

A License to Kill?

Concerns that Intermec's licensing proposal will be the death knell of EPC technology are overblown.

By Mark Roberti

Aug. 16, 2004—Intermec shook up the EPC community last week when it declared the terms under which it would license its intellectual property to vendors that make product based on EPCglobal's proposed Gen 2 UHF protocol. The terms were more stringent than many had expected (see [Intermec Spells Out Licensing Plan](#)). Intermec is asking vendors to pay, on a reasonable and nondiscriminatory (RAND) basis, a 5 percent royalty on sales of RFID chips, inlays, tags and labels and a 7.5 percent royalty on sales of readers and printer-encoders.

Vendors are extremely unhappy about the possibility of having to fork over 5 percent or 7.5 percent to Intermec. End users are furious that the royalties will push up the price of technology that is already expensive, when compared with bar codes. Five percent might not seem like a lot to tack onto the cost of each RFID label and reader, but many people are concerned that other vendors might demand similar royalties if Intermec gets them. And if that happens, royalties could make EPC tags so expensive that no company would be able to afford to use them in its supply chain.

A consultant who has studied the IP issue says there are about 10 or 12 companies, including Intermec, that have important RFID patents. So far, no other vendor in EPCglobal's Hardware Action Group (HAG) has declared that it has patents that would be infringed on by the current draft of the Gen 2 specification. But some vendors could reconsider their position (it's probably not too late because many changes were made to the recent draft specification). And other patent holders not involved with the HAG could demand licensing fees.

If each patent holder asks for a 5 percent royalty, end users would have to pay 50 percent or more for each tag and reader they purchase. That would drive the cost of a 30-cent tag up to 45 cents or more, which would severely impede adoption of the technology.

The Auto-ID Center, which developed the original EPC technology with a handful of vendors, wanted the technology to be royalty free. EPCglobal, the organization set up to commercialize the technology, tried to put that into practice but faced strong resistance from Intermec and other companies that hold numerous RFID patents. EPCglobal compromised and allowed some IP to be compensated on a RAND basis. This is how patent-holders are compensated for IP contributed to ISO standards.

There are several ways to ensure that royalty fees don't push up the cost of EPC technology. One would be to draft a protocol that doesn't infringe on Intermec's patents. But even if that were possible, it might not solve the problem, because other patent holders could still come forward and demand royalty payments. In addition to the 10 to 12 vendors with core RFID patents mentioned by the consultant, there are hundreds of companies that own more than 4,000 RFID patents.

Another option would be for EPCglobal to create its protocol and let Intermec challenge in court vendors who

make product that use the protocol. Prior to licensing EPC technology from MIT (where the Auto-ID Center was based), the Uniform Code Council did an IP study and found that existing EPC technology didn't infringe on any known patents (see [EPC Doesn't Infringe RFID Patents](#)), so EPC global may feel confident that vendors of EPC technology would prevail. If Intermec lost the case, other vendors would be less likely to take the issue to court, and EPC technology could well be royalty free. But if Intermec were to win, it would get its royalty fee and other vendors would be encouraged to seek royalties.

The best option might be to create a patent pool or another structure that ensures IP holders receive compensation without driving up the price of the technology. Here's how it might work. EPCglobal charges a royalty of 5 percent on all EPC tags and readers. Out of the pool of money that's raised from this "tax," EPCglobal compensates IP holders based on the importance of their IP. A company with a patent that is central to the EPC protocol might get 5 percent of the royalties collected, and one with a much less significant patent might get .5 percent.

If, in five years, billions of tags and hundreds of thousands of readers are being sold, the royalty payments to companies such as Intermec would amount to millions of dollars annually. The challenge, of course, would be to get all key IP holders to agree with this plan and then to figure out a fair and equitable formula for dividing up the money.

Personally, I'd like to see EPC technology be royalty free. That's in the best interest of end users and would foster adoption. But technology vendors are always going to insist on compensation for their IP. It's not clear how the issue will be settled, but I'm willing to bet that the IP issue will be resolved in a way that doesn't inhibit EPC adoption. The reason is simple: It's in no one's interest—including Intermec's—to sound EPC's death knell.

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