



More good reasons to combine SCM and auto-ID

It's no secret that RFID adoption has not gone as smoothly or as quickly as many experts predicted even in 2005, but there is still hope for rapid adoption. Hardware issues and industry standards are now being addressed more rapidly than ever, leaving one major question to be answered, according to Rowan Lemley at Stockway: Who should pay for all these RFID implementations?

Hardware issues will be overcome and standards will probably fall into place, whether we have one set of standards or more, it's difficult to say. Perhaps the last remaining big issue is the question of who should pay.

Benefits of investment

The short answer is that no one invests if there isn't a significant benefit to them. Currently there are two broad groups of companies who are adopting, testing and implementing the technology.

The first group is influenced by mandates or compliance issues and the second group has decided that within their own environment they can see a potential return either quantitatively (lowered costs) or qualitatively (better service). Unfortunately, many companies struggle to identify a positive ROI in a cost-benefit analysis concerned with the implementation of RFID.

Industry bodies

Industry groups look at RFID from different angles. A few easy examples include; healthcare, which looks to asset tracking and improved patient care, pharmaceuticals, who look at e-pedigree and authentication of drugs, while retail looks at reducing out-of-stocks and a host of other benefits. Manufacturing has its own opportunities with RFID, including, reducing buffer stocks, minimizing shrinkage, speeding up inbound and outbound logistics, picking and packing etc, faster recall of defective products and many more benefits.

The problem with today's way of implementing an RFID solution is that only some of these benefits can be achieved within any given closed-loop environment. It seems clear that to fully benefit from RFID technology, companies will need to include their partners both upstream and downstream and in every sense, be part of a value chain.

Costs vs. Benefits

Being part of a value chain which utilizes RFID throughout would be great but again, the various players (individually) are saying: Who pays and who benefits? The question of who invests in the tags and readers and supply chain consultants that make up any RFID implementation is important because the cost-benefit analysis must show an ROI before any decisions can be made. However, in most cases, there won't be an ROI if the limits to the solution and the visibility it provides are focused internally.

Collaboration

This is where the Consultant or System Integrator comes into play. Selling the benefits of collaboration is not something easily done. Arguments against collaboration start with customers who either don't care or don't want to know about their suppliers. Often they don't want to share any information for fear of losing ground in negotiations or displaying inefficiencies within their organisation or the services they offer.

Suffice it to say, there will always be isolationists who cannot see the benefits of closer relationships with their suppliers and possibly there are those who have such well run operations that they are right in thinking there is no room for improvement or any necessity for closer collaboration.

That's possibly so. But most SCM and Logistics experts would agree that there are benefits to be gained from collaboration. Interestingly, Deloitte Consulting released a study in 2002 which showed that companies who've linked partners and suppliers to their internal business processes report 70% greater profitability than companies that haven't integrated with partners yet. The report also described concerns about collaborative software maturity and both internal and external obstacles.

Ask any Lean SCM consultant and they will tell you the advantages of collaboration and the benefits of free flow of information and goods. They will also tell you that the only way to achieve this is by working with partners and suppliers and they would continue to say that in a perfectly lean world, the many-to-many relationships would exist whereby, geographic and technical differences are overcome and both information and goods would be routed automatically through the supply chain in a demand driven system with little or no need for buffer stocks and zero unsaleable or redundant stock. This lean world is much closer with the adoption of RFID in conjunction with other forms of auto-id. The challenge is that each player in the value chain must be addressed and shown the benefits of his involvement and investment.

Real benefits of RFID

Sources such as Gartner, Accenture and Forrester Research have reported that RFID has proven increases of sales by 3-7% due to improved stock availability, 25-40% higher profits due to improved returns logistics, reduced losses from theft by 40-50%, improved efficiency of 10% for pickup and delivery activities, reduced stocking costs by 25%, increased warehouse throughput by 20%.

The list of concrete, proven benefits goes on but the point of this discourse is not to tout RFID in general but to point out that these figures all point to closed-loop implementations and that the real benefit and adoption will come when the technology and the benefits address each player in the value chain according to what he must invest and where his return will come from.

Using all the technologies

No one says that every link in all supply chains will be RFID enabled - it is not too important what technology is used. SCM solutions that reach across company and geographic boundaries will have to incorporate various data capture technologies from bar-code to RFID to voice.

Item level tagging will be adopted faster in some industries and never in others. Automatic Identification and Data Capture (AIDC) will, out of necessity, include flexible solutions for various markets and environments. What will not change is the fact that almost every company will receive far more benefits from combining collaboration with auto-id than if they look at auto-id without considering their partners and suppliers.

Solution providers

Clearly there are Solution Providers on the market who address collaboration and auto-id together. On the information sharing side, these solutions will include EDI (electronic data interchange), hosted services, and point-to-point integration (or any combination thereof). All have benefits and drawbacks but with the exception of hosted networks, they are often considered either too rigid or too expensive. Hosted networks are reasonably fast to put together but trusting a service to host your business critical information is something many companies are reluctant to do and this may prove to be an obstacle to building your network in the value chain.

Among other collaborative practices, innovative companies are now looking to instant messaging and peer-to-peer communication such as Skype. Skype (among other P2P services) can network a group of individuals within minutes with minimal security risk and significant benefits of cost savings.

B2B flexibility

The challenge is then to take this level of flexibility to the B2B arena and produce from the combination of P2P and Auto-id technology a collaborative supply chain where information is automatically sent to the interested parties, where goods are verified as authentic automatically via the internet at the point-of-sale, out of stock situations are reduced, demand driven manufacturing becomes the norm and goods and information flow across company and geographic boundaries faster and safer than you could find an MP3 from Napster.

These concepts and benefits are not new. P2P Collaborative SCM is virtually identical to Lean SCM in theory. The only difference is it just got cheaper and faster to network the value chain. Overcome will be the challenges of integrating the diverse technology of multiple companies and physical distance. We can also avoid transactional or hosted information delivery services and costly integration between ERP systems.

Although P2P like Skype has probably negatively impacted the telecoms with free voice over IP, P2P will positively impact businesses with its distributed network architecture and limitless capacity for information and content delivery. The nature of the P2P network dictates that each link in the chain is valuable only to the extent that the information they possess is useful and the way in which they share it provides a service to others. This dynamic, competitive eco-system is the reality of the future and any company that thinks they will remain competitive while staying isolated from such networks will see themselves outpaced by their competition.

Conclusion

The obvious conclusion is a vision in which every player in the supply chain produces information which is captured by some form of auto-id (such as RFID or bar-codes). Each player then becomes, in addition to a manufacturer, component supplier or retailer a value adding information provider.

Much of the information captured will benefit in-house operations but the power of collaboration will allow the various players to, in effect, buy, sell or trade information with their partners in such a way that each player provides only that information which is complimentary to the others. Consequently, the values derived from implementing auto-id are increased dramatically with the result of collaboration between suppliers and buyers. If that day is not here yet, it will come.