



Exclusive: RSA on RFID

In the last issue of RFID International News, we reported on an announcement that was made at this year's RSA Security Conference by Adi Shamir (the 'S' in RSA), one of the world's most distinguished cryptographers, who applied power analysis techniques to attack and disable RFID tags using a cell phone. Also during the conference, Ron Rivest (the 'R' in RSA), who co-developed the RSA algorithms with Shamir, called for an industry effort to create a next-generation hashing algorithm to replace today's SHA-1. The SHA-1 hash is broadly used to create digital certificates, and is a key technical underpinning of Secure Sockets Layer, a private-key technology used broadly to send secure information such as credit card numbers over the Internet. What's more, a handful of chipmakers—including Atmel, Infineon, National Semiconductor and STMicroelectronics- use SHA-1 as the basis for so-called Trusted Platform Modules (TPMs) at the heart of an industry effort to provide a hardware root of trust in PCs and other devices.

Well, needless to say that this story got more international press coverage than any other news item regarding the RFID industry has had in a very long time. It also kicked up a lot of dust, ruffled quite a few feathers, and sent the RFID tag manufacturers into no-comment mode. So we decided to go back to the source and talk to the people at RSA to get their take on the vulnerability of RF tags. RFID International News spoke with Dr. Burt Kaliski, vice president of research and chief scientist, and Dr. Ari Juels, principal research scientist and manager, both from RSA Laboratories.

RFID International News (RIN): To begin with, could you tell us a little bit more about what type of RF tag was attacked and how this was possible?

RSA: The attack took place on an EPC-compliant Gen 2 tag. Using a cell phone, this attack was a power analysis attack, which means that it took place over the air, with no physical contact made with the tag.

RIN: Some industry pundits are saying that an attack of this type takes hours and hours to program.

RSA: Not at all; it's a pretty straightforward, relatively simple operation. All someone needs to do is to extract the pin for a tag, and then kill it.

RIN: What types of threats does RSA see in this type of attack today?

RSA: In the short-term attacks like this one probably don't represent a serious threat. However, in the future, being able to kill tags used in the retail environment obviously would disable any anti-theft functions. At a more detrimental level, an attack of this type could disrupt a supply chain.

RIN: RSA developed its Blocker tag back in 2003. Could you tell us how this tag works, and how it protects both tag data and consumers?

RSA: The RSA Blocker Tag is a special RFID tag designed to prevent

Biz, Tech, & Trends.....3

- Active RFID Systems
- Integral RFID
- CompTIA Publishes New Survey, Launches Certification Exam
- Sirit Inc. to Acquire TradeWind Alliance/Rock-Tenn Invests in Goliath Solutions
- TI Demos Demonstrate Can-do Technology & Attitude
- Legic Identsystems Hits One-million Module Milestone
- RFID Support for Dutch Nurses
- RF Code Adds 433 MHz Tags and Readers to Mantis II Product Line
- HID & MIT to Address RFID Privacy Issues
- e-Passport : CAGW Names US Official Porker of the Month

Partnerships & Alliances.....11

- Alien Delivers RFID with HP
- NCR Announces Reseller Agreement for SAMSys Readers
- Axcess Teams With Texas A&M

Better Mousetraps.....13

- Tagsys: The Package IS the Tag
- Sybase Releases Enterprise 2.0
- New Avery Dennison Module
- Cisco & RedPrairie Join Initiative
- VeriChip Introduces VeriTrace
- Ekahau and Symbol Technologies Team on Passive RFID Tags
- Sokymat Launches Printer Ribbon Anti-counterfeiting Label

Events.....18

readers from performing unwanted scanning and tracking of people or goods, without any disruption to normal RFID operation. The Blocker Tag is one of several RFID innovations under development at RSA Security, which is seeking to meet the emerging security and privacy challenges of RFID.

A fully developed Blocker Tag will work by “spamming” any RFID reader that attempts to scan tags without the right authorization, thereby creating a hostile environment for the reader. When ordinary RFID tags are in proximity to an RSA Blocker Tag, they benefit from its shielding behavior; when the RSA Blocker Tag is removed, the ordinary RFID tags may be used normally. Thanks to its selective nature, the RSA Blocker Tag helps prevent unwanted scanning of purchased items, but does not interfere with the normal operation of RFID systems.

We also propose a variant on the blocker concept that we call *soft blocking*. This involves software (or firmware) modules that offer a different balance of characteristics than ordinary blockers. Soft blocking offers somewhat weaker privacy enforcement that is essentially voluntary or internally auditable (much like P3P). It has the significant advantage, however, of relying on standard (or very slightly modified) RFID tags. Additionally, soft blocking also offers the possibility of flexible privacy policies in which partial or scrubbed data is revealed about “private” tags, in lieu of the all-or-nothing policy enforced by a blocker.

RIN: Why hasn't the RFID industry embraced these tags?

RSA: First, the Blocker's time has not yet come. The Blocker is designed to protect the privacy of consumers with RFID-tagged retail items, but RFID tags probably won't make it onto many individual consumer products for a number of years (although I think they will eventually).

One obstacle, however, overshadows the others: The RFID industry has not yet fully worked out its strategy for consumer privacy. The industry has mostly focused on one protection for consumer privacy: the “kill” function that disables tags at the point of sale in retail environments (in much the same way that anti-theft tags are disabled today). But features like the “kill” function assume that consumers want to take home dead RFID tags.

At the same time, the industry touts an array of excellent post-purchase uses for RFID: “smart” appliances; RFID-enabled medicine cabinets to aid in medication compliance; receipt-less item returns (thanks to RFID purchase records); and mobile phones that can scan RFID tags. It seems likely that many consumers will want to have live RFID tags, because these tags can bring benefits not just to commercial entities, but to everyone. Consequently, consumer privacy problems cannot be “killed” at the cash register.

The tools needed to address these problems begin with the tag itself. As Ari Juels has written, a single bit in a tag can make a singular difference in the industry. The so-called “privacy bit” would simply indicate whether the tag is “public,” i.e., subject to general scanning, or “private,” i.e., owned by a consumer and requiring privacy protection. The bit would be turned on when a consumer checks out of a store and wants to keep the tag live rather than killing it.

The Blocker leverages the privacy bit by preventing readers from scanning tags marked “private.” A consumer can activate a Blocker when in a store to keep his or her private tags from being read, and deactivate it at home in order to track those same tags. But “public” tags could still be scanned by the store, so



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there is no interference with ordinary business applications.

As an optional feature, a privacy bit would not impose any additional cost in general RFID tag manufacturing. And it would support any of a number of privacy-enhancing approaches, not just the Blocker. The current specification for RFID tags developed by the leading standards organization in the area, EPCglobal, doesn't yet offer this option. All RFID tags still behave the same with respect to consumer privacy, whether in the store or at home - unless they're already dead.

RIN: RSA is situated upstream from the RFID hardware manufacturers. How does your company perceive what's going on in RF today, and what role can RSA play in the evolution of the RF technologies?

