

**The Revolution of RFID – Challenges and Options for  
Action: a consumer perspective**

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## **The Revolution of RFID – Challenges and Options for Action**

### **‘Perception is Reality’**

“On Feb. 28 [2004], a small but boisterous band of civil libertarians braved bitter cold and more than a foot of snow to protest outside the Rheinberg, Germany, store of supermarket giant Metro AG. Protestors chanted and waved signs emblazoned with slogans such as “Hands Off Privacy,” “1984 Orwell, 2004 Metro”, and the one that spelled out the grievance most plainly, “Stop RFID.”” .... “On Feb. 27, just hours before the protest, Metro announced that it would stop testing RFID loyalty cards and replace the 10,000 that have already been issued with versions using old-fashioned bar codes - a decision that makes it the latest retailer to accede to consumer concerns about the technology.”

“Shutting Shopping Bags to Prying Eyes”, Business Week Online, 5 March 2004, online at [www.businessweek.com/technology/content/mar2004/tc2004035\\_8506\\_tc073.htm](http://www.businessweek.com/technology/content/mar2004/tc2004035_8506_tc073.htm)

Leading organisers in this protest were from CASPIAN, Consumers Against Supermarket Privacy Invasion & Numbering.

It does not matter whether their protest was founded on an accurate understanding of RFID technology. If that is the perception that sticks in the public mind, RFID will at least suffer less than optimal take up in the market place.

### **It goes without saying that RFID has much to offer**

Other speakers will cover the benefits and advantages of RFID with greater knowledge and depth. The potential incredible economic and social gains for society are huge and range from supply chain efficiencies and ensuring drug quality and provenance, all the way through to improved anti-theft controls on high value goods that can be either tracked or uniquely identified forever.

### **So, why is RFID so controversial in the public eye?**

The simple answer is that the consumer perspective was not fully considered when commercial use of RFID was being developed a few years ago.

Consumer interests are not the same as those of either a business or consumer perspective. The security and other risk profiles that consumers face differ from those of government and business, sometimes markedly.

In fact, risk from a consumer perspective is not only about safety from fraud, theft and misuse of the goods and services that they buy, all of which may be interests in common with government and business.

In addition, rightly or wrongly, the consumer risk profile has additional components – safety from government and safety from business. Many of these concerns relate to the ‘privacy’ of Personal Information (PI). In commercial terms, they are risks, just additional to those a business would identify itself as facing. The nearest business risk analogy is the risk it faces over loss and misuse of its Intellectual Property (IP). Indeed, arguably PI can be considered the IP of the individual.

In the case of RFID, this ‘blind spot’ manifested itself as insufficient consideration of the consumer risk profile, for example CASPIAN was able to claim that Gillette was planning to photograph and track shoppers picking up packets of Gillette product (see [www.nocards.org/protest/index.shtml](http://www.nocards.org/protest/index.shtml)).

Even when the controversy arose, arguably the response from business developing or wishing to use the technology was very slow to respond substantively. Some good progress has been made, for example the EPCglobal Guidelines on EPC for Consumer Products that are online at [www.epcglobalinc.org/public\\_policy/public\\_policy\\_guidelines.html](http://www.epcglobalinc.org/public_policy/public_policy_guidelines.html). These Guidelines promise consumer notice about the presence of RFID chips and wherever possible, to provide consumers with choices such as tag removal. Nevertheless, sectors of the industry have resisted developing, for example, a simple, compulsory to use icon that would always provide notice of the presence of RFID.

