

On the Horizon

Postal Service to realign vast network

By Marcia Jedd

One of the largest and most complex logistics networks in the world is getting re-engineered. A major overhaul of the U.S. Postal Service network has begun in earnest. The Postal Service's Network Integration and Alignment program is an ambitious effort to optimize the vast physical distribution and transportation network of the Postal Service.

To ensure that resources are in locations which serve the needs of our customers, the multi-phase and likely multi-year project may see a significant role change for postal network facilities but promises to make service more consistent to all Postal Service users. As Postmaster General John Potter indicated in a press conference held in early April 2002 on the Postal Service's Transformation Plan — which the network integration program is part of — the Postal Service's strengths lie in its distribution network and retail outlet locations.

Reaching Goals

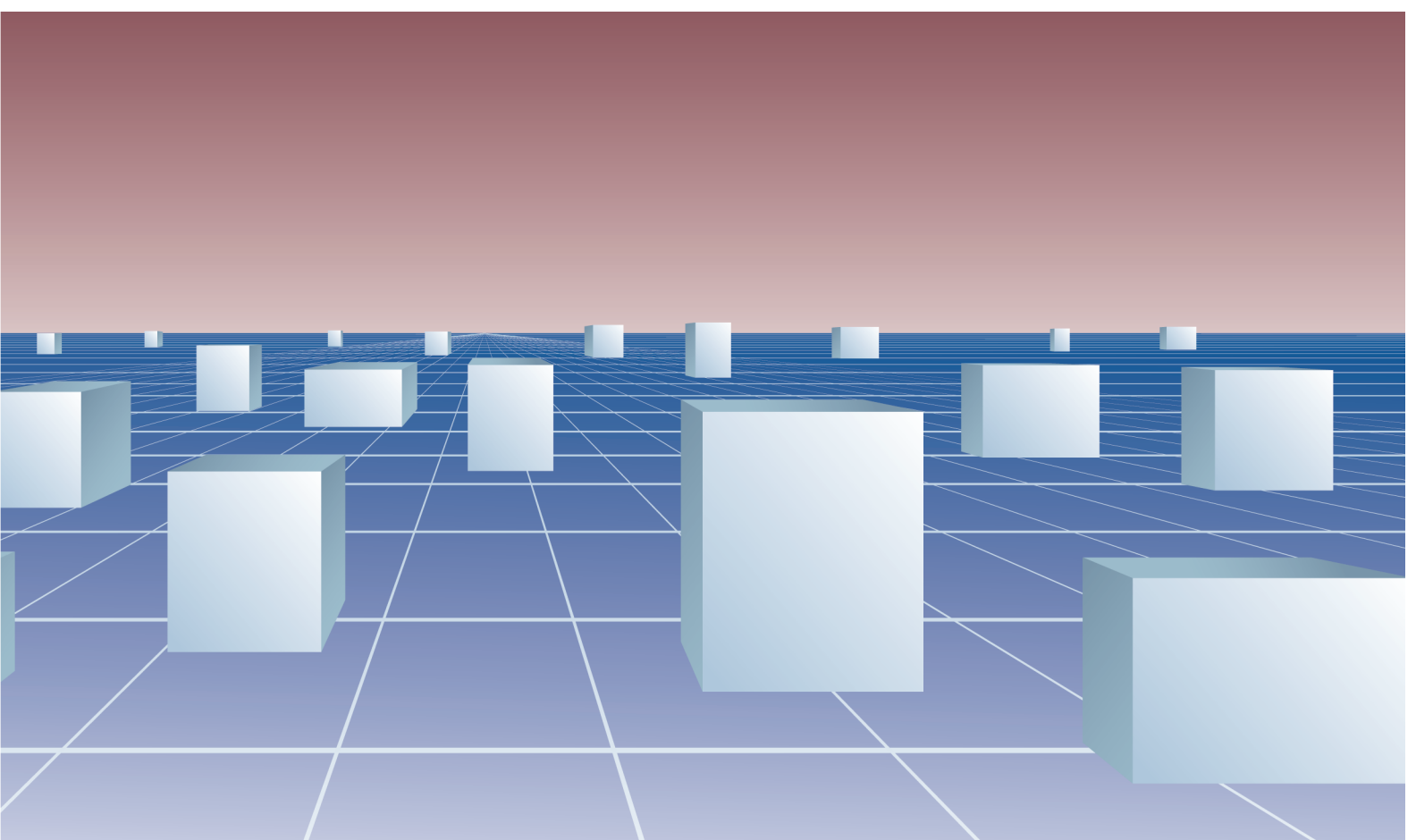
The goal of the network integration plan is to refine the Postal Service's logistics network to reduce its costs as well as those of mailers or shippers in the quest to eliminate service failures and inefficiencies. For shippers, vendors and consumers, the network optimization will ultimately bring more consistent service at a reduced cost.

