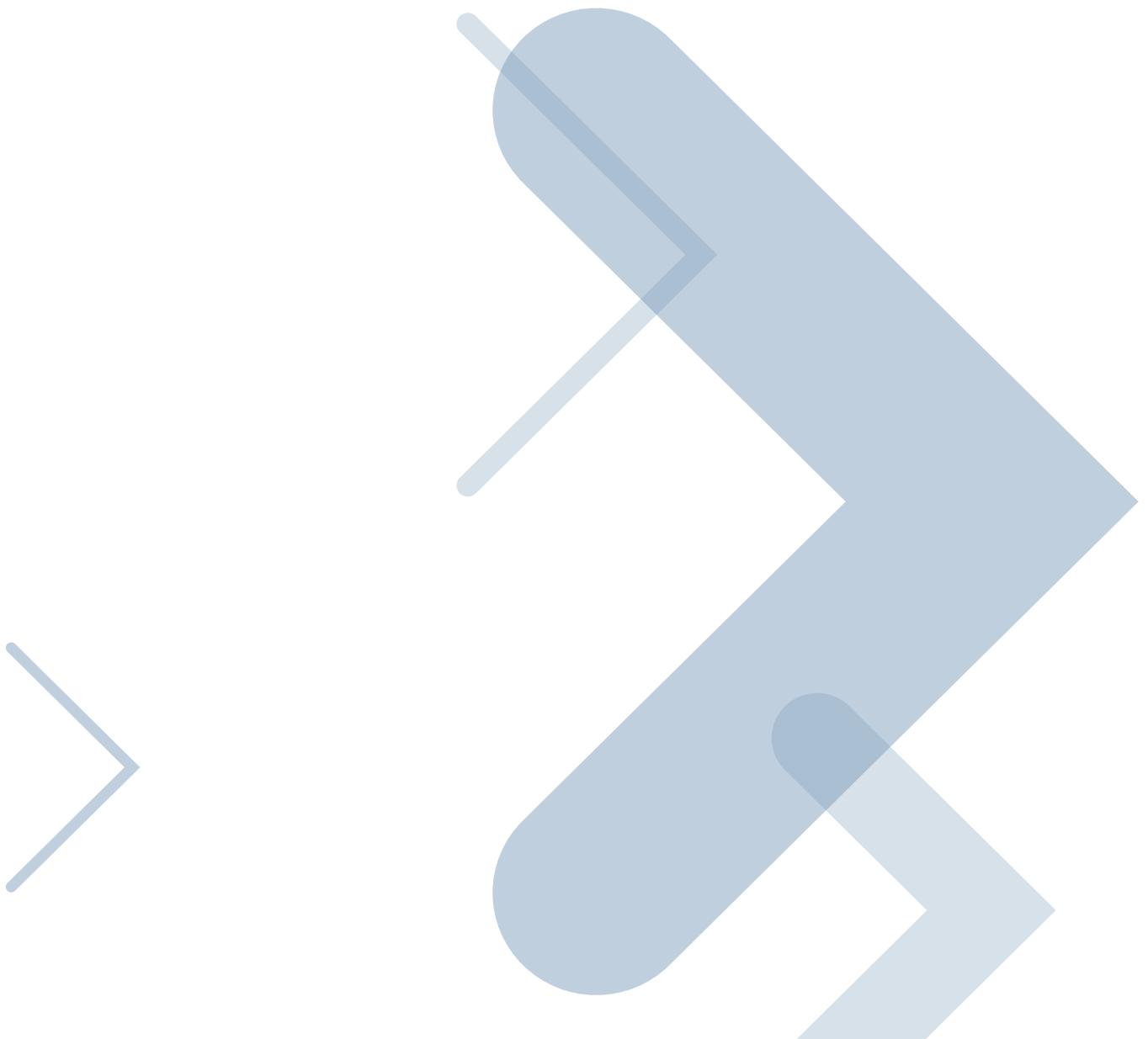


Real-Time Wireless Technology Drives New Accountability

Motorola mobile computers and SmartLogix applications bring new efficiency, productivity and profitability to petroleum marketers





Fleet fueling used to be anything but fleet. Your driver had to drive to the customer location, manually note initial fuel level and vehicle data, then take the hose and fill the first car or truck. After manually entering the amount of fuel dispensed, he then had to repeat the process for every vehicle in the fleet, whether there were 10 or 110. It was difficult, time consuming, labor intensive and notoriously inaccurate.

