

# RFID offers considerable advantages

**“There is a wide variety of product identification systems available, including radio frequency data transmission or RFID as the cutting-edge technology today. Creating the optimal identification system is a complex task requiring the expertise of logistics experts aware of the practical requirements expected from the system”** – says Zalán KANCZLER, logistics system manager and consultant of Régens Zrt (Régens Private Limited Company). In his opinion, it is of cardinal importance to choose the right system provider, who disposes of the proper experience and knowledge.

## **You deploy your logistics skills at an IT company. What are your actual duties?**

My primary task in the consultancy group of Régens Zrt is warehouse logistics. In this regard, I deal with the possible practical applications of RFID technologies; my job is to prepare the specifications of the developments in this area.

## **What importance do you attach to the role of a logistics expert?**

We believe that added support by a logistics expert to the work of IT specialists creates an immense competitive advantage for our company. Companies specializing in bar code technology tend to extend their knowledge to radio frequency technology, in order to enter into this market segment. In my opinion we gain considerable advantage from the fact that both IT and technological knowledge are readily available within our company. In addition to the IT people we have the logistics experts, since I am not the only one, who are capable of addressing issues in a task-specific manner.

## **Would you agree with the opinion that RFID technology has been developed to replace the bar code?**

Yes, RFID can indeed replace the bar code application in product identification. Moreover, it contains features unavailable through the bar code technology.

## **What are the most important advantages of RFID?**

First of all the information carrier, the RFID tag, has a writable version, as well. Contrary to the bar code, where the information content remains unchanged, the tag has a memory that can be used to store and allow for updating information on the product en-route the distribution chain, or to modify the information parallel with the changing characteristics of the product. The application of RFID is most efficient when the tag is placed onto the product at the producer and accompanies it through the whole distribution chain. Distribution warehouses can rely on simply updating the information stored on the tag instead of re-labeling again. These processes can be smoothly carried out with RFID; therefore I consider this as one of the greatest advantages of the new technology.

Stemming from the technology of reading the RFID tag, is data transmission without direct vision of the product. This significantly enhances efficiency upon receipt/delivery of goods at the warehouse. This allows, inter alia, for detecting a carton deficit within the pallet without opening the pallet, in addition to considerably shortening control time during the receipt of goods. Although results in this field are not yet 100% foolproof, but anyhow RFID is the future. Another important advantage of RFID tags compared to the bar tag is that they are more resistant towards environmental impacts.

## **What are the proven disadvantages of this technology?**

The most considerable disadvantage is its price, being more expensive than the bar code technology. Reading appliances cost more than bar code readers do, and even the tag itself is more expensive

than the bar code label. If we can utilize the comparative advantages of RFID, such as the simultaneous reading of several tags, then customers will surely pay the price difference.

## **Talking about value-for-money, how big is this price difference?**

A one kilobit RFID tag costs EUR 0,1 while the production of one traditional bar code label costs, let's say EUR 0,03. RFID reader instruments cost approximately double as traditional instruments. The price of RFID technology has only started falling in the last few years to an extent that they approach the cost of the bar code. The difference shows a sharp decline, and as the modern technology spreads, even this difference will vanish.

## **Could the protest against RFID from human rights activists be considered as a disadvantage?**

RFID poses a threat primarily in those areas, where the stored information pertains to a certain individual. Within the logistics procedure, we store and collect information on goods, not on customers. By using a “kill” command, we can delete the information stored in the new generation tags (UHF Gen2), Therefore, upon selling the product, we can clear the data content without being able to trace it subsequently. However, the ability to trace may comply with the customers' interests, e.g. when retracting defective products. Use of RFID in logistics should not raise any human rights concerns. I see more reason to fear of violation in the application of entry cards and preferred customer cards than in the logistical application of RFID.

## **Which are those industrial sectors where RFID will prove to be most successful?**

All those sectors, where products are produced uniquely, in smaller product series, or where tracing is especially important. Such sectors include, inter alia, FMCG producers, food industry, pharmaceutical industry or automotive industry, where the Hungarian manufacturers already apply this technology. To mention another Hungarian example, there is a national tobacco factory, where RFID technology is used for tracing boxes in the production. Actually its introduction is important for all those sectors, where production is individualized and it is of importance to be able to store increased amount of information on the product and to be able to rewrite or amend it.

## **What are the other areas of application for the technology?**

RFID is excellent for tasks such as appliance tracing, stocktaking and protection of property.

## **What are the comparative advantages of hiring Régens for the introduction of RFID technology?**

If our future customer intends to apply RFID technology, we can deliver ready-made solutions in the warehouse sector. We will establish the required system together with our customer, including consultation concerning the writer-reader appliances and assistance with the application of the technology itself. The interested party will meet logistics experts, supported by an IT group, having the necessary technological knowledge. Régens is currently busy with developing an integrated system using the most up-to-date technologies, controlling the entire distribution system and tracing the fulfillment of transports. This development project, a part of which is the actual RFID adaptation to the warehouse system, will be completed by mid-summer. Never before has such an integrated RFID project been realized in Hungary; therefore this experience and the previously mentioned capability of this kind of complex analysis of the tasks are the unique features that distinguish us from our competitors. Not to mention the competitive pricing of our services.



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