RSA: In a naive, RFID-enabled world without technical forethought, there is risk that sensitive information could be visible in secret to anyone with an

RFID reader. Moreover, the unique serial numbers emitted by RFID tags could be used to track people and objects surreptitiously. For businesses too, RFID introduces new privacy and security risks – and a whole new dimension to corporate espionage. These concerns have motivated our scientists to work on a new generation of technical solutions that match these challenges.

The promise of RFID will require infrastructure and process changes, and it will also present huge security and privacy challenges. Whereas retailers think about tracking inventory, piracy advocates worry about what happens when the RFID tags leave the store. It's up to companies like RSA Security to help bridge that gap. Combined with conventional security technologies – authentication, authorization and encryption – and if suitably supported by standards, reader manufacturers, and auditing processes, this new

patent-protected approach of the RSA Blocker Tag is a viable mechanism for protecting sensitive business data and consumer privacy.

As we've learned repeatedly over the evolution of the Internet, a stitch in time saves nine. We're paying very seriously today for the oversights in security architecture years ago that are today allowing spam, viruses, and malware to proliferate. This is why RSA Laboratories has been calling on both industry and academia to develop innovative security and privacy solutions for RFID deployments. We hope to see more technologies designed to deliver safety and convenience together -- not as competing concerns where one is often deferred to the other. If the Blocker and the privacy bit can help achieve this objective for RFID systems, let's not let them sit on the same dusty shelf once occupied by the steam engine, and so many other inventions.

www.rsasecurity.com/go/rfid

BUSINESS, TECHNOLOGY & TRENDS

Active RFID Systems

Just when you think that – as exciting as they are – you've seen most of the many innovative technologies the RFID industry has to offer, here comes a small company out of Colorado that is giving the words 'technological expertise' a whole new meaning.

Active RFID Systems, Inc. (ARS), provides battery-powered Radio Frequency and Infrared Supply Chain Management Systems for Total Asset Tracking, In-Transit Visibility, Security, and Data Networking over all mobile devices.

ARS' family of tags includes a truly original read-write active tag with an infrared trigger mode. This particular

type of tag has standard on board writable memory of approximately 200 bytes (memory reduction from 256 bytes depends on ID format and length of data fields chosen). The tag is bi-directional in infrared and unidirectional (transmit only) in RF, and operates at 433.92 MHz. With a projected battery life of 10+ years (and in some applications up to 20 years!), this tag has several operating modes that can be invoked through the infrared communication link. The tag can be placed into a beacon mode wherein the tag's unique ID or ID and additional information can be transmitted via the 433/92 MHz RF link periodically. This mode can be silenced for field or aircraft transit. In other words, while

every other active tag on the market today would need to be silenced in certain sensitive (military) zones, this ARS tag will switch over to infrared mode and keep on communicating. Now *that's* hot.

The tag's operating parameters, such as data fields, response times, etc. can also be controlled via the infrared communication link. Finally, the tag can be commanded to transmit ID or other data directly from an infrared command sent to the tag from an Active Wireless Systems trigger device or PDA. This trigger will function in all environments including direct impinging sunlight. The tag triggering action can be accomplished from up to 10 meters of

BUSINESS, TECHNOLOGY & TRENDS

range or it can operate from existing mobile computers or PDA types of devices at reduced infrared range.

The ARS tags are also compatible with metallic and liquid-filled items, and can be equipped with data logging and sensing capabilities (temperature, humidity sensing, g-shock, acceleration, pressure), high selectivity (1:1) and batch-read capabilities, operating parameter control via IR, a fully enabled search and locate mode of operation, and PDA/PDT data-writing capabilities.

Operating at frequencies of 433.92 MHz and 2.45 GHz, all ARS tags are certifiable intrinsically safe.

Finally, while all the active RF vendors we spoke to last week at RFID World 2006 claimed to have the lowest-cost tag on the market, well, based on the numbers we were quoted, ARS to date really *does* have the lowest-cost tag, even 50 percent lower than one of its top competitors.

Although no specific names could be mentioned, ARS CEO Tony Corrado commented that the company is working closely with several Fortune 50 companies to implement and deploy ARS' hardware and software in their businesses to track high-value assets. The company is also collaborating with Broadcom Corporation to develop a proprietary WiFi tag that will operate

over existing 802.11b/g networks.

"The ARS Easy-Trak solution is interesting in that it offers dual IR read/write and RF read capabilities," notes Venture Development Corporation's RFID Research Program Director Michael J. Liard. "While variants of similar active RFID solutions are available, at RFID World 2006 ARS demonstrated the impressive read/write range of its technology, hailed its low-cost pricing, and boasted about the extended lifespan of their active tags relative to competing solutions."

Watch this space... www.active-rfid.com

Integral RFID

OK, you take two ex-Aliens who are extremely tech savvy, put them together in a small company up in Richland, Washington, give their skills and imagination free reign, then let them loose, and what do you get? Some pretty amazing stuff.

When Dr. Chris Parkinson left Alien Technology to start Integral RFID back in early 2004, his goal was to create and deliver RFID solutions – specifically in the software sector – that were tailor-made and very user-friendly. As a result, Parkinson has developed a number of software tools, one of which is dubbed EPC Hotspot, a tag/reader-agnostic 3D program that allows users to visualize and locate the optimal position and placement for RF tags on any given object, be it at the pallet- and case- or item-level, then analyze and optimize the reading of the tags. Here's how it works: say you have an object (item-level) packaged in a box, and you need to place an RF tag on

the box, which will then be loaded onto a pallet with other boxes for shipping. The EPC Hotspot will allow the user to re-create an exact 3D model of the box on the screen, then place the virtual RF tag in various positions and locations on the box until the optimal place and position is found. Once the user has identified this hotspot, he/she can then tag the real boxes and load them onto a pallet, which is where the second primary function of the software comes into play.

Once the pallet has been loaded, the software performs a 3D reader simulation, which will allow the user to see which of the items – if any – are not being correctly read. EPC Hotspot is programmed with several features to carry out this task: for instance, the software can be programmed to erase from the screen all the items bearing tags that have been properly read, leaving only those items with tags that have not been detected by the reader.

(The software can also be programmed to do the opposite, showing on the screen only those items that have been read, and erasing those that have not been detected.) Then, EPC Hotspot helps the user to understand why some tags are not being picked up by the reader, and allows him/her to determine whether it's the position of the tag on the box on the pallet, or perhaps a defective or 'weak' tag that is not being read as easily as the others. All these functions are extremely graphic (graphically speaking), and so easy to use that it comes as no surprise that many Fortune 500 companies such as Johnson & Johnson, Unilever, Nestlé, CCL Label, and many others have come to consider EPC Hotspot as a must-have in their warehouse environments.

