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NEW PRODUCTS

Intelleflex and Minds Inc. deliver RFID-enabled telematics solution for agriculture market

Intelleflex Corporation, a provider of extended-capability RFID, announced a joint solution with Minds Inc. for the automated tracking of crop harvesting. The solution combines the best of GPS, RFID, and wireless communications technologies to provide real-time visibility into field-harvesting activities anywhere, anytime. Using this...
solution, growers and harvesters can track the exact location, timing, and efficiency of each harvester, as well as the arrival, loading, and departure times of crop transport vehicles.

The harvesting of crops is a time-sensitive operation that requires coordination between growers, harvesters, and transportation vehicle operators to obtain the maximum yield from each harvest.

Reliance on current manual tracking methods can hinder coordination and slow work flows in the field, adversely affecting product quality.

“In the crunch of harvest time, people are focused on the task at hand (i.e. the harvesting of crops), and not the tracking, recording and communications of operational data. As a result, there is often a lack of the information required to ensure the most efficient operation,” said Pierre Vidaillac, president of Minds Inc. “Leveraging our success with Intelleflex in tracking hot mix asphalt for the road construction industry, we were able to develop a solution that is specifically designed to track the harvesting of crops in the field.”

“This is a great example of how today’s business needs are driving the usage of RFID and complementary technologies. While GPS provided exact location finding capabilities for the harvester, it did not by itself deliver a cost-effective, event-driven solution to track the arrival and departure of transport vehicles at the harvester,” said Sam Liu, marketing director at Intelleflex.

“By adding our Extended Capability RFID into the solution mix, we fill that need, and deliver significant incremental value.”

Using the Intelleflex and Minds’ solution, GPS units and RFID readers are mounted on harvesters to track their whereabouts in the field as well as the arrival, loading, and departure times of transport vehicles.

The information is then transmitted wirelessly for immediate access anywhere, anytime — over the Web and mobile phones.

Alien Technology introduces intelligent tag radar software to enable new applications for RFID

Alien Technology, a provider of RFID ultrahigh-frequency (UHF) products and services, announced the availability of its new Intelligent Tag Radar (ITR) software developed for the ALR-9900, ALR-9800, and ALR-8800 Enterprise-Class reader platform. ITR is the first RFID reader software to provide comprehensive information about the position and direction of UHF RFID tags in addition to the contents of the tag memory.

The Intelligent Tag Radar reader platform includes the following:

- ITR-Singulation, a technology that enables the reader to easily discriminate among adjacent tagged objects on a conveyor such as items, cases, or airline baggage, without the need for specialized antennas, sensors, or near-field equipment;

- ITR-Velocity, which provides real-time information on the speed of a tagged object, enabling discrimination between stationary and moving objects and automated decision-making based on speed and location;

- ITR-Directionality, which identifies whether an item is coming or going as well as the direction of the item;

- ITR-Range, which enables the system to isolate tagged items to a given zone, with sufficient precision for most applications, but with much lower cost than competitive technologies like active and Wi-Fi tags.

“With this new ITR platform, our partners and their customers can derive new value from their existing investments in RFID,” said Scot Stelter, director of reader product marketing with Alien Technology. “This extension of the Alien Reader Protocol enables our partners to address unsolved business problems using existing Alien readers and Gen 2 tags as well as to expand RFID into new growth applications and segments.”

ITR application examples:
- ITR for airline baggage and manufacturing — One of the challenges of using RFID with conveyor belts is the difficulty in isolating individual tagged objects as they pass the antenna. Standard solutions to this problem entail reducing conveyor speed or creating greater separation between tagged objects. ITR-Singulation enables the isolation of the one tag that is “top-dead-center” with respect to the antenna. This allows the system to keep track of the order of the tagged objects and to take specific action with respect to each one. Alien subsidiary Quatrotec is using ITR, in addition to its airport RFID solution, in baggage-handling applications being evaluated now by several airports and baggage handling companies.

- ITR for retail — Retail users of RFID need to know not only that a given reader has detected a certain tag, but in which direction the tag is traveling when it was detected. Knowing whether a case of product has moved from the back room to the store floor or the reverse helps provide more-accurate inventory information and supplements shrinkage-control systems. Retailers will also be able to discern moving inventory items from stationary ones with ITR-Velocity. This information provides retailers with timely and specific information on the product the user is examining, while collecting data about how long the customer interacted with the item. This valuable marketing data will help retailers to optimize merchandizing displays and to know which products are hot in real time.

- ITR for asset tracking — In many asset-tracking applications, passive RFID is replacing the more expensive active RFID solution. ITR-Range enables the system to isolate the tag to a given zone, which in many cases is sufficient precision for the user, who retains all of the cost benefits of passive RFID. Alien developed this application to aid in the loading process for cargo helicopters.

“The availability of Alien’s ITR software points to continued passive UHF application enablement in the industry,” said Michael Liard, research director for RFID and contactless technologies and markets at ABI Research. “The ability to understand where an item is going, where its exact location is among other items, while on a conveyor or passing through a read zone, opens up the door for application use of RFID that’s well beyond the supply chain, manufacturing and simple asset tracking. Enterprises such as airlines and airports, large package and postal service companies, and others can benefit from the use of the Intelligent Tag Radar.”

Alien’s software for the patent-pending ITR can be downloaded by existing and new customers from the Alien Partner Portal. The new firmware includes an updated software development kit with sample code for several of the applications described above. For more information about the Alien reader portfolio and the ITR software upgrade, including datasheets and pictures, go to www.alientechnology.com/readers.

3M Library Systems upgrades ‘basic’ RFID tag to 1K of memory

3M Library Systems introduced an upgraded “basic” RFID tag with 1K of memory, a fourfold increase over the former basic tag, at the American Library Association annual conference, held at the Anaheim Convention Center.

The new tag can be imprinted with custom logos and barcodes by library staff and is fully rewriteable to allow compliance with a future ISO tag data standard and country-specific standards. The new basic tag continues to meet ISO 15693-3 and 18000-3 standards, as do all other 3M RFID tag options.

“The purpose of this upgrade is to provide our customers with peace of mind in knowing that their investment in RFID technology has longevity and a better price/value option for library system customers,” said Jacob Haas, market development manager, 3M Library Systems.
"The memory capacity is large enough for future applications, and users are provided with another tag option to meet their price needs. These are very high-value advantages for a basic tag option."

