

# Predictions for 2007

The coming year will see RFID continue to spread to new applications and could mark the start of broad adoption of RFID in the supply chain.

By Mark Roberti

Jan. 8, 2007—Each year, I've taken a stab at predicting some of the major developments in radio frequency identification for the coming 12 months. My [record in 2006](#) was better than the previous year. I was right when I said the [International Organization for Standardization](#) would approve the EPC Gen 2 spec as an international standard, that end users would experience interoperability problems with hardware and tags based on [EPCglobal's](#) second generation UHF standard, and that the supply of Gen 2 tags would be spotty at the start of the year but improve in the second half.

I was also right when I said [Wal-Mart](#) would phase out the use of Gen 1 EPC tags, and that hardware vendors would begin introducing new interrogator designs. We've seen mobile readers for carts and wearable readers.

But I was too aggressive on a number of other predictions. I said RFID would move beyond the supply chain and be embedded in more products, that retailers and their suppliers would begin to share EPC data live over the EPCglobal Network, that software companies would begin focusing on vertical industry solutions that leverage RFID data, and that EPCglobal would begin to work on a protocol for reading semi-passive tags, as well as tags that support low-cost sensors.

All of those things happened, but not in a very significant way. More than 20 subscribers to EPCglobal have trialed the EPCglobal Network specifications, but few, if any, have made any real strides in sharing data over the Internet. Given that I was too aggressive on some topics, I'll try to be cautious with my 2007 predictions. Here they are:

1. Early adopters will prove that there are benefits for consumer product goods companies facing RFID tagging mandates. The applications that will deliver a return on investment will be promotions tracking, electronic proof of delivery and reduced chargebacks and invoice deductions from improved shipping accuracy. Success stories will encourage more companies to explore RFID's potential, but will not lead to a massive increase in tagged cases traveling through the retail/CPG supply chain. That's because it will take much of 2007 to get the infrastructure and business processes in place to track cases and leverage the data RFID provides.
2. RFID adoption will be driven less by mandates and more by real business benefits. Tagging requirements from the likes of Wal-Mart and the [U.S. Department of Defense](#) got many companies to focus on RFID. Now, more companies are aware of the technology's capabilities (and limitations) and are looking to deploy it where it makes good business sense. They will adopt RFID for tracking assets and for other closed- and open-loop applications.
3. Passive UHF will continue to get the lion's share of attention, but other types of RFID will also be adopted. Because companies not under mandates are looking to RFID to solve business problems, they will examine

the different types of RFID systems on the market and choose the one that best fits their needs. That means we will continue to see companies deploying active, real-time locating, passive HF, and Wi-Fi-based RFID systems, as well as passive UHF systems. Even some newer flavors, such as Rubee, will gain traction.

4. The pharmaceutical industry will be slow to adopt RFID on a large scale despite the obvious business benefits. No other industry has a clearer business case for adopting RFID than the pharmaceutical sector. Individual companies will continue to make progress toward proving the benefits of RFID for anti-counterfeiting, drug authentication and general supply-chain efficiencies. But large-scale adoption will be hindered by confusion over which frequency will be used to track individual bottles of pills and vials-HF or UHF-and by uncertainty about drug pedigree laws that might be introduced. HF will continue to gain traction in the sector, while the benefits of UHF are debated.

5. Standards for sharing data over the EPCglobal Network will be ratified, giving software companies the ability to create applications that leverage RFID data. Some software companies have developed applications that use RFID data from supply chain partners to solve real business problems. There won't be a surge in new applications overnight, but it's likely that new applications will begin to appear toward the end of the year. It will be interesting to see how established software companies, such as Oracle and SAP, incorporate the ability to share data into their enterprise applications, and how startups use the standards in new applications that solve new business problems.

**RELATED\_ARTICLES** Of these stories, the most interesting development to watch will be the last one. It is the shortage of RFID applications that is the biggest obstacle to adoption. No matter what tags and interrogators cost, if you don't have applications that can use the data to improve the way a company does business, you won't see companies adopting RFID on a massive scale. If we see a lot of new startups and established software companies developing innovative applications that leverage data-sharing standards, then 2008 will be a very big year for RFID.

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