



Newsletter

September 2006



The National Livestock Identification System (NLIS)



At RFID World last month, Rick Beasley, Operation Manager NLIS at Meat and Livestock Australia presented "From the Paddock to the Plate" which gave an excellent overview of how the NLIS began and its importance to the Australian Livestock industry. The NLIS is the largest application of RFID technology in the country and is now recognised as one of the world's best livestock identification, traceability and product integrity systems.

product integrity systems.

The article below is the first in a series of articles on the NLIS and gives our readers an overview of what is arguably one of the premier uses of RFID technology in the world.. right under our noses!!!

Australia is known worldwide for the quality of its livestock and especially its "clean and green" beef. However, in recent times, consumers have become alarmed at the integrity of animal products particularly in light of animal borne diseases such as "mad cow disease" (or Bovine Spongiform Encephalopathy, BSE) as well as incidences of elevated levels of chemical residues and hormonal growth promotants. In response to these concerns, countries which import livestock products have imposed strict regulations in an attempt to guarantee the integrity of the supply chain. The consequences of not meeting these regulations are severe with several recent incidences of some suppliers being banned from selling to specific trading blocks following disease or contamination issues. Australia exports approximately 70% of livestock production and is the leading exporter to many of the worlds top markets, as such is highly exposed to the threat of similar restrictions being put in place.

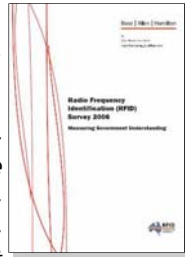
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Allen Hamilton with the following press release summary:

Government uptake still slow

Results from the recent Booz Allen Hamilton study into RFID awareness revealed that less than 30% of Australian government departments gave RFID any priority in their business plan.

Respondents saw competing priorities for tight budgets as the greatest challenge to increased adoption of RFID, with security changes, business process changes and software upgrades as the most significant change issues.



Copies of the survey report can be obtained by contacting Clive Macmillan-Davies at Macmillandavies_clive@bah.com

Booz | Allen | Hamilton

Focus on our sponsor: NEC

NEC Australia is proud to be a Foundation Sponsor of the RFIDAA. NEC joined the association to further support the growth of the industry. Working closely with industry partners, NEC plans to develop economies of scale and encourage widespread worldwide adoption of RFID as a key data capture technology.

Globally, NEC is at the forefront of RFID system development having deployed a wide range of solutions including logistics and supply chain, inventory and asset management, temperature traceability, patient temperature monitoring and production and process control.

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Government sponsorship of trade missions

Victorian Government continues their role to help sponsor Australian companies in overseas trade missions to promote their RFID capabilities and the strength of the Australian IT community with support from RFIDAA.

- From the 17th to the 21st of September: [Cebit Asia](#) in Shanghai, China
- From the 26th to the 28th of October: TiEcon 2006 in New Delhi, India.
- From the 28th to the 31st of October: BangaloreIT.in in Bangalore, India.

Further opportunities remain for RFIDAA members and sponsors to work with the Victorian Government in marketing, event and cluster related activities and promotions.

=> More on www.rfidaa.org/links and www.rfidaa.org/events

RFIDAA supports survey on Government position with RFID

In conjunction with a leading consultancy, Booz Allen Hamilton, RFIDAA has undertaken an extensive survey on the Federal Government views and position with regard to the adoption of RFID technology. As a platform for both government and industry analysis, these surveys provide insight to the barriers of adoption and the state of awareness on RFID applications, progress and demand.

RFIDAA is undertaking similar surveys with select industry leaders to ensure that RFID technology is well understood and that we also align with true business needs and justification. This aims at helping our members best develop relevant solutions, services and approaches to meeting these business and government needs. The survey is going out in early October from Booz

RFIDAA is proudly sponsored by:



Booz | Allen | Hamilton



Focus on our sponsor: NEC

(from front page)

NEC Australia has a strong history of system integration and telecommunications system design, manufacture and supply in Australia and has added RFID to its solutions list.

