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Direct-to-store Solution for Imported Goods

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Imports comprise an increasing share of retailer sales. The job of getting goods from overseas origins to the store shelf is fraught with challenges, particularly for seasonal or time-sensitive products. One way to simplify international supply chain management is through direct-to-store distribution.

This practice can benefit many importers by moving goods directly from the port to final destination much more rapidly, reliably and often cost effectively. This article shows importers how the direct-to-store concept works and what bottom-line gains retailers and distributors can expect.

Canadian containerized imports have increased dramatically over the last decade, particularly Asian imports through the port of Vancouver. These imports have achieved a compound annual growth rate of almost 20% since 1996, according to the Port of Halifax, Port of Montreal and Vancouver Fraser port

authorities. Beyond a potential near-term economic slowdown, most economic projections suggest that containerized imports will continue to grow at a rapid pace.

A significant share of these imports is comprised of retail goods destined for stores. As Canadian retailers increasingly stock their shelves with imported products, supply chain managers across Canada tasked with getting this merchandise to those shelves face complexities and challenges beyond the imagination of an earlier generation.

Managing the sheer volume of imports in terms of paperwork, tracking and customs clearance is complex enough. Compounding the difficulty is the fact that retail goods are often time sensitive with seasonality, promotions and unanticipated demand spikes that require precise timing for product arrivals and replenishment. The long supply chains associated with overseas imports

can make the timing of these arrivals exceptionally difficult. Typical trans-Pacific port-to-port transit times are 10 to 20 days. It typically takes another 10 to 20 days to get the goods to their final destination in Canada if everything works as planned. However, port and rail delays, hand-offs between transportation service providers and limited shipment visibility may make the inland portion of an import container move unpredictable and longer than expected.

Managing the transportation associated with import containers presents numerous tactical challenges. Beyond the day-to-day supply chain management challenges, there are strategic challenges as well. Economic growth, population shifts and purchasing behaviour changes within Canada present retailers and distributors with a changing landscape around which to design the most effective network of stores, distribution centers (DCs) and ports of entry for their imported goods.



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PRODUCT ON SHELVES FASTER

While international airfreight clearly offers greater speed and reliability than ocean shipping, the added expense means that shippers will likely continue to rely heavily on ocean container shipping. Container shippers have had few alternatives for addressing the speed and reliability of the ocean portion of their shipments. One option is to book with carriers that have given shippers a positive experience and the shortest sailing times.

A few shippers are considering new, creative approaches to managing their containerized imports, right up to the point of sale. Through our analysis and conversations with innovative supply chain professionals, we believe strongly that while port-to-port ocean transit times have some flexibility, there is far more opportunity to develop creative solutions for the port-to-inland point portion of the move.

This has spawned some creative ideas to resolve the problem. For example, what if an importer could avoid his distribution center altogether and speed the contents of a container (in store-sized lots) directly from the port area to stores eagerly awaiting the merchandise? A recent concept, “direct-to-store distri-

bution” or “DC-bypass,” is designed to make this happen. Direct-to-store distribution enables importers to move their imported goods from the port to their final destination much more rapidly, reliably and often more cost effectively than via traditional supply chain management practices.

DIRECT-TO-STORE CONCEPT

Traditional supply chain networks involve transportation of an imported container from the port to a distribution center. The contents are unloaded and, perhaps after being placed into storage temporarily, are assembled into smaller lots before shipping to stores. By contrast, direct-to-store distribution involves unloading the contents of the container at a deconsolidation facility near the port (immediately creating store-specific shipments of the merchandise) and transporting the merchandise directly to the stores, *by-passing the distribution center entirely*.

By avoiding an intermediate distribution center, the overall transit time of a shipment can be reduced significantly. To illustrate, the overall transit time for a typical shipment from a factory in China to a store in Canada can be reduced by a week or 25 per cent with direct-to-store distribution.

The actual transit time differential can be much greater considering the common delays encountered for the traditional distribution model that are not reflected here (such as intermodal loading delays at the port, train delays and delays at the DC). Since direct-to-store distribution is largely impervious to most of these potential sources of delay, distribution is also much more reliable and predictable than distribution through a customer DC.

Direct-to-store distribution can also employ domestic air cargo instead of ground services from Vancouver, further decreasing the time to the store shelf—by as much as three to four days, depending on distance from the port. The additional cost of domestic air cargo can be justified, for example, for costly emergencies or time perishable shipments.

The direct-to-store distribution concept can create value for an importer in various ways depending on the nature of

the goods, the urgency of the situation and the structure of the importer’s distribution network. The potential benefits associated of direct-to-store distribution include stock-out and lost sales avoidance, transportation cost reduction, DC cost reduction/avoidance, and inventory carrying cost reduction.

While direct-to-store distribution is typically relevant for only a portion of an importer’s total volume, it has the potential to create tremendous value when used appropriately. The value is obvious for large retailers with many stores, SKUs and DCs that import on their own behalf. However, manufacturers and distributors, both large and small, that must get their products to retail customers can also benefit from the efficiency of direct-to-store distribution by serving these customers more quickly and reducing both inventory and DC requirements.

Since direct-to-store distribution permits the importer to allocate the container contents after the container has arrived in Canada (not at the overseas point of origin), importers are afforded the ability to make last-minute changes in response to market developments that may occur while the container is still at sea. This is clearly a benefit for products where demand might change quickly or may differ geographically.

