P&G Teams With T3Ci for RFID Apps

Procter & Gamble signs a multiyear agreement to jointly develop enterprise applications that use RFID data.

By Mark Roberti

May 17, 2005—Procter & Gamble has signed a five-year agreement with T3Ci, a Mountain View, Calif.-based startup that has created software for analyzing Electronic Product Code (EPC) data from radio frequency identification systems. The two companies will jointly develop new software applications that take advantage of EPC data throughout the supply chain.

"We believe that for P&G—indeed, for many, if not most, manufacturers—a good deal of the benefits of EPC rests in visibility down the supply chain as to how our products are being handled, principally in the retail stores of our customers," says Steve Rehling, director of IT and head of RFID systems at P&G. "We've developed a variety of use cases, and we have a number of hypotheses as to what they should look like. But there's no substitute for getting your hands dirty and using the data to do things."

P&G looked for a company that could provide software tools for analyzing EPC data to determine how new applications could use the data to drive business value. It evaluated a number of suppliers but chose T3Ci for several reasons including "the quality of their thinking, their experience and their willingness to learn with us in a responsive and flexible way," Rehling says.

Among the potential applications the companies will develop are out-of-stock management, the management of in-store promotions and the introduction of new products. "In the retail industry, it's important to get retail compliance behind promotion and new-item management," says Rehling. "There are gaps in execution, so we're looking at ways to use EPC data to improve promotions and new-item initiatives."

T3Ci was founded in October 2003 by Jonathan Golovin, Peter Rieman, Richard Swan and Shantha Mohan specifically to address the issue of how to analyze and use RFID. Golovin previously founded two other companies—Consilium, the largest independent providers of manufacturing execution systems (MES), and Vigilance, an event management company. P&G feels his experience as a pioneer in MES software can be applied to the use of EPC data in the supply chain.

Last year, T3Ci collected data from retailers that were among early adopters of EPC technologies and analyzed roughly 1 million reads. Peter Rieman, executive VP of T3Ci, says that this year, T3Ci will analyze tens of millions of reads.

"We started diving into P&G's data in July of last year," says Rieman. "That led to a number of different things. We could start discussing data quality with retailers, and it let us analyze the supply chain on a per-product basis, using our Historian software."

While enterprise applications focus on transactions involving a product, Historian tracks what happens to the product throughout its life cycle. "We're watching the movie of the life of each tag [on a product]," says

Rieman. "We can then compare what's going on with this product, with what's happened to similar products before."

The system can, for instance, track how long a product has been inventory, and it can be set up to trigger an alert if something occurs outside of parameters set up by the user. So if a product typically spends four days in inventory, a manager might choose to be alerted if a shipment of that product is in inventory for more than, say, six days.

The joint development project with P&G will focus on using the analytical tools to determine the data that needs to be collected and shared among supply chain partners to get a return on investment from the use of EPC technologies. Then T3Ci will develop new applications based on that information.

The two companies are currently looking at what applications might be developed. A number of factors will determine which ones are tackled first. These factors include finding out which applications are likely to deliver the most benefits, which ones are the most feasible to develop in a reasonable period of time and which are needed to support pilots that P&G and other manufacturers are undertaking with retail partners.

The support of retailers is critical because they own the data needed to create applications downstream in the supply chain (in retail distribution centers and stores) from manufacturers. P&G has mentioned its cooperation with T3Ci to retailers when discussing pilots.

"When we get to the point where we are looking at what data is needed and how we'll analyze it to discover insights, we confirm the retailer's willingness to have P&G work with T3Ci to analyze the data," says Rehling. "If the retailer is interested in working with T3Ci themselves, we're open to that. But we let the retailer know that the aim is not to generate business for T3Ci, but to provide a path for P&G to gain benefits, which might also benefit the retailer."

Rehling said both P&G and T3Ci would share ownership of the intellectual property that emerges from their collaboration. "We look for a win-win way of crafting the arrangement that enables the technology provider to grow and prosper," says Rehling. "Beyond that we look for ways for P&G to derive direct benefits from the collaboration over and above getting the applications we need."

One of the biggest early challenges that T3Ci is dealing with is the quality of the data, which is eroded by false reads, says Rieman. Sometimes a reader at a trash compactor picks up tags on cases that pass by on a forklift, or an employee takes a tag off a carton to show his wife and walks around the store with it, causing reads to be picked up at a number of read points.

"The worst thing about bar code is you need line of sight to read it," Rieman says. "The worst thing about RFID is you don’t need line of sight for it to work. We've developed a rules engine using heuristics to deal with false reads."

T3Ci is currently providing 16 customers, all of which are product suppliers, with analytical reports on their data, and then Richard Swan, T3Ci's chief technical officer, or Shantha Mohan, VP of product management, goes over the reports individually with each customer. In June, T3Ci will provide its Historian software online as an application service provider. Rieman says that the company will likely start to sell software packages in late 2006 or early 2007.