



nothing to sneeze at

The changes Kimberly-Clark made to its distribution network may not be groundbreaking. But they've saved the maker of Kleenex and other paper products 22 million gallons of fuel and taken service to a whole new level.

IT GOES BY THE SPACE-AGE-SOUNDING MONIKER OF "NETWORK of the Future." In reality, though, Kimberly-Clark Corp.'s four-year effort to transform its North American supply chain is grounded in one of manufacturing's oldest, though sometimes neglected, principles: Produce to meet your customers' needs, not your own.

For decades, the venerable Dallas-based manufacturer essentially operated two distribution networks for consumer goods: One for its line of family care products, like Kleenex tissues and Scott towels; the other for its personal care portfolio, which includes Depend undergarments and Poise bladder-control pads. Most of the company's 130 warehouses and distribution centers—60 dedicated to its factories and 70 public facilities—were conveniently (for Kimberly-Clark) located near its plants. That the facilities were

not strategically positioned near the company's customers was not much of an issue.

About five years ago, it became one.

A network that had run smoothly when the manufacturer had a relatively limited product line became complex and unwieldy as the number of stock-keeping units (SKUs) doubled over a 10-year period. Capacity constraints kept K-C from consolidating all SKUs at any one location; the facilities handled either personal care or family care inventory, but not both. As a result, retailers had to place separate orders for personal and family care products and receive them in separate shipments instead of a single truckload.

Sometimes, K-C would run out of space in the warehouses adjoining the plants and would have to find overflow facilities that typically were not located near its customers. This situation forced the company to ship to and from multiple locations in order to deliver products to customers, raising

costs and fueling customers' perceptions that K-C was more focused on its own needs than on its customers' requirements.

K-C's growing product portfolio also created problems with order fulfillment. To support its distribution, K-C relied on a "dynamic sourcing" model that would process an order, examine available inventory throughout the company's network, and then assign the order to the plant or warehouse that could ship directly to the customer at the lowest cost while still meeting the customer's delivery

requirements. If the first choice could not fill an order for a particular product, K-C's sourcing system would reassign that product to whichever facility the software deemed the next-best option.

However, executives found that dynamic sourcing created forecasting problems for the warehouses and sowed uncertainty among carriers because they could not adequately plan for what would be shipped on any given day. "One of our key metrics for success is better forecasting at the DC level," says Mark Jamison, who was then vice president of Kimberly-Clark's North America customer supply chain. "Yet every time you reassign product sourcing, you introduce variability, which drives down forecast accuracy."

Cozy up to the customer

Faced with increasingly complex and costly distribution, uncertainty about inventory and forecasts, and customers' concerns, K-C's management recognized that it had to revamp the company's North American supply chain. Jamison headed a multi-disciplinary team that was charged with the task. The team's objective was to build a network that would place K-C's personal and family care products under the same roof, located as close as possible to its customers and supported by a sourcing model that would fos-

ter predictability and cost savings.

Midway through the project, Jamison convened a group of academics, consultants, retailers, and third-party logistics service providers to offer input and advice. The group met three times over a nine-month period. Jamison's project team reported to a board of K-C's senior leaders, who would be responsible for approving the blueprint.

The team's guiding principle was simple but crucial: Cozy up to your customers. The supply chain team quickly realized that K-C's failure to locate facilities near its customers was contributing to its distribution problems. To rectify that, K-C decided to retain its own warehouses and DCs connected to its factories, but would phase out the public warehouses and replace them with nine mega-distribution centers located near major customer touch points.

The group also decided to abandon the dynamic sourcing approach in favor of a "fixed sourcing" strategy that aligned each SKU with a specific factory and DC. For the first time, K-C would know in advance the movement of every product, where it was coming from and going to, and how it would be transported.

By introducing predictability where little previously existed, "we could become more consistent in our relationships with our truckers, and we could give our production people a more stable plan to work from," Jamison says.

With greater certainty and more accurate forecasting, Jamison's team reasoned, they could plan shipments much earlier. This would allow K-C to divert more of its traffic from over-the-road truck to lower-cost and less fuel-intensive intermodal service.

Jamison's team was given four years to complete the project. It didn't have unlimited resources, and it would have to work around customers' day-to-day needs. Crucially, the team would have to persuade

higher-ups to effectively dismantle the only supply chain most of them had ever known.

The project got the green light in 2004. Within 30 months, K-C had leased and occupied eight huge "mixing centers" or mega-DCs, spanning nearly all of the United States and Canada. (See map.) A ninth facility, located

Kimberly-Clark Corp. at a glance

- Founded: 1862
- Headquarters: Dallas, Texas
- 2008 sales: \$19.4 billion
- Global operations: 37 countries. Products sold in 150 countries
- Lines: 11 personal and family care consumer brands; health care, professional, and partnership products

about 30 miles from Seattle and serving the Pacific Northwest, is slated to open toward the end of 2009. All together, the nine centers will provide approximately 6.4 million square feet of space.

The sites, all operated by third parties, range from 470,000 to 1.8 million square feet. Because of their size, each facility can carry the complete K-C product line, making it possible for retailers to order everything they need at once and receive all of it in full truckloads. The new centers are also all equipped with the same warehouse management system.