Added Haas, "This new basic tag option fits into a complete line of RFID tags (premium and enhanced) that 3M provides to libraries. It is part of a complete portfolio of RFID tags that gives the library a choice of tag options that will best fit its needs."

The tags, which are affixed to circulating items, are employed in a host of easy-to-use 3M Library Systems RFID applications that boost performance and productivity in circulation management, inventory control, and security.

3M Library Systems' new basic tag has been accelerated-age-tested and is guaranteed for the life of the item to which it is affixed. It also has a "fast-read multiblock" feature that provides high performance when multiple tags must be read simultaneously. Moreover, the ability to custom print on the tags right at the library also enables rapid conversion.

Lem Amen, vice president, 3M Track and Trace Solutions, which include RFID applications, says the new 3M basic RFID tag "is another big step forward in helping libraries adopt the productivity enhancing benefits of RFID.

Libraries face mounting pressures today to provide more services to growing populations without substantial increases in human or financial resources. RFID technology is a staff-and-customer-friendly, cost-efficient means of filling the gap."

3M Library Systems provides security, productivity, and information-management solutions that harness technology to enable a more human library, freeing librarians to spend more time doing what they do best — helping people. 3M also partners with libraries to support their technological advancement and ensure their success through numerous industry sponsorships and programs. For more information about the 3M Library Systems, visit http://www.3M.com/library.

**3M Library Systems unveils high-speed print conversion system for combined RFID and barcode tag printing with custom logos**

3M Library Systems introduced its 3M Print Conversion System for high-speed conversion to RFID collection management systems and subsequent tag printing at the American Library Association’s annual conference.

The 3M Print Conversion System, with its easy-to-use intuitive interface, fast reader, and automatic tag printer, enables staff to simultaneously print barcodes and custom logos on the RFID tags, while weeding the collection at the same time.

"The resulting productivity increase and cost savings are substantial," said Jacob Haas, market development manager, 3M Library Systems. "Even after RFID conversion, libraries want to retain barcodes to have a visible number on their collection items for various uses, and a logo to identify items that are loaned to other branches and libraries.

The 3M Print Conversion System handles all of that in one step, plus weeding. It’s one of the most efficient conversion systems available, and eliminates the cost of buying barcodes for future additions to the library collection."

Haas also noted that the 3M Print Conversion System, as with all 3M Library Systems RFID products, gives the user access to 3M Tag Data Manager, which empowers the library to change its data format to ISO tag data without changing tags, if future needs make that desirable or necessary.

"We don’t lock our customers into our data format," he said. "We want libraries to have the freedom to make changes as easily and cost-effectively as possible, especially because an ISO standardized format may be issued in the not-too-distant future."
The 3M Print Conversion System works with a library’s own PCs so the user can take advantage of its advantageously priced PC contracts and maintain standardized computer usage. The system is available with high-volume and regular-volume options to suit individual library requirements. It also can reprogram RFID tags as items change.

“The 3M Print Conversion System is another important step forward for the productivity gains that RFID is bringing to libraries around the world,” said Rory Yanchek, business manager, 3M Track and Trace Solutions. “As the demand for library services increases at a time when budgets are static, at best, we are making this technology easy to use so that every library staff member can perform his or her tasks with greater efficiency and job satisfaction.”

The new workstation meets the EU RoHS (European Union’s Restriction of Hazardous Substances) directive. RoHS restricts the use of certain hazardous substances in electrical and electronic equipment, including that sold to the library market. To learn more about how 3M Library Systems products meet the EU RoHS directive, visit http://www.3M.com/us/library and click Recycling/Regulatory.

**Sonoco and IPICO introduce embedded identification technology to the paper industry**

Sonoco, one of the largest diversified global packaging companies, and IPICO Inc. announced the availability of the world’s first RFID enabled core solution specifically designed for the paper industry.

Using IPICO’s dual-frequency technology, the new fiber cores allow customers to automatically identify, track, and locate paper rolls at any point in the supply chain.

“IPICO and Sonoco have developed a unique process by which RFID technology is embedded in fiber-based cores. Sonoco is using this process to produce its new Intellicore engineered carriers which are specifically designed to meet the unique needs of paper manufactures,” said John Colyer, Sonoco vice president, Industrial Products — North America. “This technology can be read through any size of paper roll, which allows for easy management throughout the product’s life cycle.”

Sonoco is the world’s largest manufacturer of fiber-based tubes and cores, many of which are used by companies around the world to package various grades and types of paper.

“Until now, the paper industry hasn’t been able to seamlessly provide real time tracking and location for the hundreds of millions of rolls it produces annually,” said Gordon Westwater, president and chief executive officer of IPICO. “Working with Sonoco and using IPICO’s leading identification technology, we have created what we believe will quickly become the RFID standard for the paper industry.”

Leading paper manufacturers have long sought reliable and cost-effective tools to help their customers instantly track exact paper roll location, recognizing that paper grade identification, storage visibility, and waste reduction are key opportunities for cost savings and profit enhancement.

This new technology shows potential to deliver important financial and environmental benefits to customers around the world, and is designed as an end-to-end management solution dedicated to improving the user’s bottom line.

“The RFID-enabled paper rolls represent a step-change in material management for our site. We have a solution that is actually working and enables automatic goods receipt and matching against order and shipping document without any manual intervention,” said Mike Ramsay, managing director, Mondi March Corrugated Packaging.

“The system gives the site real-time, foolproof data that enables us to determine exactly
which reel has been used for each customer product. This, for the first time, gives us full traceability so that we can guarantee to a customer that the correct type and source of paper has been used.

The technology is so simple to use that it provides a win-win solution with accurate data reporting and at less cost to acquire through savings in labor, waste, stock levels and stock outs.”

CONTRACTS

Oil & Gas RFID Solution Group: Petroleum industry turns to Texas for RFID

Exceptionally high crude prices and surging global demand have led the oil and gas industry to seek out technologies such as RFID as a means of gaining operational insight within their organizations. Everything from streamlining product procurement to enhancing safety and reliability of field equipment can be automated or improved through an RFID technology backbone.

