

# EDI Supply-Chain Technology

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## A Pathway to Success for C-Store Retailers

*In the following report, we will focus on challenges faced by independent retailers competing in a marketplace defined by big-box retail and how evolving Electronic Data Interchange (EDI) supply-chain technology can lead these retailers to a path defined by success. We will first present issues most commonly faced by small to medium retailers and then explore technology available to help solve these issues. While EDI is not a new concept for mass retailers, it is important to note that advancements in this area can now provide smaller retailers with the same tools for success. Complete, bi-directional EDI interfaces coupled with auto-replenishment are powerful assets for businesses of all sizes and types. An example of this technology will later be studied in an independently-owned, multistore convenience business located in Virginia.*

## Issues Defined

SMB retailers are faced with a variety of issues revolving around inventory control and resource limitations. They also must rely heavily on meeting customer demand and providing above-average customer service. Based in-house research, below are issues most commonly reported from independent retailers in a variety of industry verticals:

- Loss of profits due to out-of-stock and overstock inventory
- Excessive employee time spent performing manual tasks such as walking aisles counting inventory, entering orders, receiving and creating price changes
- Loss of customer retention due to out-of-stock inventory
- Maintenance of store appearance
- Human error in receiving, item pricing, manual price entering,

- manual item discounting
- Vendor error resulting in incorrect product delivery
- Excessive vendor/supplier control over store product
- Expensive, 3rd party outsourcing for inventory services

The above issues can multiply into devastating losses for small to medium, independent retailers who rely more on small purchases rather than bulk purchases. For example: If a consumer goes into a gas station to pick up an item after work, and the item is out-of-stock, they will be much less likely to purchase a substitute product and will typically leave to find the specific item at another competing location. SMB retailers often keep less inventory on hand, so it is vital this inventory be well-maintained.

## Automated Store/Supplier Communication – Powered by EDI Technology

Electronic Data Interchange (EDI) technology, once primarily used only by big-box retailers to automate store processes, is now available to smaller retailers. EDI technology links the supplier or distributor to the store resulting in automated inventory control and electronic document exchange. While often provided as a separate service, EDI technology can also be offered through the point-of-sale provider, resulting in cost savings and less hassle for the smaller business.

There is a great variance in levels of EDI technology, so retailers should look for the solution to best fit their specific requirements (i.e. time-savings, inventory

control, auto-PO generation, auto-shipping alerts, shipment monitoring). Comprehensive solutions can be difficult to find and easily disguised in the retail technology marketplace. Careful research should reveal that the solution will solve the above issues with little user interaction. Solutions should also be adaptable to issue resolution unique to the specific store location.

The convenience retailer profiled below is using EDI technology powered by ECRS Supplier Gateway™ to help his business succeed in challenging times.

### ◀ ECRS Supplier Gateway™ – EDI Technology

*Think of EDI technology as a two-way, data super-highway between your store and your supplier(s). Basically, ECRS has developed an interface linking ECRS' Catapult software with your supplier(s) to allow for automatic electronic transfer of purchase orders, cost updates, invoices, shipping notifications and promotions with little to no user intervention. This ECRS solution is referred to as Supplier Gateway™.*



# Case Study: Lee's Kar Go Convenience Stores

## Background

Lee's Kar-Go is a multi-site fuel and convenience enterprise with locations in Falls Mills and Claudville, Virginia. This independent, family business opened their first store in 1987 followed by a second location which opened in 1998. Both stores are owned and operated by Rocky Lee.

To efficiently operate a busy, independent convenience business with locations more than 100 miles apart, Lee required a system allowing him to streamline fuel, back office, point-of-sale (POS) and credit card for each store while integrating both

sites for centralized HQ management. Lee installed the ECRS CATAPULT™ system 16 months ago combining all in-store systems and achieving complete HQ control. In January of 2009, Lee also implemented the ECRS Supplier Gateway service. The ECRS Gateway allowed a direct, two-way link between Lee's Kar-Go and their main supplier, H.T. Hackney Co., for inventory automation. Combined with the functionality of Catapult already in place, the ECRS Gateway interface offered the final piece in allowing Lee to have complete control over his convenience business.

## ECRS Supplier Gateway - Store/Supplier Integration - Brief Overview

The ECRS Supplier Gateway facilitates automatic EDI between the retailer and supplier(s). Supplier Gateway produces automatic PO generation, PO Acknowledgements, Shipping Notifications, Vendor Catalog Updates,

Invoicing and Promotions (*\*functionality vary by supplier*). Orders are auto-populated from inventory forecasting tools within Catapult and pre-set order points defined by the retailer.

## Supplier Gateway in Action – Lee's Kar-Go

Lee receives 75% of his product sales volume from H.T.Hackney inventory (not counting fuel). They supply tobacco products, janitorial items, deli supplies, pet food and everything in between to fill his shelves. Lee now has 80% of his items on auto-reorder from H.T. Hackney.

