

STERNJAKOB | 01-2008

Protecting Brands with RFID

Sternjakob, maker of the Scout backpacks so familiar to German schoolchildren, relies on RFID to secure its distribution channels.

Going once, going twice ... and sold! Bargain hunters can indulge their passion on eBay. But Sternjakob, maker of the Scout and 4YOU brands of school bags, is less appreciative of the way its articles are auctioned off on the site. "We don't have anything against vendors using the Internet as an extension of their storefront, but it is important to us that our brands be presented in the proper environment," explains Dieter Liebler, managing director at Sternjakob. Sternjakob stopped supplying at the wholesale level three years ago, and sales partners must pledge not to sell the brand articles solely online. Despite this, Scout and 4YOU backpacks are regularly available on the Internet from commercial retailers operating under a pseudonym. "We see it as detrimental to our brand when our high-quality products are auctioned off on eBay," Liebler makes clear. "We want to finally find out who is reselling merchandise to the online vendors."

This was the impetus for the idea of using radio frequency identification (RFID) tags to monitor the distribution channels. Dr. Torsten Mallée, RFID expert at AEB, can

still vividly recall his first conversation with Günter Beres, head of IT at Sternjakob, during the LogiMAT trade fair in Stuttgart. Beres discussed using RFID and outlined the problem: "We simply have no way of tracking who bought the goods that suddenly show up on the Internet."

Chips to Shenzhen, antennas to Nuremberg and Frankenthal

IT director Beres and AEB project manager Mallée agreed to work together toward implementing Project RFID. Sternjakob was already an AEB customer at the time. The backpack manufacturer has used the Stuttgart-based software company's ASSIST4 despatch software since 1998. Sternjakob's goods—from luggage and bags to the popular brands QUER and 4YOU and what is likely its best-known product, the Scout bag—are produced primarily in China. The bags, backpacks and accessories are then shipped to Hans Kottek GmbH in Germany, which is responsible for despatching the Sternjakob products. A high-rack storage area is

available at Kottek's southeast Nuremberg facility for temporary storage of the merchandise. Only Scout products are sent directly to Frankenthal, the headquarters of Sternjakob, where production is finalized.

The RFID project was launched in May 2007. AEB played the role of general contractor. The Austrian RFID service provider RF-IT Solutions supplied the RFID middleware You-R OPEN. The decision was made to equip all the product series of the best-known brands Scout and 4YOU with transponders as of a specific production date. 400,000 radio frequency IDs were sent to China, where they were sewn into the bags and backpacks. Each individual transponder is already encoded in the factory with a unique identification



number (UID). The transponders are sewn in at the production facility near Hong Kong; no further data is stored on the chip. The six packing stations at the despatch point in Nuremberg and the six packing stations in Frankenthal were upgraded to accommodate RFID and equipped with antennas.

Data “married” at the packing station

The despatch and packing process begins as usual: The packer preparing the shipment for despatch scans the bar code on the delivery note. The ASSIST4 software shows if the ordered merchandise is equipped with a transponder. The packer then moves the package once again over the packing station, under which an antenna is located. The package and its number are then “married” to the consignment data in the system. In other words, the number of the transponder is assigned to this shipment. This makes it possible to later identify the recipient of the shipment.

It is now possible to track all new Scout and 4YOU product lines that have left the Nuremberg and Frankenthal facilities since October 1, 2007. The UID makes it easy to determine who purchased a product that is illicitly resold online. Employees of the sales department will test this process using dummy purchases. The number is read using a scanner and entered in a search window in the ASSIST4 software.

“Now we can provide effective protection for our brands”

Sternjakob does not object categorically to Internet sales. Sometimes the vendor doesn't have the right neck pouch in stock in the preferred Elf or Lagoon design to match the Scout, for example. In such cases, parents can order their kids the needed accessory from the Internet shop. What Sternjakob wishes to prevent is the online presentation of its merchandise outside of the brand's proper environment. “The environment in which our bags are sold is very important to us, and that

What is RFID?

RFID stands for radio frequency identification: the identification of merchandise using embedded transponders. The transponder—also known as a tag or smart label—is a computer chip with an antenna integrated into an adhesive label.

