

Is Low-Cost RFID For Real?

March 4, 2002 – Back in November 1992, I was sent to a conference on travel and technology in Vancouver. Many speakers focused on something called the Internet. I'd never heard the term before. But listening to the speakers, I realized that this Internet thing was going to change the world. I wrote an article saying small travel agencies would be put out of business because airlines would sell tickets directly to consumers over the Net. Many agents thought I was nuts. They're probably out of business. Eventually, I changed my career focus from travel to technology because I wanted to write about the changes this new network would bring to businesses and society.

I had a similar experience with RFID. It happened, again, at a conference. I was chatting with someone over lunch and they mentioned that the military was using tags with microchips and antennas to track goods on navy ships. Intrigued, I began investigating and found my way to the Auto-ID Center. I spent half a day or so talking to Kevin Ashton, the Center's executive director, about his vision of a global system of tracking goods using low-cost radio-frequency identification tags. I realized that it wasn't a question of if it would happen but when.

There are so many business problems that could be solved if every item had a tag that could identify the item (not just its manufacturer and category, as a barcode does) without being scanned manually. One large consumer packaged goods manufacturer told me – as long as I didn't identify the company – that at any point in time, it has about a billion dollars in goods that can't be located. That's billion with a B.

Just eliminating lost, stolen or misdirected goods would pay for an RFID system. Think about how much companies would save

if they could recall only the cars, tires or playpens that were defective. Think of how much money companies could make if an item was never out of stock when a customer wanted to buy it because shelves could sense when they were running low. Think about customers checking out at the grocery store in seconds because every item no longer has to be scanned manually.

The Auto-ID Center is working to make low-cost RFID a reality by designing an Internet-like infrastructure that will make it possible to scan a tag on an item anywhere in the world and be able to identify it instantly. There are technical challenges to overcome, but the bigger challenge will be getting everyone to adopt a global standard. The Auto-ID Center is off to a good start. It's got the backing of some of the largest companies in the world and the two organizations that oversee barcode standards.

There are no guarantees that the Auto-ID Center will be successful. The skeptical journalist in me keeps thinking how hard it is to pull off a vision this big. But I think the companies working with the Auto-ID Center will succeed, and here are just three reasons:

1. There's billions of dollars at stake. Global competition makes efficiency more important, and in many industries the fastest way to boost profits is to take cost out of the supply chain.

2. The world is increasingly global. Companies invested in barcode technology when there was no precedent. Companies now know the benefits of the barcode system, and they'll see the benefits of RFID tags, which are barcodes that not only talk but take steroids.

3. Wal-Mart. These guys are the best in the business at supply chain and they are going to make it happen.

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