



## Driving Transportation Efficiency at Cooper Tire

With an aggressive acquisition growth strategy and its customers moving toward smaller order quantities and increasing order frequency, Cooper Tire sought to optimize its transportation and logistics systems through a value chain management initiative. By implementing i2 solutions, Cooper Tire added velocity and efficiency to its decision-making process, and gained additional visibility into the impact of transportation costs on its profitability.

Throughout the replacement tire industry, the trend toward reducing inventory to free working capital is having a major impact on manufacturers. Customers tend to order more frequently and in smaller quantities, as opposed to ordering large quantities and holding the inventory. With that natural migration toward smaller shipments, manufacturers are faced with rising transportation and freight costs.

As Cooper Tire & Rubber Company experienced this shift in demand, company executives realized that they needed to optimize their transportation processes to control their spend and maintain high levels of customer service. The company's legacy transportation management systems were stressed to meet the complexities of the evolving marketplace.

"We believe transportation is a competitive differentiator, because it really closes the loop on customer service," said George McAfee, Cooper Tire's Supply Chain Management Program Manager. "It's all about making better decisions to deliver more value to our customers. Smaller, more frequent shipments add to the complexity—and complexity comes with added costs. All of this added complexity couldn't be managed with legacy technologies and methods. So we had to do something. It was a business necessity."



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### Challenges

- Maintain high levels of customer service by optimizing transportation processes
- Meet complex transportation requirements of evolving business environment
- Make more strategic decisions on inventory positioning

### Solutions

- Rationalize distribution network
- Automate legacy transportation planning and execution processes
- Create optimal load plans

### Results

- Achieved ROI in less than 11 months
- Reduced paper freight bills by 60%
- Reduced overall transportation and distribution costs

### Company Description

**Cooper Tire & Rubber Company** specializes in the manufacturing and marketing of rubber products for consumers, with net sales of \$3.3 billion. Headquartered in Findlay, Ohio, Cooper's tire group products include automotive, motorcycle, and truck tires, as well as inner tubes, tread rubber, and equipment.

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***—George McAfee  
Supply Chain Management Program Manager,  
Cooper Tire & Rubber Company***



Additionally, acquisitions had given Cooper Tire a more extensive product portfolio, but created unique challenges from a distribution and network perspective.

“With seven proprietary brands plus an almost equally large private brand offering, our sales were growing rapidly,” McAfee said. “And, as the complexity of our shipments grew, we identified that we were not well positioned to service new customers or the additional demand. So that started us looking at the design of the network and where the gaps were.”

#### **Why i2?**

After a comprehensive 12-month vendor selection process, Cooper Tire identified i2 solutions as the “best fit” for the current and emerging needs of its business.

i2 solutions for automotive and industrial businesses include the solutions, platform, and content that enable companies to transform and integrate their core business processes with their trading partners across the value chain.

Tailored for the unique needs of automotive and industrial manufacturers and suppliers, i2 solutions provide services such as increased order-to-promise reliability, reduced time-to-market, optimized product option mix availability, and improved manufacturing throughput efficiency and flexibility.

“We chose i2 first because of the maturity of the solution, but also for the intuitiveness of the graphical user interface (GUI) and the dynamic import/export capabilities with the Microsoft products,” McAfee said. “From a user perspective, we were evaluating the often difficult process of mining data. i2 Supply Chain Strategist™ has a very nice seamless interface with tools like Access™ and Excel,™ which we use for business process analytics.”

## i2's Contribution

In addition to Supply Chain Strategist, Cooper Tire also chose to implement i2's Transportation solution, part of the i2 Supply Chain Management™ (SCM) suite.

"You quickly see where there is a need for this type of decision-support tool," McAfee said. "It's highly integrated. It's simply the right way to plan our strategy and manage our business."

Cooper Tire is using Supply Chain Strategist to rationalize its distribution network and to make demand-sourcing decisions within its distribution centers. Then i2's Transportation solution manages the movement of goods from the plants to distribution centers, and outbound from the distribution centers to customers.

"Obviously, transportation was an area of opportunity for improvement, from a sheer spend perspective, as well as from an operational planning and execution standpoint," McAfee said. "We were using legacy-oriented, labor-intensive methods prior to our implementation of the i2 solutions."

## Cooper Tire's Results

Cooper Tire has achieved fast, impressive results from its implementation of i2's Transportation solution.

"Our time-to-value was very rapid," McAfee said. "We had projected an 18-month ROI, but we recovered our investment in less than 11 months."

Moving from manual transportation planning and execution processes to i2 solutions' automated system has allowed Cooper Tire to make faster, more accurate business decisions.

"The operational efficiency and the integrity of the business decisions generated by the use of this decision-support technology are fundamental to the success of our emerging business model," McAfee said. "From the execution perspective, optimized load building and shipment consolidation are done in a matter of seconds. Even the most savvy load coordinators could not consider and optimize all of the factors in a dynamic load-build model in a comparable amount of time. Critical operational processes like

freight bill payment, load building and consolidation, KPI reporting, and carrier performance management have been optimized and, in most cases, fully automated with this solution."

Cooper Tire has realized significant results by automating its freight bill settlement.

"Prior to implementing i2's Transportation solution, we were handling more than 150,000 paper freight bills a year, and we were touching them an average of four times. There is nothing lean about that process," McAfee said. "By using i2 solutions, we have been able to reduce the number of paper freight bills by 60 percent, and accuracy, efficiency, and productivity have improved. We have been able to either not replace people who have retired, or we have reassigned people away from that very mundane clerical job. So there is a significant value that was delivered via the auto pay capability."

The modeling capabilities of i2's Transportation solution have also added velocity to Cooper Tire's strategic decision-making processes.

"When you have a good baseline that accurately represents your current business model, then you can make both strategic and tactical business decisions in a matter of minutes," McAfee said. "In addition, as you anticipate changes to that business model, you are positioned to assess the impact of those changes in a timely manner."

Supply Chain Strategist also played a vital role in one of the company's recent acquisitions.

"We deployed Supply Chain Strategist to develop an integration strategy for a company we acquired," McAfee said. "It was classic acquisition activity from the standpoint of identifying synergies and eliminating redundancies. Using Supply Chain Strategist, we were able to do a variety of 'what-if' scenarios and identified several redundant facilities where we could consolidate services. That strategy was executed to the letter."

In addition, Cooper Tire anticipates that i2 solutions will have a direct impact on increasing customer service levels.

“Once we reach steady state, we will be able to associate increased customer service levels with improved transportation planning and execution,” McAfee said. “I believe that we will be using i2’s Transportation solution to leverage better relationships with our carriers, and consequently with our customers. The fact that these solutions give you the ability to measure and track information more definitively is part of the advantage.”

And, from a financial standpoint, Cooper Tire expects i2 solutions to deliver measurable value in transportation cost savings—as well as the ability to determine the effect of transportation on the bottom line.

“When we looked at net sales dollars versus freight spend dollars, scaled accordingly, freight spend dollars were increasing at a disproportionate and alarming rate,” McAfee said. “In terms of value, we believe that i2’s Transportation solution will bring those two back in line. When considering those factors that influence increased freight spend, i2’s Transportation solution will give us the ability to assess the impact on profitability of both standard and customized transportation services and do it on a product and customer basis. With the analysts’ focus on key financial metrics, this will be huge.”

i2 solutions are also contributing to a fundamental shift in the way Cooper Tire does business.

“The ability to model the operational impact of strategic business decisions represents a significant advantage both for those making the decisions and for those who are tasked with executing them,” McAfee said. “What we have purchased is software, but what we are implementing is a totally reengineered business process.”



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