Simplifying RFID Implementations

Back in December, I wrote about how hardware companies were introducing new products—mobile readers—to help ease the pain of deploying radio frequency identification technologies (Is Poised for Widespread Adoption). Software providers have also been hard at work trying to lower the cost and simplify the process of deploying scaleable RFID systems by offering hosted solutions (software run by a provider on its own servers and accessed remotely) or managed services (the delivery and management of network-based services, applications and hardware to organizations).

Last week, I hosted a webinar called "RFID Managed Services: Taking the Complexity Out of RFID," sponsored by BEA Systems, one of the world's largest providers of business software. BEA has developed a service-oriented architecture that companies, including Telstra, Australia's largest phone company, are using to provide RFID managed services to end-user companies.

Why is this significant? Because it enables companies to deploy a scaleable RFID network quickly and cost-effectively. Telstra will install the interrogators and edge servers, and manage the software. "We view the RFID reader as just another device used to capture data, which is sent over our lines," Gerry Wind, senior RFID specialist for Telstra Extended Enterprise Services, said during the webinar. "It's equivalent

to a mobile phone."

If you believe you could drive significant benefits by tagging and tracking reusable assets, cases of product, promotional displays or other items through the supply chain, but you don't want to develop your own infrastructure, managed services could be the answer. If you want to work with partners—third-party logistics providers, contact manufacturers or retailers—all can share data using the same secure platform.

Ken Taub, BEA's CTO of RFID and Edge Servers, said the BEA platform comprises three layers. The lowest level takes the raw RFID data, cleans it and puts it into a format that can be used by the business logic layer. The business logic layer manages simple interactions at the local level. It might be used to control a diverter on a conveyor line to make sure products are routed to the right place, or it might facilitate local business processes such as shipping or receiving.

The final layer is the data that results from the local business process. For example, when the goods are shipped, the shipping data—Electronic Product Codes (EPCs) and associated product information—is sent by the third layer to enterprise applications, enabling existing back-end systems to create an advance shipping notice.

What's key is that managed services are based on EPCglobal standards, such as the Application Level Events interface, which provides a means for filtering raw RFID data, and EPC Information Service, which provides a set of interfaces for enabling applications to share data securely. These standards allow companies to plug into managed services with the confidence that they can share data with those hosting their own RFID network systems.

GS1 Hong Kong used the BEA infrastructure for four large-scale pilots using EPC technologies. In one, a factory in China made

cordless phones for Hong Kong-based VTech, one of the world's largest manufacturers of electronic toys and consumer electronics. The phones were tracked as they were shipped to Hong Kong and handed off to a third-party logistics provider, and when they arrived at RFID-enabled Wal-Mart stores in the United States.

It's encouraging to see the market providing a growing number of choices for end-user companies to deploy RFID. Managed services won't be the right solution for every company, but they offer another way for companies to get started with RFID and begin determining where they might achieve business benefits.

Mark Roberti is the founder and editor of RFID Journal. *If you would like to comment on this article, click on the link below.*