

# Safety Stock Optimization Helps Consumer Goods Company Reduce Inventory Cost by 27 Percent



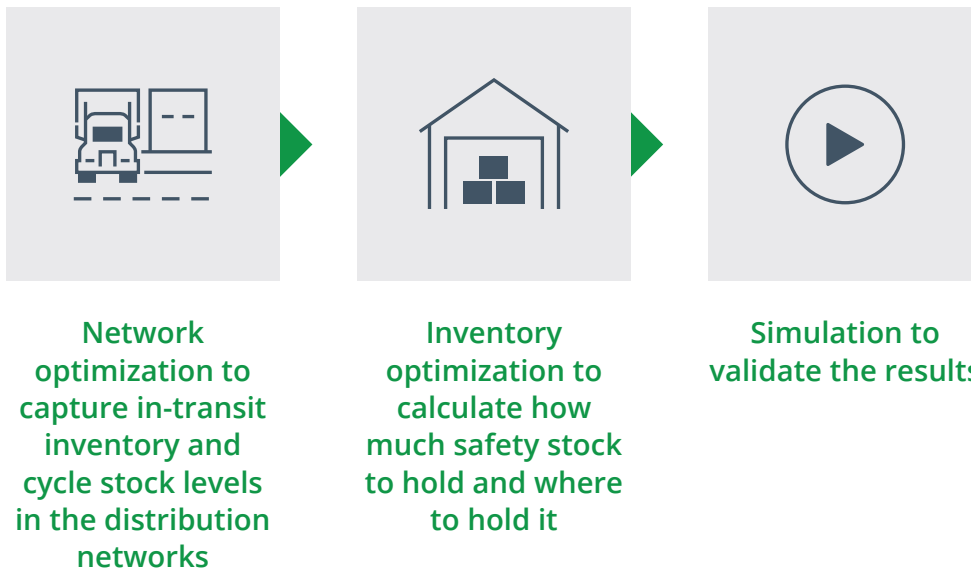
## Challenge

Determining the right level of safety stock is a challenge for manufacturers, both large and small. Too little safety stock and customer service suffers. Too much and inventory costs rise. Looking for ways to lower inventory costs, a consumer goods company called on LLamasoft to analyze how much they could lower safety stock levels without affecting customer service.

## Solution

The company chose two of its most popular products as the focus of the study, one of which is primarily distributed in North America, and another distributed through a global network. The goal of the project was to find a way to lower inventory levels while maintaining at least a 98 percent service level target.

LLamasoft consultants used a number of tools to study the challenge, including:



The LLamasoft model showed how the company could reduce inventory levels by an average of

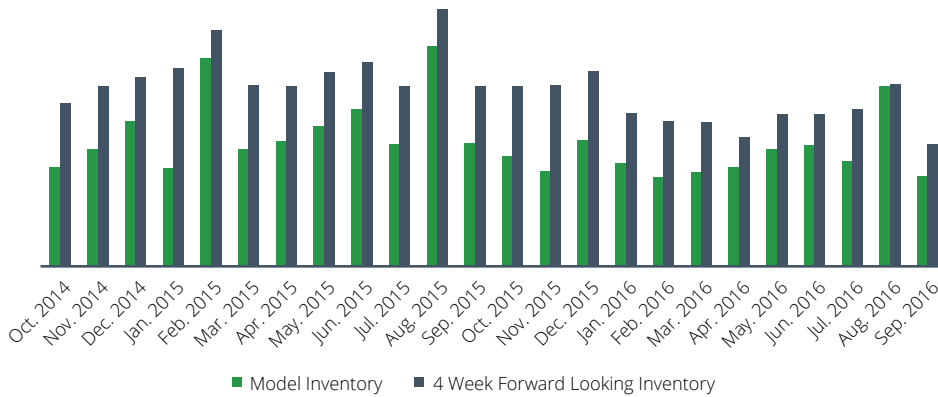
**7.2 days**

while improving service levels to

**99.5%**

## Results

The company was holding a fixed level of inventory depending on lead time for different distribution locations, without the benefit of statistical analysis on demand or lead times, so the potential for improvement was significant. The final analysis exceeded expectations—the LLamasoft model showed how the company could reduce inventory levels in one network an average of 6.4 days and the other an average of 7.9 days while improving service levels to 99.5 percent. Overall, the reduction in inventory across both networks was 27 percent, enough to produce a significant impact to the bottom line.



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Forward Looking Inventory is existing inventory policy where not enough inventory is being held for products with higher demand variability, which could result in stock-outs and missed service targets. The Model Inventory shows model recommended a decrease in inventory for the products with more stable demand patterns: due to the predictability of the demand, less inventory is needed to meet the 98% service level. An increase is required to ensure service target is met for the intermittent or highly variable inventory.