Duncan Supply Company cools inventory costs with IBM Power i

DPS and K3S applications offer cost-effective inventory management on IBM POWER7 servers

Overview:

Challenge
Reduce manual processes for tracking parts and planning replenishment orders, while unifying branch offices to support company-wide inventory control and reduction initiatives.

Solution
Deploy DPS Zap™ Warehouse Management and K3S-Replenish® applications on IBM® Power® i that integrate with existing DPS enterprise resource planning (ERP) software to expand inventory management, while providing interactive planning tools to boost productivity for buyers.

Benefits
- Provides savings in replenishment planning time of up to 98 percent

- Offers visibility into seasonal and geographic demand metrics

- Achieves initial reduction of distribution center inventory by 5 percent in peak season

- Minimizes warehousing costs with inventory rightsizing capabilities

Founded in 1936, Duncan Supply Company is the premier wholesale distributor of refrigeration, air conditioning, heating equipment and accessories in central Indiana and Illinois. Headquartered in Indianapolis, Indiana, the company has nine regional branches and a recently relocated warehouse distribution center. In addition to working with mechanical contractors, Duncan Supply is a leader in servicing refrigeration and HVAC systems to schools, colleges and hospitals in a highly competitive regional market.

Now celebrating its 75th year in business, Duncan Supply has participated in the evolution of inventory management and parts supply—progressing from the use of crank telephones and notepads to cell phones, email and an increasing number of complex inventory management controls to maintain a competitive edge.

The challenge for Duncan Supply was that its downtown Indianapolis facilities had evolved into six buildings, including the location of one of the Top 5 busiest counters in the United States. "Inventory management is a delicate balancing act—if you carry too much, it's costly. If you carry too little, it could cost you customers," says Rick Fine, president of Duncan Supply. "It's imperative to keep customers from drifting away to your competitors, and that's why we're always looking for ways to improve our processes."

Sophisticated warehouse and inventory replenishment planning was needed to address issues with seasonality, building to targets, lead time variations, overstock identification and other buyer workflow challenges in the existing ERP solution. Putting improved warehouse management and replenishment planning applications in place could also support Duncan Supply's goal of moving its distribution center to a larger location and converting the Indianapolis location into a super-branch.

Additionally, Duncan Supply needed to account for variables such as weather cycles and different lead times on parts availability. "Extremes in weather can affect heating and refrigeration systems in different ways, and you always have to be ready," says Fine. "If a refrigeration system fails at a restaurant with US$20,000 worth of food in freezers, the company that can offer the right replacement parts and service that same afternoon is going to be the winner. We want to ensure that company will always be us."

DPS and K3S applications streamline inventory management

A long-time IBM customer, Duncan Supply adopted warehouse and inventory management solutions from IBM Premier Business Partner DPS to enhance the capabilities of its existing DPS Extend™ ERP software. DPS offered a solution that added new tools to extend the life of the reliable and proven ERP system.

On the warehouse management side, the DPS Zap Warehouse Management System was implemented to address productivity, accuracy and information availability challenges. DPS Zap handled bar code data collection for packing and shipping, and provided the ability to quantify variables involved in prepaid freight orders and other key warehouse management tasks. On the e-business side, the DPS Flash™ application with business-to-business interfaces enabled customer self-service, order entry, inventory and tracking.

Duncan Supply was attracted by DPS's alliance and integration with the King III Solutions, Inc. K3S-Replenish® application, in which the two technology vendors have formalized their decade-long relationship of solving distributor business process, inventory replenishment and productivity challenges. "DPS said they chose to integrate with the K3S-Replenish solution because it is inventory management on steroids, and that has proven to be the case," says Fine.

Capturing daily demand cuts freight charges

To pull daily demand and receipt information from DPS solutions, Duncan Supply implemented the K3S-Replenish tool. This allowed the company to run the analysis of order

and product availability overnight for every supplier and every product line, identifying what needed to be ordered the next business day. "The solution quickly improved our ability to build orders to specific targets, such as identifying where we can take advantage of discounts or free freight," says Fine. "This level of information and insight into the inventory allowed our buyers to make the right decisions in a fraction of the time, without wading through reams of green-bar paper."

