

**Energy, Utilities and Communications Subcommittee on New Technologies**  
**Informational Hearing**  
**Radio Frequency Identification (RFID) Technology – Where Is It Headed?**  
**November 20, 2003**

**Recent RFID Events**

- **November 15, 2003.** MIT's **Media Lab** in Cambridge, Massachusetts, holds an RFID privacy workshop. Attendees include privacy advocates as well as companies that manufacture RFID technology, such as **Intel**, **NCR**, **Phillips Semiconductors**, and **ThingMagic**, while retail and manufacturing companies with plans to use RFID, such as **Wal-Mart** and **Proctor & Gamble**, are not participants in the workshop.
- **October 31, 2003.** The **Massachusetts Institute of Technology (MIT) Auto-ID Center** completes its four-year study and development of RFID systems and hands its work off to a **EPCglobal**, a new nonprofit subsidiary of the **Uniform Code Council**, which oversees the use of bar codes. EPCglobal plans to continue researching RFID and to develop uniform technical standards and specifications for RFID systems, so companies developing RFID services create systems and system components that can be integrated.
- **October 23, 2003.** The Department of Defense sets a new policy requiring all of its suppliers to embed RFID tags on individual products, or at least on cases and pallets, by January 2005.
- **October 16, 2003.** United Kingdom clothing retailer **Marks & Spencer** begins a four-week trial of RFID tags. The so-called Intelligent Labels – designed to be cut off and thrown away after purchase – can be found on paper labels attached to men's suits, shirts and ties on sale at Marks & Spencer's High Wycombe store in the U.K.
- **October 14, 2003.** A preliminary report by the **Food and Drug Administration (FDA)** indicates using RFID on drug products could mitigate the growing problem of counterfeit drugs. The report discussed placing 98-bit or 128-bit RFID "license plate" tags on drugs that would identify the manufacturer, describe the drug type, quantity and manufacture date, and include a unique identification number, allowing the drugs to be verified through the shipping and customs process.
- **September 15, 2003.** At the **Electronic Product Code Symposium** in Chicago, **IBM** unveils its new radio-frequency identification service to help businesses streamline product inventory and shipping and eliminate "shrinkage" (lost, broken, and stolen goods). **Kimberly-Clark**, a paper products company, announces it has already signed up for IBM's RFID services.

- **September 10, 2003.** Two years after the September 11 terrorist attacks, **Oak Ridge National Laboratory** in Tennessee announces its new RFID-based building evacuation solution, called Evacuation Monitoring and Accountability System, or EMAS. The system uses “smart badges” – plastic ID cards containing RFID microchips – worn by building employees and visitors. Installed RFID readers at building entrances automatically track when a person enters or leaves the building and transmit that information to an offsite database.
- **September 4, 2003.** The **San Francisco Public Library Commission** approves plans to fund a new RFID tracking system for library books in its 2004-05 budget.
- **August 27, 2003.** **RSA Security** announces it has developed an RFID blocker tag, which is similar in size and cost to an RFID tag, but protects privacy by disrupting the transmission of information from RFID tags to RFID scanners.
- **August 18, 2003.** Following a June announcement to require its top 100 suppliers to use RFID systems by January 2005, **Wal-Mart** announces all of its suppliers will have to put RFID tags on shipping pallets and cases by 2006.
- **July 17, 2003.** The **Advanced Airport Systems Technology Research Consortium** announces tests using RFID tags on luggage at **Changi Airport** in Singapore, **Schiphol Airport** in Amsterdam, and **John F. Kennedy International** in New York in the coming months.
- **July 9, 2003.** **Wal-Mart** halts initial tests to develop an RFID “smart shelf” system with Gillette.
- **June 18, 2003.** **Delta Airlines** announces plans to test RFID-chipped luggage tags this fall on flights from Jacksonville, Florida, to its Atlanta hub.
- **June 11, 2003.** **Wal-Mart** announces plans to require its top 100 goods suppliers to tag shipping cases and pallets with RFID technology by 2005.
- **June 11, 2003.** **CASPIAN**, a nonprofit opposed to RFID technology, proposes federal legislation called the “RFID Right to Know Act of 2003,” which would require companies to label products containing RFID tags. The bill has yet to be introduced in Congress.
- **June 2003.** **Gillette Co.** orders 500 million RFID tags from **Alien Technology** and states it plans to test RFID in its warehouses and on store shelves to sense when inventory is running low and to detect shoplifting. **Wal-Mart** agrees to test the “smart shelf” concept with Gillette.
- **June 1, 2003.** The **United Nations** unveils a plan to test RFID technology in Africa to track VIPs, negotiators, and political advisors.
- **June 2003.** **Benetton** clarifies it’s only researching RFID and has no plans to place RFID tags in clothing.

- **May 2003.** **Visa** and **Phillips Electronics** announce a partnership to develop a credit card with an RFID chip.
- **May 2003.** **Metro AG** of Germany implements RFID technology in its Rheinburg store. Loyalty cards guide shoppers to products that might interest them, based on their previous purchases. RFID chips on store merchandise also help Metro determine when a product needs to be restocked and helps expedite the check-out process for customers.
- **May 2003.** **Hitachi** and the **European Central Bank (ECB)** discuss implanting small RFID chips in currency to halt counterfeiting.
- **May 2003.** **Alexandra Hospital** in Singapore uses RFID tags to track the movements of patients, visitors and staff in contact with SARS patients.
- **May 1, 2003.** Research firm **Gartner** reports poor performance of RFID in trials, including statistics showing scanners used to read product data embedded in RFID chips are often less than 80% accurate. Gartner researchers report difficulty in reading tags through certain materials such as shampoo, canned goods, and foil packaging.
- **April 4, 2003.** **Benetton** announces it has not embedded RFID tags in its clothing products and merely plans to study the technology, including the potential implications for personal privacy.
- **April 2003.** **Auto-ID Center** announces a password-associated “kill” command for its chips being developed by companies such as **Alien Technologies**, **Matrics Corporation**, and **Phillips Semiconductors**.
- **April 2003.** **Merloni Elettrodomestici** of Italy unveils plans to manufacture “intelligent” appliances: refrigerators and washing machines that can read RFID chips on groceries or clothing to determine expiration dates or washing directions.
- **March 11, 2003.** A press release by **Phillips Semiconductors** announces Benetton Group will be placing RFID tags on its Sisley garments in more than 5,000 stores throughout the world.
- **March 2003.** The **U.S. military** uses RFID tags to track food and supplies entering Iraq. Chips are sewn into wristbands worn by wounded soldiers to track them as they move through field hospitals.
- **January 16, 2003.** **ACLU** releases a report entitled, “Bigger Monster, Weaker Chains: The Growth of an American Surveillance Society.” The report points out how RFID chips could be used for many purposes beyond their stated intent.