Leading this wave of industry support is the Oil & Gas RFID Solution Group, an alliance of subject-matter experts, academic researchers, and technology providers consisting of Texas A&M University, University of Houston, Avery Dennison, Merlin Concepts & Technology, Shipcom Wireless, Motorola Inc., and a handful of leading petroleum companies. This multi-disciplinary field of experts is helping exploration, drilling, and production organizations identify, define, develop, and deploy RFID systems to address fundamental issues that are inherent to their respective fields.

“The group has been created as a means to unify the industry’s direction and synchronize its efforts with respect to product and standards development.

Serving as a think-tank and research and development center to build the next generation of RFID systems for the petroleum industry. We are here to assist and work hand-in-hand with the oil & gas market space to achieve successful and value-added deployment of this technology by supporting these organizations through our comprehensive set of field-experts, our RFID lab facilities, real-world test environments, and standards development roadmaps,” said Dr. Ben Zoghi, director of the Oil & Gas Solution Group and professor at Texas A&M University.

The solution group offers an arena for the petroleum industry to communicate their underlying needs and align them with the technology. It offers petroleum companies the ability to voice their requirements for specific applications of RFID and have the experts in the solution group deliver on these requirements. It also offers a way of building a consolidated methodology of exchanging and interpreting information related to the collected RFID data.

“One of the objectives of our group is to provide a concise and clear direction for how the petroleum market can use radio frequency identification technology. This entails defining best-practices, operational processes, data-models, and application architectures. Outlining these steps is a critical precursor to industry adoption.

Building this foundation provides a clear view of where and how RFID technology can be used,” said Konrad Konarski, a founding member of the Oil & Gas Solution Group and vice-president of Merlin Concepts and Technology.

Standards development can embody defining the data-schema of an RFID tag, but it can also involve understanding operational conditions, for instance, how the cocktail of chemicals inserted into a drill string affects readability and survivability of a tag. Hydrochloric acid for acid fracturing, hydrogen sulfide from down-hole corrosive gases, or barite in the drilling mud are all factors that determine how RFID technology can be used and how it needs to be designed and developed to work effectively.
Understanding these environmental factors helps define best practices that integrators can use to interpret critical components of system development and thereby successfully build RFID technologies for these application areas.

EPC Global, the international standards board for RFID technology, is also playing an active part in accelerating this industry’s move towards RFID.

The standards board is currently working in collaboration with the Oil & Gas Solution Group to achieve these underlying objectives and develop the next-generation in RFID Systems for this industry.

“A thriving [petroleum] market space brings with it great complexity. Supplier networks have become more intricate, drilling locations more diverse, and consumer markets more wide-spread. As such, there is fundamental need to leverage next-generation technologies such as RFID to enhance asset utilization and streamline operational processes. RFID technology clearly possesses the ability to support the industries growth and address some of its critical pain-points,” added Alex Heredia, vice-president of Oil & Gas for Shipcom Wireless and member of the Oil & Gas Solution Group.

With these new RFID systems capable of storing more information in extreme environmental surroundings while being read at longer distances and maintaining lower price points, the industry is in line for a variety of new and revolutionary application areas of the technology.

Current uses of the technology include drill-pipe validation, circulation subactuation, perforating gun triggering, personnel geofencing, and supply chain visibility, among others. The list will continue to grow, and the adoption rate increase as the Oil & Gas Solution Group and others drive RFID as a business tool that enables process intelligence by revolutionizing procurement, production, and process control.

The Oil & Gas RFID (OGR) Solution Group brings together select industry subject-matter experts, academic researchers, and technology service providers to identify, define, develop, and deploy cutting-edge solutions for exploration, production, drilling, and product manufacturing in the oil and gas market. By educating and refining the customers understanding of what the technology can do for them and developing systems with the help of a consolidated effort of oil and gas professionals, the solutions group is creating scalable application systems and data standards and helping generate understanding and adoption of RFID within the oil and gas Industry.

For more information visit www.rfidsolutiongroup.com.

3M Track and Trace Solutions installs RFID tracking system to manage 150,000 medical records at Fort Hood

3M has completed the development and installation of an RFID Smart Shelf System to track and manage the more than 150,000 medical files of US Army personnel and their family members at Fort Hood, Texas. Under the terms of a three-year, $3.76 million contract, 3M Track and Trace Solutions will provide training and maintenance services over the next year.

Fort Hood, situated about 60 miles north of Austin, the state capital, is the nation’s largest active-duty domestic armed forces facility. It occupies 340 square miles.

The custom-designed 3M RFID Smart Shelf System is the centerpiece of a pilot program that may be extended to other military installations after a period of evaluation.

The system is intended to substantially reduce errors and inefficiencies associated with manual tracking, retrieval, filing, and file merging methods of medical records management at Fort Hood, where thousands of files may be in use at the base’s six clinics during any given month. In turn, such improvement would make
a positive impact on operational efficiencies in health care delivery, the troop deployment process, and the management of medical data collection.

One of the top priorities of the system is to provide virtually instant accessibility to complete medical records for soldiers and their family members requiring intensive and complex healthcare services.

“The cost-efficiency and far-reaching versatility of RFID is prompting an expanding range of innovative applications in almost all facets of society,” observed Lem Amen, vice president, 3M Track and Trace Solutions. “As a leader in this emerging technology, 3M is very proud to help introduce this powerful tool to the Army.”

The program to track and manage Army medical records using radio frequency identification technology is being led by the Telemedicine and Advanced Technology Research Center (TATRC), a unit of the US Army Medical Research and Materiel Command (USAMRMC).

The Army becomes the first branch of the US Armed Forces to deploy this RFID system from 3M for medical records management. Three other federal government entities are using RFID systems from 3M Track and Trace Solutions for applications not requiring Smart Shelf technology. David Erickson, 3M program manager for the Fort Hood project, said approximately 300 cabinets have been installed with “smart shelves” to accommodate the more than 150,000 medical files, whose movements are continuously monitored.

“The system is designed to provide automatic inventory monitoring and automatic error notification, and thereby essentially eliminate human compliance issues,” he said. “The problems that arise in manually managing vast numbers of medical records are not only a waste of time and money, but, more important, they can adversely affect the delivery of medical services.

And on a major military installation, they can also have an impact on the timely deployment of personnel to their assignments to other parts of the world.”

