RFID NEWS
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ET *TRENDS*

MARKET & BUSINESS NEWS

The **contactless smart card** market is witnessing remarkable growth due to significant advancements in the e-passport and micro-payment segments. While the U.S. Visa Waiver Program deadline forces participating countries to hasten their e-passport rollouts, the future of the micro-payment segment also looks promising, with its successful introduction in North America, Europe and parts of Asia. Frost & Sullivan report, World Contactless Smart Cards Market, reveals that the market earned revenues of $408.9 million in 2005, and estimates this to reach $1,636.2-million in 2011. The e-passport segment made big strides as interoperability efforts intensified, impelled by a heightened sense of urgency for more secure and sophisticated travel documents. The payment market also saw increased uptake as users across more developed markets embraced the idea of contactless payments. While RFID tags are designed to be cheaper and less secure for applications used in supply chain management and the tracking of non-human goods, contactless smart cards are made to be more secure and reliable so that even highly confidential and private information can be transacted and stored.

RFID with 1,100 Mile Range - A Boston terrier named Mickey who disappeared 4-years ago from his suburban Kansas City backyard was found in Montana and reunited with his owners this week. The owners received a call from an animal shelter last week 1,100 miles away in Billings, MT. A microchip helped the Billings Animal Shelter return the dog. A lady walked in shelter with a dog found running up the street. The shelter called Avid, a company that makes microchip identification systems, with the tag data and was given the name of a veterinary clinic in Lee's Summit, Missouri. The clinic checked the chip number and said that the dog's owner was still searching. Only the dog knows how he wound up in Montana.

New Standard Ratified - The recent ratification of EPCIS (Electronic Product Code Information Services) could give a big boost to the RFID industry by finally giving businesses a standard way to capture and share information collected by radio-frequency identification chips. EPCIS provides a standard set of interfaces for EPC data. The president of the standards organization EPCglobal said the ratification has potentially more impact than the 2004 release of the UHF Gen2 Passive RFID standard. IBM, Proctor & Gamble, and Wal-Mart are applauded the EPCIS ratification. Vendors involved in the

interoperability testing of EPCIS, and those likely to offer products that support the standard, include Auto-ID Labs, Avicon, BEA Systems, Bent Systems, IBM, Globe Ranger, IIJ, NEC, Oracle, Polaris Systems, Samsung, and T3Ci.

MANUFACTURING

Texas Instruments RFID Chips - Ten RFID inlay manufacturers picked chips from Texas Instruments. These companies, including established corporations and newer RFID inlay providers based in North America, Europe and Asia, are using TI's EPC Generation 2 (Gen 2) Ultra-High Frequency (UHF) silicon in strap and wafer forms, and its High-Frequency (HF) ISO/IEC 15693 silicon. Checkpoint Systems, a manufacturer and marketer of RF- and RFID-based solutions for identification, tracking, security and merchandising applications, is offering two new EPC Gen 2 labels, using TI silicon and RF antennas, that were jointly developed by the two companies. The labels, available in 2 x 4in and 4 x 4in sizes, also incorporate the new Checksi Checkpoint RFID straps. UPM Raflatac, a manufacturer of RFID tags and inlays, has developed a new HF inlay to tag consumer products at the item-level using TI's 256-bit ISO/IEC 15693 silicon. Applying RFID technology to individual items such as brand apparel, cosmetics, sports memorabilia and pharmaceuticals can help deter theft in the supply chain and ultimately protect brand value. UPM Raflatac is producing a tag using TI's HF-I chip that is small enough to accommodate the range of product shapes and sizes being tagged, along with the necessary memory to store important product information. Other companies who have chosen TI silicon include Hana RFID, Mu-Gahat, RCD Technology, and WaveZero who are using TI Gen 2 silicon and straps to support their inlay manufacturing processes for retail, supply chain, logistics and government applications. RFID inlay companies SAG, Tagstar Systems, and Tatwah Smartech are manufacturing HF inlays for asset tracking applications using TI's new HF-I silicon. Tyco Electronics Corporation is developing RFID tags using TI's HF and UHF silicon. TI is also offering reference antenna designs to enable customers to develop labels and tags which optimize its Gen 2 and HF RFID silicon.