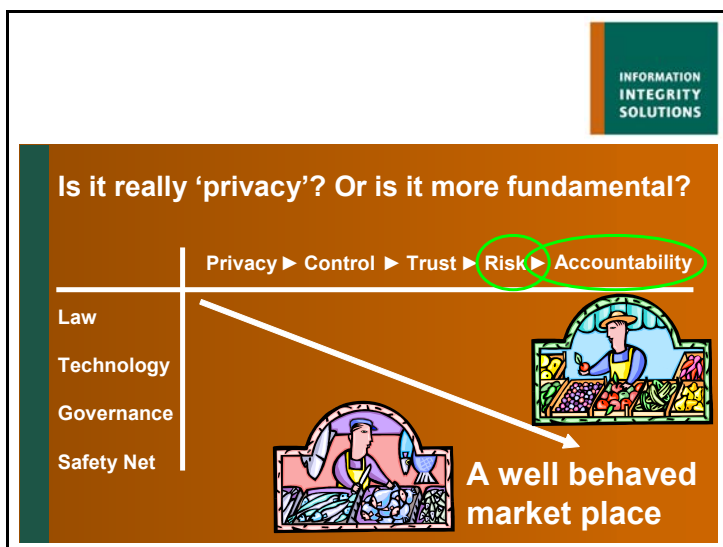
The controversy was given a very good airing at a workshop organised by the US Federal Trade Commission in June 2004. Papers from all perspectives were presented, a transcript produced and a subsequent Staff Report published, all of which are online at: [www.ftc.gov/bcp/workshops/rfid/index.htm](http://www.ftc.gov/bcp/workshops/rfid/index.htm). See also the articles in Vol 12, No 8 of the Electronic Newsletter published by Privacy and American Business, in August 2005.

## **Where to from here – how to gain the benefit and eliminate the downside, from a customer perspective?**

A good starting place is to identify the underlying risks to ALL parties and ensure that those risks are allocated in a way that is considered socially appropriate, including because this results in appropriate risk minimisation strategies. Recent writing by Bruce Shneier about risk and risk allocation as regards Identity Fraud is very relevant here. See “A real remedy for Phishers”, *Wired News*, 9 October 2005, online at [www.wired.com/news/politics/1,69076-0.html](http://www.wired.com/news/politics/1,69076-0.html).

In order for risks so allocated to be managed, relevant parties have to be held accountable. When risks are openly identified and safely addressed, it will be possible to re-build the trust that currently appears to be too low and from there put the consumer in a position more willing to share control of such devices as RFID.

The following diagram links these concepts to each other then lists a short array of instruments for addressing risk and accountability in these circumstances.



[If reading this document in Microsoft Word format, double click on this slide then click through the stages to see how the logic of these concepts build.]

## What action might Europe take next?

From the framework just described, policy activities that the European Commission could consider to balance the needs of all stakeholders might include:

- Law
  - To explicitly allocate risk
  - To require clear notice and ensure consumers are offered realistic, easy to exercise choice etc
- Technology
  - While permanent 'go to sleep' RFID chips are now available, what are the economics compared with other chip formats; how can they be improved, for example by more research?
  - Is more needed? The RFIDSec technology developed in Denmark ([www.rfidsec.com](http://www.rfidsec.com)) and now being brought to market uses Zero Knowledge technologies to create 'stealth' chips that among other things respond only to those who ought to see them; do such technologies need some 'go to market' assistance?
- Governance
  - Improved governance may develop simply as a result of more clearly allocating risks, or is more direction needed?
- Safety Net
  - Failure is inevitable – nothing yet created by humans has been fool proof and there is no evidence that this technology will be any different; when inappropriate tracking occurs or a person's reputation is wrongly slurred by being connected to RFID sourced information, what is to be done about it? Are the Data Protection Commissioners and their legislation sufficient to handle the challenge?

On the other hand, can the market place itself be encouraged to address the issues to the satisfaction of the customer? Probably the most powerful initial mechanism is complete openness and transparency. After all, if the industries developing and using this technology have nothing to fear, they have nothing to hide.

How might this be encouraged? Does the European Commission have the options of putting these industries on clear notice that a full review of the risks faced by the consumer and how

they have been addressed will be conducted in 3 years time (or some other suitable period), with legislative action likely after that if progress has been insufficient?

On top of all this, when there is a good story to tell, strong public engagement and consumer education helps get the message out.

## **Concluding remarks**

There is a good case to be made for saying that the bad reputation that RFID has in some parts of the public mind was completely avoidable if relevant parts of the industry had taken a much more serious look at all risks faced by the consumer right from the beginning, had developed the technology and surrounding processes accordingly and then ensured a well informed public debate.

After all, privacy built in now is much cheaper and more effective than privacy built on later.

Even now, the situation is very capable of being retrieved, perhaps through some of the steps outlined in this paper.