Erickson said 3M’s Fort Hood contract covered the tasks of choosing and optimizing the best radio frequency technology for this application, developing a cost-effective system that includes shelf-based reading technology and specialized software tailored specifically to meet the military’s processes and the installation and training of personnel for its use and maintenance.

Sirit Inc. is providing INfinity 510 UHF tag readers for the Fort Hood RFID installation.

“This application presented a number of environmental, technological and performance challenges, and 3M has implemented several unique concepts to achieve remarkable results,” says Tony Sabetti, Sirit vice president, RF Solutions.

“We are pleased that the IN 510, which was selected as the top performing reader in the ODIN technologies Reader Benchmark report, provides the reader management flexibility, read accuracy, and high tag read rates needed to meet the stringent requirements for the application.”

Alanco/TSI PRISM announces new Puerto Rico prison project

Alanco Technologies Inc. announced that its Alanco/TSI PRISM Inc. subsidiary has been awarded a contract by the Weil Group Inc. to design a TSI PRISM RFID inmate tracking system for a prison complex located in Bayamon, Puerto Rico, operated by the Puerto Rico Department of Corrections and Rehabilitation. Current project plans call for incorporation of TSI PRISM into one, and possibly two, 500-bed facilities of similar design and architecture within the Bayamon complex. The Weil Group, a security systems consulting firm located in Caguas, Puerto Rico, is the prime contractor on the Bayamon project.
The total value of the project, to be confirmed in early August 2008 upon completion of the system design, will be in the range of $800,000 for both 500-bed facilities. The project contract is anticipated to be finalized and awarded in the August/September 2008 time period.

Greg M. Oester, president of Alanco/TSI PRISM, commented, “Puerto Rico is the fourth contract awarded to TSI PRISM this year, three of which have been attained through the efforts of security integrators such as the Weil Group, which provide a high degree of expertise and strong customer relationships. This new integrator involvement is indicative of accelerated interest and acceptance of RFID tracking’s value proposition throughout the corrections industry.”

For more information, please visit www.alanco.com.

Vail Resorts improves season ski pass holder experience with Intermec RFID

Intermec Inc. announced that its CN3 mobile computers with IP30 handheld RFID readers have been chosen by Vail Resorts, the premier mountain resort company in the world and a leader in luxury destination-based travel at iconic locations, for its 2008-2009 season ski passes at Vail, Beaver Creek, Breckenridge, Keystone, and Heavenly.

The “easy scan” process makes getting through lift lines easier and more convenient by using RFID technology to give skiers and snowboarders holding 2008-2009 season passes the option to keep their passes inside their jackets and be automatically scanned by a Vail Resorts employee in the lift line.

“With Intermec RFID readers, we will be able to significantly enhance our guest experience by making the lift line process easier and more convenient for our guests who have purchased any of our four season pass products — The Epic Pass, The Colorado Pass, The Summit Pass or The Heavenly Pass,” stated Robert Urwiler, chief information officer for Vail Resorts.

The Intermec CN3 mobile computers with IP30 handheld RFID readers combine the smallest, most advanced, rugged computer in the world with a powerful, modular passive UHF RFID handle.

The modularity of the IP30 and the RFID-readiness of Intermec mobile computers mean the power of RFID can be literally added in a snap today or at any point in the future. The Intermec CN3 also integrates GPS and Bluetooth to increase efficiency and safety by enabling hands-free turn-by-turn voice navigation. With 3G WAN and Cisco Compatible Wi-Fi and Bluetooth radios, users are connected with voice and high-speed data (GSM/EDGE or CDMA/EV-DO) anywhere they go.

“Vail Resorts is a leader in providing exceptional experiences for their guests,” said Intermec’s vice president of RFID, Ray Cronin. “We are pleased that Intermec CN3 mobile computers with IP30 RFID readers help continue that history of excellence by giving their ski and snowboard guests the kind of easy experience that will become the future of lift line processes.”

ITG Vista Sorting operates with 3M RFID technology at Lone Tree Public Library

Douglas County Libraries have installed Vista Sorting at the Lone Tree Public Library in Colorado. Vista Sorting has helped the Lone Tree Public Library reach its short-term goal of reshelving materials within 24 hours of drop-off. The library’s future goal is to r-shelve items within four and a half hours of drop-off. In addition, Vista Sorting has also reduced the risk of staff injuries associated with repetitive-motion tasks and heavy lifting.

“We wanted to use an automated materials handling system at our Lone Tree branch, which is smaller than our regional branches, but we didn’t want to spend a fortune on a large piece of equipment,” said Bob
Pasicznyuk, associate director of virtual services. “ITG offered the perfect solution with Vista Sorting. It fits in small spaces, and it is cost-effective.”

Circulation for Douglas County Libraries exceeded 6 million in 2007, and it is expected to increase to more than 7 million in 2008. The library system, which includes three regional libraries, two neighborhood libraries, two satellite libraries, and a bookmobile, is one of the first library systems in Colorado to implement an automated materials-handling system.

“More and more, libraries must find ways to reduce handling of items and free up staff for other activities. In these tough financial times when staffing budgets are frozen, libraries must find ways to get things done without adding additional people. Automated materials handling is one of the most effective ways to accomplish this,” said Amy Thropp, vice president of marketing for ITG.

“We have developed a method for tracking our return on investment of the automated materials handling system, and we are more than pleased with the results,” said Pasicznyuk. “Throughout our library system, we have been able to reduce the number of times our staff members have to touch or handle an item by more than 66 percent.”

Florida’s Turnpike Enterprise adopts TransCore’s eGo Plus RFID sticker technology

Florida’s Turnpike Enterprise (FTE), which manages the statewide SunPass system used on 460 miles of Florida’s toll highways, selects TransCore’s eGo Plus RFID sticker tag to upgrade its current technology that has been in use since the late 1990s. The paper-thin, batteryless tags will be sold as the SunPass “Mini” and be available summer 2008 at regular SunPass outlets. The multimillion-dollar order is for 1.5 million eGo Plus tags.

The newer, more versatile, and more affordable tags overcome the cost barrier to widespread adoption of electronic toll-collection technology, making it more attractive to migrate to all-electronic toll roads and increase the number of customers who pay tolls wirelessly versus manually.

