

EPCglobal Certifies EPCIS Software, Foresees Stronger RFID Adoption

At its annual member conference, EPCglobal says its work in setting and testing industry standards is beginning to pay off, and that its focus has shifted to helping companies deploy RFID.

By Mary Catherine O'Connor and Beth Bacheldor

Oct. 4, 2007—Deploying RFID technology using the Electronic Product Code (EPC) infrastructure of hardware and software is considerably less expensive and time-consuming today than it was just 18 months ago. That, in part, is due to the work of [EPCglobal](#)'s hardware and software action groups, which have developed and ratified the EPC Gen 2 standard for passive UHF tags and readers. Now, the organization has announced its certification of several RFID middleware products intended to help users of EPC technology share data with their trading partners by using the EPC Information Services (EPCIS) software standard.

EPCglobal was created by [GSI](#) to commercialize RFID technology in the supply chain. On Wednesday, at [EPC Connection 2007](#) (its fourth annual member conference, which took place this week in Chicago), EPCglobal announced that six companies—[IBM](#), [LG CNS](#), [MetaRights](#), [NEC](#), [NTT Comware](#) and [Samsung](#)—have earned the EPCglobal conformance mark for EPCIS RFID middleware. These companies' products, the organization explained, have passed tests of their ability to successfully collect, store or share data read from RFID EPC tags, using the XML data structure as defined by the EPCIS standard. EPCglobal ratified the standard in April (see [EPCglobal Ratifies EPCIS Standard](#)). The EPCIS specification indicates that users can decide how much product or business data to share with trading partners, and that such data can be stored on a remote server and/or locally.

The promise the standard holds is that EPCIS middleware will allow various parties in the supply chain to share data regarding RFID-tagged products, such as their make-up, the path they've traveled before reaching their destination and their expiration date. To help attendees understand how EPCIS works, several demonstration games were presented on the conference exhibition floor. Contestants in these games were required to use an EPCIS interface to determine the location of tagged products and their chain of custody, and to attain proof the tagged products had been received at their intended destinations on time (known as electronic proof of delivery).

Consumer goods manufacturer [Unilever](#) completed a pilot trial last year, designed to determine the effectiveness and value of the EPCIS standard (see [Unilever Expects Big Gains From Its RFID Data-Sharing Trial](#)). Moreover, a number of other retailers and suppliers have also experimented with the standard, which is widely considered a crucial step in leveraging RFID's value in the supply chain.

At EPC Connection 2007, [Reva Systems](#), which sells an RFID reader network appliance for managing RFID interrogators and collecting tag data, offered attendees a demonstration of the device's ability to collect and prepare RFID data for transmission to remote servers for EPCIS event reporting. This data capture and transmission is one of three main functions outlined by the EPCIS standard. The other two are storing data in a repository and sending queries to that repository in order to extract desired information from the stored

data—functions performed by enterprise EPCIS data repositories operating as an external hosted service or as an enterprise managed resource.

Omnitrol Networks, another RFID reader networking appliance provider, announced this week that its Wide-Area Work-In-Process (WIP) Visibility platform now leverages EPCIS middleware, and that its solution has been integrated with IBM's WebSphere RFID Information Center. The platform consists of hardware and software enabling companies to track the stages of each work order by documenting tag reads on containers used in a manufacturing or assembly process.

The EPCIS support will enable companies using the Wide-Area WIP Visibility solution to share RFID data with suppliers and customers in the supply chain. "We're leveraging EPCIS so a supplier, for example, can share notifications of every work order with its customer that has a date when goods are promised and needs to know if that delivery date can be met," says Ravi Rishy-Maharaj, VP of business development for Omnitrol Networks. "They want to know if any work-in-process is behind that may affect their own manufacturing operations."

Looking ahead, a panel of EPCglobal executives said they are optimistic that EPC deployments will continue to increase, albeit slowly, while generating a return on user investments and improving efficiencies throughout the supply chain. Chris Adcock, president of EPCglobal, said he sees promising growth in the European and Asian markets. A revision to the European Union's UHF usage regulations has made large deployments of EPC technology significantly more viable than they were just one year ago, he noted, and users there are responding.

"In the [European] consumer packaged goods and retail industry, Metro and Rewe are moving ahead with supplier programs—with Metro announcing major item-level [tagging] movement," Adcock said. In Asia, the completion of UHF regulations in China and the support of many governments, including those in Korea and Japan, are moving EPC deployments forward.

RELATED_ARTICLES According to the panel, EPCglobal expects to complete its candidate standard for a high-frequency air-interface protocol—which could be used for item-level tagging, ticketing or other applications—in the first quarter of next year. The organization also indicated it is currently researching a means for incorporating electronic article surveillance technology, used in retail stores to thwart theft, into the EPC infrastructure for retail applications.

Still, despite the progress being made, Art Smith, CEO of GSI Canada, acknowledged that EPCglobal had played a part in generating a level of hype surrounding the speed and evolution of EPC technology in the supply chain, which has not yet been realized. "Progress is being made," he said, adding that looking back, "we overpromoted this technology."

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