

Unilever Expects Big Gains From Its RFID Data-Sharing Trial

The consumer products firm is applying Gen 2 EPC tags to thousands of cases of goods, and using a system based on EPCglobal's draft EPCIS standard to access tag data with retailers automatically.

By Beth Bacheldor

Aug. 4, 2006—Next week, executives at [Unilever United States](#) will sit down and review the results of a new RFID pilot it has been running since mid-July. The pilot is testing how well the proposed [EPCglobal](#) Electronic Product Code Information Services (EPCIS) standard works. If all goes well—and Unilever executives expect it will—the consumer packaged goods company will then be able to start eliminating some time-consuming and manual processes, while reaping the rewards of the proposed standard.

The EPCIS, currently a working draft standard, serves as a communication mechanism between applications and data repositories so companies can effectively exchange and query data from within their own RFID processes and with partners. Unilever's pilot follows a recently completed test of the draft EPCIS standard. The involved a prototype EPCIS-compliant data repository from [IBM](#) and a data analysis application from [T3Ci](#) that included support for the draft standard (see [Unilever Launches Trial Using EPCIS Protocol](#)). IBM and T3Ci, a Mountain View, Calif., maker of RFID analytical applications, are co-chairs of the EPCglobal EPCIS Working Group, which is overseeing the standard's development.

Unilever's pilot is leveraging IBM's prototype EPCIS-compliant repository and a hosted T3Ci data analysis application, according to Simon Ellis, supply chain futurist and RFID lead at Unilever United States. So far, the pilot has proven a success, and Ellis says EPCIS will make it easier for companies like Unilever to perform sophisticated analyses of RFID information. "It allows us to spend more time analyzing the data, and less time digging it out of the various places the data resides," he says.

Companies like Unilever believe RFID can bring value by increasing visibility into the supply chain. For example, RFID-tagged promotional displays can provide Unilever with better insight as to how well promotional displays work in retail stores. RFID data related to those displays, however, is collected at the retail sites and isn't necessarily within Unilever's control. When retailers give Unilever access to promotional display data, the supplier is better able to make sure promotional displays are being used optimally. To perform even more granular analysis, Unilever can correlate a particular promotion's placement with sales data.

For now, companies that want to share RFID information have to extract it manually. Individual retailers have given suppliers access to password-protected portals (Web sites) where a supplier can log on, find RFID data related to products it supplied to a specific retailer and manually download that information into its databases. Suppliers must go through an equally laborious process so retailers can view suppliers' RFID data. "We have to manually extract it from our system and then e-mail it to the retailers," says Ellis. Having to spend so much time locating and extracting the data cuts into the time Unilever employees could spend actually analyzing the

data and, thus, deriving real business value from RFID implementations.

An EPCIS-based repository, such as the one Unilever is testing, can automatically facilitate two-way communications because it can send and accept XML-based data feeds of RFID information. Software applications and data repositories that incorporate the EPCIS standard will "allow us to have all that RFID read information in one place," Ellis says. "It will make collaborative communication a whole lot easier."

During the first few weeks of the trial, which Unilever is conducting with a few retail partners Ellis declined to name, the firm's employees have continued to extract RFID data manually and compare it with the data being culled from the EPCIS repository. This is being done to ensure the system is working properly.

Next week, Unilever executives will review those comparisons to "make sure they all have the same denominator—that all the read data is coming in and we aren't missing anything," Ellis explains. If that holds true, Unilever will make the EPCIS repository the system of record, and its employees will stop extracting RFID data manually and comparing it with information from the EPCIS repository.

The EPCIS trial is expected to go on through the end of the year. As part of that project, Unilever is applying EPC Gen 2 tags to cases of its products. Ultimately, the pilot will help the consumer goods and retail industries assess the maturity of the EPCIS standard, Ellis explains, and find out whether it is a viable and scaleable solution.

There's no doubt EPCIS will have to be scaleable. Although the trial involves just eight to 10 stock-keeping units (SKUs), it is likely that Unilever will have tagged somewhere in the range of 100,000 cases by the end of the year, and that there will be approximately 10 discrete pieces of read-related information for each case. Such data includes recording the various points where tags are read during the staging and distribution of cases, reads that occur as part of an aggregate read determining which case tags are associated with specific pallet tags. "That puts it somewhere in the range of a million discrete pieces of read-related data," Ellis says. "A big business in North America can easily sell 5 million cases a year, and you start doing the math across multiple read points and you realize you have enormous amounts of data."

The EPCIS trial is just one of the many RFID pilots Unilever has conducted. During an early test in 2002, it participated in a supply chain-tracking project under Britain's "[Chipping of Goods](#)" initiative. At the time, Unilever put RFID tags on 30,000 six-packs of Lynx deodorant and monitored them as they moved from a manufacturing plant to three Safeway stores (see [Unilever Tracks Lynx With RFID](#)).

Ellis says Unilever will continue with more pilots. "On the one hand, we've made, as an industry, enormous progress in the last four years," he says, "But I'm not sure that we aren't still in the phase of piloting." There are still standards to be ironed out, and there's still concern about costs, interoperability issues "and getting tags on boxes en masse that doesn't involve some kind of manual application process."

Copyright ©2005 RFID Journal, Inc. All Rights Reserved