According to Lee, the initial process of setting up Supplier Gateway was almost completely transparent from his side. ECRS had already communicated with H.T. Hackney and developed the EDI interface. Lee worked with ECRS Technical Support and QA specialists to get everything ready. Once ECRS set everything up, about six test transactions

were placed with H.T. Hackney to ensure everything was working properly. Including test orders, the entire process took about one week. Lee describes his experience as “very positive.” The most time-consuming part for Lee was setting up his inventory re-order points in Catapult before the Gateway software download.

When Lee places an order, which is done weekly for each location from HQ, he opens a new Purchase Order worksheet in Catapult and clicks Auto-Reorder. If he has a special order or needs to manually enter an item, this can be done before or after the worksheet has auto-populated.

After the order has been reviewed, he clicks the Submit button and the order is electronically sent to H.T. Hackney. He then receives e-mail confirmations from both the Gateway and Hackney letting him know the order was received.

After the order has been shipped, an electronic invoice is sent down from Hackney to the Gateway. The Gateway sends Lee an e-mail letting him know the invoice has been sent from Hackney and the order filled. The Gateway then uses the information from the electronic invoice sent from Hackney to auto-populate the original PO with items shipped. A Price and Cost Change worksheet is also generated if any item costs are different from the original order. The Gateway compares the invoice and the original PO to generate the Price and Cost Change worksheet which is auto-filled from any manufacturer price changes noted on the invoice. After the Gateway has processed the information, e-mails are sent to Lee with the updated PO and Price and Cost Change Worksheet. This allows Lee to

update his prices and margins with the click of a button. If there are new items on the invoice, not appearing in the existing Catapult database, Lee will also receive notification alerting him to these items. Once Lee accepts the updated PO and/or Price and Cost Change worksheet, all changes are downloaded automatically to the Catapult database.

Once the shipment arrives at the store location, Lee scans all items as they come off the truck with an ECRS Hand-Held Terminal (HHT). Catapult alerts him to any order discrepancies or errors as the items are scanned in upon receipt. Once Lee accepts the order from his HHT or back-office terminal, everything is ready for purchase.

If a product is missing from the received inventory, or sales fluctuate greatly, the system does not double-order. This was a major concern for Lee when implementing the system, but has not been an issue.

## Benefits

The biggest benefit Lee describes from use of the ECRS Supplier Gateway service and Catapult software is the control it provides to him as a business owner. He controls his business, rather than DSD vendors controlling his business. For example, he explains that certain brands will automatically send new products with regular shipments. In most cases, the retailer never notices. With this technology in place, Lee is easily alerted to new products as they arrive. He has the opportunity to determine what products are going on his shelves, instead of the brand determining what products are going on his shelves. He explained that this type of store-stocking happens so frequently that it played a major role in one of his competitors going out of business.

Another major issue over the years has been the frequent change in product pricing and changing bar codes. Lee explained with the following example:

*“We would receive product weekly from a major chip and snack food brand. As the potato market fluctuated, so would the weight of each individual bag. When the potato market was good the weight would increase, when the market was bad, the weight would decrease. As determined by government regulations, the bar code for that product must change every time the weight fluctuates. This means that every time the bar code changed, we would have to enter it as a new item in the database. This was usually caught at the POS when the item was scanned and not recognized. The cashier or manager on duty would have to manually enter the item. This happened at least twelve times in one year with one type of chip. With the ECRS system,*

*it's no longer an issue. The new barcode is entered and price updated automatically when the truck arrives and the product is scanned. It saves time, alleviates customer frustration and eliminates human error."*

Catapult and Supplier Gateway have automated inventory and other store processes saving Lee time and labor expenses. Before Supplier Gateway, Lee was hand entering every item that had to be ordered for both stores every week. He was walking the store taking inventory, scanning items multiple times; having to manually change prices at the time of customer purchase... all of this has been eliminated. He still walks the floor at times to make sure everything is organized and neatly placed, but the hours of manual inventory have basically been eliminated. The system also reduces

## **ECRS Supplier Gateway – More Detail**

When an item is purchased at the POS, the transactional data is transmitted to the Catapult store database. Catapult's Sales and Inventory Analytics combine with the Forecasting engine to produce suggested orders based on the parameters set by the retailer. Catapult's powerful forecasting tools take into account item movement, item promotions, vendor lead-time, zero stock-out detection and seasonal factors before producing a suggested order. When ready to place an order, the user simply creates a new Purchase Order worksheet within the Catapult system, clicks Auto-Reorder and the items are auto-populated in the worksheet. The user reviews the worksheet and makes any manual adjustments as needed. Once approved, the user clicks a button and the order is submitted to a third-party, data-broker service who converts the information into proper EDI format acceptable to the vendor. The order is then sent electronically directly to the vendor. This process takes place in a matter of seconds.

costly mistakes caused by human error and improves cashier accountability.

