RFID's Case of Schizophrenia

Those looking at using RFID can't see a return on investment, but those using it say the technology pays for itself. What's up?

By Mark Roberti

Aug. 1, 2005—If I didn't know better, I'd think the radio frequency identification industry had become schizophrenic. We ran a news story last week entitled Most RFID Users Believe RFID Lacks ROI about the results of a survey AMR Research did of *RFID Journal* readers who are end users of the technology. "Most companies are simply not finding a return on investment," said the report's author. And yet, at the same time, *RFID Journal* has a database of case studies of companies that have achieved an ROI in just 12 to 18 months. These include retailers, manufacturers, farms, government agencies, hospitals, museums, prisons and even law firms (tracking files can pay off *big* time).

Even more case studies of companies that have achieved an ROI on their RFID investment will be presented at RFID Journal LIVE! Europe. Representatives from Marks & Spencer and the Metro Group, for example, will discuss the payoff they're already seeing from their RFID investments. And it's not just because they're retailers and don't have to pay for the tags—Marks & Spencer paid to tag more than 3 million reusable containers and still reaped benefits.

Christoph Pelich, project manager for VisuM-Middleware development and integration at Volkswagen, will explain the benefits of the active RFID system it deployed for use in logistics, manufacturing and final preparation of cars for delivery. VW uses active transponders in three different locations to track more than 10,000 containers and optimize the flow of containers and material. The company reportedly achieved a return on its investment within a year.

Dave West, operations manager of Worldwide Fruit, will explain how his firm, which is in the low-margin fresh produce business, designed and implemented an RFID solution that improved on-shelf availability, increased sales revenue and delivered an excellent return on investment. Other end user companies that will describe their successful implementations at RFID Journal LIVE! Europe include Ahold, CHEP, Kimberly-Clark, pH Europe, Tesco and Volvo (see the full agenda here).

So if all of these companies are getting a return on investment, why do many of our readers feel no ROI is forthcoming? The answer, I think, is that companies are focused on meeting mandates and aren't looking at all of the important closed-loop applications that could deliver benefits. In their mind, meeting the tagging requirements issued by large customers is synonymous with RFID. And given the current cost of tags, interrogators and the related infrastructure, manufacturers that are just tagging boxes for customers won't realize an ROI.

Companies faced with mandates, unfortunately, must endure this period where the costs of RFID systems are high and the benefits are limited. But there are benefits to be found, if they also deploy closed-loop systems. One of Wal-Mart's original eight suppliers is planning to run a pilot to see if it can save money by tracking spare parts for its manufacturing equipment. Another is saving money by tracking reusable assets internally.

The great promise—the hype, in some people's minds—is that RFID will be used to transform open supply chains and radically improve efficiencies. That's not going to happen over night. Manufacturers under mandates are being forced to jump-start the process, which will speed up adoption and lower costs. But in the short term, they must work with supply chain partners to find applications that create tangible benefits, such as improving on-shelf availability for special store promotions, reducing shrinkage within the supply chain and increasing order accuracy. And they must think about the future.

Technology adoption tends to build slowly, and when it hits critical mass, the number of users explodes. With RFID, the cost of tags depends heavily on the volume. So as more people adopt the technology, the price comes down. As the price comes down, more applications open up, more companies adopt the technology and that drives the price down further. At the same time, the benefits increase, because the technology becomes cheaper and because companies don't have to maintain separate inventories and separate business processes. At some point, as costs go down and benefits go up, the two lines intersect. That's where manufacturers begin to achieve an ROI from using RFID in open supply chains. And in the longer term—10 to 15 years—companies wind up with large benefits and low costs.

Many people expected the costs to go down and the benefits to be found quickly. That hasn't happened, but this shouldn't really be a big surprise because expectations always exceed reality when a new technology is on the cusp of adoption. At RFID Journal LIVE! in Chicago last April, Paul Saffo, research director at the Institute of the Future, spoke about the S curve that new technology adoption follows. He warned that most people overestimate the potential of new technologies in the short term and underestimate impact in the long term. (You can view a video highlight of his presentation online.)

Over the next year or two, we will continue to hear people say RFID delivers no benefits, and we'll hear others talk about the ROI they've achieved. *RFID Journal* will try to keep you from being committed to a psychiatric ward by differentiating between tagging goods in the open supply chain to meet mandates and other applications. We'll show you how your company can achieve an ROI from closed-loop applications and how to find benefits in open supply chain applications.

Keep in mind that the real beneficiaries of the technology will be the companies that can increase market share by lowering their costs faster than their competitors. The key is to be ready when the cost-benefit ratio reaches that tipping point—whenever that may be. How do you make sure you'll be ready? Stop thinking about trying to achieve an ROI from systems you deploy to meet a mandate. Instead, think of RFID as a tool that can deliver an ROI internally and offset the cost of mandates until prices come down to the point where you can benefit from tagging goods in an open supply chain.

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