

as seen in





Integrated Software Solutions for Logistics and Freight

The Rise and Rise of **Third-Party Warehousing**

Logical Logistics - the trend towards third party distribution and warehousing - has been driven by increasing demands from customers in the marketplace for more choice, keener prices and better quality.

e Study

Nowadays, it is not enough to have good quality products. If they cannot be brought to the market quickly and cheaply, then they will lose out against the competition. This means that all the way through the supply-chain, manufacturers and retailers are aiming for improvement - lower costs, faster transit times and better delivery quality - and they are looking to their logistics partners to provide them.

Logistics companies have always provided an element of warehousing for their clients. But today, with organizations looking to focus more on their core business, demand for third-party warehousing is booming, with an increasingly wider range of services being outsourced. In some cases, the client handles only product development, manufacturing and marketing. The logistics provider does the rest.

Why Third-Party?

For the client, the advantages of third-party warehousing are clear. Rather than having fixed costs from capital-intensive warehouses and equipment which may only be partly utilized, the third-party option gives a

ly be partly utilized, the third-party option gives a flexible approach to distribution and relates costs directly to sales. This means that margins are under better control and

are under better control, and new investment can be directed to where it is most effective.

For the logistics provider, it is a natural complement to the forwarding and clearing services already offered, providing attractive returns at a time when margins in established areas of the business are under pressure.

In fact, third-party warehousing is likely to be the logistics growth area of the future as an increasing number of companies count the cost of

The Basics

The nature of the operation varies with the size of the client and the scale of the business.

Larger clients typically have exclusive use of a warehouse, which may be purpose-built with good communication links. Incoming goods from manufacturing plants or external suppliers will either be crossdocked directly to consignees, or put away to storage awaiting delivery instructions. Delivery orders are usually released in waves to provide a planned workflow of deliveries by carrier or route. The stock will then be allocated, picked and packed before sending out with the carrier, who commonly works in partnership with the logistics provider. The agreement will reflect the volume and nature of services provided, with charges based on the weight or volume handled through the warehouse in a month, or on a 'cost plus' basis.

At the other end of the spectrum is the 'Goods Hotel'. Here a single warehouse is used by the logistics provider to provide a service for many, sometimes hundreds of clients. Although the process flow may vary for each client, the emphasis is on providing a highly automated and standardised storage and distribution service with discrete charges for handling in, storage and delivery. Extra services such as batch/lot management, inspection and serials capture can also be configured into the process and charged automatically, providing each client with a customised service built from a set of standard operations.





their in-house storage and distribution services and start to examine the alternatives.

Moving up the Supply Chain

The logistics provider can increase client billing in two main ways, by providing more value added services or moving further up the supply chain.

Starting with a simple quality inspection at the receiving stage, the range of activities can be expanded by handling incoming damages, returns to suppliers and customer returns. And for larger clients, by hosting a Technical Centre where faulty goods can be repaired on the premises and returned to stock.

Other services include repacking, where bulk goods arriving by container are remade up into retail units before going back into finished stock for distribution.

Kitting is also a possibility. Activities here can range from providing country-specific product variants, inserting manuals and warranties in the local language at the packing stage, to assembly of complete consumer products such as PCs for the local market, obtaining favourable Customs treatment along the way.

Some clients are thinking more imaginatively and outsourcing entire links of their supply chain that were previously managed in-house. Logistics service providers are now being invited to operate call centres, managing the entire end-customer relationship for sales and returns, with orders flowing directly from the call-centre to the third-party warehouse for delivery.

At the other end of the chain, clients are asking their suppliers to retain ownership longer. Each supplier has to maintain inventory in a central warehouse. The client is billed for the stock only when goods are ordered for production or shipped to the end-customer. As well as controlling ownership of the inventory, the service provider may also manage supplier stock replenishment in a collaborative form of VMI.

In some cases the logistics provider actually purchases and holds stock from his client's suppliers, making a margin on each sale, and leaving the client to handle only product development and marketing.

