

RFID IN RAIL



It's been cold and a lot of snow for two long winters. Too long and too cold seen from my private perspective, but from a business point of view it's been great. We have now been able to verify the RFID functionality under rather rough environments.

Have you ever been close to a train passing by in 200 km/h when it's a lot of snow on the track and trackside? I have, and it's like a terrible snowstorm! Never the less, we have seen that the UHF solution has been working absolutely great in heavy snowfall, heavy rain, with ice on antennas and tags, but also in a sunny summer day here in Sweden!

I was a little suspicious in the beginning when our consultant Gunnar Ivansson was talking about passive RFID for the railway says Lennart Andersson at The Swedish Transport Administration. We had been testing active and semi-active RFID for some years and it was working. Unfortunately there were no established standards that we could use in our application based on active or semi-active systems. And the rail traffic in Europe is rather international, about 60 % of the wagons on Swedish tracks are coming from other European countries. And then we needed a common European view on standards to be used but also some ideas how to share the RFID information between different parties around Europe. The idea to use passive RFID, as UHF

and standard ISO18000-6C turned up as a result of the pre-study Gunnar conducted early spring 2009.

DECISION MADE, LET'S GO FOR UHF!

Initial test to verify performance of UHF started immediately:

- | | |
|-----------------------------------|----|
| • Speed up to 200 km/h | OK |
| • Heavy rain | OK |
| • Heavy snow | OK |
| • Ice on transponder and antennas | OK |
| • Cold weather | OK |
| • Warm weather | OK |
| • Shock and vibration | OK |
| • Mount on metal | OK |
| • Track side reading approx. 3 m | OK |
| • Open standard | OK |

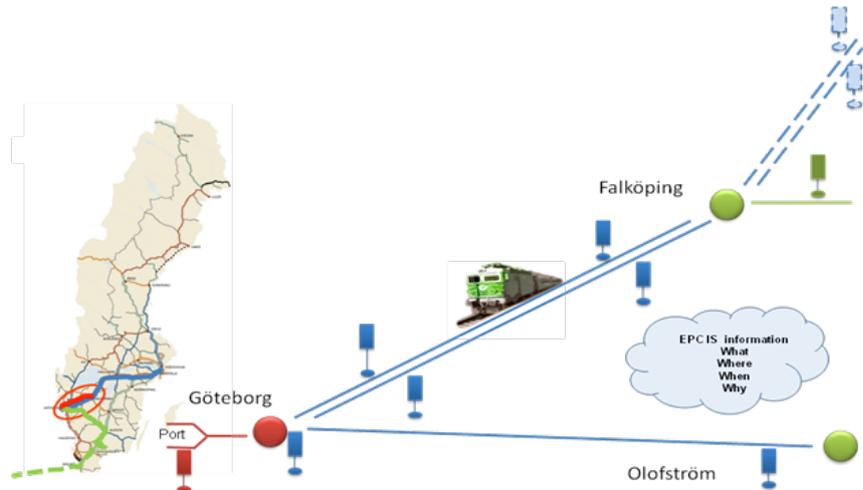
A key issue was to have an open standard with many possible suppliers. To do a proof of concept we installed 4 different readers in the area close to Göteborg. The maximum speed on that track is 200 km/h and we are reading the transponders/tags without any problem. We are also using 5 different types of tags on the trains/wagons to secure the compatibility within the ISO 18000-6 type C standard (UHF Gen 2 Class 1). The pilot is now extended to 8 reading points.

>>



CONTENTS:

- Page 1 RFID in Rail
- Page 3 Some words on the RFID NORDIC scholarship
- Page 5 Comprehensive RFID timing solution for cycle races secures accuracy, efficiency and event experience
- Page 6 Tag Master Automatic Vehicle Identification at the Commonwealth Games 2010 in New Delhi, India
- Page 7 Nordic Id's Real Time Monitoring System Utilizing RFID Will Let You Know Where Your Food Comes From
- Page 8 RFID controlled window component production at Fenestra
- Page 9 Goodbye, databases
- Page 11 Major Chinese fashion brand Jossy Jo improves efficiency and eliminates counterfeits with RFID
- Page 12 Tag Master RFID system secures Jorge Chavez International Airport
- Page 13 Nordic ID RFID units to track IKEA-bound Furniture in Lithuania
- Page 14 Tag Master and 7iD signed Letter of Intent to Co-operate on
- Page 15 ScanGreen - RFID solutions for the Green Sector
- Page 16 THANKS a lot to all participants, speakers and exhibitors at UEAPME RFID market place for SMEs in Brussels!
- Page 17 UPM Raflatrac launches new Belt UHF RFID tag with leading-edge performance
- Page 18 Tag Master UHF EPC Gen 2 reader for the US market
- Page 19 Contact RFID Nordic organisation



8 readers installed for test pilots in the west part of Sweden

When it came to how to standardize the information in the tag and how to share the information between parties/organizations we contacted GS1 at an early stage. GS1 is member organization working with barcode standards as well as RFID standards around the world. They helped us to understand the importance of standards and which standard to be used to structure the information in the tag. In this case it was GIAI 96. GS1 also had a structured way with EPC IS, how to share the information with internal and external organizations.

The concept is clean and simple:
WHAT = what tag, object/wagon was read
WHERE = which reader, geographical location was reading the tag
WHEN = Date and time for the event/reading
WHY = could be defined (departure, arriving, passage, loading, unloading etc.)

We have now been up and running with several pilots in Sweden based on ISO18000-6 C and GS1 standards for some time and the results are great! The Swedish Transport Administration is now planning to install about 250-500 readers around Sweden during the next couple of years. Tender request will be out in March/April this year.

INTERNATIONAL COOPERATION FOR A EUROPEAN STANDARD!

As we have had a lot of international contacts on this topic, RFID in Rail and there are a common interest and



need for a European standard, we decided to arrange a meeting/workshop in Sweden, says Lennart Andersson. The meeting becomes a joint venture between the Swedish Transport Administration, the Finnish Transport Administration and GS1 Sweden. The first "RFID in Rail" meeting/workshop was then arranged in Stockholm February 16-17 with 64 delegates from 11 countries. The outcome of the meeting was a clear statement to continue the work to get a European RFID standard for the railway with potential for other transport sectors as well. Next meeting is planned for September/October 2011.

For further information please contact:
 Learningwell AB Swedish Transport
 Administration
 Gunnar Ivansson
 gunnar.ivansson@learningwell.se
 +46 70 3328470
 Lennart Andersson
 +46 707 24 56 56
 lennart.andersson@trafikverket.se



SOME WORDS ON THE RFID NORDIC SCHOLARSHIP

RFID NORDIC Scholarship was first awarded in 2007 and still is, for the master's thesis, or similar papers, that fulfil most of the following criteria:

- A NEW application of an existing RFID-based product;
- A NEW RFID-related product, design, technology, software, service, business model or technology strategy;
- A NEW evaluation method for RFID (before and after implementation);
- An RFID-related solution of commercial interest, together with an ROI estimate.

The scholarship consists of two parts. The most visible part is a diploma that grants the recipient a place in the

RFID Hall of Fame, and a monetary part, which is sponsored by Swedbank.

To give you a hint on what this is all about - the last year's winner presented a new way of adding batch, i.e. traceability, information to the continuous production stream of iron ore pellets, using RFID. A feat that many seasoned experts would have deemed impossible.

