



# Achieve Multiple Benefits From Mobile Route Accounting Solution

featuring the microFlash 4t thermal Bluetooth printers  
route accounting DSD ■■■



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**- Mark Billitteri**

VP of Information Technology, G&K Services, Inc.

How are your customer satisfaction levels? Are they as high as you’d like them to be? If you’re employing some type of paper-based data collection method for your field force, you’ll probably never achieve your customer satisfaction goals. Why? Because mistakes happen. An employee in the field could write something down incorrectly, or a data collection clerk could misread a field worker’s handwriting and the next thing you know, you’ve not only got an unexpected expense, you’ve got an unhappy customer.

Usually, companies will wait until these unexpected expenses and poor customer satisfaction ratings reach a critical point before overhauling their manual processes by implementing some kind of automated route accounting or field service solution.

## Problem ■■■

That wasn’t the case with G&K Services, Inc., a \$930 million provider of branded business apparel (e.g. work uniforms) and facility services (e.g. floor mats, rest room hygiene solutions). G&K was proactive. “The catalyst for us to update our paper-based route maintenance system wasn’t an excessive amount of errors, but our desire to improve our customer service levels. This is, after all, a very competitive market,” explains Mark Billitteri, VP of information technology at G&K.

G&K has approximately 1,400 routes, which are each maintained by a different RSR (route service rep) and truck. Route maintenance refers to the service the RSR (i.e. driver) provides to each customer while on-site. For instance, an RSR could deliver cleaned uniforms, add new uniforms to an order, replenish consumables, or make credit adjustments to a customer’s account. The company services over 160,000 customers (over 1 million people wear G&K uniforms every day). Each uniform or garment is

allocated to a specific wearer via a serialized lot number printed on a bar code. That way, G&K can track each uniform’s whereabouts and collect information on wearing patterns and cleaning history.

In the past, all of the documentation for these visits was performed on a multipart form, which also served as an invoice. Before leaving on their daily routes, RSRs would pick up these invoices, which pertained to the week’s deliveries. As they visited customers, they would handwrite any adjustments and new orders. At the end of the day, the RSRs would return the forms to the front office for data entry into G&K’s proprietary route accounting system.

“Although we didn’t track errors as a core metric, we felt any error is one too many,” says Billitteri. “Also, by implementing a new route maintenance solution, we didn’t expect to eliminate hours from each RSR’s day. We simply wanted to streamline the RSRs’ processes while reducing the possibility of errors and improving customer service levels.”

## Solution ■■■

In 2005, after making the decision to develop a new route maintenance system, Billitteri and his technical teams took the first step and chose Apacheta Corp.’s mobile workflow software as the basis of the solution.



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The customization of the software and development of the final application took nearly two years. "Our biggest challenge was integrating the Apacheta application with our legacy proprietary back end route accounting system," states Billitteri. "We wanted to create this integration with minimal to no changes to our legacy processes. We eventually achieved the integration by using TIBCO middleware."

The rest of the solution included Motorola MC9060 handheld computers, Motorola WS51900 wireless switches, Motorola Mobility Service Platform (MSP), and Datamax-Datamax-O'Neil microFlash 4t thermal Bluetooth printers. Each RSR is now equipped with a handheld (using the MSP) and printer. Wireless LANs (WLANs) consisting of the Motorola WS51900 wireless switches have been installed at each of G&K's 150 facilities.

The invoice and customer information for each RSR's daily route is wirelessly downloaded to the handheld each day prior to an RSR's shift. Route maintenance is achieved by using the handheld's integrated bar code scanner and touch screen for input into the Apacheta application (which resides on each handheld).

RSRs print a final up-to-date invoice on-site using the Datamax-O'Neil printers. At the end of day, the RSRs return to their respective G&K offices and upload the day's transactions to the network using the WLAN. The transactions are reviewed through a Web portal by the route manager and once approved, posted to the route accounting (i.e. billing) system.

As you can imagine, rolling out a solution like this to 150 locations with 1,400 users was a daunting task requiring a lot of coordination. "We drafted field and corporate employees to be on the deployment team and to help coordinate the whole project," explains Billitteri. "We developed a schedule of events that had to be completed weeks in advance of any equipment arriving at a location. For instance, we would send each site information on how to install the wireless infrastructure and assemble the boards for the handhelds' charging cradles."

Staging the equipment for shipping was also a big challenge. The company had purchased 1,400 handhelds, printers, and holsters plus enough for a spare pool. Additionally, there was the challenge of coordinating and shipping 150 WLANs. To help with all of the staging and deployment of this equipment, G&K used Stratix Corp., an integrator of AIDC (automatic identification and data collection) solutions and a large Motorola VAR.

