

Impinj CEO Bill Colleran spoke with RFID Journal Editor Mark Roberti about the state of the market for UHF EPC systems, trends for 2008 and Impinj's product plans.

Dec. 25, 2007—[Impinj](#) has emerged as an important provider of ultrahigh-frequency (UHF) RFID systems based on [EPCglobal's](#) second-generation air-interface protocol for passive UHF tags. The company's Monza chips are used in many RFID tags, and it has also developed a line of Speedway interrogators and innovative near-field UHF tags designed for item-level tagging.

As the RFID industry enters a new year, RFID Journal editor Mark Roberti spoke with Bill Colleran, Impinj's president and CEO, about the state of the market for UHF EPC systems, as well as trends for 2008 and Impinj's product plans. Here are excerpts from that interview.



Bill Colleran

RFID Journal: What trends are you seeing in the marketplace?

Bill Colleran: We're seeing more of an emphasis around bundled solutions and closed-loop opportunities. Three years ago, everything was about seamlessly integrated trading partners, with RFID making it all work. That will happen, but as people have focused on how to get an ROI today, they are looking either at solutions in certain verticals, such as pharmaceuticals or apparel, or they are looking at closed-loop applications, where the company spending the money for the infrastructure and the tags is the same entity that gets the benefit. They can get an ROI without having to rely on collaboration with trading partners, which is harder to pull off.

We also see item-level tagging emerging as an earlier driver of adoption—more so, even, than supply chain mandates. We started doing item-level work 18 months ago, and it has taken root. We see it as a big driver of volumes. So in our marketing and product development, we are focused on item-level technology, and on solutions for closed-loop applications.

RFID Journal: What is happening with adoption in the pharmaceutical space?

Colleran: The California legislation [requiring drug manufacturers, wholesalers and distributors to create e-pedigrees to track and trace all prescription drugs distributed within the state] is due to take effect in January of 2009. That is looming, and companies are looking for ways to meet the requirements. Some feel RFID is a new-fangled technology, and they don't want to take technical risks with something that is critical to the enterprise. So they are looking at 2-D bar codes and stuff that no one in the pharmaceutical industry was talking about.

Six or eight months ago, the debate was over, is it going to be HF or UHF? Today, the question seems to be, do we use bar codes or RFID? We are still fighting the good fight and believe we have good technical solutions that solve the reliability problems.

RFID Journal: Is there an opportunity to start with bar codes and transition to RFID?

Colleran: It depends on how you are going to implement. If you put a tag on every bottle on a fill line and you encode data, you could do transition pretty easily. But it turns out doing the encoding on a line at full speed is pretty complicated. We've been promoting the idea of a commissioning station. Rather than doing the encoding at the full line rate, why not do the coding when you've put the bottles in a case, when things are happening at a slower speed? If you go with that approach, you can't do 2-D bar code because the bottles are in a case and you don't have line of sight.

Everyone we talk to in pharma acknowledges that RFID is the right long-term solution. They are looking at 2-D bar codes as a technology that is here today, helps meet the mandate and gives them time to nail down the RFID stuff.

RFID Journal: What will Impinj focus on in 2008?

Colleran: We have been featuring more prominently our reader antennas. It's an area where we have been innovating for a while. As we've gotten feedback from our customers, we have optimized antennas for different applications in apparel, pharmaceuticals and so on. We'll continue working on those kinds of innovations. We'll also continue to work on integrating our products into solutions that are more easily deployable. The feedback we've gotten from our customers is that while the technology works great, you have to have a lot of expertise to deploy it. What we want to do is make it easier to deploy our products.

In addition to that, we will continue to evolve our product, so we'll be migrating from the Monza 2 microchip to the Monza 3 chip, which will have some additional features and better performance. The same is true of our Speedway reader. On a component level, the focus will be on continuing the evolution of our existing products to make them better, faster and cheaper. On a system level, we're focused on integrating the components more tightly into solutions that address the vertical applications where we see the most demand.

RFID Journal: What are the prospects for near-field UHF?

Colleran: Near-field is bundled with item-level tagging. We think near-field UHF will be huge for the pharmaceutical industry, in apparel and so on. Near-field UHF and item-level tagging are tightly coupled, and that's exciting because we feel Impinj has a leadership position there. One of the trends we see is that item-level tagging will move forward more quickly than case tagging in the supply chain, so that plays to our advantage.

RFID Journal: Any change in the company's go-to-market strategy?

Colleran: No change, really. We will be informing the market about our focus on more tightly integrated solutions that are easier to deploy, rather than just a product focus.

RFID Journal: Where do you see adoption rising in 2008?

Colleran: Apparel is an area that we think is particularly interesting because many of the use cases that contribute to an ROI for RFID are significant in apparel. There is merchandising better to enhance revenue, protection for the brand owner, supply chain efficiencies, electronic article surveillance for

reduced theft. Almost all of the applications for RFID come together in the apparel industry. That's the reason we are very focused on apparel.

Europe is significantly ahead of the United States by a significant margin in these sorts of applications. The U.S. has been dominated by Wal-Mart and the drive for greater supply chain efficiencies. But there seems to be few companies looking at other interesting applications of RFID. European companies are looking at RFID more broadly, and there are hundreds of pilots across Europe looking at merchandising and other opportunities for RFID.