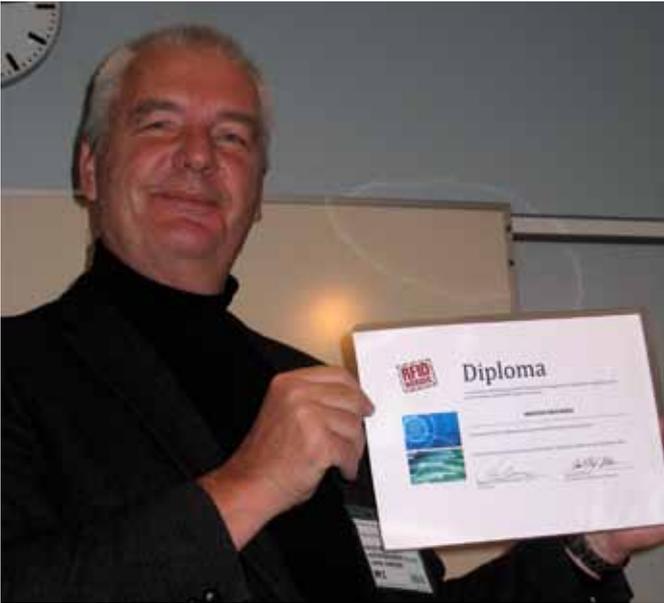
Here is a brief overview of this year's nominees and their contributions, in no special order.

TITLE:
TRUST IN PARTNER RELATIONSHIPS FOR NFC APPLICATIONS

By Andreas Bockisch & Celeste Cantú Alejandro at The Royal Institute of

Technology in Stockholm and the Stockholm School of economics

This contribution has a strong business and social science side, but as hopefully everyone knows - business interaction, common visions and collaboration is not mainly for tools or technical devices or organizations - it is for individuals! What this team has shown is that Trust (and business case potential) is VERY important for a collaborative project success, as there normally are multiple stakeholders in these sorts of projects, such as: Service suppliers, banks, telecom operators, department stores, transport companies and so on. ALL parties must have a very clear business upside - a possibility to obtain a ROI, or nothing happens!



TITLE:
WIRELESS INFORMATION TAG

By Tuton Chandra Mallick, Tao Liu, Nan Wu, Arul Jesu Praveen John - at The Royal Institute of Technology in Stockholm

This paper deals with a UHF RFID tag like device that drives a display and in that process utilizes a certain amount of energy harvesting, even for the display part. This is obtained by using commercial off the shelf (COTS) components, drawing extremely low power. This may well be something for the future to compete with and maybe replace today's shelf side price marking devices in shops etc. Energy harvesting seems to be a technology that is coming of age as we speak, and even though it will not solve the planet's energy problems – it may well be an important factor in (battery chemicals) waste reduction, which may prove very beneficial in our future. It may be worth noting that some mobile terminal (phones) makers claim that they already have refined energy harvesting to reach about 25% of what is needed for the phones to run in stand-by mode.

TITLE:
SYSTEM AND METHOD FOR PASSIVE RADIATIVE RFID TAG POSITIONING IN REALTIME

for both Elevation and Azimuth Directions By Mahyar Modaresi - at The Royal Institute of Technology in Stockholm

The title says it all, almost - the system is based on a COTS RFID reader and a novel antenna design and some interesting mathematics, and seems to be very capable of pinpointing the position of a specific RFID tag in three dimensional (near) space with high accuracy and without any moving parts on the reader side. It is interesting to note that he only uses one physical aerial. This addresses one of the issues in the e.g. warehouse management – where is my item?

TITLE:
NEAR MISS DETECTION IN NURSING

By Mikhail Simonov - Politecnico di Milano & Flavia Mazzitelli - the Medical faculty of the University of Turin

As we received a preliminary confidential copy of a document that at the submission time was not yet published, we are not yet at liberty to describe it publicly in more detail.

TITLE:
THE ROAD TO RFID

By Jessika Israelsson, Mia-Maria Nordlund – at the Lund Institute of Technology. Dept. of Packaging Logistics.

This contribution is no less than a general implementation guideline - for assessing the use of and later deploying RFID in the real world and for the real industrial users.

This thesis goes as far as providing templates for project planning in details with tentative project time lines etc. and detailed process descriptions as well.

This is a true cookery book for the ones curious in ways to make RFID generate ROI.

The RFID Nordic Scholarship Jury did reach the following verdict:

The Winner of the RFID Nordic Scholarship 2010 is - Mahyar Modaresi; "For finding novel ways to locate passive RFID transponders in three-dimensional space, and in that process bringing forth some new thinking around antenna technology."

*Olle Hydbom
Chairman of the Jury*

COMPREHENSIVE RFID TIMING SOLUTION FOR CYCLE RACES SECURES ACCURACY, EFFICIENCY AND EVENT EXPERIENCE



The Taiwan Bike Association is utilising an RFID-enabled timing solution, Cycling Challenge, to ensure the ease and accuracy of time-taking and the processes generating results in bicycle races.

Thanks to the RFID solution, racers at the finishing line can immediately

enquire about their racing time and also receive a personalised certificate and data concerning their performance. The timing solution by Bicom Information Technology, Inc. utilises DogBone UHF RFID inlays from UPM Raflatac. In addition to the five races organised annually by The Taiwan Bike Association, the RFID-enabled timing solution will be used at a hundred other cycle races arranged in Taiwan.

Player qualification and a chip checkpoint where players confirm the identity stored in the chip data are located next to the registration station. Labels with embedded RFID inlays are printed with racer information such as name, number

and emergency contact details as a safety precaution, and attached to each racer's helmet. The starting and finishing lines are each equipped with four antennas and a UHF reader which records the departure and arrival times of each racer. After the race, the RFID solution can provide instant certificate printout and the event organizers are able to announce the final ranking without delay.

The Cycling Challenge RFID solution utilises UPM Raflatac DogBone RFID inlays due to their excellent performance and stable readability over long distances as well as in close proximity to a number of other RFID inlays.

"Real-time features enabled by RFID technology, such as ranking and performance data queries, are an asset to the race service management: the processing times and required staff are substantially reduced compared to other timing solutions," says Joy Tsai, Project Manager at Bicom Information Technology.

"A timing solution utilising passive RFID technology is in many ways carefree, and the ease of use contributes to a pleasant event experience for organizers and racers alike. With relatively low cost passive RFID tags, there's no need to arrange any kind of deposit system and everyone involved can trust that the chance of human error in time-taking has been eliminated," says Edward Lu, Sales and Marketing Director, Asia, RFID, UPM Raflatac.

*For further information, please contact:
Mr Edward Lu, Sales and Marketing
Director, Asia, RFID, UPM Raflatac,
tel.+65 9173 0884*

About UPM Raflatac

UPM Raflatac, part of UPM's Engineered Materials business group, is one of the world's leading suppliers of self-adhesive label materials and the world's number one producer of HF and UHF radio frequency identification (RFID) tags and inlays. UPM Raflatac has a global service network consisting of 13 factories on five continents and a broad network of sales offices and slitting and distribution terminals worldwide. UPM Raflatac employs 2,600 people and made sales of approximately EUR 0.95 billion (USD 1.3 billion) in 2009. Further information is available at www.upmrfid.com.

TAGMASTER AUTOMATIC VEHICLE IDENTIFICATION AT THE COMMONWEALTH GAMES 2010 IN NEW DELHI, INDIA

TagMaster, a leading producer of advanced RFID solutions for long range identification, announces that the Vehicle Access Identification (AVI) installation at the Commonwealth Games 2010 is now in operation.

