

Add up all the benefits a tag would deliver, then decide if the price is right.

By Curt Carrender

Nov. 2, 2009—The other day, I was talking to a client who said he loved what we were doing for his company, but that he thought the RFID industry would never really take off until we had a five-cent tag. I have heard this sentiment for years. I asked why he believed that, though I thought I might already know the answer.

"Well," he started, "companies cannot afford more than five cents' worth of added cost. Otherwise, RFID is just too expensive, and will never be more than a niche application."



"Well, how much value do you think a tag adds?" I asked.

"I don't know exactly," he replied. "But the tags have to be five cents or less."

At this point, I changed the subject—the customer always being right, and all that. But clearly, RFID companies need to educate customers and potential customers to focus on the value an RFID tag creates, rather than its cost. If a tag offers no value, then even at 1 cent, it will still be too expensive.

Many manufacturers now offer tags for less than 10 cents apiece, and a few offer inlays for less than 7 cents, in reasonable volume. If a manufacturer, retailer, logistics company or consumer gets a dollar's worth of value from each tag, then 10 cents is a great deal. If no one derives at least 10 cents' worth of value from that tag, then it's not a good deal—and if no one can find 10 cents' worth of value, it's possible they won't find 5 cents' worth either. The bottom line is that RFID's added utility and value differ from one user to the next. In some cases, it's a lifesaver at any cost, while in others, it is useless even if it's free.

The focus of ultrahigh-frequency (UHF) tag producers on tag cost has been a double-edged sword. On the positive side for users, it has caused a few manufacturers to lower the cost of tags in the hope of becoming the sole survivor and the tag commodity king. This has been brutal for suppliers, but has resulted in an amazing price drop and opportunity for users of RFID technology. The price of a UHF RFID tag has dropped from approximately a dollar in 2000 to less than a dime in 2009—more than a 90 percent decrease. That's pretty spectacular, whether you consider inflation or not.

Now, companies are attempting to move away from providing cheap commodity tags, by offering added value in the form of more memory, security or other features. But the real solution is to get end users to focus on a tag's value instead of its cost. Imagine a tag priced at \$1 apiece, but designed to authenticate flu vaccines and keep the many counterfeit—and thus dangerous—vaccines on the market from being administered. A pharmaceutical company might be willing to pay \$1 (and pass that expense

on to the insurance company) rather than risk a massive class-action lawsuit.

[Wal-Mart](#) has contributed to this focus on tag cost, and is another fine example of the double-edged sword that seems to hang over RFID. On one hand, the retailer accelerated RFID adoption with its early mandates. We would not have the EPC Gen 2 or ISO-18000 6C standards at all if it weren't for Wal-Mart, and without Wal-Mart's and the U.S. [Department of Defense's](#) tagging requirements, you would be paying twice as much for a tag.

On the other hand, these same mandates caused resentment among suppliers, who felt they would not derive any value from the tag. Companies that saw no value in tagging for Wal-Mart or the DOD focused on tag cost, and little else. Does anyone really think that a business doing "slap and ship" cares about anything but price? Wal-Mart has tried hard to show suppliers how to obtain real value, but some didn't want to do the work required to use RFID data to improve the way they do business.

My friend John likes to pose a question on this subject: "Let's imagine that tags and readers are free. What would you do with them, how many would you use and what would that be worth to you?" Some companies wouldn't use any, because even free tags need to be made into labels, programmed, applied and associated with a product in a database—all of which cost money.

More enlightened companies would examine their operations and say: "With these tags and readers, I can collect a lot of information with little or no labor costs. What information do I want to collect in order to improve the way I do business?" Each firm will have a different answer. Some will collect data on the movement of assets, some will track life-saving assets and others will improve on-shelf availability.

I don't know when we will see a 5-cent tag. But to me, it doesn't matter. The only thing that matters is how much value the tag delivers. Of course, I didn't say that to my customer.

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