Look Out, Here Comes the Hardware Guy

As the saying goes, geniuses love company, and so Chris Parkinson

BUSINESS, TECHNOLOGY & TRENDS

called on the expertise of former Alien Director of Hardware Engineering Ron Gilbert to design and develop a family of products that go by the name of Instant EPC. The Instant EPC offering includes the Instant EPC Verifier, comprised of an RFID reader module (from WJ Communications) plugged into an HP IPAQ PDA. The IPAQ is pre-installed with Integral RFID software, ready to read and write tags. The Instant EPC Verifier software integrates the reader with the PDA's operating system to provide the user with three operating modes: read a single tag (with the strongest signal); read multiple tags; and write to a single tag. In all modes, mixed populations of Class 0 and Class 1 tags are handled seamlessly with no reduction in performance. The integrated antenna and 0.5W power output provides the system with an intuitive point-and-read distance of up to 4 feet.

Other products include Instant EPC Mobile, an out-of-the-box slap-and-ship solution for RFID mandate compliance, designed for use on the warehouse floor, which allows users to print and apply RFID labels in just three basic steps; a Gen2 standalone mouse-pad reader that can be placed on a counter or desk to perform read functions in

many types of environments such as in pharmaceuticals, or tilted up to perform other functions such as access control. The mouse-pad reader has an optimal range of 3 feet, but can be adjusted for shorter reads when needed.

Killer Apps

Of the many applications that Integral RFID has implemented, perhaps one of the most unusual is that which was commissioned by the US Geological Survey (USGS) to track Alaskan polar bears. Until recently, the USGS had been tracking the 200-something bears using Argos satellite tracking. The cost: 5,000.00 dollars *per tag*, plus another 1,400.00 dollars per month in tracking fees. Not only was this a very costly solution, but also this type of tracking did not provide any other information other than displacement and location. So the USGS turned to Integral RFID, who in turn are now providing them with an alternative solution – active RF tracking. By tagging the bears with a 30-dollar ear stud (the size of a golf ball) equipped with an active RF beacon tag, the USGS can now track the bears at a distance of up to 1,500 feet. By mounting reader antennae on the wings of a small plane, the plane flies over the bears and picks up all the

data the USGS needs to collect and sends it to a pocket PC. Of course, the tags are read-write, allowing the USGS to remotely modify the data as required.

Other applications of this type are currently being tested for both mobile as well as fixed high-value assets. In one particular instance, a reader is connected to a Sprint Pocket PC equipped with Bluetooth capabilities. The reader 'surveys' the assets, and if one of these assets is tampered with, the reader sends a signal to the pocket PC, which in turn sends a pre-programmed email alert to the end user notifying him/her of the irregularity.

The Integral RFID team recently participated as subject matter experts in the elaboration of CompTIA's RFID Certification Program (see related article in this issue), and work very closely with the heavyweights of the RF industry. What this company will come up with next is anybody's guess, but together Parkinson and Gilbert are, in their own words, "treating RFID as a science", and as a result are gaining tremendous ground in the RFID arena.

Watch this space too...
www.integralrfid.com

CompTIA Publishes New Survey, Launches Certification Exam

Deployment of radio frequency identification (RFID) technology continues to be hampered by a shortage of individuals skilled in the technology, according to a new survey by the Computing Technology Industry Association (CompTIA). The survey results were released at the RFID World 2006 conference.

Seventy-five percent of the technology companies participating in the CompTIA survey said they do not believe there is a sufficient "pool of talent" in RFID technology to hire from. That figure

is down slightly from a similar survey conducted in 2005, when 80 percent of respondents said there was a shortage of RFID talent.

Among companies that believe there is a talent shortage, 80 percent said the lack of individuals skilled in RFID will impact adoption of the technology. The figure is significantly higher than a year ago, when 53 percent of responding companies said the shortage of talent would have a negative impact on RFID adoption.

"RFID is a complex and still evolving technology, and expertise is absolutely required for its usage to be a success," said David Sommer, vice president, electronic commerce, CompTIA. "The skill sets and "need-to-knows" related to RFID are many and varied. Clearly there is work to be done in our industry in terms of RFID education, training and professional certification."

CompTIA has been working with more than 20 major players in the RFID market, including product manufacturers, distributors, system

BUSINESS, TECHNOLOGY & TRENDS

integrators, education and training providers, and end-user customers, and together they have developed a professional certification of RFID skills for individuals working with the technology.

CompTIA RFID+ is a vendor neutral certification of RFID skills that addresses the needs of RFID hardware/software manufacturers, value added resellers, training developers, and end-users of the technologies. The certification, scheduled for worldwide availability on March 28, is intended for technology professionals with 6-24 months of experience in RFID or related technologies. Among the nine skill sets the certification exam will

test are installation, configuration and maintenance of RFID hardware and device software; site surveys and site analysis; and tag selection, placement and testing.

The certification exam will be available on an appointment-based basis in over 100 countries worldwide. Training for the exam is available through RFID4U, OTA Training, and American RFID Solutions. Sommer said that self-study materials will be available as of Q2 2006 through publishers such as McGraw-Hill, Q Publishing and Wiley.

In terms of market size in the RFID industry today, Sommer estimates that there are between 60 000 – 100 000 companies under some sort of

RFID mandate, of which at least two people per company need credibility. Of these companies, Sommer says that CompTIA estimates that only between 10 – 100 companies are currently up to speed in RFID implementation and deployment.

For more information on CompTIA RFID+ certification, or to register for an exam, please visit:
<http://www.comptia.org/certification/rfid/?nav=quick>.

More information on the CompTIA RFID skill survey is available at:
<http://www.comptia.org/sections/research.aspx>.

www.comptia.org

Sirit Inc. to Acquire TradeWind Technologies LLC

Sirit Inc. has signed a definitive agreement to acquire Tennessee-based TradeWind Technologies LLC. TradeWind develops and manufactures RFID readers and technology with an emphasis on high frequency (13.56 MHz) operation, modular architectures, as well as cost-effective and compact form factors.

The acquisition of TradeWind will bring to Sirit a product line of flexible «plug and play» RFID readers ideally suited to a number of closed loop applications including contactless/cashless payments, asset management, retail

and high value product authentication, and inventory management. In addition, Sirit further strengthens its technological capabilities through the addition of a highly skilled engineering team and broad based intellectual property portfolio.

The purchase price payable by Sirit will be a combination of cash and Sirit common shares estimated at just under C\$2,000,000. The transaction is subject to receipt by Sirit of all requisite regulatory approvals including the approval of the Toronto Stock Exchange and Fis expected to close

within 60 days.

«As we increase our focus on closed loop opportunities, TradeWind's products and technology will complement our existing line of embedded RFID modules,» commented Norbert Dawalibi, President and CEO, Sirit Inc. «The acquisition of TradeWind will offer quick to market solutions which protect end user investments in everyday business devices like smartphones, PDAs and PCs and create innovative new use cases with compelling ROI and benefits.»

www.sirit.com

Alliance/Rock-Tenn Invests in Goliath Solutions

Alliance, a developer of in-store marketing and display solutions and a division of Rock-Tenn Company has made a financial investment in Goliath Solutions for an undisclosed amount. Goliath provides RFID-based

information systems that track and report on retail display programs and has entered a multi-year agreement to install its system at over 5,000 Walgreens, the US's largest drugstore chain. Goliath will utilize the Alliance

funding to enhance its research and development efforts.