The installation controls the access of vehicles to and from the sports arenas and other sites in the Delhi area related to the Games, for security and protection purposes. This is further proof of the superior technology used in TagMaster's long range RFID readers, which allow installations with up to 50 readers in close proximity to each other and in very radio intense environments, without conflicts or interference.

In selecting a TagMaster RFID solution for this prestigious installation, Electronics Corporation of India (ECIL) focused on a number of key benefits. TagMaster's RFID readers and ID-tags are installed globally and in all climate conditions. The design of the readers and ID-tags is discreet and integrates well into installations where Automatic Vehicle Identification is required. The technology used in TagMaster readers provides functionality such as Frequency hopping, a well defined reading lobe that can be fine

“ TagMaster is proud to contribute to the success of the Commonwealth Games, delivering under a tight time schedule and to a demanding application.

Our very competent partner in India, Pepperl+Fuchs has provided first-rate support and assistance locally to ECIL. Good products and competent and service minded partners are key to our global success”

tuned, as well as 32-bit error detection. Support for cloning of configuration settings using a USB stick and a standard web browser for setting up the reader provide an easy-to-use and very reliable product that can operate in radio intense environments. “- TagMaster is proud to contribute to the success of the Commonwealth Games, delivering under a tight time schedule and to a demanding application. Our very competent partner in India, Pepperl+Fuchs has provided first-rate support and assistance locally

to ECIL. Good products and competent and service minded partners are key to our global success,” says Bo Tideman, CEO, TagMaster AB.

*For additional information,
please contact:
Bo Tideman, CEO, TagMaster AB
Telephone: +46 8 632 1950
bo.tideman@tagmaster.com*

NORDIC ID'S REAL TIME MONITORING SYSTEM UTILIZING RFID WILL LET YOU KNOW WHERE YOUR FOOD COMES FROM

“Nordic ID Merlin and Nordic ID Morphic are easy to use and integrate, and together with the Nordic ID Monitor they make a self monitoring system that ensures availability of data throughout the food stuff supply chain”

The challenge in retail these days is to convince the consumer that the entire foodstuff supply chain is being monitored and controlled to ensure safety and freshness. This has created a need for automatic self monitoring systems to ensure transparency and access to correct data to be given to consumers.

A COMPLETE SOLUTION:

RFID (radio frequency identification) enables recording and collecting of data throughout the whole supply chain. This way the consumer can follow up the lifecycle of the food stuff all the way from the point of origin to

the point of sales. The self monitoring system cares for the condition of the food stuff through the entire journey in the transportation as well as on the shop floor. The consumer can be assured that the food on the table is safe and fresh.

Nordic ID offers the tools to realize RFID tracking and self-monitoring. Nordic ID is one of the leading mobile RFID providers in Europe and has also developed a wireless self-monitoring system.

“Nordic ID Merlin and Nordic ID Morphic are easy to use and integrate, and together with the Nordic ID Monitor they make a self monitoring system that ensures availability of data throughout the food stuff supply chain”, says Kristiina Oras-Wallin,

Nordic ID Sales Manager, “It is now easier to control quality at different stages”.

In Scandinavia Nordic ID has implemented a few different monitoring and tracking solutions covering the whole supply chain to ensure freshness, quality and safety of for example vegetables and fish.

*For further information please contact:
Alexander Aminoff
Sales Manager Scandinavia*

*Myllyojankatu 2A, 24100 Salo
FINLAND
Mobile: +358 40 840 2884
www.nordicid.com
Mobile: +358 40 840 2884
www.nordicid.com*



RFID CONTROLLED WINDOW COMPONENT PRODUCTION AT FENESTRA

Fenestra was in process of completely updating and automating their two window component production lines, namely the production lines for wooden window frames and sashes.

One of the most important requirements towards the production lines was the capability to customize each individual component according to a specific customer order. This requirement means that each component needs to be identified at each machine tool in order to determine the machining configurations (e.g. in case of a saw, this could correspond to the length of the component) for each manufacturing step.

Similar production lines have been previously implemented by using barcode technology. In Fenestra's case the barcode technology had however severe drawbacks, namely: (i) the high amount of dust present in the wood industry environment disturbs the bar-

code readers lowering significantly the barcode read rates and (ii) the window components are painted and the applied paint would cover the barcodes, rendering them useless.

Vilant Systems developed and supplied an RFID based production control system for Fenestra's window component production lines. In the system each individual component is tagged with a HF tag which enables their identification before each production machine. The manufacturing specifications for each individual product are then specified for each component at each individual machine tool based on this identification. The RFID system has very high read rate and is capable working also after the window components have been painted.

The system enables fully automated window frame and sash production lines allowing each component to be customized as per customer order instead of "fixed model" production batches. The system includes over 50

readers. As a true milestone in RFID credibility the system produces a phenomenal read rate of over 99,999% with 100 000 daily reads for over a year now.

FENESTRA OY

Fenestra Oy is the leading window and door supplier in Finland with 750 employees and 110 million euro's revenue. Fenestra's product range covers wood-aluminium-frame windows, exterior and interior doors and related services for both residential and public buildings. Fenestra Oy produces annually more than 220,000 window units and approximately 300,000 doors.

*For further information please contact:
Jenni Hellman, Marketing Manager
Mobile: + 358 50 340 6201 –
jenni.hellman@vilant.com*

*Vilant Systems Oy - Tietäjäsentie 2 - 02130
Espoo - Finland
Center: +358 9 8561 9900 -
Fax: +358 9 8561 9901
www.vilant.com*

GOODBYE, DATABASES

RFID has created substantial supply chain efficiencies. But there's a bigger shift coming: what if logistics management didn't require the use of databases because inventory tracked itself? And what if goods could intelligently reroute based on need and efficiency? It would make no difference whether products were warehoused on another continent, rolling down the highway on a tractor-trailer, or deep in the bowels of a container ship. In seconds, you could account for every single product anywhere between manufacture and customer purchase.

It may sound like science fiction, but it's not far off, according to Jorma Lalla, CEO of Salo, Finland-based RFID handset manufacturer Nordic ID. "As the technology becomes more ubiquitous, a stable international standard emerges and the cost of active RFID tags continues to decrease, we're seeing a lot of supply chains now using

RFID end-to-end. The detail of data available is incredible. And while to my knowledge no supply chain yet has the ability to interrogate tags throughout a product's entire journey, that day is only two to five years away."

RFID KEY TO OBJECT-DRIVEN DATA

Unlike barcodes, RFID tags can store item-specific information. Tag information can be very detailed, and information can be added along the product's journey—time, temperature, inspection, modification, etc.—from creation or harvest to its final destination. Tags come in all shapes and sizes. They can be tiny or large, rugged or pliable. And because ultra-high frequency (UHF) RFID tags can be read through cartons and walls from distances of 8 meters or more, interrogators can be mounted in truck chassis, ceilings or walls.

"Not requiring line of sight to read tags is an important part of quickly accounting for or accessing goods when you need them within a warehouse, container or elsewhere," says Lalla. "An employee can walk along quite briskly with a handset and read all tags, or find the package they're

looking for. With barcode, you have to scan each package—often a painstaking process."

Professor Al Segars, Director of the University of North Carolina's Technology Research Center, shares Lalla's vision of end-to-end RFID trackability. In fact Segars, whom the United States Department of Defense and Fortune 500 companies come to for advice, sees RFID as a critical components of the next big step in the evolution of logistics and consulting.

