FIELD SERVICE AUTOMATION CASE STUDY

INDUSTRY:

Food and Beverage

COMPANY:

The ICEE Company

CHALLENGES:

- Transform an inefficient, paper-based machine repair process
- Shorten billing cycles
- Capture accurate inventory and customer data electronically and transmit it in real time
- Respond to customer requests more quickly
- Eliminate an ineffective, paper-based parts inventory system
- · Re-allocate dispatchers' time

RESULTS:

- All repair data is captured electronically on handheld devices
- Complete job information is available to field technicians in real time
- Billing cycles are reduced because manual data entry can be eliminated
- Field technicians can complete more work orders in a day, improving productivity and customer satisfaction
- Parts inventory is managed more efficiently and accurately



Wireless data access improves results in the repair of frozen beverage machines.

Keeping America cool.

Since 1965, The ICEE Company has kept America cool with its unique frozen beverage. What started out as one man serving frozen bottles of soda has become a household name, serving more than 300 million ICEEs per year. Based in Ontario, California, ICEE employs 800 people with 400 field technicians who service 30,000 ICEE machines across the U.S.

Recognizing inefficiencies in the repair process.

In 2000, ICEE began to scrutinize the inefficiencies they found in the ICEE machine repair process. With almost 400 field technicians servicing 30,000 machines, streamlining the process would be no small feat. The company's existing paper-based system required that field technicians fill out paper work orders at the end of each job. One copy was given to the customer, one was filed at the regional office, and another was sent to headquarters in Ontario. This left a long, inefficient and error-prone paper trail.

According to Brandon Lackey, ICEE's Manager of Technical Services, the company's billing process was one area that was most affected by the inefficient paper-based system. After the work order was received by headquarters, it had to be reviewed by an analyst. The data was then manually entered into the system, and only then could the billing process begin.

It could be two weeks after the repair before the company could begin to generate an invoice.

Also inherent in the paper-based system were problems with accuracy. Paper work orders could get lost. Customers often received completed work orders that weren't legible. And the company encountered costly errors in the data entry process.

"That was the biggest problem," said Lackey. "When you enter parts information from a piece of paper into a computer, there are going to be some errors." Part numbers could be misread, and with parts varying greatly in price, an error could mean the difference between a \$5 part and a \$500 part.

The company also knew that efficiencies could be gained in the dispatch process. Field technicians had to call in after every job, not only to receive the information for their next job, but also to communicate the work order information to the dispatcher so the previous job could be closed. With 400 field technicians being serviced by just 12-15 dispatchers, technicians often found themselves on hold, wasting valuable time that could be spent servicing customers.

As a service-oriented business, ICEE knew it was time for a change.



Implementing a wireless break/fix solution from Cingular and its alliance members.

After researching several alternatives, ICEE discovered that a real-time wireless data solution would provide them with many more benefits than a batch system, which would require technicians to connect to a landline and synchronize data at the beginning and end of each day.

They found that a batch system would make it impossible to respond to emergency situations in a timely fashion and couldn't provide emergency information to the dispatchers in real time. ICEE would still have to rely on a dispatcher to communicate with the technician by phone (often via a pager and pay phone) to alert them of an emergency call.

Commenting on the need for a real-time wireless solution, Lackey said, "Because we're a service-oriented business, and not a scheduled-service company, it's important that we can react to situations quickly. We're a reactive service company, so we have to be able to communicate with the technicians at any time."

ICEE realized that a wireless solution would not only solve problems in emergency situations, but it would enable the technicians to have accurate, up-to-the-minute information on customer requests. Likewise, the back-office staff would receive accurate work order information from the technician right after it was entered into the handheld.

After months of research, ICEE chose a wireless handheld solution composed of Symbol Technologies' handheld devices and Countermind's Mobile Intelligence™ Field Service Automation Solution, which was tailored to reflect ICEE's business process. This application runs on the Cingular GSM™/GPRS network.

According to Lackey, the decision to choose Cingular was simple. First, ICEE was already a satisfied Cingular voice customer. Second was the lack of other

carriers who were able to provide a solution that ICEE needed. "There really wasn't anybody that was prepared to handle this type of solution," said Lackey. "At the time, Cingular was the only carrier who was even pursuing this market."

Finding success with wireless.

With wireless handheld devices, ICEE field technicians have experienced several improvements in their day. Now, by simply synchronizing their device anytime during the day, technicians are able to download all customer work order information needed for the day. It tells them where the customer is located and what type of repair function needs to be performed.

After a repair, the technician enters the work order information into the handheld. This is done with a few clicks via dropdown menus. Full keypads are available for free-form text when needed and signatures from the customer are captured

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Brandon Lackey Manager of Technical Services

electronically through the device.

When the electronic work order is complete, it is wirelessly transmitted to the headquarters office without any further work required by the technician. No paperwork needs to be filed or sent to headquarters for further action. All of the work order information is immediately available, and back-office personnel can start acting on the information right after it's received. Copies of completed work orders are emailed or faxed to the customer site directly from the database.