The Role of IT

For all but the smallest operations, a computer system is essential to provide up-to-the-minute information on stock levels and orders by client; to allow the most effective use of the storage space available; and to provide accurate recording and billing of the services.

Warehouse Management has in recent years benefited much more than other logistics areas both from software advances and new technology.

- At putaway, the system can scan all the available locations, taking into account such factors as occupancy, weight loading, the location of other stock for this item and how fast the stock moves, before suggesting a location to optimize the use of storage space.
- Pending stock movements can be queued and then transmitted to the nearest operator, minimizing journey times and improving labour utilization.
- Stock counts can be made more effective, by concentrating on recent movements or high value items.
- Individual orders can be tracked as they progress through the system, providing end-user information and allowing exceptions to be highlighted for appropriate action.





Even with a single-client warehouse, it is important to distinguish the customs status and ownership of stock in the system. And the spread of value added services means that today's WMS packages have to be able to handle Works Orders, Bill of Materials, and Product Pricing as well as standard warehousing functions.

In addition to taking care of the administration, a good system will provide ways to change operating practices by supporting processes which would be too difficult or time-consuming to handle manually. But by far the most important role of the WMS in the future is to enable seamless communications between all the parties involved in the supply chain.

Integration is the Key

An essential part of the warehousing operation is communications. As logistics companies move further up the supply-chain, it is increasingly important for them to be able to link to their client's systems for information exchange. And not just client systems. Links to other parties - Customs, Carrier are becoming equally important.

The method used, whether flat file, e-mail attachment, EDIFACT message or XML file is not important. The key thing is to get the processes running.

Client EDI

For larger clients, EDI has replaced paper communication completely for all regular warehouse operations. Even before any goods arrive, the client can advise the logistics provider of product dimensions and prices, delivery addresses, and the stock position for data take-on.

Each receipt is announced by an electronic pre-advice listing products and quantities. After counting and quality inspection, the 3PL replies with a receipt confirmation highlighting shortages and damages. Crossdocking orders are sent in advance, and these are used during the putaway process to steer goods directly to marshalling areas rather than bulk storage.

For outbound, the client sends batches of delivery orders at regular intervals, and these are then grouped into convenient waves for picking. A Despatch Advice message is then sent back, confirming discrepancies (if allowed), serials and batch numbers for each order.

Synchronicity

With clients delegating detailed stock control from their ERP system to the WMS, reconciliation between the two systems becomes vitally important.

EDI messages help to achieve this.

A nightly 'snapshot' is sent back to the client, summarising the stock position by article and status. Any discrepancies between the two systems are then investigated. And significant warehouse stock adjustment also trigger a message back to the client with the details.

Breaking the Bonds

The traditional type of bonded warehouse, where the importer of the goods must pay the customs duties in order to release them has all but disappeared.

With the dismantling of customs frontiers across the EU, alternative regimes are permitted. In the new bonded warehouses, bonded and free goods can be stored side by side, with the warehouse keeping records of the customs documentation for each inward and outward shipment. This is used to generate a monthly report on movements of goods out of bond and the client then pays duty at the appropriate rate on the goods dispatched during that month.

Forwarders have been using electronic links to Clearance systems for some time now, but the

p.t.o





Study

practice has been slower to gain ground in warehousing. In a fully integrated system an electronic Customs declaration is during goods receipting.

Order release or Pick confirmation can trigger a Customs Clearance request if duties have to be paid before despatch. Under the alternative 'period entry' regime, the goods can leave immediately but full details of shipment out of each receipt must be stored and forwarded to Customs each month for the calculation of duties.

To operate in these environments, the WMS has to meet strict Customs criteria, including the ability to:

- Distinguish bonded from free stock
- Track customs documentation for goods from receipt through to dispatch
- Provide effective access control
- · Audit all stock transactions

The ability to offer such a service can be a crucial factor in winning new clients.