RFID POLETICS/GOVERNEMNT

California Seeks RFID Ban One More Time - The California State Senate is expected

to vote as early as this week on several bills that would regulate the use of RFID technology in government documents. Similar legislation was approved by the state legislature last year only to be vetoed by Gov. Arnold Schwarzenegger in October. At the time, Schwarzenegger said he rejected the Identity Information Protection Act of 2006 because it could be overly restrictive to state agencies. Sponsors resubmitted five separate bills late last year and early this year that cover the same ground as the failed bill. The bills have been working their way through various legislative committees, he said. Two of the bills would impose a 3-year moratorium on the use of RFID technology in California driver's licenses and in public school ID cards,

while a third would create interim privacy safeguards for existing RFID-enabled government IDs, such as those that students use in the state college system. A fourth bill would make it a crime to "skim," or surreptitiously read, data from an RFID document. The remaining bill addresses fears that companies might try to force their employees to undergo an RFID implantation. A spokeswoman for Schwarzenegger said the governor has yet to take a position on the new RFID bills. So what problem are they trying to solve? Katherine Albrecht, a consumer rights advocate, said, *"Government officials would love the ability to secretly identify political opponents, protesters at peace rallies or anyone else engaged in peaceable First Amendment-protected activities,"* [*Are these people serious?*]

More RFID-Phobia - A group of Dutch researchers at Vrije Universiteit in Amsterdam is building RFID Guardian, a personal RFID firewall to allow individuals to monitor and control access to RFID tags. [RFID countermeasure system at right →]. The idea was inspired by a comment from Katherine Albrecht, Spychips author and long-time campaigner against loyalty cards and RFID tags. She doesn't want people to be able to read through her clothes what kind of bra she is wearing. The project aims to create a platform that will handle all types of RFID chips and allows individuals to create their own personalized security policies and

enforce them using features already built into the tags such as cryptography and kill commands along with newer ones such as automatic key management. When it's finished, RFID Guardian is intended to be a portable, battery-operated device incorporating an RFID reader that will tell users when new RFID tags appear (for example, when you buy a tagged item), when they're being read, and who owns them. The prototype so far has focused on one subset of RFID, the 13.56 ISO 15693 tags that are typically used in credit card and smart card applications. *[Looks like there will be RFID countermeasures a few decades before we have item-level tags.]*

But Take a Lesson from the EU - The European Commission may have decided against imposing new rules on RFID tags for now. Rushing to place restrictions on industries hoping to use the technology would choke its potentially valuable application in health care, business, transportation and other realms. Instead of issuing regulations, the commission plans to develop a set of guidelines, a "soft law", by year's end to lay out its expectations on issues like privacy and security. To get there, it plans to consult over the next several months with a to-be-named group of 25 to 30 people representing all facets of the RFID debate. (The European Commission is the European Union's executive arm and is composed of 27 commissioners, one from each member nation.) By the close of 2008, the

commission plans to reevaluate whether legislation is necessary. It's unclear how restrictive any potential rules would be. That option is preferable for now because it typically takes as many as three years for new laws to gain final passage at the commission, and by then, RFID-specific rules may already be out of date.

RFID-Phobia, expressed to the commission, is attributed "a problem of trust" and to a lack of understanding about how the technology works. The Commission suggested that governments and industry worldwide should build privacy protections into their RFID use, but they also must present a unified message about "why RFID is something that can add a lot to improve (citizens') quality of life".
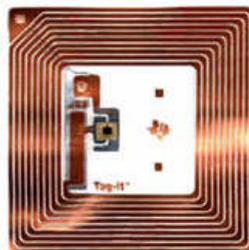

APPLICATIONS

More Tesco Roll-out - Tesco will start installing RFID readers throughout its UK

supermarkets later this year following trials at selected stores with a small group of suppliers. While the RFID readers will initially be used to monitor back of store deliveries on roll cages and pallets for higher value goods, extension to the monitoring of trays and cases is likely to follow. But, just like Wal-Mart suppliers, those of Tesco worry about ROI, or its lack. But, Northern Foods, for example, has worked with Marks & Spencer (M&S) on RFID using Siemens and SAP systems for several years. The experience has shown both costs and benefits. According to Northern Foods, they are reading and writing 30-million RFID tags a year linked to SAP. But to benefit, you have to integrate it into your business processes. There is quite a lot of benefit, like accuracy of orders improvement, and that has had a very significant impact on the bottom line.

