

Kraft Foods Takes Fresh Look at Transportation and Yard Management

Recognizing the need to transform its transportation management focus to leverage scale and create a sustainable advantage, Kraft Foods invested in two initiatives to improve transportation operations.

In 2005, facing a market environment that was rapidly pushing transportation costs higher, Kraft Foods realized it needed to make a dramatic change in the way it managed freight. Working with its supply chain partners, the company set out to create a sustainable advantage in transportation management, regardless of market conditions, while keeping cost and service as top priorities.

The company embarked on two major projects, one focused on truck transportation and a second focused on yard management.

The first initiative was called MOST, an acronym for Management of Organized Sustainable Trucks. The inspiration for this initiative came from Kraft's private fleet operations, where the company had realized benefits by managing around "static" routes. These are routes with a set pattern of shipments that occur the same day each week and that normally are executed in the same way.

Analyzing its overall shipments, Kraft knew that there was potential for large-scale application of the "static routes" concept, said Mike Cole, director of North

American logistics operations planning at Kraft Foods, when presenting at the Council of Supply Chain Management Professionals' annual conference, in October. Kraft's shipment volumes are relatively steady and high throughout the week and its shipping network is dense, with over 500 origin locations and 6,000 destination points. The problems were identifying the best candidates for static routes and implementing the program on a large scale.

The company needed a TMS solution that could not only find the static routes, but also integrate with daily execution and payment activities, to ensure superior execution on a large volume of transactions, said Cole. In the course of researching this issue, Kraft discovered that TMS provider G-Log, now part of Oracle, was interested in the same business problem. G-Log and Kraft Foods partnered to develop an application that could find, execute and pay shipments on static routes, or Cooperative Routes, as the partners termed them.

The tool they developed takes shipment volumes, historical or forecasted, and performs three levels of aggregation—by geography, by time bucket and

by commodity. This information is then fed into a solver, which determines the most efficient shipment aggregates to put together to optimize the entire route. As orders come into Oracle Transportation Management (OTM), each is analyzed to determine its fit within a Cooperative Route. Manual execution is required only on an exception basis, enabling the solution to support large volumes without additional resources. The combination of identifying static shipment patterns and executing automatically through OTM also enables optimal positioning of carriers each day.

Every shipment assigned to a Cooperative Route is tagged with a unique route identifier, which is carried in the system and also communicated to the carrier. Carriers are required to invoice using this identifier, a practice that enables Kraft to save more on these shipments vs. standard shipments on the same lane.

By improving the efficiency of its carriers, MOST enabled Kraft to cut 500,000 miles in 2007, resulting in significant dollar savings and a reduction in Kraft's supply chain carbon footprint. Moreover, the program created new areas of collaboration



and improved services between Kraft and its supply chain partners.

Yard Management System

The goal of Kraft's second initiative was to improve visibility and efficiency at trailer yards associated with Kraft's multiple distribution centers. In particular, the project team wanted to provide real-time visibility of yard operations to the Transportation Operations Center and to find a more efficient way to spot and track trailers on their premises.

A decision was reached early on by the evaluation committee to focus on yard management system vendors that could provide complete/turnkey solutions which included a real-time locating system. PINC Solutions' yard management product, Yard Hound, was chosen for a number of reasons.

"Yard Hound's use of passive RFID

technology to locate trailers was highly attractive," said Kelly Rae, Kraft associate director-route to market, when presenting at CSCMP. Instead of placing battery-powered RFID devices on trailers, the Yard Hound solution uses passive tags, and yard trucks are equipped with GPS-enabled RFID readers. These readers identify trailers by their passive tags and record and report each trailer's position in real time. "Since the trailers remain immobile until hooked up to the yard truck used to move them to the next destination, using battery-powered devices on trailers creates unneeded design challenges and system cost," said Rae.

Moreover, the PINC system leverages existing yard processes, and since only a handful of yard trucks are needed to support a large number of trailers, the approach is extremely cost effective and flexible. An

additional advantage of putting RTLS on the yard trucks is that it allows the company to monitor key performance indicators for yard operations. Information on yard truck productivity, such as average time per move and percentage of idle time, cannot be collected reliably and accurately by manual tracking or other means.

After PINC was selected, a pilot was set up at Kraft Food's 24/7 mixing center in Stockton, Calif., to verify system capabilities. The system was first deployed at the dry yard (processing non-refrigerated goods) in April 2006 and a second system was deployed at Stockton's reefer facility the following November. Success with this pilot led to a decision in August 2007 to roll out the system to an additional 12 distribution facilities in six campus locations. Those deployments all were operational by January 2009.

Stockton experienced a 50-percent reduction in truck and driver resources needed for yard operations in the first year, due to reductions in driver/search time and distances and elimination of five man-hours of manual yard checks per day. Other installations have demonstrated reductions in demurrage and detention charges, elimination of overflow lots, and reduction of a total of four yard trucks and drivers.

Yard Hound also has provided benefits to Kraft's carriers, as they can access information about their fleet assets in Kraft yards through a web portal called Carrier View. This enables carriers to better manage their own trailer pools at the various Kraft sites and, in return, Kraft expects to benefit from overall better rates. Additionally, both Kraft and its carriers spend less time dealing with phone calls and faxes. About 15 of Kraft's carriers have signed up for Carrier View and Kraft is actively encouraging others to do so.

In addition to internal productivity improvements, Kraft sees opportunities to build customer relationships by delivering value in new ways. New capabilities acquired through MOST, for example, has opened opportunities for Kraft to collaborate with customers to better optimize their joint transportation networks.

Resource Link

Kraft Foods, www.kraftfoodscompany.com
Oracle, www.oracle.com
PINC Solutions, www.pincolutions.com