"Barcode technology hit the mainstream about 25 years ago," says Segars. "The next step, RFID, came along roughly 15 years after that. But we're still caught in a machine paradigm, which is prone to inaccuracies. It stands to reason that the best source of information about an object is the object itself, and object-driven data is where we're headed."

The concept of object-driven data involves pervasive computing, whereby information processing has been integrated into everyday objects and activities. "In practice, this works in much the same way as taking roll call at school," says Segars. "When the teacher calls out each name, the student puts up their hand. With RFID

interrogation and response, streams of real time data are transmitted to and from points across the world to build a complete and accurate logistics picture, rather than relying on sporadically updated databases.”

FEWER DATABASES, MORE EFFICIENCIES

There are several reasons why object-driven data management is an improvement on conventional database-driven logistics controls.

“Granted that we have yet to move beyond databases, object-driven data is an exciting concept for three reasons: accuracy, cost and visibility, says Lalla. “Doing away with databases would reduce error. The more databases you have, the more duplication and inaccuracies you get, especially if goods travel across disparate systems, as they do for example when the journey involves a manufacturer, a logistics supplier, a wholesaler and a retailer. Another big reason,” continues Lalla, “is cost. Provisioning resource management systems is expensive. And as you add on duplicate systems in different locations, not only does the cost of provisioning and maintaining systems themselves increase, but the cost of managing the data climbs upwards as well. Finally, object-driven data would improve visibility and so allow administrators to increase the efficiency of material flow.”

While RFID is now primarily a means of identification, it will soon evolve into a processing mechanism. As an example, a procurement request for a tractor part can be matched with availability across the entire supply chain consisting of several companies: a

manufacturer, a logistics company and a wholesaler, for instance. The inventory signals its location and availability, and intelligent agent software presents the best options. Add another variable such as end use location, for instance in a disaster relief operation where end user locations are constantly changing, and more efficiencies accrue.

AUTOMATIC, INTELLIGENT REROUTING

To take it a step further, tags could be enabled to intelligently reroute when needed. Professor Segars believes that in this regard, logistics management is going to follow the same path as data management. “About ten years ago the IT world came out with intelligent data transfer protocols for information networks like MPLS,” says Segars. “These protocols permit faster data processing at nodes thanks to efficient labeling, and they enable data packets to self-reroute when they encounter ‘traffic jams’ on the network. We are now experimenting with the same concept, only applied to logistics.” Intelligent routing capability would require another layer of information—routing intelligence—on RFID tags, something that Segars believes is technically possible right now. “RFID technology is now sufficiently mature that tags could be programmed to capture intelligent logistics information,” he says. “What we don’t have yet is the capability to manipulate that information to get tags to change the routing of products upstream. When that happens, I would guess within the next five years, we’re really going to see efficiencies skyrocket.”

PARADIGM SHIFT REQUIRED

Object-driven data management may be a better way of controlling the flow of goods, but adoption will require a paradigm shift. Logisticians will likely be loath to relinquish their databases, relying instead on objects’ ability to transmit their location and status. As with the adoption of any brand new technology, we are likely to see dual systems deployed in the early days. Then object-driven data management will prove itself and become generally adopted, likely first by defense organizations—the most common early adopters—and then by high-value and/or high-security logistics chains, such as the pharmaceutical industry.

NEXT STEP: NANOTECH

But this new method of data management is only the beginning, according to Segars. “The step after RFID tags is where it’s going to really get interesting,” he forecasts. “Nanotechnology is eventually going to take over, with products and even organic matter created with trackability built right in. And with pervasive computing, we will have the capability of tracking everything produced or consumed on earth.”

*For further information please contact:
Marketing Manager
Mirva Saarijärvi
tel. +358 40 520 4115
mirva.saarijarvi@nordicid.com*

MAJOR CHINESE FASHION BRAND JOSSY JO IMPROVES EFFICIENCY AND ELIMINATES COUNTERFEITS WITH RFID

Jossy Jo, a Beijing-based high-grade fashion brand, is one of the first apparel companies in China to have implemented a large-scale, item-level RFID solution. The complete RFID solution from Jawasoft China and UPM Raflatac provides Jossy Jo with valuably accurate real-time data concerning its logistics operations and streamlines cooperation between Jossy Jo and its franchisees. The solution is also an efficient brand protection tool, helping prevent counterfeit products from reaching stores. Jossy Jo currently utilises more than two million ShortDipole RFID tags a year from UPM Raflatac to track and trace their garments.

The RFID implementation covers Jossy Jo's operations comprehensively, starting from production planning where production tasks are generated

and assigned to specific plants. RFID labels are accordingly sent to each production plant and attached to every garment during the production phase. For quality control this means a significant boost, as any faulty garments can be effortlessly traced back to the point of production where the root cause of problems can be examined and resolved.



In terms of logistic efficiency, Jossy Jo reports an impressive 40% improvement since the RFID implementation. Easy traceability also streamlines cooperation between Jossy Jo and its distributors and agents as the accurate and readily available real-time information leaves little room for interpretation.

Another feature typical of the apparel business, seasonal sales, are also

easier to manage thanks to RFID. The modified sales price information is included in the tags, and data concerning actual sales is always available in real time without any additional manual work.

In the fight against counterfeit products, Jossy Jo has made significant gains with the RFID implementation. Thus far, the company reports that it has been able to eliminate product forgery which has previously accounted for three percent of annual sales. "Counterfeit products are a major issue in the apparel business and product forgery causes many brands to suffer considerable losses. An item-level RFID solution is a powerful means of dealing with this issue," says Edward Lu, Sales and Marketing Director, Asia, RFID, UPM Raflatac.

*For further information, please contact:
Edward Lu, Sales and Marketing Director,
Asia RFID, UPM Raflatac,
tel. +659173 0884*

ABOUT UPM RAFLATAC

UPM Raflatac, part of UPM's Engineered Materials business group, is one of the world's leading suppliers of self-adhesive label materials and the world's number one producer of HF and UHF radio frequency identification (RFID) tags and inlays. UPM Raflatac has a global service network consisting of 13 factories on five continents and a broad network of sales offices and slitting and distribution terminals worldwide. UPM Raflatac employs 2,600 people and made sales of approximately EUR 0.95 billion (USD 1.3 billion) in 2009. Further information is available at www.upmrfid.com.

ABOUT JAWASOFT CHINA

Jawasoft China is a leading RFID system integrator for logistics solutions with a focus on manufacturing and retail processes. For more information, please visit www.jawasoft.com.cn.

ABOUT JOSSY JO

Chinese fashion brand with exquisite style. Jossy Jo gives traditional down clothing new fashion ideas. The company offers an advanced management mode, perfect production, fine craftsmanship and dedicated service. For more information, please visit www.jossyjo.com.cn.

TAGMASTER RFID SYSTEM

SECURES JORGE CHAVEZ INTERNATIONAL AIRPORT

SUMMARY

Intellisoft Parking provides vehicle access control solutions for the concessionaires servicing aircraft at Jorge Chavez International Airport in Lima, Peru. This airport is the largest airport in Peru serving nearly 9 million passengers annually. TagMaster North America is an Intellisoft partner providing long-range RFID solutions for automatic vehicle identification (AVI). TagMaster's system encompasses long-range RFID readers and read/write RFID tags used together with Intellisoft Parking's whole product solution.

CHALLENGE

Airport catering concessionaires are billed for each vehicle's runway access based on the duration of each vehicle's stay in the aircraft area. The airport was challenged with improving collection of data to properly calculate

vehicle duration in the aircraft area and accurately bill each catering company. The existing process required labor-intensive visual observation and hand calculation of each vehicle's entry and exit of the runway area which led to many identification errors and long billing cycles while calculations were reviewed and verified.

