



News Release

SC-RFID

Routeware Launches RFID Verification Solution for the Waste Industry

Based on Texas Instruments' Low Frequency RFID Technology, the System Can Boost Profits By Fully Automating Waste Collection Process

PORTLAND (April 29, 2008) – Routeware, www.routeware.com, a leader in the design and manufacture of hardware and software for the waste industry, today announced the availability of a fully-integrated radio frequency identification (RFID) verification solution designed to transform the way waste haulers collect and dispose of waste and recyclables in the United States. The new solution takes advantage of Routeware's expertise and Texas Instruments' (TI) low frequency (LF) products and systems engineering.

High-Quality Data for Improved Financial Results

High-quality automated data is at the heart of Routeware's RFID verification solution. Through the use of TI's RFID LF technology, the solution provides more accurate, thorough and real-time digital reporting, which ensures that haulers receive better data for improved customer service and responsiveness. It also helps free drivers to concentrate on their routes and to operate more efficiently and safely. For their part, waste-industry executives receive deep and meaningful visibility into their business operations. Additionally, the RFID verification solution can improve productivity in the waste collection and disposal process, and help all parties involved understand their true costs and margins. Finally, it can increase consumer and community satisfaction, and contribute even more to sustainability efforts. The net take-away is profitable, better-run businesses built for the long-term.

A Digital Overhaul of the Hauling Business

“Our work with Texas Instruments will help usher in a next-generation digital overhaul of the hauling business,” said Robert DeKoning, CEO of Routeware. “Waste industry managers, operators, dispatchers and drivers have told us that RFID is their number-one priority, and now they’ve got it. Looking ahead, we believe this technology will help transform the industry from utility provider to value creator.”

“With more than a decade of experience using our RFID low frequency HDX technology in waste applications in Europe, Texas Instruments has witnessed the benefits haulers receive from deploying RFID,” added Rafael Mena, business development and applications engineering manager of asset tracking for Texas Instruments RFID Systems. “From building efficient programs to creating lasting relationships with consumers and communities, the same opportunities are unfolding here in the United States.”

Managing and Monitoring for Success

Routeware’s RFID verification solution incorporates TI’s LF RFID tags, which are affixed to trash containers and dumpsters, and readers and antennas, which are installed on collection trucks. TI’s fundamental LF design is based on half-duplex (HDX) RF communication which provides optimum read range, accuracy and multi-tag reading capability. Unlike full-duplex frequency modulation, HDX allows the reader to pause and listen during the tag’s response, ensuring a stronger radio frequency signal. Consider that the motor and the control lines of the garbage truck can interfere with the reader and tag, and the need for a strong signal becomes apparent.

Routeware’s hardware and software links onboard truck data with the back office in real-time. As each transaction is completed, it’s automatically recorded into the Routeware DMS 5000™ onboard computer and then integrated into Routeware BackOffice and the hauler’s back-office software.

The RFID verification solution offers two core business process benefits:

- Real-Time Service Verification – This helps record precisely when, and from which container, garbage pick-up and disposal takes place as well as what is actually being collected and transported. In addition to increasing accountability on the part of

haulers, consumers get faster customer service data and more accurate waste collection bills and recycling credits.

- Asset Tracking – This helps haulers monitor their inventory of valuable containers and dumpsters, some of which can cost up to \$20,000 each. TI's LF RFID tags are especially suited to this application because they can withstand harsh environmental conditions as well as shock, and do not require line-of-sight to be read. Besides containers and dumpsters, the solution can monitor driver and truck activity in the yard, the fueling station or the landfill. This information helps haulers reinforce safe driving rules, enhance performance practices and improve productivity.

The automated RFID verification solution from Routeware using Texas Instruments' low frequency RFID is available now. For more information on Routeware solutions, please visit www.routeware.com. For more information on how the waste industry can benefit from automated RFID verification, please visit www.ti.com/wastemanagement.

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About Texas Instruments

Texas Instruments (NYSE: TXN) helps customers solve problems and develop new electronics that make the world smarter, healthier, safer, greener and more fun. A global semiconductor company, TI innovates through manufacturing, design and sales operations in more than 25 countries. For more information, go to www.ti.com, or visit TI's RFID website at www.ti.com/rfid.

About Routeware

Founded in 2000, Routeware Inc. is based in Beaverton, Ore. The company designs and manufactures hardware and software for the waste industry and commercial fleets that enables them to improve profits through better tracking and analysis of driver and customer data. Routeware systems provide information for the entire organization from the driver to the CEO and can be expanded and reconfigured. Routeware is a leader in capturing field data and integrating it with an existing information system. For more information, visit Routeware's website at www.routeware.com.