The patented Goliath tracking system uses RFID technology to electronically capture when, how long

BUSINESS, TECHNOLOGY & TRENDS

and approximately where displays are placed in stores. When combined with a retailer's point-of-sale information, the Goliath data can help retailers and consumer product manufacturers design and implement displays that are proven to drive sales.

Larry Shutzberg, Vice President and Chief Information Officer of Rock-Tenn Company, has joined the Goliath Board of Advisors charged to help grow the

company's business and technology strategies.

According to Jim Einstein, Alliance Executive Vice President and General Manager, "This investment is part of the Alliance strategic commitment to provide our customers with a competitive advantage through promotional excellence. Our Goliath partnership will help optimize in-store marketing by connecting promotion

tracking and POS metrics with innovative display and merchandising solutions. This goes beyond retail display compliance. The goal is to enhance promotion effectiveness and ROI by developing and implementing display programs that are more relevant to brands, consumers and retail environments."

www.alliancerocktenn.com

TI Demos Demonstrate Can-do Technology & Attitude

Texas Instruments Incorporated and Smurfit-Stone Container Corporation, the integrated manufacturer of paperboard and paper-based packaging, demonstrated the first Electronic Product Code (EPC) Generation 2 (Gen 2) radio frequency identification (RFID) strap-on-box prototypes at RFID World 2006.

Using TI's Tag-it EPC Gen 2 Strap, Smurfit-Stone Container Corporation has developed an innovative process for attaching Gen 2 straps to printed antennas directly on a corrugated box. The company is introducing its technology to consumer packaged goods (CPGs) manufacturers applying Gen 2 technology to cases for supply chain tracking applications.

«TI's Gen 2 straps are a key component in Smurfit-Stone Container Corporation's RFID development and testing program. We are committed to offering RFID enabled packaging solutions to our CPG customers,» said Dr. Joseph LeBlanc, vice-president, research and development, Smurfit-Stone Container Corporation.

«Speed and flexibility continue to be

crucial for RFID tag assembly and converting process technology in the supply chain,» said Tony Sabetti, director of UHF/Retail Supply Chain, Texas Instruments RFID Systems. «By staying focused on these two basic attributes for our strap technology, we'll continue to introduce innovations for packaging and smart label solutions that provide automation and scalability for CPGs deploying Gen 2 implementations.»

Texas Instruments Tag-it EPC Gen 2 Straps consist of an integrated circuit and two conducting pads, which are connected to a conductive antenna printed on packaging materials or on the face of an adhesive label. Available in a dense, continuous reel-to-reel format for integration into packaging and label conversion production processes, TI's RFID Gen 2 straps provide increased flexibility and are designed for efficient high-speed, high-volume production.

Other demonstrations conducted by TI during World 2006 included a cold-chain application in which TI's Gen 2 tags track items in a deep-freeze environment, meaning in very RF-unfriendly conditions, with humidity,

extreme cold, and metal walls lining the freezer.

TI also demonstrated its HF Pro-tag, an ISO-15693 tag used in pharmaceutical applications. One of the more prominent features of this application is the ability to "decommission", or erase the tag of any data that may be considered as part of the consumer's private, personal information. In other words, when a bottle of medicine leaves the pharmacy, the only data remaining on the tag is the product's serial number, which, if necessary, could then allow the pharmacist to "recommission" the tag in order to bring up relevant data regarding the product. The TI demo also featured a high-speed programming application in which tags on 15 bottles of medicine were programmed in just three seconds.

It seems that TI's products and applications know no limits, which no doubt is a huge plus to its customers who can truly benefit from the company's enthusiastic can-do attitude.

www.ti-rfid.com

BUSINESS, TECHNOLOGY & TRENDS

Legic Identsystems Hits One-million Security Module Milestone

Legic Identsystems Ltd, a well-known manufacturer of contactless smart card technology for personal identification applications recently sold its one-millionth security module for contactless identification to its longstanding Austrian license partner Gantner Electronic GmbH, which supplies innovative access control systems.

Stephen Neff, Vice President Sales & Business Development of Legic, proudly announced the sale of the millionth security module to the Austrian partner Gantner Electronics GmbH: "For Legic Identsystems Ltd, selling a million security modules marks a real success. We are glad to be able to celebrate this special occasion with an innovative customer who has been with us for many years. At the same time, we would like to take this opportunity to say a big thank you to all our partners in the Legic Network who, through their products, made this millionth sale possible for their fruitful, rewarding cooperation. We are delighted by this shared success and now look forward expectantly to the second million sales. We shall remain true to our vision of secure, integrated all-in-one-card identification technology and, together

with our partners, continue to offer new, innovative ideas."

Legic has now been a pioneering innovator in the development of contactless identification and security technology for 15 years. The company was formed in 1990 with the vision of handling all authorization management processes through a single identification credential. In 1992 the firm was the first company in the world to unveil a contactless, secure 13.56 MHz RFID technology platform for access control and other integrated identification applications. This technology leadership prepared the way for rapid growth and large-scale distribution. In just a few years, Legic established itself as global market leader in the development and manufacture of contactless personal identification technology.

Legic supplies its contactless all-in-one-card smart card technology in the form of components for security modules and chip cards. Its product portfolio includes highly integrated Legic RF Standard and ISO 15693 and ISO 14443 compliant read/write chip sets, security modules and transponder chips. Over 200 Legic

license partners throughout the world are using these components to manufacture tailor-made end products that satisfy the needs of business and leisure. Legic smart card technology has applications ranging from access control, time & attendance, parking, e-payment transactions in canteens or for vending machines, IT access, e-ticketing right through to highly secure biometric security systems. Today, over one million security modules and more than 70 million Legic credentials are in use in more than 50,000 installations.

The 13.56 MHz transmission frequency allows data transfer from proximity up to hands-free range. Up to 127 applications can be integrated on just a single smart card with the Legic all-in-one-card technology. Contactless identification is now widespread in the worlds of leisure and business alike. Companies like Novartis, Roche, Bayer, the Dover and Hamburg Port Authorities, Airbus, BMW, Audi, Intercontinental and Hyatt Hotels, and Club Med all use Legic contactless smart card technology.

www.legic.com

RFID Support for Dutch Nurses

Allévo is enhancing the delivery of home health care with Nedap's iO TouchPro solution, a powerful combination of the successful iO concept for Care registration and Nokia Field Force Solution. Allévo Home Care Institute's 700 employees are using the RFID technology to improve the delivery of service to its patients across the Netherlands.

"Using iO TouchPro, our more than 700 nurses can quickly and reliably register their visits with their patients, freeing up valuable time to spend with the patient. And, the iO Concept ensures that we have the most up-to-date, accurate information available at all times," said Theo van Campen, CEO Allévo "A leader in the health care space, Allévo continues to seek innovations

that will enhance the quality of care we deliver to our clients. Nokia's RFID technology-based solution allows us to deliver better service, and allows us to maintain up-to-date, accurate information real-time."