The more than 3 million hardcase SunPass tags currently in use will work alongside the new “mini” tags. Around the country, the eGo Plus technology has also been adopted for high-speed tolling by Houston’s Harris County Toll Road Authority, the Texas Department of Transportation, and the Washington Department of Transportation.

As technology continues to erase boundaries and convenience becomes central to customer service, acceptance of wireless payments systems for other applications such as paying for parking or access to gated communities has grown. Throughout Florida, the use and ease of the SunPass system has spread to airport parking operations with airports in the midst of deploying interoperable payment systems in Miami, Fort Lauderdale, Orlando, Tampa, and West Palm Beach.

“Florida’s Turnpike Enterprise continues to demonstrate its commitment to improving motorists’ experience by implementing innovative open road tolling designs and providing newer interoperable technology,” said John Simler, president of TransCore Intelligent Transportation Systems Group. “After a decade of providing SunPass RFID technology, TransCore recognized the need to provide FTE with next-generation technology to support evolving transportation needs.”

With the growing interest in “greener” technology, the newer, sleeker, batteryless technology provides environmental benefits, as well. As more customers shift to paying tolls electronically, this reduces congestion and eliminates idle times at toll plazas, significantly reducing vehicle emissions and improving air quality.

The smaller-profile tag also consumes less petroleum-based raw material to
manufacture and reduces transportation and shipping requirements. The batteryless design of the tag eliminates the additional cost and demand for batteries and subsequent storage and disposal requirements.

**PARTNERSHIPS**

**MIKOH and Ship2Save prevent dealership car theft**

MIKOH Corporation and Ship2Save entered a partnership to deliver joint solutions to AVS Key and Inventory Solutions as part of the company's RFID-enabled security system aimed to prevent car theft from automotive dealerships. The solution combines MIKOH’s Smart&Secure tamper evident RFID platform with custom cabinets from Ship2Save and the company’s Operational Management Systems (OMS).

“Car theft is a rising concern for dealerships, mostly due to stolen keys,” said Anoop Sharma, president of AVS Key and Inventory Solutions and a former Toronto police officer. “During test drives, thieves switch the original keys with counterfeits, returning a few hours later to drive the car off the lot and onto a waiting truck. RFID is an ideal security solution to prevent key counterfeiting and theft.”

AVS Key and Inventory Solutions approached MIKOH and Ship2Save to create a security solution to prevent car theft due to stolen dealership keys. The keys are stored in a custom Ship2Save cabinet equipped with an automatic locking mechanism. Employees must check out keys using coded ID cards, but are only authorized to check out a certain quantity of keys for a limited period of time. If keys are not returned within that time period, or if more keys are removed than allowed, the Ship2Save OMS alerts designated parties within the company that the keys are at risk. The dealership can then move at-risk vehicles to secure locations to prevent theft.

MIKOH delivers tamper-evidence security with Smart&Secure. Each key is equipped with an RFID tag using the Smart&Secure platform. The RFID functionality is disabled if the tag is tampered with or removed. This prevents thieves from circumventing the security system.

“Car theft costs dealerships approximately $420,000 each year, not including increased insurance premiums and lost opportunity costs,” said Aminder Singh, vice president products and services for Ship2Save. “The Ship2Save and MIKOH partnership creates an obvious solution to enhance dealership security. The addressable market in North America alone is more than 10 million tags annually.” In addition, dealership employees often misplace keys or forget to return them, forcing the dealership to order expensive replacements. Dealerships spend an average of $2,000 each year in key replacement fees. The AVS Key and Inventory Solutions system enables dealerships to better manage key inventories. “AVS Key and Inventory Solutions perfectly illustrates how RFID can be leveraged to create an innovative solution to a specific market need,” said AndrewStrauch, vice president of product marketing and management for MIKOH. “The result prevents car theft, saving money for both dealerships and insurance companies while also saving time and resources for local law enforcement organizations.” The AVS Key and Inventory Solutions system is currently deployed in a Toronto-based car dealership, with plans to expand to eight additional dealerships across the greater Toronto metropolitan area. Future plans call for product deployments across the whole of North America.

**Hi-G-Tek and Identec Solutions partner to offer a complete ISO Standard 18000-7 active RFID solution set**

Hi-G-Tek (www.higtek.com), a developer of RFID sensing and control solutions for
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tracking high-value cargo and sensitive materials, announced a strategic partnership with Dallas, Texas-based Identec Solutions (www.identecsolutions.com), a provider of intelligent wireless identification technology for the automotive; oil, gas, and mining; defense; construction; and logistics industries. This partnership is designed to supply a complete menu of active-RFID solutions based on the International Organization for Standardization (ISO) Standard 18000-7:2008 and in response to a US Department of Defense (DoD) Request for Proposal (RFP), termed RFID-III, which is seeking RFID 18000-7 protocol licensees.

The ISO 18000-7 protocol is an international standard that operates at 433MHz and is used around the world by the DoD, the North Atlantic Treaty Organization (NATO), and various military defense systems. This frequency features a low power consumption that allows the incorporation of various sensor attributes, including temperature, location, and humidity. In addition, the 18000-7 standard established an automatic identification of assets at distances exceeding 100 meters.

DoD uses active RFID technology to monitor, track, and protect cargo in transit across the globe. According to DoD’s Draft RFID-III Statement of Work, all RFID-III contracts will provide integrated ISO 18000-7 compliant active RFID hardware, software, documentation, and services.

The primary purpose of the contract is to supply a universal, integrated platform among government users of active RFID components for logistics and location tracking and conditional monitoring of cargo and assets.

Hi-G-Tek and Identec are blending complementary technologies from the companies’ two product lines. Hi-G-Tek’s solution monitors cargo en route, while also providing real-time conditional monitoring of assets. Identec's solution provides asset and basic sensor tags. The melding of these two active RFID capabilities will allow the systems integrators (Primes) to bid on all aspects of the RFID-III RFP.

“Our experience as the world leader in commercial active-RFID, combined with Hi-G-Tek’s innovative sensor and monitoring solutions, allows this technology partnership to deliver the most comprehensive and robust set of products and services to DoD,” stated Peter Linke, executive vice president, sales and marketing, Identec Solutions.