Both obvious and hard-to-detect inefficiencies exist in the massive network design of the Postal Service today. "No business

comes close to our magnitude and complexity as well as the amount of sizes and shapes we have. Nobody currently has a model to handle that many variables," states Paul Vogel, vice president of Network Operations Management with the Postal Service. However, an optimization-based decision support software provider, LogicTools Inc., has been enlisted to help the Postal Service take on this daunting task.

The Postal Service first hired PriceWaterhouseCoopers consultancy to explore options for the network alignment. It then added Chicago-based LogicTools president and CEO Dr. Simchi-Levi. Dr. Simchi-Levi is also a professor of Engineering Systems at MIT. He has consulted and collaborated extensively with private and public organizations on similar network optimizations, but none have been as far reaching as the six-day-a-week operation of the Postal Service.

Vogel says more than 600 facilities are involved in extensive modeling simulations the Postal Service will run this summer through its arrangement with LogicTools. As Vogel explains, the multitude of mail classes and service offerings combined with the fact that many facilities are dedicated to a type of mail class makes for a complex undertaking. The overhaul calls for functions to be assessed at plants such as air mail centers, bulk mailing centers, priority mail processing centers, HASPS or other facilities within the Postal Service's infrastructure. "We are reviewing the number and role of over 600 processing plants nationwide," Vogel says.



Adds Simchi-Levi, "We're able to provide the Postal Service not only with cutting-edge technology but also with an understanding of the challenges and trade offs in modeling and optimizing its network." Simchi-Levi explains that analysis by LogicTools will focus on three main issues: network configuration including the assignment of ZIP Codes to plants; the role of processing and transportation that each facility should play in the scheme of the overall network; and the transportation and facility capacity required to support the network.


"The goal is to address these issues without sacrificing service-level requirements while reducing costs," Levi notes. To that end, the Postal Service is conducting extensive research with consolidators, bulk mailers and its other customers and partners to explore ideas for the network alignment. "LogicTools' software and methodology will assist the Postal Service in analyzing its options and comparing the cost savings to a baseline representing today's network. The baseline is used to validate the data and the model," he says. From there, optimization and further analysis will determine whether to consolidate or expand facilities and point the way toward the specific role each facility should play, including an indication of recommended volume capacities for each facility.

The Postal Service expects to complete the modeling effort this summer based on various simulations it will run from its own ideas on optimizing the network and those by LogicTools, its customers, vendors and other interest groups. By October 2002, Vogel explains, the Postal Service plans to have completed running various combinations of the simulations so it can assess proposed solutions. "By early 2003, we expect to have implemented the less complex solutions, whether that's the simple movement of volume from one plant to another or redesigning certain facilities," Vogel explains.

What to Expect

The Postal Service will openly consider solutions with consolidators and other customers if it finds the modeling scenarios support new programs. "Once we have our network modeling in terms of the Postal Service network, there are all sorts of other groups — whether individual mailers, large mailing houses, the printing industry, transportation consolidators and others — who may be working with us for better, cost effective, industry-wide solutions," Vogel says. For example, like the ease in rates to consolidators for drop shipping made possible by the Postal Service a few years ago, new scenarios may point to more drop shipping programs. So, more opportunities for consolidators and other high-volume mailers may exist, such as additional incentive discounts for packages placed further downstream in the optimized network.

Vogel suggests the network optimization will spark the Postal Service to adopt new procedures and develop new product offerings. As Postmaster Potter stated at the press conference, the Postal Service will be examining the entire supply chain of mail and packages from the printer to the carrier. Potter said some of the work might revert back to the Postal Service, some to printers, others to carriers or others in the spectrum. For the Postal Service, it will be a brave new world indeed.

For more information, contact Logic Tools at 888-265-4706, info@logic-tools.com or log-on to www.logic-tools.com. 



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