In many cases, customer service that relied on outdated procedures was anything but customer friendly. When a customer called with an urgent request for an emergency fuel delivery, response was neither rapid nor simple. Not only did dispatch have to locate a truck with enough fuel, they had to find a truck close enough to meet the customer's request. The customer was often left hanging without an answer while the right truck was found and dispatched. Sometimes it just wasn't possible until the next day, which left an unhappy customer.

In the back office, manual procedures were just as inefficient, and in many cases, very costly. Entering data manually is always prone to human error, and paperwork could often be lost or misplaced. That's always a problem. But what if a customer claimed that he never received 1,000 gallons of fuel? If that paperwork can't be found, or is discovered to be inaccurate, it could easily lead to writing off the disputed number of gallons, which is both costly and infuriating.



Over the years, the petroleum market has been a very profitable business. Even if manual operations have been less efficient than they could be, there wasn't much impetus for trying something different. In fact, there was a real reluctance to change, especially when it came to the use of new technology. Many marketers looked at the numbers and decided that for what an automated system would cost they could buy a new truck. More often than not, the new truck won. **But that was then; this is now.**

"Fear of change has been replaced by fear of not changing."

Betsi Bixby • President • Meridian Associates, Inc.

Recent pricing volatility has made the industry less predictably profitable. In addition, consolidation in the industry has made the marketplace much more competitive.

Fleets are growing and margins are shrinking, and there is now a new urgency to drive down costs. The result is, change is now on virtually every company's to-do-list, fueled by a new interest in the use of wireless communications technology to improve efficiency and increase accountability. No one wants to be left behind by competitors using the newest generation of technology as a competitive differentiator against them.

The New Accountability

Whether you're a commercial, fleet, residential or retail petro marketer, you're only making money when trucks are rolling and fuel and lubricants are being delivered — and delivered accurately. Guesstimates on the amount of product being carried and distributed are no longer acceptable. Neither are shrinkage or unscheduled stops. Product must be accounted for in precise detail before and after delivery. So must drivers and equipment. Of course, many drivers — especially the more experienced ones — can be resistant to change. That makes it crucial to change driver culture, which can be easier said than done. How do you do it? You talk productivity and show drivers that new generation real-time wireless solutions make their jobs easier, and help the company make more money so they make more money.

The Motorola/SMARTLogix Solution

The new generation of intelligent automated petroleum technology is exemplified by the comprehensive hardware/software solution offered by Motorola and SMARTLogix, two technology leaders combining to bring mobile wireless technology to petro distribution. The proven digital logistics software solutions delivered by SMARTLogix' SMARTank and SMARTruck applications provide increased delivery and administration efficiency, efficient market expansion, reduced billing time, tighter control over inventory and margins and improved customer satisfaction. Motorola's rugged handheld mobile computers offer drivers an intuitive interface, enabling them to use Global Positioning Systems (GPS), bar coding, signature capture, on-board printing, real-time wireless transmission and ergonomic design to work faster and more accurately... without paperwork.

"How do you change driver culture and get them to buy into automation?"

You tie technology to productivity. You show them how technology helps simplify reporting and eliminate paperwork. No more driver logs, no more delivery tickets, no more bills of lading that don't reconcile, no more racing to a fax machine at the end of the day."

Gary Bevers • President • Bevers & Co.

Integration Equals Productivity



By providing a streamlined, integrated hardware/software solution, Motorola and SMARTLogix enable marketers to capture the entire range of automation benefits when and where they are needed most.

