The Supply Chain Company™

Steering Successful Parts Management at Freightliner

Realizing that they were missing revenue opportunities and jeopardizing customer service by not having the right parts in stock at their dealer locations, Freightliner executives knew they needed to implement a third-party inventory management solution. Through Internet-enabled collaboration powered by i2 solutions, Freightliner has improved inventory turn rates and service levels, increased inventory revenue, and decreased working capital investment.

For businesses that rely heavily on transportation and logistics to service their customers, on-time delivery is crucial to success. A truck breaking down before it can deliver a shipment can lead to disaster. Quickly obtaining a repair part can mean the difference between preserving customer satisfaction and profit margins—or losing both.

Knowing this dynamic well, Freightliner, North America's leading manufacturer of medium- and heavy-duty diesel trucks and specialized chassis, dedicates itself to supporting its customers everywhere that its trucks impact its customers' businesses. Freightliner, whose customers include FedEx and UPS, provides parts, service, and customer support functions 24 hours a day, seven days a week at many dealer locations.

Freightliner dealers were missing some sales opportunities—and jeopardizing their own customer service levels—because they didn't always have the right parts in stock when customers needed them.

"The vehicles that we manufacture are predominantly made of components that are available to the industry, so there are any number of channels for buying a service part to repair or maintain a vehicle," said John Hayden, Manager, Parts Materials for Freightliner.

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Challenges

- Capitalize on revenue opportunities and improve customer service by stocking the right parts
- Identify inventory management solution that could manage up to 15 million SKUs
- Enable increased collaboration among Freightliner and its dealers and suppliers

Solutions

- Determine best forecast plan using "pick best" capability
- Connect company's legacy ERP system with dealers' legacy inventory management systems
- Create an Internet-enabled connection between the company and each of its dealers

Results

- Improved inventory turn rates and service levels
- Increased inventory revenue
- Decreased working capital investment

Company Description

Freightliner LLC, headquartered in Portland, Ore., produces and markets commercial vehicles in classes 3–8 and is a member of the DaimlerChrysler group, the world's largest commercial vehicle manufacturer. Freightliner's brands include Freightliner, American LaFrance, Thomas Built Buses, Western Star, and Sterling.

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—John Hayden
Manager, Parts Materials
FREIGHTLINER® CORPORATION

"We noticed that there were many revenue opportunities that our dealers were missing out on because they didn't have the right parts in stock. And when you're running a commercial vehicle, availability of service parts is premier in order to keep your vehicle on the road and in service."

This problem stemmed from the fact that Freightliner was using a basic, homegrown, computer-managed inventory program, whose capabilities the company had quickly outgrown.

"Given the size of the problem that we were trying to solve, developing our own programs was no longer a viable option," Hayden said. "We have more than 1,000 franchised dealers in North America, and each of these dealers carries from 10,000 to 15,000 part numbers, so we are talking about 10–15 million SKUs that we would have to manage on a daily basis."

Faced with this challenge, Freightliner recognized the need to implement an advanced inventory management solution that would help its dealers stock the right parts, at the right place, at the right time, to service customer needs.

Why i2?

Freightliner knew it needed to find an inventory management solution that could handle its tremendous number of SKUs.

"We were looking for an efficient and highly productive tool," Hayden said. "We needed the kind of functionality that could handle our breadth of inventory without requiring us to hire an army of inventory analysts to get the job done."

Starting with a list of more than 30 solutions providers, Freightliner conducted a thorough analysis and benchmarking process to arrive at three companies. After performing a feature-by-feature comparison of the three solutions providers, i2 Service Parts Planner™ and i2 Demand Planner,™ from the

"Just a few months in to the implementation of i2 Six solutions, we have already seen dramatic improvements in both turn rate and service level, and inventory revenue is also going up, with a decrease in working capital investment at the dealer level," Hayden said. "We're very pleased with what we've seen."

i2 Six version of i2 Service and Parts Management™ (SPM), emerged as the best solutions for Freightliner's needs.