Erik Wood, vice president of business development, Hi-G-Tek, said, “We recognize Identec Solutions as the world’s leader in high-volume, active-RFID technology, which clearly complements Hi-G-Tek’s world-class, premium functionality active-RFID technology. The marriage of these best-of-breed categories will offer DoD and NATO allies the most comprehensive menu of standards-based active-RFID solutions ever seen on the market.”

FINANCING

ThingMagic closes $9.5 million in additional funding

ThingMagic Inc. (www.thingmagic.com), a developer of RFID technology, has secured an additional $9.5 million in funding from existing investors, including Tudor Ventures, The Exxel Group, Morningside Technology Ventures, and .406 Ventures.

ThingMagic specializes in the development of RFID readers, sensors, and embedded RFID technologies including fixed and embedded RFID readers and antennas and embedded and OEM RFID technology, as well as professional services that facilitate the integration of RFID into a wide range of industrial and consumer products. ThingMagic’s customers include some of the world’s largest retailers, consumer companies, automotive firms, manufacturers, and industrial automation firms.

“The last two years have brought significant change to the RFID marketplace.
RFID has expanded into commercial and consumer markets and our UHF RFID reader modules, software and design services are enabling our customers and partners to embed RFID into their products and applications,” said Tom Grant, chairman and CEO of ThingMagic Inc.

“For a growing range of consumer and commercial products, such as Ford Tool Link and Lexmark’s T640rn laser printer, ThingMagic’s embedded RFID readers have become the engine in RFID.”

“ThingMagic has witnessed substantial demand across a wide range of industries and applications for its embedded RFID module product line,” said Larry Begley, co-founder and managing director with .406 Ventures. “This, coupled with their leadership position in RFID supply chain applications, underscores the company’s market opportunity and makes ThingMagic a compelling investment.”

MERGERS AND ACQUISITIONS

VeriChip completes sale of Xmark to Stanley for $47.9 million cash

VeriChip Corporation (the “company”), a provider of RFID systems for healthcare and patient-related needs, announced it has completed the sale of its wholly owned Canadian subsidiary, Xmark Corporation (Xmark), to Stanley Canada Corporation, a wholly owned subsidiary of The Stanley Works (Stanley) for $47.9 million in cash, which consists of the $45 million purchase price plus a balance sheet adjustment of $2.9 million.

Under the terms of the Stock Purchase Agreement between the company and The Stanley Works, the company will use the proceeds of the sale of Xmark to retire all of the company’s outstanding debt.

The company expects to realize net proceeds — after retiring its outstanding debt, paying transaction related costs, and other contractual commitments — of approximately $24.8 million. Under the terms of the Stock Purchase Agreement, $4.5 million of the proceeds will be held in escrow for a period of 12 months. The company intends to fund a special dividend to stockholders currently estimated to be at least $15 million.

Scott R. Silverman, departing chairman and chief executive officer of VeriChip, said, “We are pleased to have completed the sale of Xmark to The Stanley Works. We believe the transaction, which provided an excellent valuation for Xmark, was in the best interest of our stockholders.

It will enable us to pay off all of our outstanding debt and issue a special cash dividend to our stockholders. Furthermore, the search for potential buyers of our VeriMed Health Link business continues. The Company looks forward to updating you on the possible sale of that business or the entire Company and any additional cash dividend that may be paid to stockholders.

“I want to thank Bill Caragol, Dan Gunther, Mike Feder, the Board of Directors and the entire VeriChip team for their hard work and dedication,” continued Silverman. “It has been an honor to work with all of you. You have taught me a lot and I wish you all the best.”

As previously announced, Scott R. Silverman and the company mutually agreed that, at the closing of the transaction, Mr. Silverman would no longer be an officer or director of the company. William J. Caragol continues as the company’s president and chief financial officer. Joseph J. Grillo, president and chief executive officer of Digital Angel Corporation, the company’s 48 percent stockholder, has replaced Mr. Silverman as chairman of the company’s board of directors.

Commenting on the transaction and Mr. Silverman’s departure, Joseph J. Grillo, chief executive officer of Digital Angel Corporation and new chairman of VeriChip Corporation, stated, “I share Scott’s views about the completion of the sale of the Xmark business. Not only does it
benefit VeriChip’s stockholders but it also significantly strengthens Digital Angel’s balance sheet. I look forward to working with the current VeriChip Board.

On behalf of both Boards and on behalf of all our stockholders, I want to thank Scott for his years of service to VeriChip, Applied Digital, Digital Angel and all related companies. His professionalism, tenacity and perseverance for 13 years exemplifies his dedication to the success of these businesses. We wish him the best of luck.”

CheckPoint Systems Inc. to acquire OATSystems Inc.

Checkpoint Systems Inc., a manufacturer and marketer of identification, tracking, security, and merchandising solutions for the retail industry and its supply chain, announced that it has entered into a definitive agreement to acquire OATSystems Inc., a provider of RFID-based application software and middleware. The all-cash transaction is expected to close within two weeks. Checkpoint expects the transaction to be dilutive to earnings per share through 2009 and accretive thereafter.

OATSystems’s international client base consists of leading companies in the retail, consumer products, consumer electronics, manufacturing, life sciences, aerospace, and defense industries.

Checkpoint and OATSystems offer complementary merchandise protection and inventory management applications that together strengthen their combined presence in the retail market.

For retail customers, OATSystems solutions help turn large quantities of data from RFID hardware into meaningful and actionable information.

These solutions enable retailers to enhance operational efficiency by obtaining accurate perpetual inventory levels, ensuring on-shelf availability of merchandise that is seamlessly integrated within the framework of existing loss-prevention strategies and practices.

“With this acquisition, Checkpoint is once again redefining the scope of Shrink Management,” said Rob van der Merwe, president and chief executive officer, Checkpoint Systems Inc.

“The addition of OATSystems builds upon our previously announced strategy to help retailers and their suppliers migrate more easily with our Evolve Electronic Article Surveillance platform to Electronic Product Code RFID. As our industry moves to a common EPC standard, Checkpoint with the addition of OATSystems’ capabilities will now be able to offer solutions that enable retailers and their supply chains to gain deeper inventory visibility — further reducing shrink and increasing bottom-line profits by enhancing on-shelf merchandise availability for consumers.”

Senior management of OATSystems, including Michael George, president and chief executive officer of OATSystems, will continue to operate the business as a division of Checkpoint.