SOLUTION

Intellisoft Parking partnered with TagMaster North America to provide an Automated Vehicle Identification (AVI) solution. A combination of LR6 long range RFID readers and read/write ScriptTags accurately identify vehicles as they enter and exit runway areas to ensure 100% accurate vehicle identification and length-of-stay reporting to eliminate vehicle billing disputes. Intellisoft's full solution, integrated with Federal APD's ScanNet Management Software and SAP billing

database, created a fully automated billing solution resulting in increased billing accuracy.

CONCLUSION

Access control to the secure area of the airport and the data collection process has been dramatically improved at the Lima airport, eliminating visual observation and hand calculation tasks and significantly reducing customer billing claims. The end result is an automated solution that improves business process while increasing customer

PRODUCTS USED

LR-6 Readers
S1251 ScriptTags

For more information, please contact:
Bo Tiderman, CEO TagMaster AB
Telephone: +46 8 632 1950
E-mail: bo.tiderman@tagmaster.com



NORDIC ID RFID UNITS

TO TRACK IKEA-BOUND FURNITURE IN LITHUANIA

Nordic ID Partner in Lithuania, <http://www.autepra.lt/en/>Autepra, has provided SC Freda, one of Lithuania's largest furniture manufacturers, the RFID system to track furniture destined to IKEA. The system consists of UPM Raflatac EPC Gen 2 tags, fixed RFID portals and Nordic ID PL3000 RFID readers.

Here follows a brief description of the winning solution:

SC Freda produces wood furniture. For the past three years, the firm has sold its products exclusively to IKEA, to be sold in the retailer's stores worldwide. The company ships an average of 10,000 pallets loaded with furniture every month, with 800 items loaded onto a total of 15 to 20 trucks on any given day.

Autepra, established in 2005; is specialized especially in logistic processes' improving and automation. Autepra has customers in Lithuania, Latvia and Estonia – container terminals and port companies, 3PL and manufacturing companies. Their solutions are based on the best modern technologies of hardware and software development, which are used for creating expert and intelligence systems



*For further information please contact:
Alexander Aminoff Sales Manager
Scandinavia
Myllyojankatu 2A, 24100 Salo
FINLAND
Mobile: +358 40 840 2884
www.nordicid.com*

-PRESS RELEASE-

TAGMASTER AND 7iD SIGNED LETTER OF INTENT TO CO-OPERATE ON

**STOCKHOLM, SWEDEN,
14 FEBRUARY 2011**

- TagMaster, the leading producer of advanced RFID solutions, together with 7iD, a leading provider for RFID systems and supplier of RFID based software solutions, has signed a Letter of Intent (LoI) where both companies have agreed to co-operate in the field of advanced middleware solutions for use in TagMaster's new UHF Reader platform. The LoI defines how both companies will co-operate and exchange information in this area, with a focus on RFID technology in the UHF frequency band conforming to the EPC Gen2 standard. The initial co-operation will generate an integrated solution with hardware and middleware for railway Track & Trace applications.

The application of tracking train wagons and goods in mainline railway installations is a growing market where a number of field tests have been completed. These have verified that the use of an ISO18000-6C (EPC Gen2) products provide a suitable solution and afford the necessary support for the level of interoperability required by this type of application.

Under the LoI, both parties will retain rights to market RFID solutions where TagMaster products form a part of the end solution including the 7iD developed middleware. The two companies will also explore future co-operation opportunities to develop RFID systems and related technologies.

"In signing this Letter of Intent, TagMaster has secured a competent and recognised partner for the supply of a powerful middleware solution that will strengthen our UHF product strategy," says Bo Tideman, CEO at TagMaster AB. "7iD is a proven leader in EPC Gen2 software technology and we believe this co-operation will strengthen our position as the leading RFID solution provider within the Transportation sector."

*For more information, please contact:
Bo Tideman, CEO TagMaster AB
Telephone: +46 8 632 1950
E-mail: bo.tideman@tagmaster.com*

*Jürgen Schmitzberger, Sales Manager
Telephone: +43 316 716 720 336
E-mail: juergen.schmitzberger@7id.com*

ABOUT TAGMASTER

TagMaster is a Swedish technology company founded 1994 with headquarters in Kista (Stockholm), Sweden. TagMaster designs and markets advanced long-range radio frequency identification (RFID) systems and information services associated with automatic vehicle identification, rail bound transportations and people access, in order to increase efficiency, security, convenience and to decrease environmental impact. TagMaster exports mainly to Europe, Asia and North America via global network of partners, systems integrators and distributors. TagMaster shares are traded on First North in Stockholm, Sweden. TagMaster's Certified Adviser is Remium AB. www.tagmaster.com

ABOUT 7iD

Since 2005 7iD Technologies has been a leading expert and reliable project partner, providing unique, passive UHF RFID systems to meet the highest possible standards. Modular standard components can be flexibly combined and customised software ensures maximum reliability. Compliance with EPCglobal RFID standards offers customers both a secure investment and a choice of vendor partners, world wide. The successful creation of industry-specific solutions means 7iD has a wealth of experience at their fingertips. 7iD Technologies then applies this to meeting all required standards and simplifying processes at an individual level.

SCANGREEN - RFID SOLUTIONS FOR THE GREEN SECTOR

Nordic ID partner in the Netherlands and Germany, <http://www.mielooandalexander.com/> Mieloo & Alexander, has launched a smart scanning solution for Container Centralen's "Operation Chip

it". The objective of Operation Chip-It is to tag CC Containers, for authentication purposes.

CC Containers are used for the transportation of flowers and plants across Europe, and authentication is necessary to avoid illegal copies of

low quality, causing disruptions in the supply chain. On January 10th, 2011 all CC Containers will be tagged and supply chain partners will start scanning each Container when handed over from one to another.

The solution consists of a specially developed RFID legreader and the Nordic ID Morphic mobile computer. The legreader is strapped on the leg and connected via WLAN (peer to peer) with a Nordic ID Morphic. Each CC Container that one handles is automatically scanned by the legreader and checked. An application on the Nordic ID Morphic indicates when a faulty copy is found. The data captured in this way can also be used for the management of Empty containers or for the logistics processes, for which a Mieloo & Alexander provides its ScanGreen Application Suite, pre-installed on the Nordic ID Morphic.

Developed specifically for use in the internal goodsflow processes of Landgard, the German Flower and Plant Auction, this solution is ideal to integrate the CC authentication scan ergonomically into existing processes. Read more on this and other RFID solutions: <http://www.scan-green.com/>

For further information please contact:
Mirva Saarijärvi
tel. +358 40 520 4115
mirva.saarijarvi@nordicid.com





THANKS A LOT

TO ALL PARTICIPANTS, SPEAKERS AND EXHIBITORS AT
UEAPME RFID MARKET PLACE FOR SMES IN BRUSSELS!