Prosecutors to Embrace Radio Tag Technologies (Korean Times) - Criminal

investigation and lawsuit documents will be given a RFID tag later this year, in order to track them if they are misplaced. The Seoul Central District Prosecutors Office yesterday said the prosecution plans to spend more than $1-million this year alone to phase in the system. Three prosecutors' offices will use the radio tag systems by November and a total of 1.25-million documents will be incorporated with radio tags. By late 2008 or early 2009, most major prosecutors' offices will adopt the system in order to efficiently manage a mountain of files and pictures. The RFID system will save lots of time for storing and finding documents. Korea hopes to jump onto the RFID bandwagon under a project named the ubiquitous sensor network, a multi-pronged scheme to deploy the radio tags in a full-fledged manner by investing billions of dollars by 2010.

RFID Enables Cashless Payment At Cold-Drink Vending Machines At Atlanta International Airport - SkyeTek, Inc., the provider of embedded RFID reader technology, recently announced the first consumer application resulting from its partnership with Isochron Inc., an in intelligent networked vending of technology for the food and beverage industry. Together, the companies have enabled cashless payment at vending machines located throughout the Hartsfield-Jackson Atlanta International Airport. Consumers equipped with RFID enabled credit cards can now make a purchase by just waving a card within a few feet of the new vending machines.

In October, Isochron selected SkyeTek's M2 **contactless payment module** as the embedded RFID reader to enable secure, cashless payment at vending machines. Since then, Isochron has unveiled several vending machines at Hartsfield-Jackson Atlanta International Airport where consumers can now use RFID-enabled credit and debit cards issued by financial institutions such as Bank of America, Citizens Bank, Charter One, Chase and Key Bank to purchase cold drinks quickly, conveniently and securely. SkyeTek's Advanced Universal Reader Architecture (AURA) is the foundation for the M2 contactless payment reader module which provides industry-leading tag support, read range / reliability, and security at the highest levels of cost- / space- / power-efficiency. The M2 supports MasterCard Paypass, Visa Contactless, Amex ExpressPay, and Discover Network and incorporates state-of-the art encryption and anti-cloning technology - the same algorithms used in the DoD and financial services – to offer the highest levels of security to contactless payment.

U.S. Navy and U.S. Marines enlisted the help of Alien Technology and Science Applications Intl. Corp. (SAIC). The Navy will use Alien's RFID readers and tags as part of its Advanced Traceability and Control (ATAC) program, which is designed to manage and track the location of retrograde materials belonging to the Navy and Marine Corp. The Navy's ATAC RFID initiative demonstrates the effectiveness of advanced RFID technology in global logistics environments and underscores how easily RFID can be leveraged for virtually any military inbound or outbound shipment process. The Navy and the Marine Corp. will primarily use the application to track the movement of failed parts and equipment from overseas locations, such as Al Asad Airbase in Iraq, to Naval Aviation Depots or commercial contractor repair facilities in the United States. Each year, the Navy's Naval Inventory Control Point is charged with the responsibility of tracking more than half a million retrograde parts, worth a total of $25-billion. The department will use RFID tags to recognize shipments at the item and case levels and RFID readers to confirm the shipping and receiving of items.

VeriChip installed its 30th infant protection system in Puerto Rico (PR Newswire).

VeriChip, a provider of RFID systems for healthcare and patient-related needs, announced that it has installed its 30th infant protection system in Puerto Rico. VeriChip's HALO infant protection systems are in use in 30 of the 42 birthing hospitals in Puerto Rico listed by the American Hospital Association. The company has achieved over 70% market share in Puerto Rico. Electronic infant protection systems are now the norm for hospitals of all sizes, encouraged by legislation enacted by the Puerto Rico legislature in 1999 to require hospitals to invest in infant protection measures.

13 Diabetics Implanted with VeriMed RFID Microchips - RFID chips were implanted by VeriMed, a provider of RFID systems for healthcare. This added 13 more diabetic patients to its VeriMed Patient Identification System. Physicians implanted VeriMed RFID microchips at Boston Diabetes EXPOconference for attendees who signed up for the voluntary procedure. The VeriMed Patient Identification System, which utilizes an implantable RFID microchip in combination with a handheld RFID scanner and a secure patient database, provides immediate access to important identification and health information for patients who arrive at an emergency department unable to communicate.