



## Whirlpool Achieves Maximum Supply Chain Value With i2 BOS

After conducting a thorough search of solutions providers to help it streamline its supply chain, Whirlpool Corporation knew that i2 offered the right solutions for its challenges — but the appliance manufacturer was unsure of who should help with its implementation and support. Whirlpool executives recognized that a third-party systems integrator would not have the knowledge or experience that i2 had of its own solutions, so they chose to utilize i2 Business Optimization Services. Using i2 BOS throughout the implementation and post-implementation periods, Whirlpool has mastered i2 solutions' capabilities and has achieved significant results in its targeted areas of improvement.

As the largest appliance manufacturer in the world, with products being shipped to as many as 4,000 retail locations across North America — from independent appliance stores to the big box retailers — Whirlpool Corporation faces a variety of supply chain challenges.

In addition to striving to manage working capital and inventory levels, Whirlpool's foremost goal is to achieve greater product availability for its trading partners, customers, and consumers.

"We try to ride the fence between greater availability and lower and lower inventory levels," said Mark Rantz, Whirlpool's Director of Production Planning. "When we don't have good availability, we hear it immediately from our sales organization, our customers, and our trading partners. On the other hand, if inventory levels are higher than expected, we quickly feel the pain internally as we tie up working capital."

Whirlpool had developed a number of in-house planning systems, which employed disparate components. With eight factory distribution centers, 11 regional distribution centers, and 60 local distribution centers, the appliance manufacturer did not have a single unified system that could close the loop by taking it from master scheduling to deployment and inventory planning.



### Challenges

- Gain maximum value from implementation of i2 solutions
- Minimize complexity of supply chain overhaul
- Create most cost-effective implementation process

### Solutions

- Utilize i2 BOS professionals' knowledge of i2 solutions, their applications, and supply chain activities
- Leverage i2 BOS team's experience with other organizations and other implementations
- Remove barriers between Whirlpool and i2 BOS teams

### Results

- Improved learning cycles of core users with i2 MOST
- Refined business processes
- Gained ability to understand and maximize opportunities with upcoming releases

### Company Description

**Whirlpool Corporation** is the world's leading manufacturer and marketer of major home appliances, with annual sales of more than \$11 billion, 68,000 employees, and nearly 50 manufacturing and technology research centers around the globe. Headquartered in Benton Harbor, Mich., the company markets Whirlpool, KitchenAid, Brastemp, Bauknecht, Consul, and other major brand names to consumers in more than 170 countries.

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**— J.B. Hoyt  
Project Director of Supply Chain  
Whirlpool Corporation**



“On a strategic level, we saw an opportunity to change the entire cost equation with our trading partners in terms of our supply chain, not only from a balance sheet standpoint, but also from an operating expense standpoint,” said Reuben Slone, Whirlpool’s Vice President of Supply Chain for North America. “We saw it as a strategic enabler of our brand strategy to drive differentiated service levels to the trade and ultimately to the consumer.”

After a thorough analysis of solutions providers, Whirlpool executives chose to implement a broad range of i2 solutions to integrate and drive greater efficiency through its supply chain.

“As we looked at potential solutions, we wanted to work with the thought leaders in the supply chain space,” said J.B. Hoyt, Whirlpool’s Project Director of Supply Chain. “We saw that i2 could really let us drive the business not only as we saw it today, but it could also take us to the next level. i2 had the intellectual property that was really going to lead us, rather than us trying to lead a software provider.”

While Whirlpool executives felt certain that i2 was the best choice for reinventing its supply chain, they questioned who should help them with their implementation.

### **Why i2 BOS?**

As they considered the magnitude of the supply chain overhaul that they were about to undertake with i2, Whirlpool executives initially considered using a systems integrator. After examining the implications of that approach however, Whirlpool decided to use i2 Business Optimization Services (BOS).

i2 BOS methodology is a framework of tools and techniques consisting of intellectual property and service offerings required to model, build, and operate an integrated planning-execution framework to synchronize supply chain operations. With BOS, i2 customers can optimize business processes within the five core competencies of their organizations: production, spending, revenues and profits, fulfillment, and logistics.

"As we went further into the process, we felt that with fewer organizations involved, we would have better focus," Hoyt said. "We chose to utilize i2 BOS because we saw that the team would bring us the intense knowledge of the product and the application, combined with real knowledge of supply chain activities and the ability to leverage experience with other organizations and other implementations."

Because Whirlpool knew that i2 understood its own products better than a third-party systems integrator, Whirlpool executives anticipated a more efficient implementation with i2 BOS.

"We saw the quality of the people who were involved with i2, and we felt that, by combining the software with the people who understand it, we would have a more successful implementation — and it turned out to be true," said Dennis Ciboch, Whirlpool's Director of Business Integration. "They did a great job because they knew what was going on and they had the right skill set. It was hard to tell an i2 person from a Whirlpool person."

Whirlpool also saw that using i2 BOS would be more cost-effective.

"If you use a third-party systems integrator, you have three sets of mouths to feed rather than two," Slone said. "By using i2 BOS, we spent less money."