Direct-to-store distribution provides tremendous flexibility and can be used creatively, depending on the situation at hand, even at the last minute. For example, a container originally destined for a DC can be “intercepted” at the port and its contents distributed directly to stores, perhaps some by air and some by ground. In certain situations, the solution might be to send a portion of the container contents directly to stores while sending the rest to the DC. Direct-to-store distribution opens up a range of new options for getting imported products on the store shelves when they are most needed.

POTENTIAL VALUE

The theoretical customer value possible through direct-to-store distribution is determined by a number of variables. In an emergency situation, for example, for a store out of stock or that soon will be for

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Direct To Market

Getting goods from overseas manufacturers into the hands of customers in North America should be a sprint not a relay. Our presence in cities like Shanghai and our distribution facilities close to port ensure that we are the fastest and more efficient solution for all of our clients' global supply chain demands.

- Reduce distribution centre costs
- Manage peak season volumes
- Increase speed to market
- Overcome delays
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a higher margin item, the value created by direct-to-store distribution in avoiding lost sales can vary across a wide range, depending on the retailer's assessment of a particular situation. Potential situations include whether customers will accept a rain check for out-of-stock merchandise, choose another model or elect to shop elsewhere.

For non-emergency situations, determining the potential value created by direct-to-store distribution with any precision requires significant data and modeling. Norbridge developed a model to calculate the theoretical value of direct-to-store distribution versus distribution through a customer's DC, and to test the impact of several variables on this value. While every situation is unique, Norbridge modeled a number of generic scenarios involving different DC-store network configurations, ports of entry and shipment values to determine the approximate magnitude of the cost and timing advantages of direct-to-store distribution.

To illustrate, in one scenario involving a network comprised of stores across Canada served by a distribution center in the Toronto area, modeling indicates that direct-to-store distribution provides an eight-day advantage in getting the merchandise to the stores and at a slightly lower total transportation cost. Assuming a high-value commodity such as apparel and taking inventory carrying cost into account, the value created by direct-to-store distribution climbs to around \$2,000 per container. In this scenario, direct-to-store distribution is both faster and less expensive than traditional distribution through the shipper's DC. Instead of shipping the goods from Vancouver to Toronto and then out to the stores, direct-to-store distribution ships the goods directly from Vancouver to the stores.

Again, every situation is unique and modeling provides only an approximation of value, but the magnitude of the results strongly suggests that many shippers stand to benefit from selective application of direct-to-store distribution.

While Norbridge modeled the value that could be created using direct-to-

store distribution within an existing network, there are situations where direct-to-store distribution could enable an importer to significantly change the distribution network, potentially reducing or even eliminating DC requirements. For example, a small company importing and distributing goods in western Canada could become a national distributor without necessarily adding or expanding their physical distribution operations. Shipments could be directed across the country without ever touching a DC.

NOT AS SIMPLE AS IT LOOKS

Unloading an ocean container and creating a number of store-sized shipments from the contents can be demanding. The contents must be sorted, labelled, perhaps palletized and properly prepared for transportation to the stores. This process is fairly straightforward when the container contents are comprised solely of shrink-wrapped pallets that do not have to be disassembled and destined to two or three store locations. However, the process can quickly become complicated when a container arrives with, say, 2,000 floor-loaded cartons consisting of 20 SKUs that are to be assembled into a combination of LTL and parcel shipments for 20 different stores and labelled for shipment.

The stakes associated with delays, routing errors, loss and damage can be high, requiring the physical handling be done quickly, accurately and carefully. This challenge can only be met by facilities, business processes and a labour force designed specifically around conducting this activity. To handle emergency shipments effectively, a direct-to-store service provider must have the facility and manpower capacity to accommodate such shipments on very short notice.

In addition to the physical handling challenges, direct-to-store distribution must be supported by information technology that provides continuous visibility of the merchandise and ensures productive communication between shipper and service provider. Lastly, the hand-off and information exchange between the party conducting the cargo handling and the transportation service provider must be fast and smooth.

Given all these challenges, it becomes clear that shippers must work with well equipped and skilled service providers to realize the potential value of direct-to-store distribution. Quality service providers are the key to successful application of these concepts.

HURDLES TO OVERCOME

In discussions with shippers about direct-to-store distribution, we have found that not all shipping managers are ready to make the shift away from the traditional distribution model. While cultural hurdles are often difficult to overcome, we see no major technical issues that stand in the way of the effective use of direct-to-store distribution by most shippers. In our view, the only way to remove uncertainty about any potential issues associated with this distribution model is to conduct a test. A test can take the form of a pilot program for a particular region, promotional campaign or SKU, or even a small experiment involving as few as one or two containers. The test will allow shippers to see for themselves exactly how direct-to-store distribution might work, measure the potential benefits and determine any cultural or technical points to be addressed. It will also demonstrate whether a particular service provider is up to the task.

LOOKING TO THE FUTURE

Containerized imports will continue to grow. Importers will, out of necessity, become more creative about getting their imported goods on the store shelf more quickly and cost effectively. New concepts such as direct-to-store distribution will play a greater role in the supply chains of leading retailers. The introduction of attractive direct-to-store offerings make it an ideal time for importers of all sizes to evaluate how direct-to-store distribution could be most effectively employed to boost their operating and financial performance. ■

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