One thing before all was made more than clear: There is a clear return on investment (ROI) for the use of RFID in SMEs, mostly already within 6 months sometimes even in one day!
Experts in RFID, the European Commission's DG InfSo as well as representatives of SME-federations exchanged their opinions. To get easily in contact with the speakers, here are their e-mail addresses:

Åhlström, Lucas
Retorium
lucas@retorium.com

Forslund, Bob
AMC-HB
bob@amc-hb.se

Friess, Dr. Peter
European Commission, DG InfSo
peter.friess@ec.europa.eu

Gonzalez, Laurent
FILRFID
filrfidlg@gmail.com

Gronert, Mario
ROI-SME
m.gronert@ueapme.com

Kvalheim, Vidar
TEXI
vidar.kvalheim@texi.biz

Peirce, Trevor
AVANTA
trevor.j.peirce@hotmail.com

Orth, Remi
pin-sme
r.orth@normapme.com

Schmid, Kurt
Nexperts
kurt.schmid@nexperts.com

Wennmacher, Mariette
ASPIRE
m.wennmacher@ueapme.com

You'll find some of the presentations here:
<http://www.ueapme.com/IMG/ppt/EC_RFID_Friess_221110.ppt>
<http://www.ueapme.com/IMG/ppt/RACE_-_AVANTA_Global_-_Trevor_Peirce.ppt>
<<http://www.ueapme.com/IMG/ppt/RFID-ROI-SME-marketplace.ppt>>

*For further information please contact
Ludger Fischer*

Dr. Ludger FISCHER - UEAPME union européenne de l'artisanat et des petites et moyennes entreprises, 4 Rue Jacques de Lalaing, B-1040 Bruxelles, Tel +32 2 2850 724, Fax +32 2 230 78 61 <<http://www.ueapme.com/>>www.ueapme.com

UPM RAFLATAC LAUNCHES

NEW BELT UHF RFID TAG WITH LEADING-EDGE PERFORMANCE

UPM Raflatac has introduced a new, high-performance Belt UHF RFID product based on NXP's UCODE G2iL integrated circuit (IC). The new Belt is optimized for a wide range of massvolume applications including item-level retail supply chain and apparel tagging. Advanced features also make it ideal for a number of other item-level applications, including consumer electronics, where reliability and durability are essential.

The Belt product offers exceptional sensitivity and high performance over a wide range of products and materials. The global antenna design enables end-users to achieve dependable, high RF performance using a single tag in all UHF frequency regions worldwide, regardless of local frequency regulations.

Belt with the NXP UCODE G2iL IC

- Antenna size 70 x 14 mm / 2.75 x 0.55"

- 128 bits of EPC memory and 32-bit password protection
- On/off status flag for quality control and security systems
- A unique 64-bit unalterable tag identifier (TID)
- Read protection feature to support privacy
- Available in three delivery formats: dry inlay, wet inlay and paper face tag

"UPM Raflatac has been working with renowned independent test facilities, major retail end-users, and RFID hardware providers, to test, qualify, and approve Belt for immediate deployment in item-level applications. Moreover, Belt's faster and higher performance combined with lower reader power consumption provides significant additional value on the solution level," says Tero Koivisto, Director, UHF Product Line, UPM Raflatac.

"We're pleased that UPM Raflatac has incorporated the new and versatile NXP UCODE G2iL IC into its standard product portfolio. Our close collaborative relationship with UPM resulted in a high-performance, robust Belt tag suitable across multiple applications

in the high volume RFID market. On-chip features such as the 4R mode support specific privacy needs in the RFID industry, allowing broader use of RFID technology and thus helping fuel market growth as new applications emerge," says Chris Feige, General Manager, Tagging & Authentication, NXP Semiconductors.

UPM Raflatac's RFID product range will be further complimented in the near future with new ShortDipole, DogBone and Web products incorporating the UCODE G2iL and G2iL+ ICs.

The UCODE G2iL+ version of the IC provides additional features that depending on the inlay design can include tag tamper alarm, digital i/o, ext. supply mode, direct data transfer and 4R-mode (Real Read Range Reduction). To help protect consumer privacy, the 4R feature allows a significant reduction in the tag's normal read range.

*For further information please contact:
Mr Tero Koivisto, Director, UHF Product Line, RFID, UPM Raflatac,
tel. +358400 814 964*

"UPM Raflatac has been working with renowned independent test facilities, major retail end-users, and RFID hardware providers, to test, qualify, and approve Belt for immediate deployment in item-level applications. Moreover, Belt's faster and higher performance combined with lower reader power consumption provides significant additional value on the solution level"

“The SecureMarkID protection ensures uniqueness and prevents duplication of a tag identity.”

TAGMASTER UHF EPC GEN 2 READER FOR THE US MARKET

Stockholm, Sweden, 16 February 2011 - TagMaster, the leading producer of advanced RFID solutions for access control and rail applications launched the new XT series readers and ID-tags addressing the EPC Gen 2 specification during 2010. The XT-series of readers and ID-tags has been well received in the European market with a number of successful projects. A XT-2us model of this reader, designed for US specification, is now being introduced to the US market.

This new reader family and ID-tags extends the TagMaster product portfolio with support for the ISO 18000-6 type C standard, called EPC Gen 2, providing with automatic identifica-

tion at up to 5 meters. It is a suitable product solution in high volume ID-tag Vehicle Access installations. The XT-2us is designed for the North American regulations in terms of frequency range and output power. The XT reader family is equipped with the same Linux operating system thus supporting the same software applications used in the market leading LR series of readers from TagMaster. These applications will now be available in the XT series providing with an extensive set of functionality and interfaces. This makes integration to management systems and other equipment quick and easy.

NEW ID-TAGS ADDED TO THE TAG-MASTER PRODUCT RANGE

The readers provide together with TagMaster EPC Gen 2 ID-tags a read range of up to 5 meters. The passive ID-tags support both standard EPC Gen 2 tags as well as the TagMaster

‘SecureMarkID’. The SecureMarkID protection ensures uniqueness and prevents duplication of a tag identity. The XT readers and ID-tags will complement the TagMaster product portfolio. The LR-series of readers using 2.45 GHz technology is well recognised as market leading with installations all over the world, in all climate conditions, working in all types of demanding applications. The XT series meets the high demands for reliability and functionality set up by the global network of TagMaster partners. This new range of products provide with added advantages being made available due to the characteristics in the ISO standard.

*For more information, please contact:
Bo Tiderman, CEO
Telephone: +46 8 632 1950
E-mail: bo.tiderman@tagmaster.com*