In the economic times we are in, we are always looking to find a more effective and efficient way to drive a solution."

### **i2 BOS's Contribution**

During the implementation of i2 solutions — which included i2 Supply Chain Planner,<sup>™</sup> i2 Inventory Planner,<sup>™</sup> i2 Demand Planner,<sup>™</sup> i2 Load Configurator,<sup>™</sup> and i2 Shipment Scheduler<sup>™</sup> — the i2 BOS and Whirlpool teams became unified through their common goals.

"We really were working as one team, and we all had the right objectives in mind — first and foremost, what made sense for the business," Hoyt said. "The objectives were the project objectives, they weren't Whirlpool objectives or i2 objectives; they were what was necessary to implement the project successfully, and that really drove the behavior of all of us."

Whirlpool found that the support from the i2 BOS professionals extended beyond the implementation — and beyond geographic borders. In addition to the onsite i2 BOS team at Whirlpool, the appliance manufacturer utilized resources from the i2 BOS Solutions Center for around-the-clock service.

Staffed by a team of talented professionals based in India, i2 BOS Solutions Center is a cost-effective resource designed to help customers with special initiatives such as custom development, fast-track implementations, upgrades, application environment support, and off-shore implementations.

"No one looked at the i2 BOS team as coming from a separate company or as having a separate interest," said Spencer Brown, Whirlpool's Director of IS for Logistics. "That feeling has continued even after the completion of the implementation. We feel that when we have support issues, there is a team on the other end that truly still cares. And, during and after the project, the India resources were used very effectively. We were a little gun-shy, but it actually enabled us to have our issues worked on for more extended hours, and we didn't have the communication issues that I thought we might have. That was a learning experience for me, to see how effective an overseas relationship with offshore and onsite services can be."

It is the i2 BOS team's combination of expertise and forward thinking that has brought the most value to Whirlpool.

"I think there are two primary benefits for Whirlpool in using i2 Business Optimization Services," Hoyt said. "The first is that the i2 BOS team has great knowledge of the software tools and how the tools work. They have a connection back to development to configure the tools in a unique way if necessary, or in a way that has only been done in a few other implementations. The second benefit is the intellectual property."

The i2 BOS team has the knowledge of where the industry is going, where the future of supply chain planning is going. That enables us to take advantage of things that are coming down the road."

## Whirlpool's Results

Since its implementation of i2 solutions, Whirlpool has achieved significant results in its targeted areas of improvement.

"The i2 suite that we use—Supply Chain Planner for Master Scheduling, Inventory Planner, Supply Chain Planner for Deployment, and Demand Planner—guides our three critical outcomes: product availability or fill rate, working capital productivity, and total cost productivity," Slone said. "In the first full calendar year after our implementation, we were able to deliver 92.6 percent across all of our brands and products, and our target was 93 percent. We were supposed to deliver a 10 percent reduction in finished goods working capital for North America, and we came in slightly better than that on inventory. We had a goal of 5 percent total cost productivity year over year, and we were at 5.1 percent."

Whirlpool believes that these results were made possible by the support of i2 BOS professionals during and after its implementation of i2 solutions. The i2 BOS team has enabled the Whirlpool staff to become more effective at their jobs.

"Every two weeks we do an end-user survey with our 18 production planners and our deployment analysts, and in our most recent survey, 100 percent of them said that their jobs were easier to perform than they had been previously," Slone said. "At the end of the day, if our users are able to use the sophisticated capabilities of i2 solutions, we are on the path to deliver results."

Whirlpool's users have been able to master i2 solutions with help from i2 MOST (Manage, Operate, Sustain, and Transform), which is an integral component of i2 BOS.

Designed to enable customers to better manage, operate, and evolve with i2 solutions, i2 MOST ensures sustained value delivery by offering rapid response and resolution to application issues, minimizing the risk of downtime and ensuring uninterrupted business operations. An onsite/offshore team, consisting of functional and technical experts with multi-industry experience, delivers the service.

"i2 MOST has significantly improved the cycles of learning of our core users," Slone said. "In fact, we have weekly user meetings that we have converted into practical training sessions with just-in-time training from i2 on how to use problem windows, or improvements in problem windows, or understanding other algorithms. We couldn't do that in any other mold without having the support here on site."

By utilizing i2 BOS, Whirlpool executives have found that they have had a level of stability throughout their implementation that they would not have had otherwise.

"One of the things that has really helped us by having i2 involved throughout the process has been continuity—continuity both of people and of concepts," Hoyt said. "We've had i2 folks involved with the design of our implementation, with the implementation itself, and now in the post-implementation as we go from 'crawl' to 'walk' to 'run.' Having i2 personnel working with us day in and day out has helped us to refine our business processes, to provide training for our people, and to understand what is in the coming release and how to take advantage of it. It is really that continuity that has been the greatest sort of hidden attribute in this whole process."



The Supply Chain Company®

11701 Luna Road  
Dallas, Texas 75234, USA  
Phone 1.877.926.9286  
Email [info@i2.com](mailto:info@i2.com)  
Web [www.i2.com](http://www.i2.com)