

Bypassing the Distribution Center

By Neelam Singh and G. Ganapathiraman

Keywords

DC Bypass, Descartes, Inventory in Motion, Floating Warehouse, Bakers

Overview

The offshoot of tremendous growth in offshoring is that supply chains are getting more complicated; sourcing products overseas leads to longer lead

In its simplest form, "DC bypass" takes one link from out of the supply chain.

Simple idea, but to accomplish this requires effort and discipline. The DC bypass strategy is more often used for products with short lifecycles.

times and escalating inventory costs. Thus, manufacturers and retailers that source in Europe are looking for an efficient solution to these problems.

One way to do this is to bypass the traditional distribution center (DC) so that the retailer or manufacturer ships the product directly to the retail store. In its simplest form, "DC bypass" takes

one link out of the supply chain. This is a simple idea, but requires effort and discipline to accomplish. A basic requirement of a DC bypass is to have value-added supply chain practices - like printing or labeling - take place at or near the manufacturer's facility.

This Insight showcases how "Bakers," a specialty footwear retailer uses the DC bypass strategy to its benefit.

Analysis

The DC bypass strategy is more often used for products with short lifecycles, such as fashion, entertainment, promotional, and seasonal goods. This distribution strategy can be implemented by loading containers with cartons that are pre-labeled for shipment to the final destination. The labeling has to happen at the consolidation center itself. Further, instead of the containers going to another distribution center for relabeling they are moved either to a cross dock facility or to a carrier's dock where they are segregated for final store delivery.



As a prerequisite for this strategy, it is necessary to first synchronize various information technology systems at the manufacturer, retailer, and third-party logistics (3PL) provider's facilities. A workbench is required to handle the multi-party purchase orders (POs), advance ship notices (ASNs), etc. Without the ability to make the e-communication messages easily visible, this would be a difficult manual process.

Benefits of DC Bypass Concept

The big advantages of DC bypass are the time and cost savings. Due to fewer touch points and less handling damage to shipments, companies can realize potential reductions in transportation, inventory-carrying, and material handling costs. Implementing DC bypass saves a lot of time in the overall supply chain by speeding fulfillment, since it avoids the need to receive and sort products at the distribution center. The inventory cost saved across the whole process can also allow faster (but costlier) transportation options to help get the goods to the stores sooner. A DC bypass strategy can also help companies improve their inventory management, simplify logistics management, and speed order-to-cash.

DC Bypass Challenges

Although it offers significant potential benefits, the DC bypass strategy also comes with its challenges.

The main prerequisite is strong information technology. Though complex, additional coordination back in the supply chain, including more accurate demand forecasts and precise delivery allocation planning, are required. Tracking and tracing tools need to be in place to provide detailed supply chain visibility as shipments change hands and hop from one mode of transport to another. If the process is not managed well, the store can be flooded with either too many shipments or face out-of stock situations.

The company also requires strong value-added services at the consolidation center, including applying shipping labels to cartons, and make investments in other enabling technologies and appropriate training.

Finally, strong collaboration between manufacturers, retailers, and logistics partners is required to ensure flow of timely, accurate, and complete information regarding demand, inventory, orders, shipments, etc. across the entire value chain.

Leading US Footwear Retailer Realizes Benefits with DC Bypass

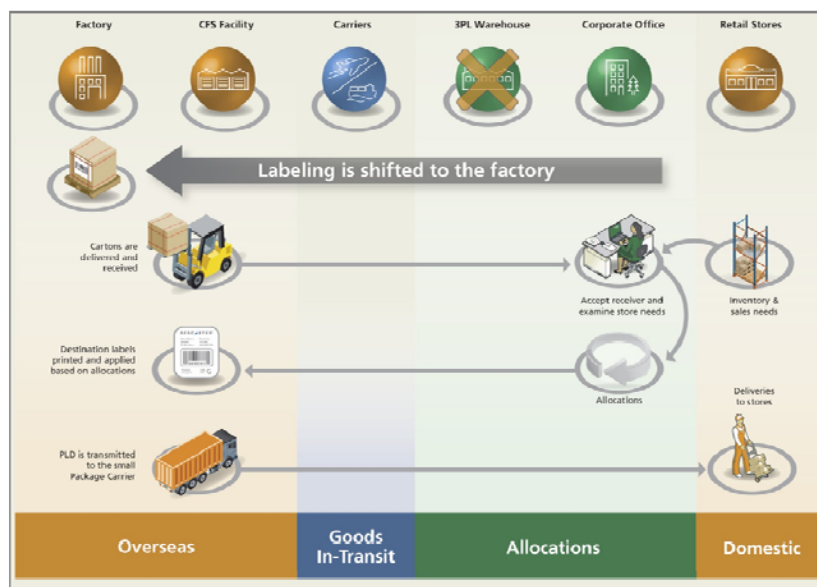
Bakers, a specialty retailer of fashion footwear, recently worked with Descartes, a leading supplier of supply chain execution technology, to successfully bypass its distribution centers. According to the company, this helped:

- Simplify import operations
- Develop a more accurate weekly store-level fulfillment process
- Reduce landed costs
- Shorten delivery times

By implementing the DC bypass strategy, Bakers could shift the processes previously performed in the third-party DC in Los Angeles to a consolidation warehouse in Shenzhen, thus performing the bulk of handling and labeling in a low-cost country, while reducing the cycle time and costs of running through the DC in L.A.