In the iO concept every client is provided with a contact free chip card when they become Allévo clients.

BUSINESS, TECHNOLOGY & TRENDS

At each visit, the nurse touches the chip card using a Nokia 3220 phone with RFID reader to register their visit thus eliminating the time needed to fill in forms. In addition, the nurse has secure access to the most up-to-date information on the client allowing them to focus on delivering care.

With the introduction of the iO TouchPro Nedap strengthens its position as a

market leader in the Dutch healthcare market. The expectation is that more healthcare organizations will follow the example of Allévo in the coming months.

“We are pleased to that Allévo has chosen Nokia RFID technology-based solution to continue their innovations in the delivery of health care services,” said Petri Vesikivi, Head of Nokia

Workforce Solutions at Nokia Ventures Organization. “The Nokia Field Force solution is designed for enterprises with mobile workforce generating large number of transactions in industries as domiciliary healthcare, security & guarding, and field maintenance.”

www.nedap.nl
www.nokia.com

RF Code Adds 433 MHz Tags and Readers to Mantis II Product Line

Expanding the global availability and Real-Time Location Systems (RTLS) applications for its active tags, RF Code, Inc. is extending its Mantis II product line with the addition of its 433 MHz Mantis Asset Tag and 433 MHz Mantis Reader.

The 433 MHz frequency is widely allocated for use throughout the world, allowing RF Code's new asset tags and readers to be used in a broader number of countries. The company says that enhanced signaling capabilities substantially improve the ability of Mantis to be used in Real-Time Location Systems (RTLS) applications. The Mantis 433 MHz active tag is available at roughly 16 dollars, but prices are expected to decrease dramatically as of Q4 2006, according to the company's newly appointed CEO Joe Dugan.

RF Code's 433 MHz product line combines anti-collision performance in a small form factor. Incorporating

worldwide availability with enhanced RTLS capabilities, Dugan said RF Code's new line is accelerating international container tracking, supply chain and healthcare asset tracking markets for the company's solutions.

“We're introducing the first cost-effective 433 MHz active tag and reader solution with a host of features to drive market adoption for both RTLS and international supply chain applications,” said Joe Dugan. “We are also working on improving performance, and later this year we'll be adding location technology to allow users to detect the exact location of a tag to within one meter.”

RF Code's 433 MHz Mantis Asset Tag and 433 MHz Mantis Reader incorporate all of the benefits of the company's Mantis line, including a small modular design, rapid tag processing and high throughput, simultaneous tag identification, and optional antenna configurations for

application-specific coverage. The new line is also supported by RF Code's TAVIS data management platform.

The company's tags and readers have found widespread use in hospital environments as well as in the transportation and logistics markets. Currently the US Department of Defense is deploying over 200 000 RF Code tags at its Air Force base in Corpus Christi, Texas.

RF Code raised 20 million dollars in venture capital in June 2005. Investors included Intel Capital and Questmark Partners. In the future, Dugan said that the company had no plans to raise further funds for its immediate business model, but is not ruling out the possibility of raising capital for acquisition purposes as time goes on.

www.rfcode.com

BUSINESS, TECHNOLOGY & TRENDS**HID & MIT to Address RFID Privacy Issues**

HID Corporation and the Massachusetts Institute of Technology (MIT) have joined forces to provide a public forum for the discussion of RFID and public policy and to explore innovative RFID uses for personal identification that enhance security and personal privacy. As part of the same effort a new comprehensive online resource will be created for industry, government and the general public.

“As government and private industry expand their use of RFID, privacy concerns have emerged that deserve a neutral forum for dialogue that includes

stakeholders from government, private industry and the public,” says Dan Greenwood, an MIT lecturer and attorney. “We at MIT will provide that forum with support from HID, by inviting stakeholders to our campus and hosting a relevant Web site on our servers.”

Content for the Web site will be developed by a steering committee comprised of MIT researchers and faculty alongside an industry advisory board. Advisory board members include Richard Varn, senior fellow of Center for Digital Government

and Center for Digital Education; Daniel Combs, president of Global Identity Solutions; Jeff Staples, managing partner of Avisian Inc.; and Bill Newill, acting executive director with International Association for Identification Technologies.

HID’s COO Steve Wagner says his firm welcomes the opportunity to collaborate with MIT. Wagner recognizes the need to balance privacy with growing RFID use across a variety of sectors. HID has developed a corporate privacy policy that governs the use of RFID.

www.hidcorp.com

e-Passport Backlash: CAGW Names US State Dpt. Official Porker of the Month

Citizens Against Government Waste (CAGW) named Deputy Assistant Secretary for Passport Services Frank Moss Porker of the Month. CAGW says that Mr. Moss and the rest of the State Department «decided to ignore the overwhelming public opposition to the use of passports containing radio frequency identification chips». The first e-passports are being distributed in the US and the nationwide rollout will occur at the end of the year.

Affecting 60 million Americans, the new passports will cost \$2.5 billion with an annual operational cost of \$1.3 billion. The estimated cost to produce passports will increase from the current \$2.40 to more than \$10 each, according to documents obtained by the American Civil Liberties Union.

In addition to the four-fold increase in cost, the new passports and the chip technology pose a serious threat to privacy and security. There remains

the possibility that personal information could be «skimmed» or stolen from a distance using a chip reader. The State Department claims that the chips can only be read from approximately four inches away. But demonstrations have shown that stronger readers can scan the chips from a greater distance. The chips could also act as beacons that broadcast travelers’ nationality to terrorists.

Frank Moss maintains that security features will protect the passports and that further talk of unauthorized reading is «poppycock.» The Dutch television program Nieuwslicht teamed up with the security firm Riscure to successfully crack and decrypt a Dutch-prototype RFID passport developed under international standards. Furthermore, CAGW maintains that what is not «poppycock» is the federal government’s abysmal record with technological initiatives of this magnitude.

The supposed basis for RFID chips is better fraud protection and faster processing through customs. However, magnetic strips or two-dimensional bar codes could provide the same level of security and would have to be physically stolen before being read. RFID chips have the capacity for carrying all manner of personal information. While current policy limits the data that can be stored on the passport, CAGW fears that bureaucrats will almost inevitably think of reasons for expanding the amount of information. The increasing number of security flags that result, and the cases of passports with damaged chips, could have the overall effect of slowing travel without improving security, says the organization.

The State Department solicited public comments on the introduction of the electronic passport. Of 2,335 comments received, approximately 1 percent of the comments were positive

BUSINESS, TECHNOLOGY & TRENDS

and 98.5 percent were negative. Moss was quoted in Security Focus as saying, «We are doing it right, we just disagree. If you really think this is a horrible idea, you better start writing your member of Congress.»

For advocating an unproven and unnecessary technology when cheaper and safer alternatives are available,

and for brushing aside the concerns of the public who will be carrying RFID passports, CAGW names Frank Moss Porker of the Month for February 2006.