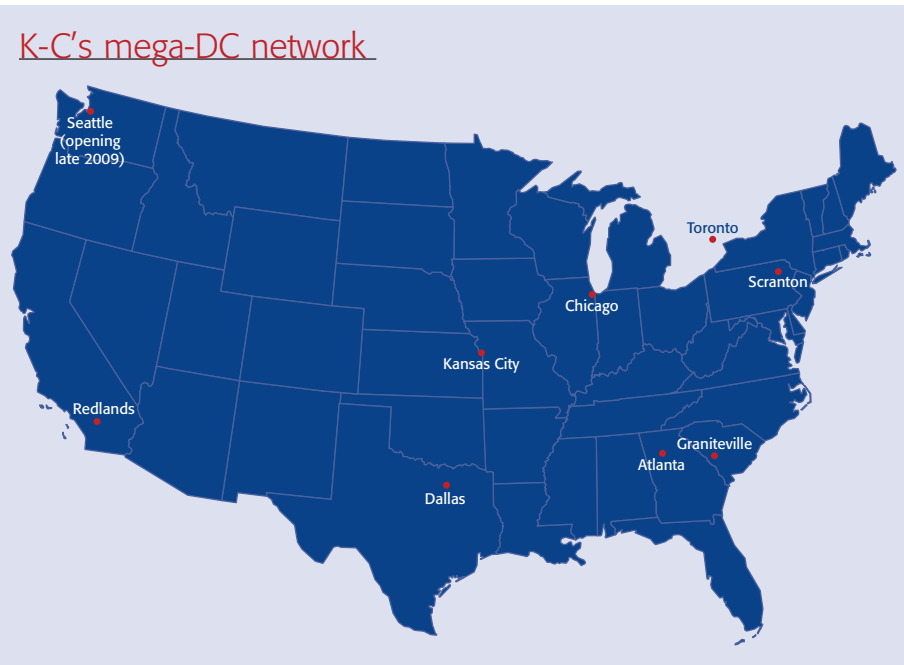
In it for the long haul

In the past four years, Kimberly-Clark has reduced its public warehouses from 70 to 40, with further cuts planned once the Seattle distribution center opens, Jamison says. Products can now reach 90 percent of K-C's retail customers within 24 hours, compared with 65 percent before. The company has cut the number of vehicle miles traveled by 24 million miles, and its fuel consumption has declined by 22 million gallons since it put the new network in place. Intermodal shipments are up 20 percent, with 35 percent of K-C's products now moving by rail, Jamison says. The company declined to provide information on the cost savings.

The new distribution network has made K-C's supply chain more efficient and productive, according to Jamison. "In the past, when we had overflow and ran out of space, we'd seek different public warehouses to just dump inventory into," he says. "When the overflow was reduced, the need for the warehouses would dissipate." The move to the mega-DCs, along with the long-term agreements that accompanied K-C's occupancy, signaled to its suppliers, carriers, and customers that the company was "in it for the long haul," Jamison says.

The program has yielded ancillary benefits in packaging and material handling. K-C's seven third-party logistics service providers (3PLs) have become adept at "co-packaging," in which products are custom-configured to meet the merchandising needs of individual retailers. K-C and its vendors have also changed the way product promotion displays are built and delivered. Traditionally, the company shipped finished products to an outside packer, which assembled the displays and returned them to K-C for delivery to the retailer. Now, these packers are located inside the big distribution centers; the promotional displays are assembled and make just one trip as part of a regular truckload delivery.

Inside the distribution centers, loads are picked by lift



trucks equipped with pressurized clamps. This method does not require the use of pallets, meaning that K-C can fit more product into each truckload while avoiding the cost of pallets, says Michael Marlowe, vice president, regional operations for Kane Is Able Inc. Kane, a Scranton, Pa.-based 3PL, manages Kimberly-Clark's mega-centers in Scranton, Kansas City, and Chicago.

Marlowe says companies seeking to partner with K-C will need to show they can do more than simply manage transportation. Instead, they need to function as a one-stop shop. The ability to perform a broad range of tasks "is becoming a criterion for selection by Kimberly-Clark," he says.

Better late than never

The changes K-C has made to its distribution network are not groundbreaking. In fact, the manufacturer is not even the first in its industry to re-engineer the way it brings goods to market. Rival Procter & Gamble Co. has already consolidated its global distribution network. Unilever, another competitor, has done the same in North America.

Better later than never, maintains Herb Shields, president of HCS Consulting, a Northbrook, Ill.-based firm that advises consumer packaged-goods companies on supply chain strategy. Shields, a 20-year veteran of the personal care field, applauds Kimberly-Clark for taking needed steps to simplify its network, a move he believes will minimize, though not eliminate, distribution problems.

"There is no way to remove all risk from the supply chain, but decreasing complexity as K-C did makes it easier to react," Shields says. "They recognized the current strategy was not performing as well as it had, and wisely did a strategic analysis of possible new models. To their credit, the new model is much better." □