"We chose Service Parts Planner and Demand Planner to solve our problem because there were several key differentiators," Hayden said. "We found that the other two finalists couldn't scale to the size of the problem that we had, so that was obviously a big differentiator. The second thing was the ability to use the tool effectively. Compared to some of the approaches that the others were offering, we felt like i2 solutions were much more intuitive and provided our analysts with the ability to understand what needed to be done and how to get the job done."

i2 Service and Parts Management is designed to enable enterprises to maximize the utilization of parts, people, budgets, and facilities so that they can attain key performance objectives, such as high customer service, market leadership, low operating costs, and profitability.

i2's Contribution

Within a six-month timeframe, Freightliner completed the configuration, design, integration, and pilot mode of i2 solutions.

"I'm extremely satisfied with the way our solution came together very quickly," Hayden said.

To ensure that its network of franchised dealers has the right parts in stock, Freightliner uses Service Parts Planner and Demand Planner to create an Internet-enabled connection between the company and each of its dealers. The Web interface provides Freightliner with a more intuitive system—its previous legacy system was character-based and employed outdated technology. Freightliner's analysts now make decisions based on thought flow rather than on a predetermined script.

"We have created what we call a 'value web of information' with each of our 1,000 dealer locations," Hayden said. "On a daily basis, our dealers provide us with their inventory stocking levels and their sales history for the day, which we feed into the i2 Six engine to create a replenishment plan and suggested replenishment orders for the dealers. On a monthly basis, we do an inventory plan and a forecast plan."

Service Parts Planner and Demand Planner help Freightliner to determine the best forecast plan with its "pick best" capability, which runs through the various forecasting algorithms. Using the forecast data, i2 solutions set the stocking levels, determining the optimal minimal stocking level and the optimal reorder quantity to ensure the most effective deployment of working capital.

At its distribution center level, Freightliner manages inventory with a legacy ERP system; at the dealer level, each dealer has its own legacy inventory management system. i2 solutions connect these systems through the use of the TMAPI database.

"We're able to pull the information from the dealer's inventory system, and stage it in the TMAPI database with information pulled from the Freightliner legacy system," Hayden said. "We then feed

the combined information into the planning and replenishment engine to get the results. Then we go back again into the TMAPI station database, back down to the dealer's inventory replenishment system."

Freightliner's Results

Within three months of going live with i2 solutions, Freightliner began to see significant improvements in its key performance indicators.

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Service Parts Planner and Demand Planner are helping Freightliner to increase its dealers' revenue and to make the dealers' businesses stronger and more competitive in their marketplaces, which has a direct impact on Freightliner's customer service and revenue. As a result, i2 solutions have opened new revenue streams for Freightliner.

"Eighty percent of our vehicle components are available from other sources, which is also true of our competition," Hayden said. "So we're seeing that, because our dealers have a higher level of availability, not only for our direct customers, but also for competitors' vehicles, the competitors are more often coming to the Freightliner dealer for parts. They know that the dealer can take care of them and get them back on the road quickly. We're seeing that there are opportunities to win more market share and potentially get a new truck customer."

i2 solutions are also enabling Freightliner to make more intelligent business decisions at a higher velocity and lower cost.

"We're now able to get the job done quicker, which allows us to manage more working capital with fewer internal Freightliner resources and less of a manpower investment," Hayden said. "With the intuitiveness of the i2 Six Web interface, our inventory analysts use the solution to drill down and find any exceptions, and they can quickly make the necessary adjustments to correct the issue."

Given the rapid success it has already achieved, Freightliner anticipates i2 solutions playing an expanded role in the company's near future.

"As we move forward and continue to develop the use of the i2 Six technology, we're certainly going to be integrating the technology to manage our distribution center inventory more effectively," Hayden said.

"We're also going to be exploiting the opportunity to engage in collaboration with our suppliers. I'm already in communication with a number of our suppliers, and they're very excited about having access to our retail-level demand to help them better understand our needs as we move forward. I see this as a good opportunity for us to further optimize our capital investment."

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