Citizens Against Government Waste is the US's largest nonpartisan, nonprofit organization dedicated to eliminating waste, fraud, abuse, and

mismanagement in government. CAGW says that the Porker of the Month is a dubious honor given to lawmakers, government officials, and political candidates who have shown a blatant disregard for the interests of taxpayers.

www.cagw.org

PARTNERSHIPS & ALLIANCES

Alien Technology Delivers RFID Solution with HP

Alien Technology Corporation is teaming up with HP to launch a radio frequency identification solution for retail, consumer packaged goods, automotive and aerospace, transportation, defense and pharmaceutical customers. The offering is designed to help manage inventory with greater efficiency and supply chain visibility.

The new Gen2 EPCglobal-compliant Alien ALR-9800 Enterprise Reader and Alien tag products will be implemented by HP Services worldwide. Alien and HP will also engage in joint marketing and sales activities.

“We believe customers will be able to recognize significant benefits from the synergy of Alien’s and HP’s respective RFID offerings,” said Susan Pearson, VP Alliances, Alien Technology

Corporation. “We look forward to working closely with HP to support RFID adoption and improve customers’ returns on their RFID investments.”

Alien Technology provides high-performance RFID readers, RFID tags, and professional services, which include RFID training and services to help support deployment of RFID. HP adds HP OpenView management software, HP Services and infrastructure technology – including industry-standard HP ProLiant servers, high-end HP Integrity Superdome servers, HP StorageWorks technology and printing devices.

A new reseller agreement between the two companies covers all Alien RFID readers and tags, including the new Gen2 EPCglobal-compliant Alien

ALR-9800 Enterprise Reader and Alien’s battery-assisted passive (BAP) hardware for cold chain management and environmental monitoring. The agreement also includes the educational services of the Alien RFID Academy.

“HP and Alien Technology are offering customers comprehensive and cost-effective solutions that address a broad range of business applications,” said Frank Lanza, worldwide director, RFID Services, HP. “As an RFID solutions provider, HP is already familiar with the challenges, trials, compliance and full-scale RFID implementations in our own supply chain, and with Alien we have an expanded offering to bring to our customers.”

www.alientechnology.com
www.hp.com

PARTNERSHIPS & ALLIANCES

NCR Announces Reseller Agreement for SAMSys Readers

NCR Corporation and SAMSys Technologies Inc. have announced a reseller agreement allowing SAMSys' fixed and embedded multiprotocol and multiregional ultra high frequency (UHF) readers and associated products to be deployed as integrated components of the NCR TransitionWorks RFID solutions portfolio.

The agreement with SAMSys allows NCR to leverage a family of UHF RFID fixed readers and embedded reader modules. These reader modules function with all EPC-compliant tags, including Class 0, 0+, Class 1, ISO, and Gen 2, and comply with U.S., European and Asian frequency requirements. The modules can be embedded in barcode printers/encoders, smart-label applicators and other devices requiring RFID capability.

Additionally, the agreement enables NCR to resell other SAMSys products including high-frequency and low-frequency readers, antennas, and turnkey UHF portal systems designed for dock doors.

«SAMSys has a decade of experience in developing RFID hardware capabilities in the United States and other countries, and they have a product road map that corresponds to our strategy for the RFID marketplace,» said NCR Vice President for Global RFID Solutions John Greaves. «This alliance is part of NCR's strategy to align itself with industry-leading providers and serve as a one-stop shop for businesses seeking to improve critical business processes through the use of RFID.»

Touching industries around the world, the NCR TransitionWorks portfolio of

global RFID solutions encompasses thoughtware, hardware, tags, services and software, including Teradata data warehouse solutions, to help customers solve real business problems.

«NCR's decision to use our products in their RFID solutions portfolio gives us an important new sales channel that leverages NCR's established relationships and brand recognition among Tier 1 customers, particularly in the retail sector,» said Tom Dziersk, SAMSys president and CEO. «Through NCR, we now have the opportunity to place our products in some of the major businesses around the world and thereby drive significant revenue increases as RFID adoption continues to rise.»

www.samsys.com

Access Teams with Texas A& M

Axcess International Inc. has entered a partnership with Texas A&M University in support of its research and development of wireless sensor monitoring combined with RFID networks. Axcess has provided its ActiveTag on-demand, semi-active RFID technology to the Sensor's and RFID Technologies Laboratory for students to research and develop applications for business projects. The first initiative involves designing and delivering a system used by a hazardous chemicals distributor that monitors temperature and chemical vapors. The complete system is currently in the testing phase and will

be released at the end of March.

Each chemical barrel has an RFID tag and sensor device attached to it. The sensor device provides constant monitoring and if data falls outside the normal range, the RFID tag will activate and real-time data is transmitted to appropriate personnel, instantly alerting them of temperatures, chemical leakage, or improperly storing or moving chemicals within the same warehouse zone. The system is fully compatible with Axcess' reusable container tagging solution, which provides automatic real-time inventorying, locating and managing of

containers.

«The goal of the laboratory is to prove the value of converging sensor monitoring with RFID technology,» stated Ben Zoghi, professor and director of the lab. «By combining the two technologies, we can provide constant monitoring as items move throughout a facility and the on-demand RFID triggers alarms when it is outside the normal set range. This is true, real-time visibility.»

www.axcessinc.com

BETTER MOUSETRAPS**Tagsys: The Package /S the Tag**

Tagsys has introduced its The-Package-Is-The-Tag Program and its accompanying Gen 2 UHF Tag offering - the AK family of tags. This innovative concept incorporates two parts; an ultra small low cost and universal UHF «Kernel» tag and an adaptive antenna that is customized to and intrinsically incorporated within the package of the item to be RFID-enabled. Taken together, these parts result in a highly cost-effective, tailored RFID packaging solution, matching RFID performance to individual product needs.

Tagsys' Package-is-the-Tag is a new approach to item-level RFID that enables the integration of RFID technology into packaging strategies so that RFID becomes a component of the package. The approach is designed to increase the ability to authenticate and safeguard goods, enable real time inventory and item visibility, and automate labor intensive processes in industries such as packaged goods, fashion & apparel, and courier or luggage tracking.

In its first embodiment, the new and fully patented Adaptive Kernel family of tags (AK) forms the basis for the new approach. The AK tags incorporate what Tagsys is calling the world's most cost effective EPC Gen 2 universal module, and a custom-designed antenna to

meet specific client requirements. The world's smallest Gen 2 tag, the AK module measures just 12mm x 8mm, for which Tagsys has both granted and pending patents.

The antenna allows the tag to become an integral part of the packaging and is fully customizable to customers' packaging shapes, materials and sizes, nature of goods in the packaging, industrial environment, processes organization, reading distances and conditions, privacy requirements, and region of use. The result is a highly flexible tag approach where the chip module is common across all applications. This provides economies of scale and lowered costs while allowing customers to deploy tags to meet their specific needs by using an antenna that is delivered in different form factors and using materials such as conductive ink, aluminum, or copper.

