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ENHANCING CONTAINER VISIBILITY

Produced by

Hub Group

TOP TAKEAWAYS

- Using GPS to track the movement of containers in its fleet, Hub Group has improved operational efficiency and reduced costs for its customers.

- Arming the customer with data enables negotiation of more competitive rates with all carriers.

- Tracking every opening of a container door provides added visibility to potential incident or theft.

- Containers now have the potential to become visible, smart, and interlinked.

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Real-time visibility has cut turn times at customer locations by an average of 30 hours per shipment.

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 $3.6 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 and currently has GPS tracking devices on more than 93 percent of its 33,500 domestic containers, with the goal of reaching 100 percent deployment within a year.

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.

Superior container intelligence provides the data to make quicker, smarter decisions.

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 Cleary, 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. In one instance the lag was 40 days before the container was reported back as unloaded to Hub Group. 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," Cleary said.

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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; and
- 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 Services, said. The GPS system sends an electronic message over a cellular network, which relays it to Hub Group's transportation management system whenever a container's location changes, when it starts being hauled by a truck, or when it stops. It also sends an alert when a container is loaded or unloaded and when its door is opened or closed. "Every time there is a change in any of these parameters, it sends a message that provides an update on all three data points," he said. "But it also reports, what we call, a heartbeat at least once every 24 hours to tell us that everything is fine and that nothing has changed," he said.

When a container is loaded aboard an intermodal rail carrier, the GPS system goes into sleep mode. But when a container is loaded on a truck and the truck starts to move, the GPS pings the system over the cellular network to provide location updates every 30 minutes or as necessary.

"We are leveraging our technology for exception management, resulting in improved service and more proactive communication to our customers," said Troy Spolum, 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

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was only open for one minute, on two seperate 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

While the GPS tracking information is actively being used by Hub Group, the long-term goal has always been to put it into the hands of its customers. To improve usability of the Mission Control system, Hub Group is enhancing the customer portal Hub Connect, which will give real-time access to cargo location and movement data. Rollout is expected to begin in Summer 2017. Cargo will be trackable by a customer's load information or Hub Group's reference numbers. It will enable rate requests and online order placement. The update will also include mobile-device delivery notification ability.

"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," Cleary said.

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SUMMARY

Mission Control, GPS technology, and logistics 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."

To learn more about Hub Group's products, please Click Here to have someone contact you.