

Mobile Computing Shreds Inefficiency

August 23, 2012

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A mobile computing application has eliminated back office data entry and saved an hour per day for route drivers.

The Shredders is a Southern California document shredding/destruction company that offers highly secure document services to its clients. In addition to shredding paper down to confetti, the company employs background-checked, state-licensed security guards in the field to pick up and shred materials. That level of security is often critical for the company's clients, which include large banks and government offices.

Ironically, although The Shredders specializes in destroying paper, the company itself generated large amounts of paper in the field until recently. Drivers carried multiple copies of their paper pickup sheets, which were used to track each work assignment and provide documentation to customers. Not only did filling out those forms in the field slow down the drivers, but key-entering the data into the company's invoicing solution required office staff to spend multiple days each week performing data entry tasks.

"We generated a lot of paper, and processing the forms manually took a lot of time, not to mention it created some errors," says Angel Sanchez, operations manager at The Shredders. "We needed to run the operation more efficiently."

With a growing demand for its services, The Shredders faced having to hire extra staff just to keep up with the increasing paperwork volume. To handle the growth without having to bring on additional staff, the company decided to deploy a mobile computing and wireless communication solution. The goal of the solution was to eliminate paperwork while making it easier for drivers to collect route data, electronically capture customer signatures, and reduce the burden on the office staff.

Drivers Embrace Mobility

The Shredders was already using an invoice/pickup management solution (called ASSRI) developed by an internal IT staffer, so the company asked that same employee to develop a mobile extension for the application that would allow drivers to manage their routes, update pickup data, and capture customer signatures.

For the hardware, the company chose the Casio IT-3100M53/E mobile computer after evaluating several other units. "We chose that device because it was rugged, it was rated for multiple drops, and they are very durable," Sanchez says. "We put these devices through a lot, and they've proven their ruggedness — they are still holding up well."

The company has deployed 17 mobile computers for the application. Sanchez initially had some reservations about moving away from paper, because he thought the drivers would have trouble making the change. "Originally, I was opposed to this because I thought the drivers might resist using the technology," Sanchez says. "To my surprise, they adapted to it and found it really easy to use."

During the deployment, the company used the pickup sheets and the new mobile devices in parallel to ensure that everything was working correctly before eliminating paper altogether. The only challenge that arose during the implementation was an issue with wireless connectivity. Initially, the devices were deployed with an internal air card, which posed some connectivity problems in some areas. The company has since switched to Verizon Wireless's MiFi card, and Sanchez says the drivers haven't experienced any connectivity issues since the switch.

Automation Solution Saves Drivers An Hour Per Route

The Shredders' drivers have a regular route they follow each day. In the morning, they clock in and log in to the Casio handheld device in order to download their stops for that day. At each stop, they note how much material was collected, the time they arrived, and what department the material came from (if necessary). Customers may have multiple bins, so the driver notes how many bins were serviced as well as any other information pertinent to that contract.

The solution also indicates which billing option that particular customer uses (customers may be charged per box, a bulk rate, or charged per bin pickup). Once the bins are picked up, the driver shows the customer the pickup report on the handheld's screen, and they sign off on the work right on the device. If the customer requests a receipt, the drivers can print a physical receipt using the built-in printer on the computer. Because all of the pickup information is wirelessly sent back to the ASSRI solution in real time, customers can log on to The Shredders' customer portal and view all transaction details.

Elimination Of Paper Increases Efficiency, Improves Environment

Sanchez reports that drivers are saving time on their routes by not having to stop and fill out paperwork. "Our drivers average 25 to 28 stops per day, and they are probably saving an hour each day by not having to fill out the paperwork they did before," Sanchez says. "The solution also helps portray a more professional image, because they have this mobile technology with them when they are working with our customers."

There is also an environmental benefit to the elimination of paper. "We're a shredding company, and we recycle the paper we collect," Sanchez says. "This solution helps us be more environmentally friendly by not generating so much paperwork internally."

In the back office, staff no longer have to key-enter the information from the paperwork. With more than 25 stops per day spread across 15 daily routes, the amount of paperwork pre-mobility was tremendous. "You also have to consider that we process the total number of signatures, not just one per customer. For example, one customer might have different departments with document bins, so we would have to go from floor to floor, collecting signatures at each level," Sanchez says. "So even though they had 25 stops, they may have processed 100 signatures each day."

All of those forms had to be reentered into the accounting system, which took multiple days each week. With the new solution in place, the operation takes only half a day. The efficiency improvements in the field and in the office have helped the company expand while keeping costs down. "We've managed to grow our business without having to hire another person in the office to handle the extra paperwork," Sanchez says.