The company will continue to use and develop the OATSystems brand and software platform to serve retail, consumer-products, and industrial customers.

“This is exciting news for OATSystems, its customers, partners and employees,” said Mr. George. “We will continue our mission with the agility and technology innovation that has made OATSystems the leading provider of real-time RFID solutions. Combined with Checkpoint’s global resources and leadership, we will be better positioned to help customers optimize their operations and achieve their goals.”

“The addition of OATSystems provides Checkpoint with multiple avenues for expansion into higher growth markets as cross-selling opportunities are leveraged.

We acted quickly and decisively on the acquisition of this industry recognized market
leader,” added Mr. van der Merwe.

“The transaction is consistent with our plans for growing revenue both organically and through acquisitions.

Importantly, in acquiring OATSystems we are welcoming one of the most respected management teams in the industry and a group of employees who are second to none. We look forward to working closely with the OATSystems team as we continue our efforts to grow our business and position Checkpoint for the future.”

BUSINESS

4C Controls Inc. announces exclusive technology licensing agreement

4C Controls Inc. announced the signing of an exclusive global license agreement acquiring technologies in the field of intrusion-detection systems, radar systems for border and pipeline surveillance, RFID, and RTLS for monitoring and surveillance.

Key features of the acquired technologies include cost-effective use of operations-proven commercially available or off-the-shelf component items, scalability, expandability, and high-performing architecture in terms of response time, image quality, data volume and throughput, and service availability. The company intends to apply for patents in Europe and the USA on these technologies.

The licensed technologies have been developed and improved by Professor Riccardo Maggiora, an active member of the faculty at Politecnico di Torino (“Polito”), one of the leading European technology and scientific research institutes, who is an internationally recognized authority in radar and image-processing systems.

The license agreement between the company and Professor Maggiora includes sublicensing and patent rights for all improvements and related know-how, as well as a long-term R&D program to ensure further development of the acquired technologies and to explore special research in the fields related to the company activities.

The technologies within the scope of the license include the following:
- **Perimeter intrusion detections radars**
  - GUIDAR and RADAR, which are designed to detect moving targets.

  GUIDAR will exploit the features of ultrawideband (UWB) radar signals launched along leaky cables, which are used to detect, locate, and classify any target by means of a high-performing digital signal processing (DSP) system.

  This technology is generally classified as active, volumetric, terrain following, all-weather, ideal for low profile targets, and resistant to vegetation and blowing debris.

- **Real-time positioning systems**

  These systems will consist of a fixed infrastructure of base stations and associated hardware and software to enable accurate real-time tracking and identification of small battery-powered (active) tags, which can be attached to people or objects, within the area covered by the base stations infrastructure.

  Compared to Global Positioning Systems (GPS), this approach provides greater accuracy (typically to a resolution of a few centimeters) and the ability to work in situations...
where GPS generally does not work (such as inside buildings) and with very small tags.

Using innovative UWB signal processing techniques, the system can be applied to track people or objects, to determine their position or the proximity between objects or specific points. Commercial and government applications are wide ranging.

- **EMSEC protection devices**

  Electronic equipment can emit ambient signals from which unauthorized eavesdroppers may reconstruct processed data at some distance. Two planned systems based on this type of security deficiency include the following:

* A single PC/laptop active EMSEC protection system will be based on the emission of signals that provide a secure operating environment. Emitting a dedicated protection signal, the received spectrum is designed to function as a nondiscernable mix of the signal to be protected and the protecting signal. This apparatus is low power, narrow band, impossible to violate, and easy to install. Offering unprecedented performance, these protection systems can be applied to military installations, government buildings, and various tactical operations.

* A corollary second offering will consist of a high-performance (long-distance and wall-penetrable) eavesdropping system on video display unit based on state-of-the-art digital signal processing.

- **Image processing codecs**

  This system will be based on digital signal processors running state-of-the-art image-processing software algorithms. The system obtains an input from any video camera (or radar, or eavesdropping system) and produces alarms and other outputs. It currently performs content video analyses, including motion detection, abandoned/removed object/vehicle detection, perimeter crossing detection, panic situation detection, people/vehicle counting and speed evaluation, PTZ camera tracking, plate recognition, behavior analysis, and face recognition. There are numerous military and civilian applications for this technology. “Today’s agreement contributes important and market leading additions to 4C Controls’ technology, design, production and service offerings as outlined in the Company’s business plan. Coupled with other anticipated near term transactions, we expect to offer a full spectrum of comprehensive and integrated security solutions very shortly,” said Jean-Robert Martin, chairman of 4C Controls. Professor Maggiora presently serves on the 4C Controls board of directors and as chief technology officer of the company. Professor Maggiora is an affiliate of the Antenna and Electromagnetic Compatibility Laboratory (LACE) at the Politecnico di Torino, Italy (“Polito”).

  He has more than a decade of experience in the design, construction, and operation of a variety of radar and image-processing systems. Professor Maggiora is the inventor of patented technologies in the area of ground intrusion detection radar. Professor Maggiora also serves as a director and as CEO of 4C Polito Space Technologies S.p.A, (“BP Space”), the joint venture company of Politecnico di Torino.

  Professor Maggiora obtained his Laurea di Dottore in Ingegneria delle Telecomunicazioni (Communications Engineering) from Polito and his Dottorato di Ricerca (Ph.D.) in Ingegneria Elettronica e delle Comunicazioni (Communications and Electronics Engineering) at Polito.

  Since 2001 he has been teaching and supervising laboratory training for the courses “AntennaDesign” and “RF Techniques” at Polito. Professor Maggiora has been engaged in numerous research activities, including the development of hardware and software for space-borne synthetic aperture radars. Since September 1995, he has served as group leader of the PFA (Plasma Facing Antenna) Group at Polito (the main research group in Italy for the analysis and design of plasma facing antennas).
EVENTS

Resurgent Health and Medical launches CleanTracker at APIC Annual Conference

Resurgent Health and Medical, a provider of automated handwashing and sanitizing technology, announced the launch of the CleanTracker at the Association for Professionals in Infection Control and Epidemiology (APIC) annual conference. The CleanTracker is the only fully functional RFID technology available to track handwashing compliance.