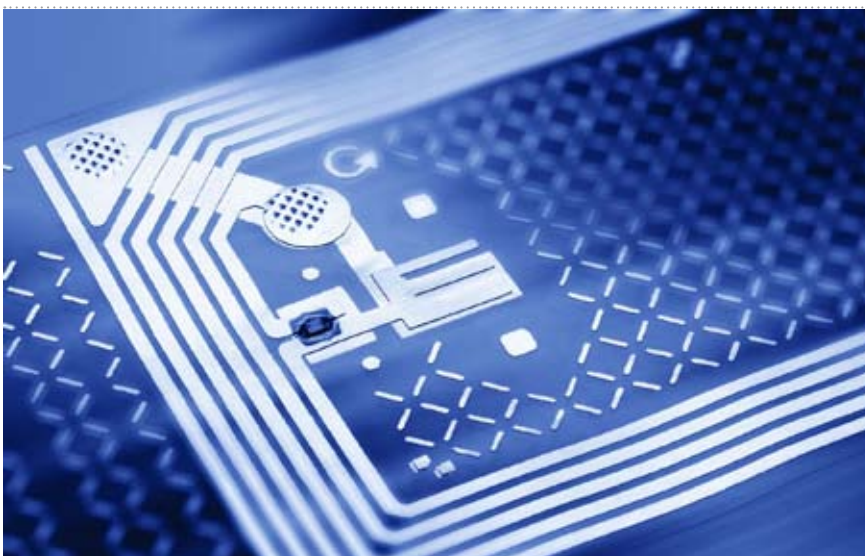
The chip is programmed with a numerical code that contains encrypted information stored in a database. Remote identification requires a scanner to read the numerical code encoded on the chip and an IT system to decrypt the data transmitted by the scanner and compare it against previously stored data.

includes the appropriate sales assistance,” explains Liebler.

What will happen to a vendor who resells a Sternjakob product? Managing director Liebler is counting primarily on a deterring effect: “At the international trade fair for leather goods in Offenbach in late September, we began notifying our vendors that we are using RFID technology to protect our distribution network. This will give us the support of all the honest vendors. Preventing our high-quality brand-name products from being sold online protects both our respectable vendors and, of course, our brand itself.” Sternjakob places great importance on this type of brand protection and the goodwill of its vendors, investing some €74,000 for hardware, software and AEB services. “But we also gained experience and established an important foundation for the ongoing use of RFID,” says Liebler.

Working toward despatch optimization

The more companies use RFID technology to secure their supply chains, the faster transponder prices will fall. Currently,



RFID offers a variety of uses—from rapid processing of incoming goods to merchandise tracking, quality control and protection against brand piracy. ASSIST4 supports all logistical processes that involve radio technology.

passive transponders cost €0.15 to €0.20 each, depending on the order volume. If chips become more affordable, further improvements available through RFID technology will be within the reach of even medium-sized businesses such as Sternjakob. IT director Beres can easily imagine simplifying the packing process,

material number. Though the workers know many of the material numbers by heart, we also have a few limited editions that we feature. These material numbers would have to be manually looked up in one of several catalogs. If a transponder were sewn into the bag, it would be a matter of simply scanning the material

the item is purchased and the tag number checked, Sternjakob knows who resold the merchandise to the Internet merchant. Parents and children will still be able to choose from the full selection of colors and designs when shopping for a new backpack, but the choices will soon dry up for eBay merchants as they are forced to remove Scout and Pink Princess backpacks from their virtual shelves.



Scout backpacks, with their integrated reflectors, have kept children visible on their way to and from school since 1975. Now, integrated transponders and the support of AEB despatch software makes it easy to track the distribution channels.

for example. For now, the professional packing process still relies on bar codes and hand scanners. Using RFID to optimize the logistic processes would require equipping all products with the transponders, however. Beres: "We'd have to attach a chip to each individual wallet and pouch. This is feasible only if there is a noticeable drop in prices." It would also be necessary to encode the transponders during production—that is, on site in China—so that the product information could subsequently be scanned in automatically during the packing process.

The service sector can also benefit from the use of RFID. Günter Beres explains: "When backpacks are returned for repairs, the service personnel have to enter the

number and directly accessing the original order." "The whole process of accepting repair orders could be simplified using RFID," adds Dr. Mallée. "This would also provide quality control, since it would be possible to track when and by which production partner the bag or backpack was manufactured. This in turn would allow comparative analyses to determine production quality."

For now, Sternjakob is focused on using the radio technology to track its distribution channels. The first Scout and 4YOU bags with embedded tags were on store shelves just in time for the 2007 holiday retail season. Now, it is easy to see when Sternjakob products are offered online by someone other than a direct vendor. After

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