ENHANCING CONTAINER VISIBILITY
INTRODUCTION

Until recently shippers and the logistics companies they hire had little visibility into the whereabouts of the containers carrying their cargo because those boxes have been aptly described as “dark, dumb, and disconnected.”

As technology advances that is dramatically changing, and Hub Group, a North American multi-modal transportation solutions provider with approximately $4.0 billion in annual revenue, is leading the way. Hub Group has installed Global Positioning System technology as part of its Mission Control system, which tracks every movement of containers in its fleet by rail and truck — from point of origin to destination — in order to boost utilization and provide cargo safety and real-time tracking capacity.

Over the next 10 years, the company plans to spend more than $45 million on Mission Control. The investment is already paying off. Through real-time visibility into the location and movement of its container fleet, turn times have been cut by an average of 30 hours per shipment. This has boosted utilization of Hub Group’s equipment and increased capacity. It has also reduced time and labor spent requesting equipment returns from shippers.

Hub Group’s new tracking system has an important corollary benefit. It is giving shippers increased visibility into the location of their inbound and outbound cargo, along with more accurate estimates of their times of arrival. This has helped its customers reduce time and labor spent tracking containers, freeing them to focus on improving management of the actual container loading and unloading. Being able to detect when, and for how long, a door has been open also delivers real-time security measures against theft and ensures food and other cargo safety.
CUSTOMER-CENTRIC BENEFITS

The resulting data from Hub Group’s real-time visibility system has added a tremendous value to shippers using the service. The Mission Control system is reducing the time and labor costs needed to keep track of containers at customers’ own locations. “Previously, customers had to report each box as unloaded back to Hub Group, and this takes time,” explained Megan Skas, Senior Director of Account Management. “The visibility of Mission Control helps customers save money on yard resources.”

The system is also helping customers improve operational efficiency at their container yards, which saves them money because Hub Group holds down costs for customers that turn containers around more rapidly. For example, one customer that ships consumer packaged goods continually averaged more than a week between unloading inbound shipments and reloading the equipment outbound. Once Hub Group installed its container-tracking system, it could see that the customer was moving the container around its yard numerous times. “We notified them of this pattern and helped address the issue. Arming this customer with examples and data to pinpoint their less-carrier-friendly facilities enabled them to address poor facility habits and, in return, get more competitive rates not just from Hub Group, but from other carriers as well,” Skas said.

THE TECHNOLOGY

Over the last two years, the company has installed GPS transponders on the vast majority of its containers. In doing this, Hub Group became among the first US logistics providers to equip its container fleet with such devices. The system provides three main data elements in real time:

- Location of the container itself
- Status of the cargo in the container, whether it is empty or loaded
- Status of the door, whether it is open or closed and, if opened, for how long

“What is being reported are changes in those statuses,” Jakub Cerny, Vice President of Fleet Solution Design, said. The GPS system sends an electronic message over a cellular network, which relays it to Hub Group’s transportation management system. It also sends an alert when a container is loaded or unloaded and when its door is opened or closed.

“We are leveraging our technology for exception management, resulting in improved service and more proactive communication to our customers,” said Troy Spolum, Senior Vice President, Intermodal Operations. Such information and alerts are also transmitted to drivers via the company’s HubPro application, to keep everyone up to date.

The ability to track whenever a container door is opened also provides an added security element. If the system reports that the door is opened at some location between the points of origin and destination, it could indicate an incident or cargo theft. This has been particularly helpful in high-crime areas, gateways, and on Mexico cross-border loads.

Recently, a container transporting food products was broken into while ingated at a railyard in Chicago. The GPS system reported that the door was open for one minute, then closed. An hour later, it was opened again for approximately one minute, then closed again. Hub Group learned that an unauthorized person caused the first opening and, finding nothing of interest to them, closed the door. An hour later, a railyard associate opened the door to inspect the contents and, finding nothing amiss, closed and sealed the door appropriately. Since there was a door breach, the customer was
uncertain about accepting the cargo. However, since Hub Group could prove the door was only open for one minute, on two separate occasions, the cargo was inspected and validated and the customer accepted the load. This saved a potential $50,000 in rejected cargo costs.

Another incident was tracked while a Hub Group customer’s container was traveling through Florida, when Mission Control received a GPS ping alerting that the doors were open. The container, however, was not at its destination. Quick action by the team at Hub Group prevented the possible theft of cargo valued at more than $45,700.

**BETTER VISIBILITY AHEAD**

This data plays an important role in how customers manage their supply chains, with better information for planning and execution. In an effort to provide round-the-clock visibility to their shipments on-the-go, Hub Group launched its Hub Group Connect application. This application combines and leverages internal records and information to deliver a seamless platform that serves up key information to the customers’ fingertips whenever they need it. Gone are the days where, if you want to know where your load is, you had to call a 1-800 number. With Hub Group Connect, customers can not only track their shipments in-transit, but they can receive push notifications for passing events, get rate quotes, schedule shipments, access documents and even catch up on industry news – all aimed at giving the customer more power over their supply chain with speed and ease.

“This is all designed to not only give our customers real-time information, but to also provide them with peace of mind for time-sensitive shipments,” Skas said.

**SUMMARY**

Mission Control, GPS technology, and supply chain expertise are being used together to give shippers real container intelligence, the type of data that can help executives make quicker, smarter business decisions that give them a competitive advantage. With Hub Group’s ongoing investments in technology and human capital, boxes that were once “dark, dumb, and disconnected” have become “visible, smart, and interlinked.”