Auto-replenishment and supplier integration also help prevent lost profits due to items being out-of-stock, items being priced incorrectly or having dead-stock wasting valuable space. He is able to meet customer demand by maintaining full shelves and providing the items his customers expect.

"Having this [Catapult & Supplier Gateway] in place provides an enormous amount of control for the business owner," said Lee. "I have complete control over products and inventory movement."

Once the order has been submitted, the store will receive an e-mail from ECRS confirming the order has been sent. The store will typically receive an e-mail confirmation from their supplier when the order has been received. \*Communication will vary depending on the supplier. Once the order has been filled, the supplier will generate an invoice which is again sent electronically through the third-party data-broker and then to the ECRS Gateway. An e-mail is sent to the customer once the Gateway has received the updated invoice. The Gateway and Catapult work together to compare information from the updated invoice and the original PO. The PO is updated with shipped quantities and prices. A Price and Cost Change Worksheet is also created. Once the order arrives and all updated worksheets have been accepted by the retailer, the shipment and prices are automatically updated in the customer database. The retailer can easily print new shelf labels with the updated information. They can also adjust margins, as desired, on the

## **Auto-Replenishment with Catapult**

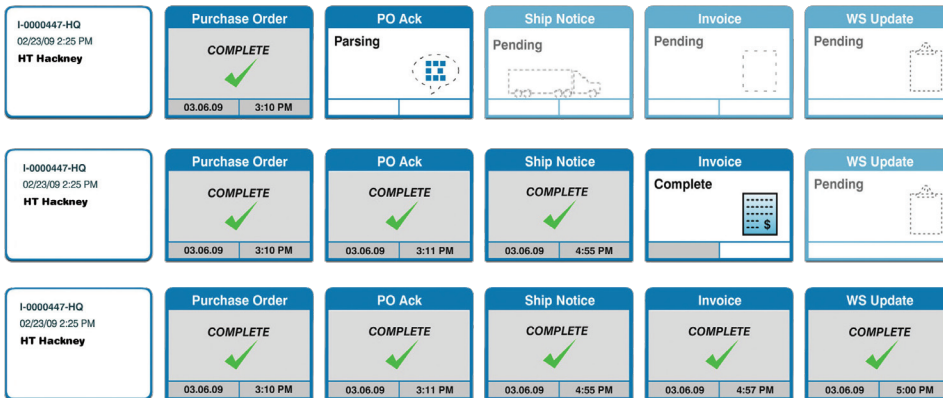
*The second piece to maximizing the benefits of Supplier Gateway is Auto-Replenishment (sometimes referred to as Auto-Reorder). You set-up inventory and ordering parameters within your point-of-sale (POS) system, and the system automatically generates orders based on information gathered from the powerful forecasting engine. This information comes from real historical data. The system will also take into account sales trends and seasonal fluctuations. You pull up the suggested PO, review, make changes and click to submit. Supplier Gateway takes it from there, alerting you to progress along the way, until the inventory arrives at your store.*

fly or straight from the Price and Cost Change worksheet before accepting.

The entire Supplier Gateway process can be viewed from a real-time, web-based dashboard available from any location via the internet (see example below). This innovative dashboard allows the user to

see all progression or any issues in the complete cycle of the order process.

The dashboard is also displayed in the ECRS Technical Support department, so all account activity is closely monitored



## Keys to Success

during normal business hours. Alerts will sound if any part of the process is not functioning properly and often the issue is corrected before the retailer even notices a problem.

To achieve maximum benefit from a service such as the ECRS Supplier Gateway, initial steps must be taken by the retailer. Database accuracy and well-planned inventory order point set-up are keys. It is also important that one

person or a team of people be committed to seeing the project through with all vendors involved. Often consulting and/or store pre-scan services are helpful to ensuring the project's overall success. The initial set-up and configuration of any system are vital to achieving the end-goals of the retailer. To learn more about how your store can profit from an extensive line of ECRS retail automation solutions, please contact 800.211.1172 or solutions@ecrsoft.com.

## What can Supplier Gateway combined with Auto-Replenishment do for your retail business?

- Utilize the powerful forecasting engine to create orders based on real objective historical data
- Prevent dead-stock inventory from wasting precious space on your shelves and consuming capital
- Improve customer service by stocking what customers want
- Easily monitor and maintain price margins
- Receive automatic cost updates from the supplier
- Avoid costly pricing mistakes caused by human error
- Use real-time data to plan sales and promotions
- Maximize item placement by easily determining your top-selling and top-margin items
- Rely on detailed, accurate data that is easily accessible