

So. Cal. Terminals Turn to RFID for Trucks

Twelve marine terminal operators are deploying an RFID system from WhereNet to identify the thousands of drayage trucks servicing the terminals each day.

By Mary Catherine O'Connor

Jan. 13, 2005—PierPASS, a nonprofit company created by 12 marine terminal operators at the Los Angeles and Long Beach ports to address issues such as congestion, security and air quality, is deploying an RFID-based system created by Santa Clara, Calif.-based WhereNet. The system is designed to automate the identification and authentication of the approximately 10,000 drayage trucks serving the terminals daily.

"All marine terminal operators are under a code of federal regulations, overseen by the U.S. Coast Guard, to ensure the safety of the port and the security of trucks coming in and out of the port," says Bruce Wargo, president and CEO of PierPASS. "Since 9/11, this security process has been heightened, and the U.S. Coast Guard understands that using an electronic process is more secure and less prone to error than a manual one."

Under the RFID system—which PierPASS has dubbed the TruckTag Program—WhereNet tags will be mounted on 10,000 drayage trucks. These trucks are operated by a number of third-party trucking companies that haul cargo to and from the 12 Los Angeles and Long Beach terminals.

Currently, before truck drivers enter a terminal, their trucks and commercial driver's licenses are visually inspected at various security checkpoints. Under the WhereNet system, as each truck approaches a checkpoint, RFID interrogators will read a unique ID encoded to a WhereNet tag attached to that truck's driver's-side mirror. The driver will then stop the truck, and his or her license will be visually inspected. Before security personnel allow the truck to enter or exit, the terminal operating system will compare the driver's license number with the truck ID. This will be done via an XML interface with a WhereNet database that associates the tag ID with truck registration information, verifying that the driver and truck have authorized business at the terminal.

To deploy the RFID system, WhereNet is working with each terminal to establish an XML interface between the WhereNet database and whichever terminal operating system it uses, according to John Rosen, WhereNet's director of product marketing. "Every terminal has its own terminal system, but the two most common are from Tideworks Technology and Navis," he says. "The Embarcadero Systems product is common, as well, and there are also homegrown solutions at some terminals."

WhereNet has shipped 10,000 of its active, 2.45 GHz, ANSI 371.1-compliant WhereNet tags to eModal, a database company that maintains a central repository of detailed container, vessel and terminal information. Terminal operators and drayage trucking operators use this data to manage shipments. EModal has already registered 99 percent of the trucking companies and drivers working in the ports, and is currently distributing WhereNet tags to those companies. The firm allocates each tag to one particular truck, using a registry to associate the tag with information on the truck and its driver. When a truck is assigned a new driver or other changes need to be made to its registry, eModal will work with WhereNet to update the WhereNet database at each terminal.

PierPASS says its 12 marine terminal operators will cover the \$1.2 million estimated one-time cost of deploying the program. There will be no cost to truck drivers or trucking companies for the first 10,000 tags issued by eModal. "We are looking to implement the system at half of the terminals during late February and early March," says Wargo. "The rest will come online a few months after that."

WhereNet has built a tamper-evident feature into the WhereNet tag. If removed from the truck to which it is assigned, the tag will no longer function.

PierPASS conducted a pilot test of the technology late last year. Wargo says PierPASS considered RFID solutions from a number of vendors before selecting WhereNet. "The WhereNet offering is cost-effective, and it does what we want it to do," he says.

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