



UPS Supply Chain Solutions<sup>SM</sup>

case study

## Optimized Routing Steers Delivery Fleet to Major Savings

A \$500 million company that manufactures and delivers consumable product throughout the United States was challenged by seasonal peaks in demand. The company asked UPS Supply Chain Solutions' consulting services team to design an efficient model to expand the delivery capacity of the fleet.

### Client Challenge

The company serves customers throughout the United States with a fleet of more than 2,000 drivers and trucks, divided into approximately 90 branches. The delivery service normally operates Monday to Friday from 9 a.m. to 5 p.m. During four months each year, however, the demand for the product doubles. To keep pace, the company accrued high overtime expenses for drivers.

Aiming to better utilize the existing truck fleet and avoid excessive overtime, the company considered hiring more staff and extending the operating hours into the evenings and weekends.

The company called on UPS Supply Chain Solutions to analyze the operations of the delivery fleet and determine the best way to increase its capacity. The UPS Supply Chain Solutions team came with in-depth experience of the most advanced methods and technology for optimizing delivery systems.

### Our Solution

The analysts of UPS Supply Chain Solutions began by joining drivers on their shifts. While in the field, the analysts recorded each driver's routing and mileage data on hand-held GPS devices and got first-hand knowledge of the time needed to deliver the product. The analysts noted time differences based on the amount of product delivered and the variations in the type of customers, such as a small business compared to a large corporation, or an urban destination compared to a rural one.

## Fulfillment

### GEOGRAPHIC AREA SERVED

United States

### CHALLENGE

Determine the most efficient way to expand the capacity of a delivery fleet for a consumable product, so that the fleet can handle a seasonal spike in demand.

### SOLUTION

Establish work standards and employ specialized technology to optimize delivery routes and manage time and resources more effectively.

### RESULTS

- Established work standards for delivery fleet
- Introduced technology for optimal routing and more effective field management
- Demonstrated that even a leaner fleet could effectively handle peak season
- Identified potential for \$16 million annual savings

The analysts used the resulting data to quantify how long a driver should spend in five categories: checking in at the dispatch center; driving to the start of the route; completing the deliveries on the route; returning to the dispatch center; and completing that day's paperwork. The resulting performance expectations, or work standards, indicated that drivers on many of the routes were running at 60 to 70 percent of their capacity, while other drivers were overtaxed. UPS Supply Chain Solutions then demonstrated how the work standards could be keyed into specialized software to level out the workload and optimize the routing.

While the company operated under the philosophy that drivers should devote extra time to establish a relationship with customers, the UPS Supply Chain Solutions team found that, in reality, drivers encountered only about 18 percent of their customers when they delivered the product.

UPS Supply Chain Solutions recommended that instead of expanding its operating hours, the company should apply the new work standards to optimize all of its routes and bring more visibility and control to managing drivers in the field. The consulting team facilitated senior executive discussions to give the highest levels of the company a clear vision of the proposed shift in operating strategy.

The company tested UPS Supply Chain Solutions' recommendation through a pilot project, including two branches and 48 drivers. The pilot demonstrated that with route optimization, even a leaner fleet could manage the seasonal spike in demand without excessive overtime. As a result, the company found it could consolidate several routes and reduce more than 25 percent of the overall mileage. The annual savings in payroll and other operating expenses came to \$500,000 for the two branches.

The solution not only helped the company achieve its goal of efficiently managing spikes in demand, it delivered fundamental operational improvements and opportunities for significant savings.

The potential savings identified by UPS Supply Chain Solutions played a key role in helping the company complete a business merger and become the largest company in North America delivering the consumer product.

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