“At APIC we had interest from over 550 healthcare professionals and performed over 1300 handwashes with our machines,” said Jim Glenn, CEO of Resurgent Health and Medical. “With infection rates rising, mandatory reporting, and changes in reimbursement, healthcare facilities must do more to improve handwashing compliance to reduce HAIs.”

The CleanTracker software and RFID compliance-monitoring technology is for use with Resurgent’s CleanTech IC automated handwashing systems. Users wash their hands, and the CleanTech system and CleanTracker software do all the reporting. The easily navigated software gathers users’ data at the handwashing system and pushes the information to the database without intervention by an administrator.

The CleanTracker offers infection-control departments streamlined hand-hygiene data. The CleanTracker also offers the following benefits:

- Easily review reports of hand hygiene activity by a specified time period or by department, job title, or individual;
- Create and store quick reports for both past and current data;
- Generate simple graphs or tables for visual indications of hygiene events by department, job title, or user;
- Automatically track hand washes that are complete or incomplete;
- Create customizable handwashing targets that can be assigned by department, job title, or individual user to give staff a comparative record of hand-hygiene compliance;
- User identity can easily be turned off to protect personal information.

The CleanTech touchless system performs a fully automated 12-second wash, sanitize, and rinse cycle. Using Resurgent’s proprietary Chlorhexidine Gluconate (CHG) sanitizing solution, the single cycle removes over 99.9 percent of pathogens and continues to kill germs for up to six hours. The FDA certified CHG-based sanitizer contains mild skin conditioners to continuously improve skin health while removing dangerous germs.

The system further boosts compliance by ensuring a pleasant, uniform hand wash using high-pressure water jets that perform a consistent wash-and-sanitize cycle every time the machines are used.

MARKET INTELLIGENCE

New report forecasts the market size of RFID hardware for the period 2007-2010

Research and Markets announced the addition of the “RFID Hardware Market 2007-2010” report to their offering.

The demand for RFID hardware has increased significantly with the decrease in the prices of tags and readers. Further, implementation of RFID technology by industry leaders and the derived benefits have set a benchmark, which is driving other industry players to adopt this technology. Further, mandates in the manufacturing and retail industries that require suppliers to be RFID enabled at the case and item levels is also driving demand for RFID hardware.

Even in the government vertical, initiatives such as e-passports, RFID-enabled ID cards, etc., are expected to drive demand for RFID hardware.
In addition, the total market is segmented into various geographic regions and verticals. The report also presents market sizes for major countries in various regions. In addition, the report identifies major selling drivers for the RFID hardware for the major verticals.

This report can help IT vendors identify target geographies and verticals. Furthermore, the identified sales drivers can be used to penetrate the identified vertical or increase current share of the customer’s wallet.

TechNavio Insights is a set of reports based on TechNavio, a market intelligence platform for the IT industry. It builds on the intelligence available within TechNavio, and takes advantage of the custom research experience of the Technology Navigators. TechNavio is built on years of experience of the authors in custom research and consulting for over 30 Fortune 500 companies and numerous large and mid-sized companies.

For more information, please visit http://www.researchandmarkets.com/research/37ff73/rfid_hardware_mark.

Motorola, Alien Technology, and Impinj top new ABI Research passive UHF RFID reader Vendor Matrix

Backed by strong shipments, solid product innovation, and persistent market presence, Motorola has been ranked at the top of the latest Vendor Matrix released by ABI Research.

Alien Technology and Impinj claimed the second and third spots in the company’s new evaluation of worldwide passive UHF RFID reader vendors. Also garnering a solid score for fourth place was Intermec.

The Vendor Matrix is an analytical tool developed by ABI Research to provide a clear understanding of vendors’ positions in specific markets, rating performance on “Innovation” and “Implementation.”

“While Motorola emerged as the leading vendor overall, it was not a runaway victory,” said research director Michael Liard. “In a very tight race, Motorola performed well across all criteria, while Impinj actually topped the Innovation ratings, and Alien scored highest for Implementation.”

This Vendor Matrix includes only vendors that directly design and deliver products with passive UHF reader capabilities, excluding vendors that provide RFID capabilities only through the optional inclusion of a third-party embeddable reader module. In addition to the four leading vendors, ABI Research also evaluated CAEN, EB, Feig, Kenetics Group, Intelleflex, Omron, Siemens, Sirit, Skyetek, Tagsys, and ThingMagic.

For this particular matrix, under “innovation,” ABI Research examined the vendors’ history of delivering innovative products on an ongoing basis, their RF protocol support, the diversity of reader form factors, and the vendors’ track records of using their experience, depth of knowledge, and leadership to drive the industry.

Under “implementation,” ABI Research scrutinized the following criteria: estimated market share, market persistence (a vendor’s longevity, and therefore positive name recognition and customer trust level, in the passive UHF market), global sales and support reach/distribution channels, and market coverage — the breadth and depth of the application and vertical markets served.

Fifteen firms were evaluated. To view a list of the top 10 firms in this Vendor Matrix, please visit “Passive UHF Reader Vendor Matrix” (http://www.abiresearch.com/products/vendor_matrix/Passive_UHF_RFID_Reader_Vendor_Matrix.) Registration on the ABI Research Web site (free) is required. Access to the rankings and profiles of all companies surveyed is available to clients of ABI Research.

This Vendor Matrix forms part of ABI Research’s RFID & Contactless Research Service (http://www.abiresearch.com/products/...
Commercialization of RFID technologies is resulting in reduced costs of tags, and interrogators, driving the reduction of RFID software costs

Research and Markets announced the addition of the "RFID Software Market 2007-2010" report to their offering.

Commercialization of core RFID technologies and government initiatives are the primary factors driving sales of RFID software. Commercialization of RFID technologies is resulting in reduced costs of tags, interrogators, etc., hence driving the reduction of RFID software costs. Mandates in the manufacturing and retail industries requiring suppliers to be RFID enabled at the case and item levels is further expected to drive this demand.

The report forecasts the market size of RFID software over the period 2007-2010. The total market is further segmented into various geographic regions and verticals. The report also presents market sizes for major countries in various regions. In addition, the report identifies major selling drivers for the RFID software for the major verticals.

This report can help IT vendors identify target geographies and verticals. The identified sales drivers can then be used to penetrate these accounts or increase current share of the customer’s wallet.

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For more information, please visit http://www.researchandmarkets.com/research/a98d90/rfid_software_mark.
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