Phase I Implementation for Air Freight

After manufacturing, the manufacturer delivers the merchandise to Transmodal's consolidation center in Shenzhen. At the consolidation center, the merchandise is counted, weighed, and cubed. In parallel, Transmodal logs on to the Descartes system, creates a receipt, and prints out the necessary warehouse labels, which are then applied to the inbound cartons and used to locate the merchandise within the consolidation center.



Origin DC Bypass

Descartes' Purchase Order Direct system then sends the warehouse receipt to Bakers. This receipt is used to identify the merchandise available for allocation in Bakers' system and netted out against open orders. The final allocations are then sent back to the Descartes system which

Descartes' Purchase Order Direct system then sends the warehouse receipt to Bakers. This receipt is used to identify the merchandise available for allocation in Bakers' system and netted out against open orders. The final allocations are then sent back to the Descartes system which

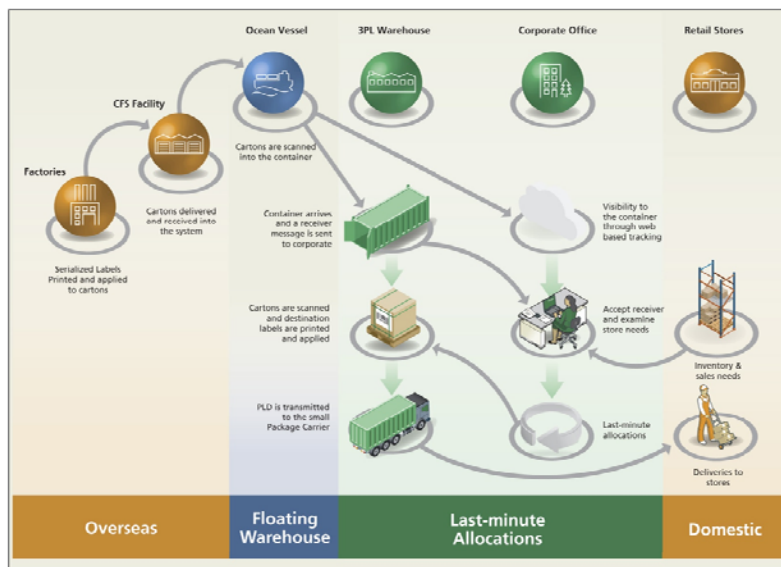
then prints FedEx labels based on the final delivery information for each carton.

Transmodal’s staff then applies these new labels to each carton and the cartons are scanned and loaded into a container. Bakers has visibility into the whole process. This visibility helps ensure that shipments take place on a timely basis.

Since the weight and dimensions of the cartons are captured initially by Transmodal at the consolidation center, Bakers can match these up with the destination information and send the package level detail (PLD) to Fed Ex. Having the PLD available, eliminated the time associated with the 3PL's scan weigh and key (SWAK) process.

After being received in the US, the containers are either trucked or railed to the FedEx hub scanned into the FedEx system for delivery to the stores. This process works perfectly for airfreight, with a total cycle time of approximately four days source-to-store. However, initially, the company learned that its phase I implementation did not work well for the ocean freight, given the ever-changing world of fashion and the inherent uncertainty of the demand forecast.

Ocean freight generally takes three to four weeks from the consolidation center in Shenzhen. Many times, the original allocations that were made four weeks out would often change, running the risk of increased store transfers and lost sales. Bakers then pursued a better DC bypass solution for ocean freight in its phase II implementation.



Ocean Consolidation with Decision Postponement

transfers and lost sales. Bakers then pursued a better DC bypass solution for ocean freight in its phase II implementation.

The Process - Phase II for Sea Freight

In Phase II, Descartes created a warehouse (inventory) label for each carton and scanned the cartons into a container. The container acts as an extension of the China warehouse, giving complete visibility to the in-transit inventory, or what it

called a "Floating Warehouse." A postponement strategy is then applied. The containers are put into a delivered status within the system and as goods are scanned at the warehouse, the allocation details are sent at the last minute to Bakers headquarters, after which FedEx shipping labels are printed for store delivery. By eliminating the effort required to reprint the labels and sort them out by PO, this process allows the retailer to improve the productivity of the 3PL in L.A. by 40 percent.

Using DC bypass, Bakers increased its efficiency by reducing three to five days in cycle time from source-to-store. In addition to the inventory savings, the company has also realized a 15 percent reduction in air freight charges. For sea freight, the retailer realized 25 percent reduction in the cost of its distribution operations and also increased productivity by 40 percent.

Conclusion

Inventory is cash tied up on pallets. DC bypass provides a way for companies to reduce their days-on-hand inventory by putting the product directly on to its final destination. While it may seem easy, removing the DC from the supply chain requires a highly responsive, efficient, and cost-effective replenishment process. In addition, strong collaboration is required between the manufacturer, the 3PL, and the retailer. Investments in process re-engineering, training, and technology must also be made to truly realize the benefits of DC bypass. But ARC Advisory Group believes that the key to a successful DC bypass strategy implementation is a competent IT system to facilitate collaboration (both internally and externally), analyze and optimize options, and automate business processes.

For further information or to provide feedback on this Insight, please contact your account manager or the authors at nsingh@arcweb.com or ramang@arcweb.com. ARC Insights are published and copyrighted by ARC Advisory Group. The information is proprietary to ARC and no part may be reproduced without prior permission from ARC.