- **Efficient delivery.** When you eliminate paperwork, you make a quantum leap in efficiency and ensure documentation of every gallon delivered. SMARTLogix solutions won't allow the delivery of the wrong product. Based on historical data, they estimate burn rate and create accurate forecasts that, combined with real-time automated tank monitoring, generate orders for "just

in time" delivery. That helps minimize emergency orders and deliveries. Combined with Motorola handheld mobile computing devices, they easily capture crucial data more accurately and in real-time, delivering efficiency that reduces errors, eliminating disputes and lost inventory and establishing more trusted customer relationships. The solution also enables marketers to broaden their geographic delivery areas through remote data access and real-time resource and driver accountability.

"The solution enables a "no boundaries" distribution approach. With real-time electronic data collection and integration, there is no need for drivers to return to a central office to deliver each day's data. This enables petroleum distributors to expand their territories yet retain inventory control and driver accountability, even from hundreds of miles away."

Dan Warren • Director of Marketing • SMARTLogix

- **Accurate, real-time data capture and transmission.** Crucial to achieving the benefits of automation are wireless handheld mobile computers that are powerful, easy for drivers to use and can withstand the harsh environmental conditions drivers face in the petro industry, whether in fleet fueling, on construction sites or in all kinds of weather including rain, snow and below-zero temperatures. Motorola handhelds offer compact sizes, pistol grips, ergonomic design and streamlined interfaces designed to be easy for drivers to use even when conditions are less than ideal. Advanced functionalities include barcode scanning for automated vehicle identification, anytime/anywhere access to delivery schedules,

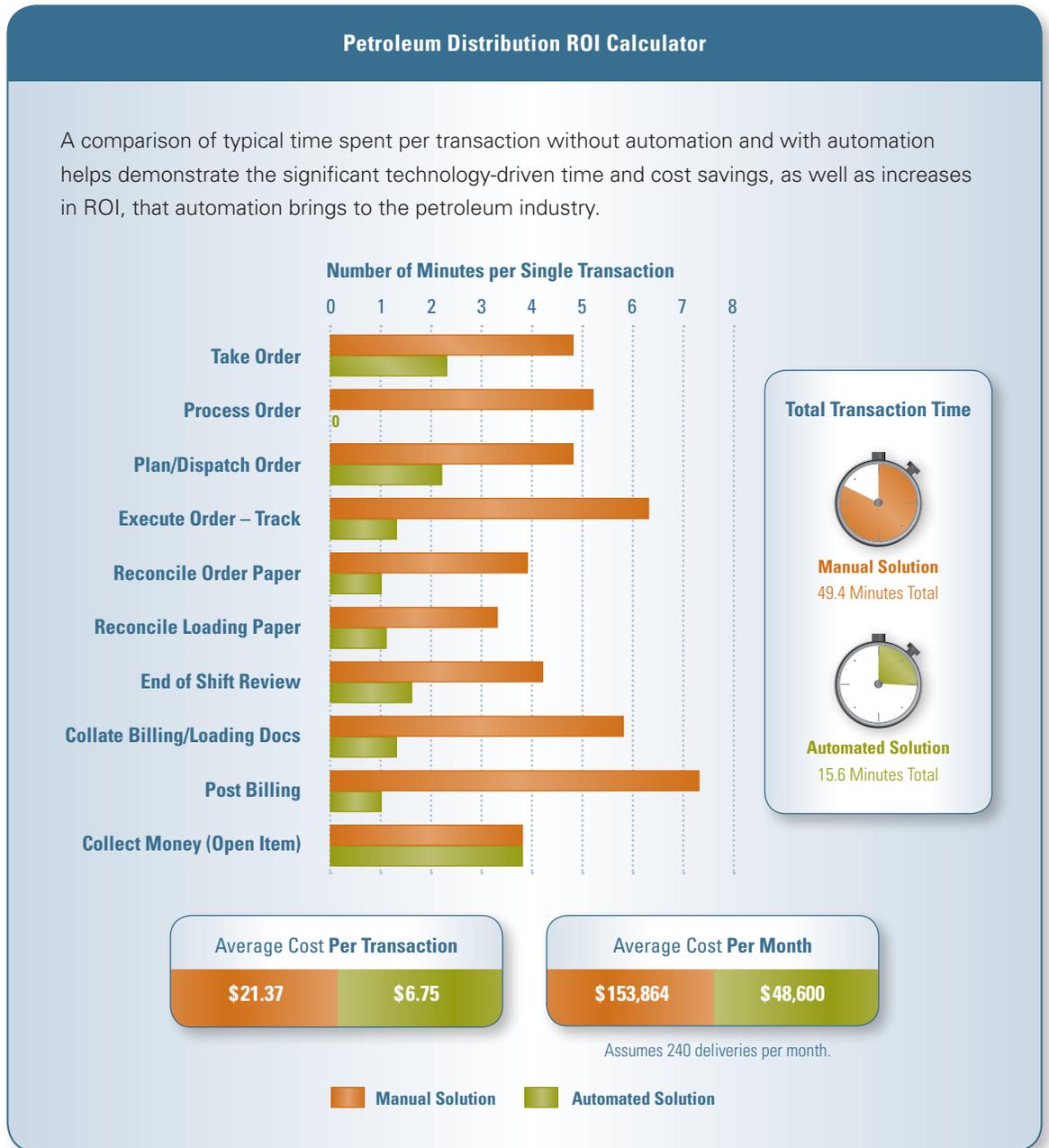
customer information and up-to-the minute gallons-per-delivery data. The Motorola devices can capture customer signatures, connect to an on-board printer to print accurate receipts and transmit the data to back office systems in real-time for more accurate invoicing, faster billing and improved cash flow.