Contact RFID Nordic organisation

C = Consultant P = Producer U = User F = Federation M = Media

- C**
Associated:
AMC
Bob Forslund
Lyckebo, 514 52 Långhem
Phone +46 325 406 40
Cell +46 70 289 11 42
bob@amc-hb.se
- C**
Associated:
AMD
Leif Nordlund
+46 73 625 40 61
- C**
ADAGE SOLUTIONS
Juha Rajala
Box 10021, 952 27 Kalix
Tel 0923 668 81
Fax 0923 668 88
Juha.rajala@adage.se
- F**
samarbete med:
AIM DENMARK
Arne Rask, ordförande
ar@logsys.dk
- samt*
F
AIM EUROPE
milagros@aimglobal.org
- C**
ADHTECH AB
Peter Nilsson
Box 22023
250 22 Helsingborg
Tel 042-25 60 21
Mail contact@adhtech.se
www.adhtech.se/
- P**
AREFF SYSTEMS AB
Fredrik Martinsson Verkövägen 102,
371 65 Lyckeby Tel +46 455 61 66 02
Mobil +46 733 526102
Mail fredrik.martinsson@areff.se
- C**
AUTOID EXPERT SCANDINAVIA
Olle Hydbom
Lars Christers väg 1
224 78 Lund
Phone +46 730 80 34 00
olle.hydbom@autoidexpert.se
www.autoidexpert.se/com
- Avd. för fasta tillståndets elektronik
I.Katarjiev,
Uppsala universitet
Box 534
75121 Uppsala
+46 18 47 17248
ilia.katarjiev@angstrom.uu.se
- P**
BEAB
Harri Vantaa
Box 943, 501 10 Borås
Phone +46 33 29 09 00
Harri.vantaa@beab.nu
- C**
BNEARIT AB
Spantagatan 2
973 46 Luleå
+46 920 211 800
anders.hermansson@bnearit.se
- C**
- CAPGEMINI**
David Glans
Gustavslundsvägen 131, Box 825
161 24 Bromma
Mobil 0736 737355
david.glans@capgemini.se
- P**
CIVIL ID SYSTEMS
Pierre Wincent
Box 933, 194 29 Upplands-Väsby
Tel +46 8 626 85 60
Pierre.wincent@civilidsystems.com
- C**
COMBIQ AB
Gjuterigatan 9 Science Park
553 18 Jönköping
Tel +46 705 74 04 72
torbjorn.birging@combiq.com
- P**
CONFIDEX LTD
Torbjörn Andersson
Haarlankatu 1, 33230 Tampere, Finland
+46 768 530 130 (mobile)
+358 10 424 4100 (office)
Skype ID: lakselva
torbjorn.andersson@confidex.net
www.confidex.fi
- P C**
DATAFÅNGST SVENSKA AB
Brännögatan 9A, 211 24 Malmö
Lars Enoksson
Tel 040 630 10 16
Mobil +46 708 15 46 85
Lars.enoksson@datafangst.se
- C**
DATEMA
SolnaStrandväg 98
Mobil: 0730-93 52 01
Tel 08 517 150 86 (00 vx)
Fax 08 28 77 05
larry.nilsson@datema.se
- I samarbete med:*
F
EFORUM I STANDARD
Postboks 242, 1326 Lysaker
Tel 67 83 86 93
post@eforum.no
- C**
ELECTRONA-SIEVERT AB
Jonas Buskenström,
Gårdsvägen 4, 169 70 SOLNA
Tel 08 447 31 00
Jonas.buskenstrom@electrona.se
- C**
ESCS AB,
christer@escs.se
Heberg117, 31196 Heberg
Besök Skreavägen 5
0346-13075. ,0705088403
www.escs.se
- U**
HANDELSBANKEN
Henrik Sirborg
Tegeluddsvägen 31 115 82 Stockholm
Mobil 070 - 53 156 34
hesi02@handelsbanken.se
- C**
HENCOL
Henrik Östergren
Mosskroken 24
167 56 BROMMA
Tel +46 8 26 91 49
Cell +46 70 733 36 78
info@hencol.se
- P**
HP
Kent Roger Wistam
Gustav III Boulevard 36
169 85 SOLNA
Tel 08 524 910 00
kent-roger.wistam@hp.com
- C**
IDENTEC SOLUTIONS
Blekingegatan 3
554 48 Jönköping
Tel +46 36 13 50 80
Fax+ 46 36 13 51 80
- C**
IDENTEC SOLUTIONS NORWAY AS
(formerly Wtek AS)
Skarpengland
4715 ØVREBØ, Norway
Phone: +47 38 13 91 53
Fax: +47 38 13 96 91
Mobile: +47 951 16 047
E-Mail: mona@identecsolutions.no
- P**
INTERMEC
Fredrik Dahlgren
Kista Science Tower
164 51 KISTA
Tel 08 622 06 60
fredrik.dahlgren@intermec.com
- INST. FÖR DESIGNVETENSKAPER**
Lunds Universitet
Daniel Hellström
Phone: +46 46 222 72 30
Cell: +46 730 560 580
Daniel.hellstrom@plog.lth.se
- I samarbete med:*
F
KOMPETANSENETTVERKET EFORUM
i Standard Norge
August Nilssen
Projektleder
Tlf dir: 67838689
Mobil: 90140566
http://www.eforum.no/
- I samarbete med:*
F
KTH INFORMATION AND COMMUNICATIONS TECHNOLOGY
Li-Rong Zheng
Box Elctrum 229
164 40 Kista
+46 8 790 4104
lirong@imit.kth.se
- C**
LEARNINGWELL
Cylindervägen 18
Box 1113, 131 26 NACKA STRAND
+46 70 332 84 70
gunnar.ivansson@learningwell.se
- P**
LOGOPAK SYSTEMS AB
Lilla Bommen 1
SE-411 04 Göteborg
Tel 0 31 - 700 12 30
mobile: 0709 - 67 84 70
fax: 031 - 15 12 01
mail: LThuring@Logopak.se
web: www.logopak.se
- P**
MECTEC ELEKTRONIK AB
Joachim Holgersson
Agnesfridsvägen 189
S-213 75 Malmö
Tel 040 689 25 01 (Direct)
Mobil 070 354 75 01 (Mobile)
- Växel 040 689 25 00 (Switchboard)
Fax 040 689 25 25 (Fax)
joachim.holgersson@mectec.se
http://www.mectec.se
- M**
MEDIAPLANET
Richard Ohlsson
Norrandsgatan 22
111 43 Stockholm
Tel +46 8 545 953 00
richard.ohlsson@mediaplanet.com
- Associated:*
Björn Söderberg
Mobil 073 805 09 00
Bjorn.soderberg@kiwok.com
- M**
MENTOR ONLINE
Lars Nordmark
Tel 042 490 19 17
Fax 042 490 19 99
Mobil 0709 75 99 42
anders.k@menteronline.se
- P**
MOTOROLA ENTERPRISE MOBILITY
Jonas Folkesson
Solna Strandväg 78, 171 26 Solna
+46 8 445 29 23
Mobil +46 733 35 29 23
Jonas.Folkesson@motorola.com
- C**
NIBLAEUS KONSULT AB
Gunnar Niblaeus
Banérgatan 29, 115 22 Stockholm
Cell +46 70 593 95 41
gunnar@niblaeus.se
- P**
NILÖRNGRUPPEN AB
Per Wagnäs
Box 499, 503 13 Borås
Tel +46 33 700 88 53
Mobile +46 70 915 18 67
Per.wagnas@nilorn.com
- M**
NORD-EMBALLAGE
Bo Wallteg
Bankvägen 30
262 70 Stöveltorp
Tel 042/207166
Mobil 0703/207163
bo.wallteg@n-e.nu
- P**
NORDICID
Miia Kivela
Myllyojankatu 2A
24100 SALO, Finland
Tel +358 2 727 7700
miia.kivela@nordicid.com
mirva.saarijarvi@nordicid.com
- P**
OBERTHUR TECHNOLOGIES SWEDEN AB
Torjörn Noré
Färögatan 7, 164 40 KISTA
Tel +46 8 658 75 00
t.noree@oberthurcs.com
- I samarbete med:*
F
ODETTE
Sten Lindgren
Karlavägen 14, Stockholm
Tel +46 8 700 41 20
Sten.lindgren@odette.se