Carrier Communications

Successful integration with carrier services is crucial to the service provider's end-to-end performance. To control costs, it is usual to drive the picking and packing processes from the carrier schedules, where deliveries for overseas markets may be made on different days of the week. The WMS has to be able to group together those orders which can go on the same service, distinguishing between full loads for a single destination, multi-drop loads and 'parcels' services, and placing each with the appropriate carrier.

At the packing stage, operatore can build shipping units marked with the individual carrier's tracking number, allowing the WMS to send to the carrier a full contents list for each unit.

Web Enablement

Visibility is essential nowadays, and the Internet is an ideal medium to provide it. The logistics provider has two distinct groups of people to keep informed.

Firstly the client, who needs to be able to use a Web browser to access warehouse stock balances, receipts and despatches within the WMS.

And for smaller clients the ability to enter shipping orders on-line is a real plus, avoiding the costs of setting up dedicated EDI links.

Secondly, the end-customer needs to be able to track his shipment from the point of placing the order with the client up to handover to the carrier, and ideally beyond that. As long as the WMS captures this detail, it can be made available to end-users using an Web Track/Trace application, accessed by their own order number or a carrier tracking number.

KPIs

In a situation where service is paramount, the agreements between the logistics provider and the client often reflect this, relating charges directly to the level and quality of the service provided.

Some key performance indicators are:

- Dock to Stock the time taken from goods arrival to availability for picking
- Click to Pick the time between receiving a delivery order and handover to the carrier
- On Time Deliveries the proportion of deliveries made within the agreed timeframe
- Delivery Quality the percentage of error and damage-free deliveries in the period p.t.o







The logistics provider needs to be able to produce these figures directly from his WMS. Even if they are not included in the agreement, they will be discussed at contract review.

Bar Code Breakthroughs

Scanning technology has a natural place in the warehousing environment and has contributed to major changes in goods handling. Most operations now use barcodes to identify and track incoming units. At the outbound stage, operators routinely build shipping units by scanning EAN codes directly from cartons. These units are labelled with unique SSCC barcodes to enable tracking of the package after it leaves the warehouse.

Improved function and falling prices have led to the growth of Radio Data Terminals as the primary tool for data capture. Productivity is improved as the warehouse operator handles receiving, replenishment and picking tasks

without having to visit the office for more paperwork. For inbound operations, the WMS usually prints a barcoded label for each pallet. On the outbound leg, whole pallets can be picked by scanning the inbound label, while part-pallet quantities are handled by scanning EAN codes.

The Way Forward

Third-party warehousing is one of the key growth areas in logistics at the moment, and many companies see it as essential to the provision of a total logistics service. But in order to break into this emerging - and profitable - business area, the support of a comprehensive IT strategy is vital, as companies must be able to demonstrate effective control of the warehousing function to prospective clients

The right partnership with an IT supplier, supporting an integrated warehousing solution, will improve efficiency and give that important competitive edge.

The use of global labelling standards - automotive suppliers have the Odette Label - allows a single barcode to be used to track the package all the way through the supply chain.

Selecting your WMS

A packaged WMS solution can usually provide a cheap and safe basis for a new implementation but there are a number of points to think about:

- The IT Supplier will need to have a good grasp of logistics and be able to act as a partner, even to the point of working on joint bids to new prospects.
- Integration is key; the supplier needs a strong range of products and capability in welding the various components into an
 effective total solution
 - The software itself must be flexible, and quickly adaptable to the requirements of a new client; typically this means that it is parameter driven, with support for multiple companies, depots, owners and currencies.
 - The package will have been designed specifically for third-party warehousing, rather than being an adaptation of a single client system.
 - Integration to the other operational and accounting software will reduce the number and complexity of interfaces
 - · Facilities for sending and receiving information via EDI should be available
 - Easy attachment of RDT devices is essential.

lan Mann
Senior Consultant