"The-Package-is-the-Tag approach and the AK family of tags herald a new step forward for item-level RFID," said Elie Simon, CEO of Tagsys. "With EPCglobal's ratification of Gen 2 standards, the industry is now able to leverage the innovation and advancements around UHF-based technologies for item-level applications. Through this new adaptable and flexible

solution for item-level RFID, we believe that we will be able to offer our clients a completely customized, cost-efficient, reliable, accurate and secure RFID offering and will help drive the delivery of item-level RFID in new sectors."

Based on Tagsys' P3: e-Xecute RFID program, the industry's first methodology to help customers evaluate, design and deploy a scalable end-to-end item-level RFID infrastructure, the approach has been successfully tested on items such as courier envelopes and boxes, luggage tags, item boxes of various shapes and sizes, and fashion price tags.

Unit prices for the AK family of tags as inlays run as low as 5 to 8 cents. The tags are currently available to select clients and partners for testing and deployment and will be available for large-volume orders during the second half of 2006. Test kits are also available on request.

Tagsys has engaged in a partnership with Dow Corning, to develop printed antennas to create a fully integrated RFID solution for industries and packaging manufacturers.

www.tagsysrfid.com

BETTER MOUSETRAPS

Sybase Releases RFID Enterprise 2.0

Sybase, Inc. has launched RFID Enterprise 2.0, a comprehensive RFID data management and integration solution designed to help companies meet the design, deployment and integration challenges presented by enterprise-scale RFID deployments. In addition to device and network management capabilities, RFID Enterprise 2.0 provides a full-featured integrated development environment (IDE) supporting business process orchestration, rules and transformation, business activity monitoring and mobilization features such as alerts and notifications.

«RFID deployments are moving from pilots and proof-of-concept projects to full production systems, and companies are finding scalability and manageability to be significant challenges,» said Neil McGovern, director of Unwired Products for Sybase Information Technology Solutions Group. «Sybase RFID Enterprise 2.0 enables our customers to move beyond basic compliance goals, allowing them to better understand their core business processes and capture the strategic value of RFID.»

Many companies are deploying RFID in order to meet product tracking and traceability requirements mandated by large organizations and government agencies. Beyond meeting the short-term compliance goals, however, many

early adopters are finding that data being collected by the RFID systems can also provide very interesting information about their business and the mission-critical processes that drive it.

«Users need RFID insights - not raw data. Providers with an intimate knowledge of a given business process are better able to re-engineer process steps, negotiate data sharing among trading partners, and design new application workflows,» states Christine Spivey Overby, Principal Analyst with Forrester Research, in her September 2005 report «New Types of RFID Service Providers Emerge.»

Data management is probably the biggest challenge facing RFID today, and Sybase is clearly addressing this issue in a forward-thinking manner. «The data management wave is coming,» said Sybase Product Line Manager Daniel Auker. «Our data management capabilities allow users to integrate their data with existing systems, and enable business process management and design, and business orchestration. Our services-oriented architecture and tools bridge the gap between the technological and non-tech employees, and that is paramount to all businesses.»

RFID Enterprise 2.0 is designed to allow customers to go beyond the

tactical goals of RFID projects and achieve strategic transformation of their business by providing the data services that allow them to integrate, analyze, manage and design their data and systems in a service-oriented manner.

«RFID data becomes strategic when it can be integrated, managed and analyzed effectively in harmony with the rest of the data architecture,» added Auker. «The first challenge is to deploy and manage the network in order to optimize data collection. Middleware built around the service-oriented architecture (SOA) paradigm is essential to integrating RFID data with existing systems and providing the design tools and runtime engines to provide business process design, management, orchestration and monitoring.»

Finally, the massive amount of data generated in RFID deployments requires a world-class database to be effectively persisted and analyzed. Sybase has a long track record of operating in high-transaction environments, and is already looking at what Auker calls the third wave of RFID data processing - business analytics - which will one day be able to combine various historical trends with real-time data analysis.

www.sybase.com

New Avery Dennison InfoChain Express Consolidator Module

A new shipment consolidator module that automates and speeds the receiving process at consolidator locations and helps assure compliance with C-TPAT requirements for tracking goods, is now available as part of the Avery Dennison InfoChain Express

supply chain management solution.

The system, called the InfoChain Express Consolidator Module, links consolidators with buyers, vendors and factories worldwide. In operation, the system makes delivery information

available to the consolidator at the time that cartons leave the factory floor, and it automatically notifies consolidators that a shipment has been sent. The information enables consolidators to prepare in advance for efficient receipt.

BETTER MOUSETRAPS

According to Lynde Richards, director of sales and marketing, Avery Dennison InfoChain Express, shipment accuracy is a primary Compliance Module benefit. "The module eliminates manual processes and errors associated with human entry of data," Richards noted. "The consolidator confirms the shipment's receipt by scanning a bar code. The

module identifies mismatches between what was received and what was listed as being shipped, and then notifies appropriate parties. Factories and consolidators can adjust their inventory records based on what was actually shipped. Factories can produce a final packing list based on what the consolidator actually received. The module also facilitates the timely

issuance of ASNs to retailers and brand owners in compliance with C-TPAT security initiatives. The new module's functionality provides an added degree of accuracy to the overall process of getting goods to consolidators and, ultimately, to their final destinations."

www.infochain.averydennison.com

Cisco & RedPrairie Join Forklift of the Future Initiative

Cisco Systems and RedPrairie are joining forces with Intermec Inc. and Cascade Corp., the world's largest manufacturer of forklift attachments, to create a concept for a forklift that will build RFID and real-time location capabilities right into the equipment of the future.

The concept forklift features Cisco's Wireless Location Appliance and RedPrairie's open Mobile Resource Management software integrated with the forklift RFID reading system developed by Intermec and Cascade. With the complete system, drivers can conveniently read and encode RFID tags without leaving the vehicle, and managers can get real-time data on vehicle locations and activity that can be used to manage labor and assets more efficiently.

As one of the advanced services elements of the Cisco Unified Wireless Network, the Cisco Wireless Location Appliance provides location tracking for devices on a Cisco 802.11 wireless

network. With the RedPrairie software, it can be used to provide the X, Y coordinates of an RFID-enabled forklift, report movements, monitor dwell time and collect other data useful for security, employee performance auditing, maintenance and asset management applications.

RedPrairie's Mobile Resource Management software complements the Wireless Location Appliance by providing advanced data processing and interface capabilities. It can be used with legacy software systems, including leading warehouse management, yard management, and labor planning and asset management applications. The software provides new layers of information about picking and put away processes, workforce performance management and asset utilization that can be used to optimize processes and facilities.

The complete system provides the ruggedness, reliability and reading performance that forklift drivers need to use RFID conveniently, and gives

management the ability to deploy resources efficiently. Each part of the system was developed and integrated specifically to meet the physical and wireless challenges found in industrial environments.