"What this system of handhelds has done is helped us get to the next level of performance and accountability. Basically, they make it easier to do what drivers have always had to do. Drivers have been very positive about both the durability and usability of the devices."

**Robert Giffin • Operations Manager
Parman Energy Corporation**

- **Optimized dispatch.** The solution's automated dispatch capabilities improve driver efficiency and productivity. Equipped with GPS functionality, driver's handheld computers enable the real-time tracking of every truck every minute. When on-the-fly adjustments need to be made, the software enables dispatch to view the whereabouts of every vehicle, choose the best candidates to solve a customer problem, alert the drivers and provide instant confirmation to customers. Applications like geo fencing make sure drivers are where they should be, ensuring, for example, that they are using the correct fueling terminal and are not making unscheduled stops inside or outside their proper zones. GPS capabilities also enable route optimization that saves fuel, wear and tear on delivery vehicles and optimizes driver time and compensation. Recent research reports suggest that GPS can save almost an hour per day in unnecessary travel for each vehicle in the fleet.
- **Improved billing.** Many petroleum marketers find that with their integrated Motorola/SMARTLogix, solution, they are able to cut billing time by 50 percent or more. Real-time transmission of data from tankers and drivers enables faster invoicing. Drivers no longer have to wait until the end of the day to deliver the day's data to the back office. No more searching for misplaced bills of lading, no more struggling to reconcile, no more waiting until the end of the day to fax paper-based data. But billing speed is only part of the story; the other is accuracy. There is no more lost paperwork, no more illegible handwriting, no more frustrating and costly irreconcilable data. Customers are more satisfied, receivables are significantly reduced and cash flow is substantially increased.

New Generation Automation ROI



“If you’re not automating, you’re going to be left behind. You’ll become a Mom and Pop organization.”

**Brett Minich • Operations Manager
 Great Lakes Petroleum**

The Motorola/SMARTLogix automated solution is an integrated, multi-faceted new generation wireless communications system that enables marketers to succeed in the rapidly changing petro marketplace. The solution delivers exceptional ROI for virtually every type of petroleum marketer. (For an example, please see the ROI calculator.) The question is no longer “should we buy a new truck or install an automation system?” Today the question is: How soon can we put the new generation of real-time wireless hardware and software solutions to work for us? With the Motorola/SMARTLogix solution, the answer is right away, as evidenced by the experiences of two true innovators in the petroleum industry.

