Global Manufacturer of Home Appliances Sees 1000% ROI with ProModel Simulation

Manufacturing

Success Story

Appliance Manufacturing

ProModel

CHALLENGES

A $900 million division of the world's leading global manufacturer of home appliances was not meeting customer delivery level requirements. The complexity of supply chains within multinational corporations makes it difficult to pinpoint the root causes of problems impacting the supply chain and supply chains of all companies are under ever-increasing pressure to be more responsive and cost effective. This organization's supply chain was constantly being evaluated for ways to improve both service and cost.

Delivery requirements were not being met, even though it seemed Inventory levels were high, product was available, and manufacturing capacity was not an issue. A new management team believed that if this division could become more responsive to customer requirements, without increasing inventory, there would be major financial benefits as well as increased customer satisfaction. They also felt that the root cause might be the current supply chain strategy. To improve service levels, a new supply chain network strategy was designed. Due to the complexity and impact of the changes under consideration management concluded that business process simulation was necessary.

OBJECTIVES

This global appliance manufacturer wanted to:

- Improve service levels by implementing a new supply chain network strategy
- Maintain or decrease current inventory levels and carrying costs
- Increase revenue from this division
- Test various strategies out before implentation

SOLUTION

A simulation solution was implemented that accurately represented the supply chain including the following major aspects of the process: production, warehousing, shipping, and demand.

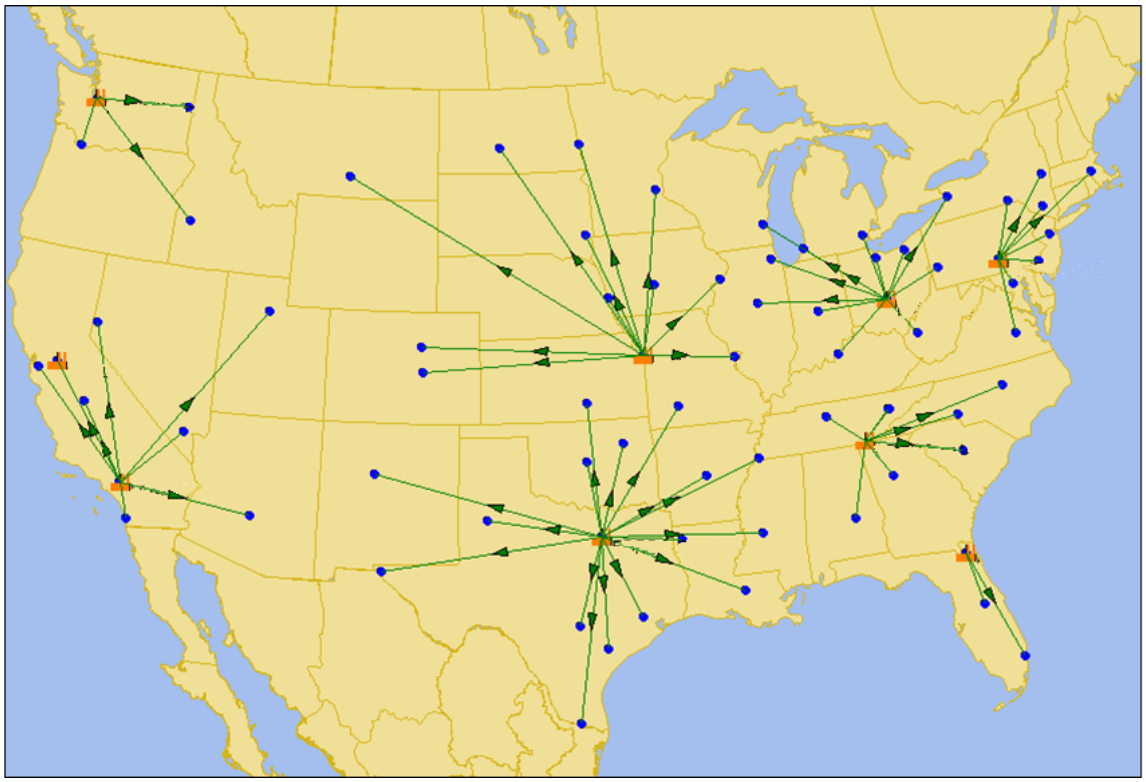
The supply chain model gave management the ability to experiment with different strategies for handling high velocity and low velocity SKU's as well as the threshold that divides the two. Other inputs were growth, inventory levels at DC's, trailer volumes, dock rules, and production rules.

VALUE PROVIDED

Analyses from the simulation solution showed that higher service levels at lower total costs could be achieved by closing the factory warehouses and shipping directly to regional distribution centers. Conservative estimated results are as follows:

Improved service level

- Lower projected lost sales due to product unavailability
- Direct savings $12,000,000 annually, and 12% reduction in inventory carrying costs due to closing three factory warehouse locations
- Gained capability to evaluate potential future changes to the supply chain including costing, delivery timing, truck fleet sizing and supply chain maximum performance against hypothetical factory output
- ROI >1000%



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