Forklifts envisioned by the group incorporate powerful dashboard computers positioned for maximum safety and efficiency, easy-to-reach RFID controls assimilated into the lift's control mechanisms, wireless real-time location tracking and navigational LEDs for optimal routing, and easy-to-adjust RFID readers designed into the frame of forklift attachments for flexible and accurate use with a wide range of goods and supplies. The concept system, designed specifically for the rugged environment of daily warehouse use, also engineers in a sophisticated cable management system, state-of-the-art wireless scanning capabilities and a built-in camera for cargo documentation.

www.intermec.com

BETTER MOUSETRAPS

VeriChip Introduces VeriTrace

VeriChip Corporation, a subsidiary of Applied Digital is introducing its new VeriTrace system for medical examiners, forensic scientists, criminalists and related organizations. VeriChip implantable microchips were initially used in a forensic application to assist in the identification of Hurricane Katrina victims that were recovered in the aftermath of Hurricane Katrina.

VeriTrace includes an RFID implantable microchip, an advanced Ricoh digital camera and a web-enabled database for gathering and storing information and images. The system allows the user to accurately tag, track, inventory and capture the images of human remains and evidentiary items associated with small casualties, mass

disasters or crime scenes. The features of VeriTrace reveal a complete end-to-end solution for medical examiners, coroners, forensic scientists, sheriff's departments, police organizations, criminalists, crime scene investigators and the like.

The VeriChip RFID implantable microchip is inserted in the remains at the onset of processing. Subsequent to the insertion, a VeriChip scanner is waved over the insertion area and «reads» the VeriChip 16 digit identifier. The Ricoh digital camera has the ability to read the VeriChip ID number via a wireless Bluetooth connection to the VeriChip scanner. Once the VeriChip ID is captured by the camera, it is embedded into every subsequent

image taken and permanently associated with those images. The data and images gathered are then uploaded or entered into a proprietary web-enabled database or an existing database system at the intended facility. The database functionality ensures the precise collection, storage and inventory of all data and images related to the remains and evidentiary items.

This VeriTrace application feature provides the user with the ability to inventory and track all remains, associated evidentiary items and images, and presents the users with an accurate and reliable solution to the daily needs of their facility.

Ekahau and Symbol Technologies Team to Location-Enable Passive RFDI Tags

Ekahau Inc. and Symbol Technologies Inc. have designed a new application using Symbol's MC9000 mobile computing RFID reader, which incorporates Ekahau location-enabling software designed to locate where RFID tags are being read.

The RFID location-enabled Symbol mobile computers are aimed at the retail and supply chain markets and can be extended to pharmaceutical, healthcare, government and other industries where there is strong adoption for Electronic Product Code (EPC) RFID.

The Symbol MC9000-G RFID mobile computer integrates Ekahau's location-tracking software which, in conjunction with a computer running the Ekahau Positioning Engine 3.1 (EPE) application, uses existing Wi-Fi networks to show in real-time the

location of the devices. The companies say the combined solution will enhance the functionality of passive RFID tags by tracking the location of the mobile computer when in use and converting the location information into EPC RFID data in the supply chain. This approach combines the benefits of real-time location systems (RTLS) and RFID by extending the tracking capabilities of RTLS to RFID.

«Symbol rugged mobile computers embedded with Ekahau's WiFi-enabled, location-tracking solution are powerful tools for retailers and other companies that rely heavily on passive RFID tags to manage inventory, and can benefit from knowing where those products reside at any given time,» said Tuomo Rutanen, vice president of business development at Ekahau. «Staff can reduce the time searching

large warehouses or retail facilities, and more quickly find the RFID-tagged items, which allow them to better attend to customers' needs.»

Ekahau has gained a hefty market share in tracking assets in healthcare environments in North America, Europe and Asia with its WiFi-based system. Hospitals are the fastest-growing environments to adopt WiFi networks because, as Rutanen points out, «everything but the curtains and the wall in a hospital is mobile». Building a network within an existing network represents considerable savings both in terms of time and money, and Ekahau's WiFi-tracking technology is making headway in many areas today, including the mining industry and in manufacturing environments.

www.ekahau.com
www.symbol.com

BETTER MOUSETRAPS**Sokymat Lauches Printer Ribbon Anti-counterfeiting Label**

Sokymat SA has developed a 13.56 MHz RFID label specially designed as an anti-counterfeiting tool for printer ribbons. The label attaches directly to the core of the printer ribbon, making it impossible to tamper with. A printer with integrated reader module can now easily distinguish between an original ribbon and unauthorized counterfeits. The system is ideal for high-end printers utilized to produce bank cards or official ID documents, where the use of non-original printer ribbons can endanger the print quality.

The transponder is available both

as a standard label, which comes in a special material with the same printing characteristics as paper, or as a customized product, such as a very robust PET laminated ring label. Sokymat provides this high frequency label with an I-Code1 IC chip. In any case, Sokymat is able to produce any variety of customized label based on ISO 15693 compliant ICs for example.

Sokymat has developed a very small specific flip-chip module package for this application – the SK1 – which makes it possible to produce a very thin and narrow ring transponder,

about 10mm wide and less than 1.2mm thick. This very narrow HF label cannot be produced with traditional label manufacturing techniques (printed or etched antenna), which require a larger pitch resolution between the turns of the coil. The antenna is designed to achieve optimum performance despite the interference that may be present.

Sokymat is already providing this type of label to printer manufacturers who are using this anti-counterfeiting system worldwide.

www.sokymat.com

EVENTS**Smart Labels USA 2006**

March 28-29
Westin Copley Hotel, Boston MA

RFID is acknowledged as an enabling technology impacting many areas of human endeavour. Thousands of companies supply solutions throughout the RFID value chain today, yet it is curious to monitor the industry as it evolves: some applications are vastly oversupplied with little product value offered. Others are undersupplied despite high value tags being requested by users. East Asia will become the largest market for RFID in just a few years yet few know of what is really happening there. Many large niches exist which have few system

providers with appropriate experience. Most do not know of the largest and most profitable orders of RFID so far and ones that are emerging - and who is placing them. Many chase shadows. Few know of the 10 different types of chipless RFID technologies and the dozens of companies developing them, or of the impact or profitability of active RFID. How do you make RFID smart labels to help meet the real demand? How do you add value to RFID smart labels to make money now? What is coming next that you need to take into account before investing further in RFID?

This fifth annual IDTechEx event has

been devised to tackle these issues. We are flying in experts from China, Korea, Japan, Hong Kong, the Middle East and Europe to inform you of the global situation. We cover new opportunities from users and step-by-step implementation approaches. We dedicate sessions to developments in chipless RFID (with world first launches), active RFID (now merging with Wifi, Zigbee ...) and passive chip RFID (such as new long range HF systems).

To find out more and to register, please visit www.smartlabelsusa.com

Euro ID 2006

The EURO ID 2006, 2nd International Trade Fair & Knowledge Forum for Automatic Identification, will take place from 16th to 18th May 2006 at the EXPO XXI, Expocentre, Cologne (Germany). The trade fair offers solutions for production, logistics and trade in all lines of business:

- RFID Systems and Smart Labels
- Barcode Scanner and Mobile Terminals
- Print and Apply Systems
- Integration and Software

Exciting side events will make the EURO ID 2006 a meeting point for the Auto ID community throughout Europe. Further information: www.euro-id-tradefair.com

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