Technicians can now fill out work orders electronically on handheld devices from Symbol Technologies.



When a part is used, the technicians now simply scan a bar code on the part. This keeps inventory up-to-date so trucks can be re-supplied with the right parts.

Emergencies are also handled efficiently. Rather than relying on pagers and pay phones, the dispatcher sends the information to the technician via his handheld and marks it as top priority. The technician sees the change on the device and his day is re-routed accordingly.

Gaining efficiencies in many areas.

In addition to the field technicians who carry the handheld devices, back-office personnel also benefit from the new system. The 12-15 dispatchers employed by the company now spend less time on the phone with technicians and have more time to route calls and focus on the logistics of servicing customers.

The 10-12 people in the billing department have also noted efficiencies. They are no longer required to enter data from paper forms, and they can start generating invoices right after the work order information is transmitted to the system, within days of the work being completed, rather than the previous 2-3 week invoicing cycle.

Realizing tangible benefits.

The wireless data solution has provided ICEE with several important benefits. The system increases efficiency for field technicians, which means they can service more customers in a day. This translates to customers receiving faster service and spending less time waiting for a repair. "Ninety percent of the calls we receive are responded to within 24 hours," said Lackey.

Additionally, since dispatchers spend less time on the phone with technicians, they are able to provide better customer service. Before the system was in place, it could take an hour or more for a dispatcher to call a customer with an



Quicker response to service requests means improved customer satisfaction.

expected time of arrival. Now, the dispatchers can call customers just minutes after the initial call is received.

The company has also noticed improved accuracy in their billing and parts inventory processes. Because no manual data entry is required after the initial electronic work order is received, there's little room for error when the data is entered into the system. And because technicians scan bar codes, the parts inventory system is instantly and accurately updated.

Finally, the process that instigated the change has been dramatically improved. The company has experienced shortened billing cycles because invoices can be generated immediately after the work order information is received by the billing department. After the information is reviewed by an analyst, invoices can be generated with the simple click of a button. As a result, invoices are now generated in hours rather than weeks.

With all of these improvements, the company is better able to allocate resources and have personnel perform tasks that improve the overall customer experience. "The reallocation of our resources is the biggest benefit," said Lackey. "It allows us to provide better customer service."

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Brandon Lackey



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Rolling out in phases.

Once the decision to work with Cingular was made, the company began an initial pilot program. This included a select few repair technicians to test the system and provide their input on its effectiveness.

After the initial pilot program, ICEE began deploying the system to its entire field force, one region at a time. The company's goal is to have the remaining technicians using the system by the end of 2005.

Finding acceptance among technicians.

When implementing any new system, a company can expect resistance from users who are required to learn a new system. Lackey expected field technicians to say, "This is difficult. I don't want to learn it. I want to go back to the way I was doing it."

But according to Lackey, they experienced the opposite. "They all have ideas for things they'd like to see. It's good to see that they want to help out and provide suggestions."

In addition, Lackey says the technicians feel a sense of pride in being able to utilize the latest technology. "They feel empowered, you could say, that they've been given these devices," he said. "Everyone feels good about having the right tools for the job. It can certainly be a morale booster."

Recognizing opportunities in other areas.

Now that ICEE has experienced benefits with a wireless data solution for their field technicians, the company is considering providing similar devices for their syrupdelivery personnel.

"We're in the process of researching that right now and hoping to do something for them," said Lackey.

These drivers would benefit from having customer and route information immediately available on the devices. They would also be able to input important information about the delivery into the device. The information would then be sent back to headquarters in real time.

A successful deployment.

Overall, ICEE considers the wireless data solution a great success. Despite some initial doubts as to how the technicians would react to using a new system, the company has been happy with the solution.

Lackey said, "We definitely feel we are moving in the right direction with the right solution."

For more information about Cingular data solutions, contact your Cingular Account Representative, call 1866 429-7222 or visit www.cingular.com/fsa.

IMPORTANT INFORMATION

Results may vary by company and with selected wireless data solution. Eligible Cingular business agreement or service agreement and, with respect to each end user, activation on an eligible Cingular data plan on a compatible device required. Terms of service will vary based on selected devices and service plans. Due to coverage and system limitations, service may not be accessible at all times. Availability, speed of delivery and timeliness of information is not guaranteed. When outside the Cingular network, access will be limited to information and applications previously downloaded to or resident on your device. Additional software, hardware, and/or subscription to a third-party service also required. Cingular does not sell, supply, install or support such software, hardware, or services, including the Symbol Technologies devices and Countermind software application used by ICEE. To view a list of Cingular certified field service automation solution providers, visit www.cingular.com/industrysolutions, and contact them directly for further details on a specific system. Service subject to applicable business or service agreement, the corresponding Cingular service plan brochure and coverage maps, and related promotional materials. By using service you agree to abide by the terms and conditions of applicable software licenses. Failure to comply with such terms and conditions may result in termination of service. Additional fees, charges, and restrictions apply. Please contact your Cingular Account Representative for further details.

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