

RFID End-User Council Focuses on Electronic Products

Best Buy, Sears, HP and other retailers and manufacturers will explore RuBee and other alternative RFID technologies.

By Claire Swedberg

Sept. 27, 2006—To help product manufacturers and retailers of consumer electronic products deploy RFID technology successfully, [Manufacturing Insights](#), a research and advisory division of [IDC](#), has launched the RFID Executive Council. The council's members include [Best Buy](#), [Sears](#) and [Hewlett-Packard](#) (HP).

Pete Abell, Manufacturing Insight's program director of radio frequency (RF) sensor network research, is serving as the council's chairman. He says the council's members will focus on complementary RFID technologies, such as those based on the RuBee protocol. RuBee-based RFID devices, Abell says, are slower than UHF when reading but similar in speed when writing to a tag and "very unique in that it is a peer-to-peer type protocol, which means that tags can talk to other tags."

Best Buy is seeking RFID compliance from suppliers without a mandate, but nearly all products in the company's inventory contain metal, which can interfere with the RF transmissions of the passive UHF EPC RFID tags and interrogators it and other retailers currently use to track cases and pallets of merchandise. To get around this problem, Best Buy and other retailers are considering the use of RuBee-based RFID systems, which utilize 132 kHz RF signals composed mostly of magnetic waves, instead of electric. This allows the tag data to pass more easily through obstructions such as metal and liquid (see [Visible Assets Promotes RuBee Tags for Tough-to-Track Goods](#)).

"They have to have technology that works around metal," Abell says, adding that Best Buy has spent "multiple millions of dollars" to investigate RFID options, and "brought in everything under the sun in their lab to find the ROI for them." The results of their research are of special interest to the council, says Abell, since many manufacturers and retailers face similar problems with their own products containing metals or liquids.

One of these manufacturers, Hewlett-Packard, has been researching RFID solutions that would allow it to tag its products and still have a read rate just under 100 percent. The printer cartridges HP makes and sells contain metal and/or liquid. Nonetheless, through proper placement of tags and the use of EPC Gen 2 technology, HP has been able to achieve near-100 percent read rates.

"We have a lot to offer the council," by way of RFID testing experience, says Frank Lanza, director of HP's worldwide RFID program, "But maybe we don't have to do all the work." He points out that HP can also benefit from similar studies done by other firms.

"We know a lot of our customers—CPG manufacturers and retailers—are wrestling with item-level tagging. We could use a dialogue across the constituencies," Lanza says. "IDC is offering some leadership there, and I

believe it will help the RFID community in gaining clarity." Hewlett-Packard believes participation in the council will help it work with its retailer customers to ensure RFID technology provides the supply-chain visibility they need.

"We (HP) want to hear what issues our customers have," Lanza says. "It's an opportunity to discuss RFID in an open forum, and I see that as a benefit." While other organizations, such as [EPCglobal](#), the [American Electronics Association](#) (AEA) and the [National Retail Federation](#) (NRF), already help retailers and manufacturers exchange RFID information, the Manufacturing Insights council will focus specifically on electronic products.

According to Abell, the Executive Council will have about 50 members, includes major retailers and suppliers of such products as appliances, audio and video equipment, computers, media and entertainment products, and lawn and garden equipment. Manufacturing Insights' analysts and consultants will also be part of the council. These analysts and consultants have expertise in specific areas, such as container tracking.

In addition to focusing on RFID use in the supply chain, council members will be researching how RFID technology can improve the collection in factories. For example, at many manufacturers, workers responsible for inputting manufacturing data must stop what they are doing to key in information or use a wand to get data about a particular part going into a finished product. With this practice, errors can occur as well.

In an RFID-equipped factory, on the other hand, parts—or the bin containing those parts—are tagged, and that data can then be read and written into the master tag on the chassis of the product. "This reduces return-logistics costs, helps in determining and stopping warranty fraud, recalls can be managed much more accurately, etc.," Abell says. RFID can also be used to supply consumers with warranties or rebates at the point of sale automatically, he says. In addition, they will examine how best to use RFID to reduce product counterfeiting, and to improve end-to-end supply-chain visibility, inventory accuracy and management.

The general membership fee for the council is \$45,000. There will be no charge for companies in the relevant product categories to attend the inaugural meeting's general sessions on Sept. 28, at the Westin Hotel, in Waltham, Mass.

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