

The decision by some RFID patent holders to form a patent pool is good news for technology providers and for end users.

By Mark Roberti

Aug. 15—There has been a tremendous amount of confusion about what the decision by [Intermec Technologies](#) to charge royalties for the use of its more than 140 RFID patents might mean for the future of Electronic Product Code technologies. Last week, the decision by nine RFID patent holders to form a patent pool (see [RFID Vendors to Launch Patent Pool](#)) didn't exactly clear up the picture. But it's a step in the right direction. And even though Intermec is not among the companies launching the pool, the nine own enough intellectual property to make the creation of the pool good news for both RFID technology providers and end users.

The idea of a patent pool has been kicked around since August 2002, when the Auto-ID Center published an executive briefing paper that proposed the creation of a patent pool as a way to reduce the chance that adoption of Electronic Product Code technologies would be slowed by law suits over patents (see [Toward An Approach to Intellectual Property](#)). *RFID Journal* supported the proposal, believing it was a way to foster adoption and reward vendors for their IP (see [Patently Obvious](#)).



The vendor community didn't exactly embrace the idea, believing it was a way for end users to keep the price of products low. But in May, Intermec announced plans to charge royalty fees ranging from 2.5 percent to 7.5 percent of the finished product price depending on the product category (see [Intermec Announces Licensing Plan](#)), and the vendor community realized that if, say, 10 other IP holders charged similar fees, the industry could wind up with 50 percent royalties on each tag and reader, which would make the equipment too expensive for widespread adoption.

Obviously, it's in the interest of end users to keep the price of the technology they buy as low as possible, so a patent pool would be good for them. I've long argued that it would also be good for technology providers. Here's why: The RFID market is projected to grow from about \$2 billion this year to \$6 billion by 2008, according to technology market researcher [Venture Development Corp. \(VDC\)](#). Let's say all the holders of critical patents join the pool and agree on a 5 percent royalty. For the sake of argument, let's say the entire market is made up of UHF products (it won't be). The pool would get \$300 million in revenue.

This money would not be divided equally. Instead, an expert or team of experts would weigh the importance of each essential patent, and the patent holder would get a share of revenue based on the relative weight of its patent or patents. So Intermec might get 10 percent of the total revenue (\$30 million in 2008), while a company with less important IP might get 1 percent, or \$3 million.

If the price of tags and interrogators, or readers, increases 50 percent because of licensing fees (remember, few UHF products today have been subject to royalties), the market might remain at \$2 billion in 2008 or rise only slightly. Each vendor's share of this market would be small, and the royalties received by patent holders are likely to be miniscule. So a small share of a big pie might turn out to be a lot more money than a big share of a small pie. (One recent study forecasts the RFID "pie" to reach \$25 billion by 2015.)

Obviously, Intermec and other IP holders that are not behind the consortium creating the pool need to decide whether they think they will make more money by joining the pool or by staying out of it. Some might argue that those with the most valuable IP have less incentive to join, since they have the power to negotiate whatever royalties they want. That could be true, but they also have the most incentive to see the market grow—IP isn't valuable unless it's used in lots of products being sold.

Patent holders must also weigh their own risk. A company might feel it owns a very important patent and that it will make more by staying out of the pool, but that company might have to sue several rivals it thinks are infringing on its patents. The average cost of a patent infringement lawsuit for a "simple case" in the United States, according to *Entrepreneur Magazine*, is about \$300,000 for each side if the case settles before going to trial. If the suit goes to trial, the cost to each side rises to an average of about \$600,000. With complicated technology, where expert witnesses and extensive pre-trial discovery work is needed, the cost can easily run into the millions.

The patent pool should have substantial resources (revenues from licenses) to assert and defend its patents in court. The cost of a lawsuit might be prohibitive for smaller companies, which might cause those with IP to join the pool.

It will be fascinating to watch this play out. The pool's success might well depend on critical mass. If virtually all of the major players with core RFID patents join the pool, Intermec might feel pressure to join, or it might strike a cross-licensing deal with the pool. Both outcomes would likely benefit RFID technology providers (by reducing to one or two the number of licenses needed to get all the patents necessary to create a product) and end users (by reducing their concerns over buying products that could be the subject of a lawsuit).

It's also possible, of course, that the pool will go nowhere. Patent holders might be unable to agree on the relative importance of their patents, for instance. But vendors are feeling the pressure to find a solution that paves the way for rapid adoption. Let's hope they've found one.

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