- P**
OPTICON
Henrik Sittkoff
Spjutvägen 5, Hus C
175 61 Järfälla
Tel +46 8 585 485 60
henrik@opticon-sensors.se
- C**
OPTIDEV
Johan Malm
Gullbergs Strandgata 36 D
411 04 Göteborg
Tel +46 31 80 93 80
Johan.malm@optidev.se
- C P**
PAS CARD AB
Årstaängsvägen 1A, 117 43 Stockholm
Freddie Parrman
Phone +46 8 685 45 60
www.pascard.se
freddie.parrman@pascard.se
- PETER ÖST**
Lagman Eskils väg 4
443 34 Lerum
0706-376803
- C**
PMS IDENTCODE AB
Ögärdesvägen 4
S-433 30 Partille, Gothenburg
SWEDEN
Tfn + 46 31 7518721
Cell + 46 708 449405
Fax + 46 31 7518701
e-mail: bernt.bohlenius@pmsidentcode.se
http://www.pmsidentcode.se
- P**
PMS TECHNOLOGIES AB
Ögärdesvägen 4 433 30 Partille, Gothenburg SWEDEN
Tfn + 46 31 7518721
Cell + 46 708 449405
Fax + 46 31 7518701 e-mail: bernt.bohlenius@pmstechnologies.se
http://www.pmstechnologies.se
- P**
POCKETMOBILE
Anders Gilbertsson
Sveavägen 168, 113 46 Stockholm
Tel +46 8 736 77 05
Anders.gilbertsson@pocketmobile.se
- U**
POSTEN MEDDELANDE AB
Conny Thunberg
105 00 Stockholm
Tel 08 781 62 54
conny.thunberg@posten.se
- C**
RESLINK SOLUTIONS LTD
Jukka Hautala
Kumitehtaankatu 5
Fin-04260 KERAVALA
+46 733 18 33 87
Mail: jukka.hautala@reslink.fi
- I samarbete med:*
F
RFID INNOVATIONSSENTER AS
Petter Thune-Larsen
Postboks 124 Blindern, 0314 Oslo
www.rfidlab.no
Petter@rfidlab.no
- I samarbete med:*
F
RFID SOCIETY
www.rfidsociety.com
- I samarbete med:*
F
RFID BUSINESS ASSOCIATION
www.rfidba.org
- I samarbete med:*
F
WWW.MORERFID.COM
- C**
RFID CONSTRUCTORS
Niklas Hild
Scheelevägen 19A
223 70 LUND
Tel +46 46 286 30 61
Mobile +46 709 98 13 70
Mail/Skype niklas.hild@rfidconstructors.com
www.rfidconstructors.com
- Associated member:*
RETORIUM
Box 23, 182 11 Danderyd
Lucas Åhlström
Mobil 070 182 15 00
Mail: lucas@retorium.com
- P C**
SIEMENS AB,
Jos Klein Woud
Box 18575
212 39 Malmö
Gatuadress: Höjrodergatan 25, Malmö
Tel 040-59 25 13
Cell: 070-728 1280
jos.kleinwoud@siemens.com
- I samarbete med:*
F
SIS SWEDISH STANDARDS INSTITUTE
Stina Wallström
118 80 Stockholm
+46 8 555 520 00
stina.wallstrom@sis.se
- P C**
SCIROCCO AB
Stefan Wilhelmsson
Electrum 217
Besöksadress: Isafjordsgatan 30A
164 40 Kista, Sweden
+4687529891 +46733982337
Stefan.wilhelmsson@scirocco.se
- C**
SOGETI
Hoss Eizaad
Gustavslundsvägen 131
Box 825 161 24 BROMMA
Tel 08 536 820 07
070 922 99 77
hoss.eizaad@sogeti.se
- U**
SSAB EMEA AB
225/Logistikutveckling
Lars-Erik Stenberg 78184 Borlänge
- C**
STARBRIGHT CONSULTING
Hans Börjesson
Gjuterigatan 9
553 18 Jönköping
Tel +46 704 21 04 04
hans.borjesson@starbright.se
- F**
STF INGENJÖRSUTBILDNING
Martin Rawet
Box 1080, 101 39 Stockholm
+46 8 586 386 46
martin.rawet@stf.se
- M**
STOCKHOLMSMÄSSAN
Daniel Andersson
125 80 Stockholm
Tel 08 749 41 00
Daniel.andersson@stofair.se
- P**
STRÅLIN & PERSSON AB
Stig Forslund
Skagersvägen 34
120 38 ÅRSTA
08 91 27 50
Mobil 0707821760
stig.forslund@stralin-persson.se
Tauno Ollinen
Rottnebyvägen 6, 791 44 FALUN
+46 23 350 60
tauno.ollinen@telia.com
- F**
SVENSK HANDEL
Bo Svensson
103 29 Stockholm
Tel 08 762 78 28
bo.svensson@svenskhandel.se
- U**
SWEDBANK
Angelika Melchior
105 34 Stockholm
Tel 08 585 900 00
Angelika.melchior@swedbank.se
- C**
TAGMASTER
Emma Sundvall
Kronborgsgränd 1
164 87 Kista
Tel 8 632 19 50
Emma.sundvall@tagmaster.se
- P C**
TECHPAY
Göran Carlqvist
Science Park Gjuterigatan 9
553 18 Jönköping P
hone +46 736 20 99 05
email: goran.carlqvist@techpay.se
- P**
TELENOR
Katrin Calderon
116 45 STOCKHOLM
Tel +46 709 33 55 12
Katrin.calderon@telenor.com
Thor.steffensen@telenor.com
- P**
TELIASONERA
Håkan Billing
Mobil 0706 63 64 35
Tel 040 901 00
hakan.billing@teliasonera.com
- associated:*
TELMINA
Stefan Tjerngren
Vendelsö Skolväg 240
136 71 Haninge
Tel +46 8 81 35 13
Mobil 0736 26 02 17
stefan.tjerngren@bredband.net
- C**
TEXI AS
Arild Engesbak
Abelsgatan 5
N-7030 Trondheim
Tel +47 99 53 54 64
- P**
THE IMEGO INSTITUTE
Cristina Rusu
Arvid Hedvalls Backe 4, Box 53071
SE-400 14, Göteborg, Sweden
Tel. dir: +46 (0)31 7501 868
Fax. +46 (0)31 7501 801
cristina.rusu@imego.com
www.imego.com
- C**
TRACTEchnology
Hans Lewin
Svärdvägen 19
182 33 Danederyd
Tel: 08-630 53 00
Mobil 0761 74 85 28
hans.lewin@tractechnology.se
- P C**
UPM RAFLATAC
Tiina Kainulainen
P.O. Box 669
Myllypuronkatu 31
FI-33101 Tampere
Tel +358 40 5434654
Mobil +358 40 842 2470
Tiina.kainulainen@upmraflatac.com
- C**
VILANT SYSTEMS OY
Antti Virkkunen
Sinikalliontie 4
02630 Espoo, Finland
Tel +358 9 8561 9900
Mobil +358 50 529 4574
Antti.virkkunen@vilant.com
- P**
VISMA RETAIL
Box 274
S-761 23 Norrtälje
Besöksadress: Roslagsgatan 6-8
Tel 0176 - 745 00
Direkt: 0176 - 745 22
www.vismaretail.se
- P**
WISTEQ OY
Anja Järvinen
Salvesenintie 6
40420 Jyskä, Finland
Mobil +358 40 504 7963
Anja.jarvinen@wisteq.com
- C**
ÅF-ENGINEERING
Greger Du Rietz
Kvarnbergsgatan 2 |
Box 1551, 401 51 GÖTEBORG
Tel 010 505 30 84
Mobil: 0730 70 10 84
Fax: 010-505 30 10
greger.durietz@afconsult.com

Follow the exciting developments at: WWW.RFIDNORDIC.SE

If you want to join our non-profit organization call +46 8 662 31 95 or give us a mail at ove.canemyr@trendsetter.se You can also put your entrance fee at our account : bg 6181749-0 Please give our Treasurer a mail in advance stefan.tjerngren@bredband.net Yearly fee 7 000 SEK.

MOST WELCOME