The solution's enhanced inventory management controls allowed Duncan Supply to successfully relocate its distribution center with minimal disruption and inventory duplication. And with more than 12,000 SKUs at each of the nine branch locations and 20,000 active items at the new distribution center, having increased control over inventory management proved to be critical.

"Now we have the applications to help us track and anticipate seasonal spikes in demand, as well as roll up related issues such as warranties, shipping, transferring stock and rightsizing the inventory mix by branch location," says Fine. "Many of our items are parts where the demand is low or sporadic, so optimizing our processes and making life easier for the buyers has been a big cost-saver for us."

IBM Power i keeps costs down

To keep the costs of running sophisticated software low, DPS recommended IBM Power i as the hardware platform for running inventory management applications on IBM Power Systems™. As Fine notes, IBM POWER7® servers produce significant gains in computing power while keeping total cost of ownership low. "The 'plug it in and forget about it' quality of Power i goes a long way in reducing administrative headaches," says Fine. "At the same time, we get the reliability and scalability we need—which helps us grow the business without incurring the expense of adding new hardware every time we need more computing power."

Duncan Supply slashes replenishment planning time by 98 percent

With the K3S solution in place, Duncan Supply now has the capability to do long-term replenishment planning. Because certain manufacturers may require an order three months ahead of time, seasonal stocking orders make up an important part of the business. "In the past, preseason orders required as much as two to three days of effort for buyers to put the pieces together," says Fine. "Today, these stocking orders can be completed in minutes—which we estimate to be a 98 percent reduction in buyer workflow."

K3S delivers insight into seasonal and geographic demand

Interactive tools provide critical seasonal and geographic demand profiles. "Seasonal profiles may be totally different at our various branch locations because of what the weather patterns are or what the customer demand characteristics are in that geography," says Fine. "At a high level, we were able to gain exponential smoothing on the forecasts and the demand and understand how to respond quickly."

Inventory overstock is reduced by 5 percent

By presenting inventory information in easy-to-understand dashboard views, DPS and K3S applications give buyers the opportunity to use real metrics to reduce overstock. "We have been able to reduce inventory by 5 percent so far, thanks to the integration of bar coding, productivity improvements and better insight into buying and replenishing," says Fine. "What is significant is that we were able to achieve that while relocating the distribution center in a peak cooling season. We look forward to continued improvement as the buyers keep tuning the K3S engine."

DPS-fueled productivity improvements provided a significant advantage for the company's buyers, who have to service customers that range from large educational institutions to individual mechanical contractors. "The reps often needed to access actual inventory while on site at a customer's location," says Fine. "The time savings we gained affected the whole organization, resulting in better team interaction across our different product categories, regardless of the scale of the order."

K3S frees up capacity branch by branch

Today Duncan Supply has nine branches carrying different types of seasonal and geographically optimized inventory running in lockstep. "We were in gridlock before, with our branches at maximum capacity," says Fine. "Relocating the distribution center was a business imperative, but would have been virtually impossible to do without the inventory management solution we've adopted."

Moving forward, Duncan Supply can take branch efficiency even further. "Right now, the branches tend to request certain inventory. With the DPS and K3S solutions, we can evolve and automate inventory management by recommending items for them to carry and tracking the results of that closely," says Fine. "We also want to extend our e-business and cycle-up parts supply over the Internet to provide state-of-the-art services to our customers."

Turning buyers into business managers boosts company competitiveness

One thing is sure—the days of Duncan Supply buyers relying on "best-guess" inventory replenishment are over. "The net effect of deploying the solution is that it has turned our buyers into business managers," says Fine. "Each buyer has a multidimensional view of his or her own supply chain, a better understanding of what's in the warehouse and the tools to help us build customer loyalty that can weather any storm."

The bottom line

IBM and DPS and K3S are working together to help ensure the tight interoperability of inventory management solutions on powerful, flexible IBM Power Systems. That means IBM, DPS and K3S help businesses achieve:

- Increased insight for more assured decision making
- Improved productivity, efficiency and responsiveness
- Reduced costs through better inventory control
- Adaptability to business change
- Higher service levels
- Competitive total cost of acquisition and proven total cost of ownership

For more information

To learn more about IBM Power Systems, visit
ibm.com/systems/power

To learn more about DPS, visit www.dpslink.com

To learn more about Duncan Supply Company,
visit www.duncansupply.com

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