



# WCS: Proof of concept

Developing a warehouse distribution centre to accommodate direct selling can bring difficulties and challenges.



By Thomas R. Cutler

Warehouse Control Systems (WCS) often require proof of concept according to Jerry List, vice-president of QC Software. Management teams in direct-to-consumer distribution centres usually turn to improved warehouse technology solutions when one of two circumstances occurs: rapid growth requiring improved throughput capacity or serious quality-control issues (such as “mispicks” or error-prone shipping). Both these challenges will produce lower customer satisfaction if the correct products are not received in a timely manner.

These issues often arrive on the desks of senior managers via warehouse floor managers or quality assurance personnel. The inability to keep up with demand sounds an alarm. These shipments are not usually pallets of single skus, in which case a vanilla WMS — warehouse management system, is often sufficient. Individual cartons packed with various items require efficient pick and pack processes. “Moving away from paper-based picking toward RF (radio frequency bar-coded) picking directly to cartons is an initial signal that

WCS may be in order,” List suggests. High-volume conveyors installed with scales allow tolerance weights to be established and reduce the need to individually verify cartons.

## Arbonne: Growth and new Canadian distribution centres

The vision to provide skin-care products unparalleled in quality and effectiveness developed in Switzerland more than three decades ago when entrepreneur, Petter Mørck, together with a group of leading bio-chemists, biologists and herbalists, founded Arbonne. These products, based on herbal and botanical principles, are now shared throughout the world through Arbonne’s network of independent consultants. Building on these same founding principles, the Arbonne product line has since grown to include a comprehensive line of personal care, colour, nutrition and weight-loss products. The growth has been both an opportunity and a challenge. The Calgary distribution centre opened this year to accommodate the company’s accolade as the fastest growing organization in the Direct Selling Association (DSA) for the second year in a row.

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As independent consultants work to earn their new white Mercedes as a sign of achievement in the company, the capacity to ship product accurately, promptly, and efficiently had been well tested; the proof of concept verified. Richard Estalella, senior vice-president at Arbonne, shared that there has been a natural progression to the warehouse control systems that is used in Irvine, California, then Greenwood, Indiana, and now in Calgary and Toronto. Estalella explained the progression, “Most distribution centres start as manual picks until volume grows and automation is needed because the head count has “maxed out.” With rapid growth the choice is either to increase head count to achieve fulfillment or automate. The first round of automation in our Irvine distribution centre involved conveyors, carton flow, order entry fulfillment ... pick, pack, and ship.”

When companies are shipping pallets of similar content, a generic WMS (warehouse management system) may be suitable; when there are complex inventory control and order entry issues for business to



consumer products that must be individually cartoned in high volumes, the WCS is most often the better choice. Dave Lovegrove, director of operations for the Calgary Arbonne distribution centre further clarified, “WMS is inventory control, not pick-to-light, RF (radio frequency - bar codes) for high-volume distribution centres.”

The Toronto operation is slightly different because it is operated by a 3PL (third party logistics provider) and handles a different volume and slightly different process than the new Calgary distribution centre, yet the WCS makes the operations all completely transparent to all.

### The inability to keep up with demand sounds an alarm.

Handling all this rapid growth has not diminished the requirement of quality and accurate shipping. Mispicks are running about one in 50,000 cartons shipped. List notes that, “Whereas previously each carton at Arbonne had to be hand-checked for content accuracy against the merchandise pick list, the WCS has allowed specific weight tolerances to be established and scales on the conveyors allow the company to know that if the right products were selected the weight will be correct ... the need for hand-checking quality assurance has been dramatically reduced with this quality control aspect of the WCS technology.” The effort that Arbonne exerted during the initial WCS proof of concept, entering these weights and tolerances, has paid off, as the process expanded to Indiana and now in Canada. QC Software developed specific accuracy reporting functionality for Arbonne that allows the company to track the fill rate by order unit and line level. These data are critical to continued process improvement and a lean operation. Only through

these metrics can the organization discover corrective action.

While the vast majority of rules and WCS specification are similar throughout all the Arbonne distribution centres, there are distinctions. In the United States, sunblock is not a lot controlled substance. The use of natural health products such as vitamins, minerals, and herbs by Canadians is increasing. The Canadian Department of Health created the Natural Health Products (NHP) Regulations to address consumer concerns over the quality of those products. For example, sunburn protectants are classified as natural health products (NHPs) if they contain certain ingredients and must be designated. These regulatory compliance requirements are similar to HACCP (Hazard Analysis Critical Control Points) requirements and the new ISO 22000 lot traceability standards; however the NHP regulation impacts Arbonne Canada as it pertains to sunblock. Lovegrove said that, “While the core WCS systems are consistent throughout the Arbonne distribution centres, we need to account for the regulatory issues in each country by modifying the WCS accordingly.”

#### Proof of concept: Leveraged WCS

Estalella said the WCS implementation speed in Calgary this spring was leveraged in just 90 days. The core WCS QC Software system was already “in place” and only required minor modification for the unique Canadian variables. “When a proof of concept like WCS is leveraged across multiple locations it becomes quite affordable.” ■

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