Case Study: Great Lakes Petroleum



Solution Category Commercial and fleet fueling

Application Motorola/SMARTLogix solution

Industry Petroleum distribution

Company Great Lakes Petroleum

Business Issue

Headquartered in Ohio with a satellite office in North Carolina, Great Lakes Petroleum conducts business in a number of different markets, some up to 500 miles away from an office. Like many petroleum marketers, the company was experiencing unacceptable levels of lost gallons that could not be accounted for, whether from theft or lack of accurate documentation. A few years ago, with delivery of about 500,000 gallons, the company would lose on average 7,000 to 8,000 gallons of petroleum. As fuel prices began to rise and the company moved into new markets, it was not unusual to be searching for 25,000 to 30,000 gallons per month. The company was having difficulty getting documentation back from the drivers on a timely basis and thus was having a tough time accounting for every gallon delivered. Driver documentation was all done on paper by hand and was not always accurate or timely, and often was misplaced or lost. In addition, because billing was being done from one central office, the company was relying on drivers using fax machines to transmit data, a system that was highly inefficient and ineffective.

Solution

These documentation problems, coupled with aggressive expansion into new markets in 13 different states, were the impetus for Great Lakes Petroleum to look for a system that was automated and real-time, with no written documentation required. The company wanted a system that would allow a driver to simply log in, send a report, pull all the data and automatically integrate it into the billing system...no matter how far from a central office, even 300 to 500 miles away. Ultimately, Great Lakes chose the integrated hardware/software automated solution offered by Motorola and SMARTLogix. The SMARTank solution used wireless monitors to provide accurate fuel levels and the onboard SMARTruck solution integrated with electronic fuel meters to capture transactions of any products flowing through the meters, automating the entire fuel delivery system. Onboard Motorola mobile computers allowed drivers to access their delivery

schedules and to capture and wirelessly send data back to the billing office in real time.

Benefits

The automated system provided the company with a true competitive edge, as their competition was either still relying on manual systems or was not making optimum use of truck technology.

- SMARTank wireless monitoring replaced previous systems and increased efficiency and accuracy, as well as integrated directly into the SMARTruck system, enabling commercial market distributors to significantly improve control over inventory and dramatically reduce the amount of lost gallons. This information is further integrated into the dispatch system for more accurate scheduling and tracking of deliveries.
- In the fleet fueling marketplace, as drivers make their stops, the system knows which type of fuel each customer uses and will not allow drivers to dispense the wrong product. Using the Motorola MC909X-K rugged handheld mobile computer, drivers scan a barcode on each truck, capturing the amount of fuel dispensed. The computer then prints out a complete ticket and can capture a customer signature.
- Although the real-time nature of the system allows for same-day billing, Great Lakes prefers to do next day billing. Accounting accesses the system, pulling data by driver, prices every stop made and sends the information to the back office system in real time.
- Automated pricing will be implemented soon, eliminating human error.
- Customer satisfaction is invariably high. Customers experience a sense of comfort because they can receive automated reports that document every transaction. In fact, Great Lakes Petroleum has actually won new sales and customers based on the overall efficiencies and cost savings inherent in the automated solution.
- Driver satisfaction is also high. They no longer have to carry a clipboard and manually enter data. Paperwork is eliminated, and they find the Motorola mobile computing devices easy to use, and appreciate that the real-time wireless data transmission eliminates having to reconcile and fax data every night.
- The end result, the increased efficiency and accuracy of the Motorola/SMARTLogix solution enables Great Lakes Petroleum to gain a competitive advantage by giving better service and better pricing to the customer.