G&K continues to use Stratix today for repairs, returns, and deployment of equipment to new locations. Training was another part of the new system's rollout that had to be coordinated. The team designed a train-the-trainer model to ensure training would be consistent. The deployment team developed a schedule and then visited with trainers from

every location who then conducted training for every route driver. The local deployment team at each location then managed the launch of the new solution to make sure everything went smoothly.

When G&K Services, Inc., a \$930 million provider of branded business apparel (e.g. work uniforms) and facility services (e.g. floor mats, rest room hygiene solutions), decided to upgrade its paper-based route accounting system to a mobile version, it first turned to Motorola (formerly Symbol Technologies). G&K had used Motorola handheld computers in its warehouse for years and wanted to equip its field workers with similar rugged units. Motorola then introduced G&K to one of its ISV (independent software vendor) partners, Apacheta Corp. G&K chose Apacheta RouteACE mobile sales, delivery, and merchandising software as the foundation of its new mobile route accounting solution. "We felt that Apacheta's technology, especially with its wireless, printing, and data management capabilities, was better than anything we had seen and would help us accelerate the development of this application," explains Mark Billitteri, VP of information technology at G&K.

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RouteACE offers customizable workflows for automating processes for delivery drivers. For instance, it can keep track of and validate what inventory was loaded onto a truck, it can be used for invoicing and payment processing, and it can automate the end-of-day settlement and mobile server update process.

G&K worked with Apacheta for nearly two years to customize RouteACE for its specific needs. "Apacheta did the actual development work," says Billitteri. "I can say that Apacheta was able to turn around requested modifications and enhancements very quickly, which was key to the success of the project."

## Results ■ ■ ■

Today, the application resides on the Motorola MC9060 handheld computers that G&K route service reps (RSRs) use in the field. The RSRs use the application for managing inventory, taking customer orders, making invoice adjustments, and printing final invoices using Datamax-O'Neil Bluetooth printers connected to the handhelds.

Mark Billitteri, VP of information technology at G&K Services, Inc., knew that developing a mobile route accounting application to replace the company's paper-based process was only part of the overall solution. The software application had to be used in conjunction with hardware that was intuitive and rugged, if the whole solution was going to be accepted by the company's nearly 1,400 route service reps (RSRs).

Ultimately, G&K chose Motorola MC9060 handheld computers and Datamax-O'Neil microFlash 4t thermal Bluetooth printers. The MC9060 has an integrated bar code scanner, a keypad, and touch screen. Its Bluetooth radio wirelessly connects the handheld to the Datamax-O'Neil printer, eliminating any cumbersome wires. G&K also uses the Motorola Mobility Service Platform (MSP) for managing and monitoring all its handhelds from one remote location.

The Datamax-O'Neil microFlash 4t prints direct thermal receipts and invoices. In fact, it can print a compressed 80-column receipt, which is important to G&K, since having this capability doesn't require an RSR to return to a delivery vehicle to use a large 80-column printer. Two lithium-ion batteries offer enough power for a full 8-hour shift, enabling almost 1,150 6-inch receipts to be printed on a single charge.

"With the new system, the customer immediately signs off on the invoice. ... That immediate approval greatly reduces the probability of errors happening." Mark Billitteri, VP of information technology, G&K Services, Inc.

In Spring 2006, the two pilot locations went online. "We conducted our pilot tests for two to three months to make sure our business processes still worked efficiently, our training programs were effective, and the technology was

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going to scale. We had no major surprises; everything went according to plan." Once the pilot was complete, the solution was rolled out during the next year to all of the locations. The final solution also includes a French language version for some of G&K's Canadian locations.

Since some of the G&K locations have been using the new route maintenance solution for only a few months, Billitteri says the company has yet to formally survey customers as to their satisfaction with the new system. However, he says informal feedback from customers during the rollout phase has been overwhelmingly positive. "We know we've already improved customer satisfaction," he says. "For instance, in the past, a data entry error could have caused a customer to not receive a garment or service credit they had expected, creating dissatisfaction.

With the new system, the customer immediately signs off on the invoice, which reflects any changes that had just been made. That immediate approval greatly reduces the probability of errors happening." He adds that customers have also expressed their satisfaction with their ability to view and print past invoices online through G&K's new Web portal.

From an operational standpoint, the new solution has helped G&K reduce its labor costs while improving its staff morale. In fact, the company was able to streamline its back office operations by eliminating approximately 90 positions pertaining to data entry. And despite the new solution involving a large amount of change management, the RSRs have adapted well.

"We engaged the RSRs early in the development of this solution, so they had a level of buy-in up front," Billitteri explains. "The response has been so positive and the technology has worked so well that our RSRs have said they'd never go back to a paper based system. As we gain more experience with this new technology, we expect to see even more productivity gains from employees and improved service levels to our customers." ■

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