

# Routing Issues: From Paperwork to PDA Efficiency

## Software Technology for the Bottled Water and Water Treatment Industries

**H**ave you ever considered exchanging your piles of paperwork for personal digital assistants (PDAs)? You have certainly seen them, handheld devices called PDAs, used by the big players in the service and delivery industries. In fact, major companies could not even imagine sending their drivers and service technicians into the field without these devices. No longer regarded as a luxury or the next "gimmick" designed to pull your money from your pocket, PDAs are a necessity to run an efficient and successful company.

### The Paperwork Trouble

As anybody who works in the bottled water and water treatment industries knows, the daily business routine creates piles of paperwork. Early in the morning, drivers and service technicians receive their work tickets printed on the previous day. If a customer calls in for a change or a last-minute order, handwritten papers have to be added to the tickets. Drivers or technicians leave the office with lots of papers, which if the company already

is using a solid routing package, is at least arranged in the order of the stops. If the company still is based on a manual system, not only do the drivers themselves determine what is on their truck, they also decide on the best routing for the day.

On the road they may encounter unexpected delivery and servicing problems. For instance, when a customer asks for additional items or different service, drivers or technicians deliver the additional bottled waters or perform the requested task, but they also have to make handwritten notes on the papers and keep track of any changes. Sometimes a customer is not at home, which makes the proof of delivery or service often difficult. At the end of the day the work tickets contain numerous scribbled-down notes that the office personnel has to incorporate into the actual invoices.

This description alone demonstrates how cumbersome and inefficient it is to run a company without the appropriate software technology. Errors accumulate

easily. Precious time is wasted. Ultimately, your company pays the price in real dollars by not getting the most out of the delivery and servicing routes.

### Switching to PDAs

Now to begin considering PDA options. Handheld devices have been around for several years by now. Rental car companies were perhaps among the first to use them; suddenly the return process was reduced to a couple of minutes. By now, handhelds have enjoyed enormous popularity in any industry that deals with deliveries, services or exchanges. The bottled water and water treatment industries are not an exception. PDAs enhance performance, accuracy and cost-efficiency.

Here is how it works. Each delivery or servicing technician has a PDA that in the morning is loaded with delivery or servicing requests. The PDA also determines the most efficient routing for the stops that have to be made on the particular day, especially if it integrates with a

mapping GIS program. Last-minute orders and changes already are integrated when the driver or technician picks up the PDA. Special instructions are quickly uploaded by office personnel so that customers receive superb service. No extra phone calls are necessary anymore because the driver or technician only has to read the messages on the PDA to understand the situation. Similarly, the driver or technician has access to a customer's delivery and payment history by a simple push on the appropriate button. Route personnel return to the office without leaving messy and unreadable notes on the desk of office clerks. Instead, they place their PDA in a cradle connected to a desktop computer and the information uploads automatically from the PDA to the desktop software. Your office personnel are free to speak to customers and take care of other work. Your customers will notice the difference in the professional deliveries and services and will recommend your company to family and friends.

### PDA Selection

How do you choose your PDAs? First of all, you will need to differentiate between the hardware and software. Big hardware manufacturers such as Casio, Compaq, Palm or Symbol produce new models at a fast rate. They either run on the operating systems "Palm OS" or "Windows CE," Microsoft's Pocket PC. Yet the crucial aspect of your PDAs relate to your selection of the software. If the program is "buggy" or otherwise cumbersome, the best PDA is of little use. The task will be to find software that's right for your business routine. Once you identify the software that is good for your delivery and service needs, the appropriate PDA almost will recommend itself.

### The Right Software

You will need to do your homework: Determine your budget, set up your time line of implementation, clarify your business needs and ask colleagues in your industry which PDA software their company is using and if they are happy with their solution. Then put yourself on the phone and call a few software companies. Ask them about their expertise in your industry. How did they get into the

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bottled water and water treatment industries, and how long have they been in it? Have they developed the software themselves? Does the company continue developing the software so that you will be able to expand your software solution in due time? Get references from the company and take the time to speak to its customers. Also check if its pricing is within your budget range. Perhaps you have to wait another couple of months and save for a budget that will allow you to get what you want. Inquire about leasing options to get your software sooner rather than later. Software companies are aware of tight budgets and gladly recommend leasing companies to you. Above all, make sure that you get a solid understanding of what a particular PDA software solution can and cannot do for you. Do not go by pricing alone. Remember that you and your employees should want to live with the software for years to come.

### Connecting PDAs with the Office

The integration of PDAs into your business has many benefits, some of which are immediately clear while others will take some time to show. All of them will contribute to making your company a business of noticeable efficiency and success. Your drivers or technicians will be among the first to notice some of the immediate benefits. Their routes are laid out for them. They simply have to verify the loads on their trucks with their PDA and then they quickly will leave the yard. Equipped with PDAs, drivers or technicians have daily routing and customer information at their finger tips, or rather at their "stylus pen tips." Features such as signature capture and receipt printing on the spot allow completion of the business transaction at a customer's house. Your driver or technician also is able to collect payment information, even by credit card, which is entered into the PDA.

Drivers' or technicians' confidence in using "computers" will make them excellent representatives of the company. Most of all, the saved time allows them to return to the office in time where their notes are saved in the PDA ready to be uploaded into the office system.

Another benefit relates to the invoices sent to customers. When office staff deals with the data entered by the driver or technician during the previous day, they bill customers for deliveries and services not presumably but actually rendered. Your staff no longer needs to handle angry calls about mistaken invoices from your valued customers. Instead, your customers appreciate the professional-looking invoices that present the correct billing. Your company keeps track of all the records, avoids resending invoices and saves everybody time and work. Staff

resources become available to expand the business in quality and quantity.

Handheld devices close the circle in the delivery and service process that desktop solutions in the office alone cannot fill. With PDAs, the business interaction on the road becomes an integral part of a company's activities. Fewer errors, more time, saved money and better overall interaction organize bottled water and

water treatment companies into smooth operations. PDAs are a necessity in today's world where excellent relationships with customers are the foundation for success. PDAs help any route delivery and servicing company to reach this goal whether in the office or on the road. **WQP**

### About the Author

Lorraine Keating is president of Prism Visual Software, Inc., a software company developing solutions for the field service and delivery industries. Prism's software

has won major awards from renowned technology organizations such as Computerworld's "100 Emerging Companies to Watch in 2002." With 10 years of experience in the bottled water and water treatment industries, the Prism team developed MiniMate-PDA solution that integrates seamlessly with Prism's routing and servicing packages RoadQuest and ServQuest. Prism can be reached at 516-944-5920; [info@prismvs.com](mailto:info@prismvs.com).

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