Case Study: Parman Energy Corporation



Solution Category Commercial and industrial fueling

Application Motorola/SMARTLogix solution

Industry Petroleum distribution

Company Parman Energy Corporation

Business Issue

Based in Tennessee, Parman Energy Corporation has warehouse and storage facilities in Nashville and Chattanooga, the company's lubrication distribution operations largely serve commercial and industrial customers with a focus on the construction industry, a highly competitive market. As the company grew and began deploying more and more metered vehicles across its various service areas, the company recognized a need for a vehicle tracking system. In serving the construction business, a significant number of deliveries are made on an emergency basis. That makes it increasingly important to know the exact location of each vehicle at all times to serve customers better, as well as to increase accountability and improve decision support. The rising price of oil was also a motivating factor, especially in terms of vehicle inventory control. On the lubricant side of the business, just being off one-half gallon per day could cost up to \$25 per truck, adding up to substantial losses when multiplied over a large fleet.

Solution

When Parman started considering technology systems, they began by looking at GPS tracking systems for their geographically dispersed fleet of vehicles. Working with the IT department and SMARTLogix, the company was intrigued by the ability of the SMARTLogix solution to have not only GPS but a software solution to streamline meter accountability, especially as prices were increasing. The company chose the SMARTLogix system because, in addition to providing GPS capabilities, the solution also allowed them to easily reconcile each truck's deliveries at the end of the day, something it had trouble doing with mechanical metering. The fact that the solution could be directly integrated with the Parman's back office system was also a major selling point. Any concerns about driver resistance were allayed by the ruggedness and simple, intuitive interface of the Motorola handheld computers for the capture and transmission of data in real time.

Benefits

The solution took Parman to a whole new level of controlling inventory on bulk liquid product, and made existing processes faster and easier to perform.

- The combination of software and handheld computers enabled the company to precisely measure how much fuel a driver pumped off his truck every day, making it easy to reconcile the trucks on a daily basis. This also enabled timelier, more accurate invoicing.
- The system virtually eliminated manual processes and paperwork, making almost every task — either onsite or in the back office — much simpler. It was no longer necessary for drivers to fill in and fax forms during and after the workday, and no longer necessary to collect and analyze stacks of paper that often amounted to 15 or more pages per truck per day. In addition, the solution is integrated with Parman's back office system, simplifying and speeding up the billing processes.
- The system's GPS capabilities enable accurate vehicle tracking and routing over the company's growing service area. GPS has helped improve driver accountability and productivity and made possible on-the-fly re-routing in response to customer need.
- The ruggedness and ease-of-use of the Motorola MC909X-K mobile computers helped ensure driver acceptance and adoption. The handhelds offer exceptional durability, even in the dirt and dust of harsh construction environments. The units provide excellent screen visibility and the use of stylus-based operations minimized the problematic task of pushing buttons. In addition, pistol-type grips make the handhelds easier to work with even in difficult conditions.
- Customer satisfaction is excellent. The marketer's customers are pleased by the electronic metering system, especially the new delivery efficiency, the faster answers and reduced response time for emergency service, the ease of reconciliation and the accuracy and timeliness of billing.



The Motorola MC909X-K Handheld Computer

As a pioneer and global leader in mobile computing, Motorola offers a broad portfolio of powerful handheld computers and devices, including the MC909X-K Rugged Handheld Mobile Computer. The MC909X-K offers advanced data capture capabilities and wireless integration with WAN/LAN/PAN systems for anytime, anywhere connectivity. Its rugged construction stands up to harsh environments and the ergonomic design ensures ease of use for your drivers.

The SMARTLogix Solution

SMARTLogix logistics solutions simplify dispatch operations, track product movement and vehicle location, and provide real-time inventory management with two advanced applications built especially for the petroleum industry:

SMARTruck Technology. A feature-rich real-time solution for accessing orders, managing dispatch functions and digitally capturing delivery information, integrating easily into most back office operations.

SMARTank Technology. This wireless tank-level monitoring system requires no external power, telephone connection or control boxes, yet provides exceptional flexibility, accuracy and performance.



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