

# New technology in Distribution System

New system allows Arbonne to enhance the customer service portion of the business by emailing shipping/tracking information to the customer, once an order has been shipped



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**N**etwork marketing is a distribution system, or form of marketing, which channels goods or services from the manufacturer to the consumer through a 'network' of independent distributors or consultants. It is an effective system that cuts out the 'middleman' found in most industries. This is the distribution/marketing system used by Arbonne International, a manufacturer of botanical skin care products developed in Switzerland in 1975, by Petter Mørck, together with a group of leading bio-chemists, biologists and herbalists.

Just as Arbonne worked to eliminate the 'middleman' in their selling process, the firm recently revamped their entire shipping, packing, and distribution system, finding extraordinary efficiencies through their new technology solution. Prior to its technological revamp, Arbonne distributed its products utilising minimal technology in a 'pick and pass' operation. This means that every tote was manually processed through the system and had to pass through every pick zone. Two pick lanes were operated which employed a roller conveyor passing through the pick lane and Pick-to-Light picking technology. Pick-to-light is utilised in high speed/high volume environments. Light bars are situated at every pick location; they inform

the warehouse personnel as to the carton identifier as well as the items to be picked, and the quantity. Interfacing with the warehouse management system (WMS) was also a concern due to the fact that the orders were downloaded directly to the Pick-to-Light system and no management statistics such as order progress and pick rates were provided.

Further inefficiencies were also located in the packaging operation. All Arbonne orders were picked into a tote, not into shipping cartons. This was a challenge because when the tote went to the packing area, the packing operator would have to select the correct box for the contents, pack it, seal it, and forward it to shipping. Shipping was performed at multiple; standalone PC workstations, which supported only a single carrier. This was less effective because each PC would have to upload shipping information at the end of the day as well as requiring additional workstations to process other carriers. Arbonne needed a system that allowed for multiple carriers, where the server passed information only once per day.

## The new Arbonne distribution system

Experiencing exponential growth, Arbonne needed to re-engineer its distribution operations. Arbonne achieved this

by implementing a third picking line that was fully automated, enabling them to double their output.

A major component of this new system was QC Enterprise, by Cincinnati-based QC Software, Inc. ([www.qcsoftware.com](http://www.qcsoftware.com)). QC Enterprise is a warehouse control system, which communicates in real-time with the host WMS as well as the material handling hardware. It manages the entire conveyor routing process and the operational aspect of the picking and shipping (order fulfillment) functions within the distribution center.

The QC OMS (Order Management System) module allows Arbonne to pick orders directly into shipping cartons utilising cartonisation logic. This ensures that each carton is not over packed based on product dimensions and weight. When the orders are downloaded to QC Enterprise, the volume and weight of the items are calculated, with a 'dunnage' factor for packing materials, and suggests the proper size carton for the order. Also, if it is determined that the order is comprised of more than one carton, QC Enterprise will allocate SKUs in such a way to minimise the route cartons must travel and avoid multiple cartons being diverted into the same pick zones.

Other inefficiencies of the 'pick and pass' process were overcome by implementing zone skipping. Cartons traveling on an automated conveyor are now routed only to the required pick zones, decreasing the actual throughput time and drastically reducing the number of times a carton is touched throughout the picking process. "Imagine driving down the road and stopping at every exit, even though it's not your exit, just because it's there. That's what zone skipping prevents," according to Tom Verzi, vice-president of QC Software.


Modifications to the shipping process were also put into place. This included automatic printing of packing documents and the implementation of QC SMS (shipment management systems) powered by ConnectShip (a UPS product) providing a single server, multi-carrier shipping system. Further streamlining the process involved installing 'print and apply' technology which automated the printing of shipping labels and applying them directly to the shipping carton. This eliminated the need for manual shipping stations.

The new system allows Arbonne to enhance the customer service portion of the business by emailing shipping/tracking information to the customer, once an order has been shipped. Previously, customers received their package with no notification...it just showed up.

Arbonne is using management tools such as QC Toolkit. This powerful set of applications provides the main communication stream to the host WMS system and the material handling equipment. These user friendly graphical reporting features allow management to track real-time statistics such as pick production, sort/fill rates, and number of orders taken, picked, and shipped.

### Rationale in QC Enterprise Selection

Unlike other WCS systems, QC Enterprise is different because its sole purpose is not to just route cartons on a conveyor. The integrated order fulfillment, inventory management and shipment manifesting functionality are distinguishable from other systems. Most of the core configuration comes from parameters set by the user, therefore a customer does not require QC Software personnel to make changes to the system as the company grows and expands. Arbonne took the system running in California and implemented it in the new Indiana facility with only minor configuration changes. This adaptability defines the scalability of the application, a critical element in Arbonne's selection process.

Just as Arbonne products can address different types of skin, Normal to Dry, Normal to Oily, Combination, Acne/Blemishes, Sensitive, Mature, and Baby, the new distribution process provides the same flexibility and adaptability. 

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