farm families.

Today, Schwan's Sales Enterprises still follows the formula Marvin Schwan developed—but now it requires the milk of 115,000 cows each day to satisfy its millions of customers. Schwan's Home Service now delivers more than 300 frozen food items directly to millions of homes across the continental United States, and the corporation's other business units provide frozen foods to retail grocery customers in 57 countries and institutional foodservice buyers at schools, colleges, healthcare facilities, military installations, theme parks and leading chain restaurants.

Once again Schwan's turned to mobile innovation to lead the company to new growth and prosperity. It equipped its route sales drivers throughout the U.S. with mobile computers and printers from Intermec Technologies Corporation to

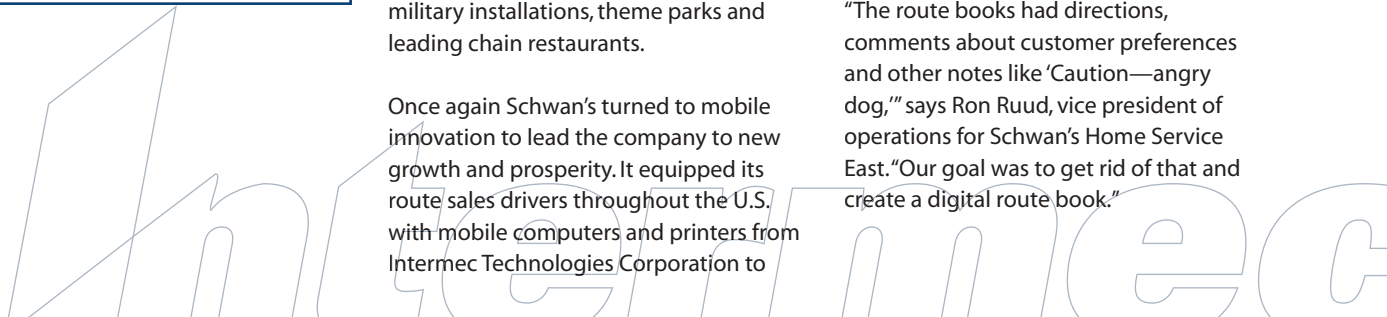
wirelessly record sales, issue receipts and track inventory.

Schwan's selected Intermec because its proven products met the company's requirements, managers said. The new system uses Intermec 700 Series mobile computers and wireless printers that communicate through a \*Bluetooth™ wireless interface. With thousands of Schwan's drivers using the devices to serve millions of households, the application is believed to be the world's first large-scale Bluetooth implementation.

**Changes Afield: Route Books Go Digital**

Setting aside the use of route sales books—the time-tested standard for route delivery operations—in favor of a paperless system based on mobile computers was more than a hardware upgrade. It offered an entirely new way of doing business. Schwan's drivers previously had used a combination of route books, mobile computers and dot-matrix printers to process customer information in the field.

"The route books had directions, comments about customer preferences and other notes like 'Caution—angry dog,'" says Ron Ruud, vice president of operations for Schwan's Home Service East. "Our goal was to get rid of that and create a digital route book."



The hybrid approach to record-keeping made it difficult to get a comprehensive view of customer activity and to train substitute and new route drivers.

Schwan's built its business on providing service and convenience, and company leaders planned to grow by improving in these areas. The company wanted to put even more customer information in the field so route manager's could check buying preferences and histories to create new cross-sell and up-sell opportunities. But the legacy system would make the additional information a burden rather than a benefit to route managers.

Schwan's route managers had carried mobile computers since 1984 and were using aging models with a proprietary operating system. Sharing information with enterprise applications required custom programming, and the mobile computers lacked the memory to hold more information. The dot-matrix printers weren't popular with Schwan's route managers because they were slow to print and frequently needed service.

"Our route managers didn't print invoices unless they absolutely had to because our old printers really slowed them down," says Ruud. The results were incomplete records and an increased workload for support personnel. "We wanted a very fast, very reliable printer."

Ruud and his team spent two years evaluating new computers and printers. The printers had to be fast and reliable enough for drivers to issue quality invoices with every order. Requirements for mobile computers included a Microsoft operating system so that enterprise applications could be easily modified for use in the field; enough memory to accommodate the additional customer contact, sales history and other information; technological architecture

to support future enhancements; fast operation to improve productivity; and extreme durability.

"Every day our route managers are out in the hottest, wettest and coldest weather there is in the United States," says Ruud. "We need equipment that is very rugged."

While dozens of mobile computers were available, in the end only one met Schwan's demanding specifications. With the latest Intel® processors and Bluetooth connectivity, the Intermec 700 Series computers and wireless printers met the requirement for fast printing. The 700 Series handheld features Microsoft's PocketPC operating system, memory cards and multiple radio options.

Intermec won out because of Schwan's belief that "they will keep us on the leading edge of technology," says Ruud. "Other vendors said they would build it for us, but Intermec was the only one who had the technology."

#### Goodbye to the Books

Schwan's, which operates the largest privately owned truck fleet in the world, began issuing the new equipment to its route sales personnel in April and completed the rollout in October, months ahead of schedule. "Our people became comfortable with the new computers in a couple of hours," said Ruud. Members of Schwan's route sales force received a revision to their manuals to explain the new computers. New hires receive a complete manual and additional training and have quickly grasped the system.

Schwan's route sales managers are paid on commission and have little tolerance for tools or procedures that inhibit their productivity. Drivers have quickly embraced the Intermec 700 computers and wireless printers because they help

them make more customer visits per day and satisfy more customers. "This should make our route managers a lot more efficient in what they do," says Ruud.

#### Additional Capabilities

Schwan's is developing and testing additional features, including integration of GPS technology to provide directions and route optimization. Schwan's completed a trial of vehicles equipped with GPS receivers that transmitted information to the 700 Series mobile computer using the Bluetooth interface. If drivers needed directions to a customer or an alternate route, the GPS application tracked the vehicle's location in real time and calculated the best route. Then an interface in the mobile computer converted the information to speech output and gave the driver audible directions, such as streets to look for and when to turn.

"We think this is going to be a tremendous benefit," says Ruud. "It will save drivers time and improve safety because they won't have to look down to read directions or try to read a map while they're driving." The system also will make it easier for substitute drivers and new hires to service routes efficiently.

In 2002, Marvin Schwan was elected to the Frozen Food Hall of Fame for his pioneering efforts in route delivery. The Schwan family dairy has grown into a diversified \$3 billion company with 23,000 employees and operations in 57 countries. The restored 1946 Dodge panel van on display at the company headquarters in Marshall serves as a reminder of Schwan's beginnings. The modern fleet, complete with Intermec mobile equipment and Bluetooth wireless technology, is a signpost for the future.

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