

# Using EPC to Combat Counterfeiting

The Auto-ID Lab at the University of St. Gallen in Switzerland is setting up a special interest group to research how EPC technology can be used to combat counterfeiting.

By Mark Roberti

Nov. 10, 2004—Studies suggest that manufacturers and retailers lose up to \$500 billion in sales each year due to the counterfeiting of a wide variety of products, including apparel, cosmetics, liquor, perfumes and pharmaceuticals. The [Auto-ID Lab at the University of St. Gallen](#) in Switzerland is setting up a special interest group (SIG) to explore ways of using Electronic Product Code (EPC) technologies to tackle the problem.

"We have a number of partners in the automotive, consumer packaged goods and packaging industries already working with us on future uses of RFID and ubiquitous computing," says research director at the St. Gallen Elgar Fleisch. "They say that track and trace is nice application for EPC, but the real changes will result from new applications such as anticounterfeiting. If you can use RFID and the EPCglobal Network to combat counterfeiting, that will also help to drive adoption of EPC technologies."

Researchers at the lab have already begun trying to figure out what types of groups are doing the counterfeiting and which businesses and regions are most affected by the problem. Solutions providers and end users are welcome to join the SIG to develop a standardized infrastructure, as part of the EPCglobal Network, that could be used to authenticate products.

"The aim is to make it possible to remove the human element from authentication," says Fleisch. "The idea is to enable a product to be scanned automatically, have the system check a database and know in under one second whether the product is counterfeit or not. The system has to be simple, fast and easy."

The SIG will be exploring solutions that are primarily based on EPC technologies. One possibility is to develop tags that support encryption, as contactless smart cards do today. That would make the tags more expensive, but they might be cost-effective on high-value goods that are often counterfeited.

Fleisch says the SIG will also look at combining EPC technology with watermarks, holograms and other anticounterfeiting techniques currently being used by companies. He says that would not be difficult to do, but there must be a business reason to combine the two.

"The fee to join the SIG is 20,000 euros [about \$25,800]," says Thorsten Staake, senior researcher at the St. Gallen Auto-ID Lab. "Most of the IP developed by the SIG will belong to EPCglobal, but we will do work to help individual member companies with their unique problems, and they will own any IP that is not part of the open network solution."

Several companies have already agreed in principle to join the SIG, including a large consumer packaged good company, an aerospace company and a luxury goods manufacturer. The first meeting will be held in Munich, Germany, on Jan. 19. Meetings will also be held in Zurich, London and other European cities. Auto-ID Labs in Asia and the United States may set up parallel activities to build a global SIG if end users in

those regions are interested in pursuing the research.

"This is the first time the Auto-ID Lab at St. Gallen is really looking at an application outside of supply chain optimization," says Fleisch. "But we believe there is clear value to the end user, and it's important for us to prove whether the EPCglobal Network can deliver more than better inventory management."

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