From NEC's supplier experience in the ICT industry, the company has a unique perspective on how RFID technology can be progressively rolled out, standardised and commoditised to become a ubiquitous information and telecommunications application.

NEC Australia is also building an 'Incubator Centre', which among a number of applications will showcase NEC's innovative work in linking RFID with Location Based Services (LBS) and Session Initiation Protocol (SIP).

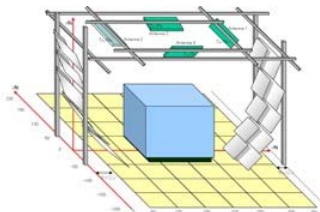


NEC Australia and NEC Japan are both members of GS1. NEC has actively participated in the formulation of EPC standards and expects to bring this expertise to the RFIDAA.

NEC Corporation also recently announced plans to go to

market with a 'high accuracy UHF RFID gate' by the end of 2006 which, aimed at the supply chain and logistics industry, is set to redefine individual item and inner carton level RFID applications.

<http://www.nec.co.jp/press/en/0609/1901.html>



For enquiries regarding RFID related business please contact:

Kelvin Slade - RFID Business Developer
Email: kelvin.slade@nec.com.au
Tel: 03 9264 3776



Read about the new gate system by NEC [on www.ferret.com.au](http://www.ferret.com.au)

What's happening overseas:

The laundry tag from Fujitsu

In our previous edition we talked about RFID in libraries and we highlighted that one of the reasons why the solution was mature is that tags were now tough enough to last as long as the items they were attached to, lasting through many tough conditions (moisture, folding, heat,...).

There are thousands of types of tags out there and some are

made to be resistant to very hard conditions. Terry Carter from Fujitsu Australia, member of RFIDAA, shared with us his experience at the Fujitsu Forum 2006 in Japan with the Laundry Tags.



Laundry tag being washed at Fujitsu Forum 2006

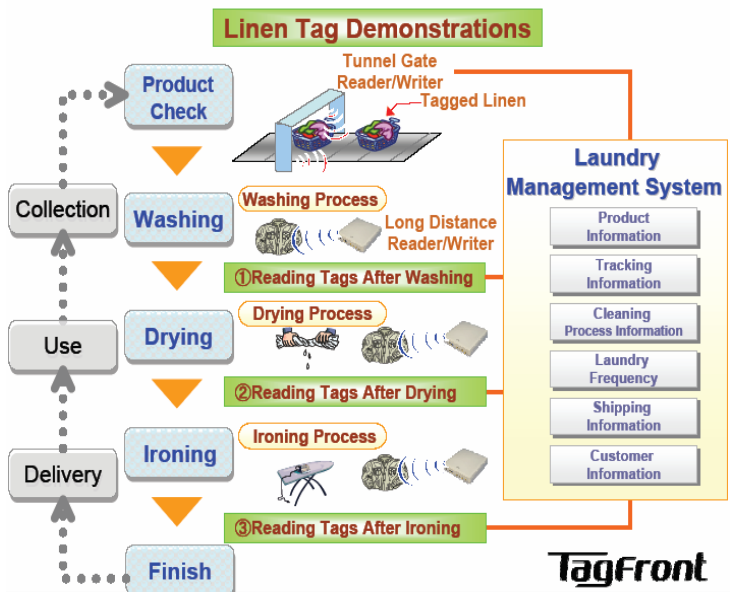
Those tags are waterproof and alkaline resistant so they can be washed, rinsed and go through a steaming process. They are also heatproof and pressure resistant which enable them to go in the dryer or to be ironed. As a result they are specifically designed for a laundry management solution.

At first glance the benefits of tagging linens are not obvious however hospitals, laundry businesses, rental uniforms businesses can reduce the numbers of working hours since numerous laundry tags are recognised at one time. These businesses can control better their customers' expectations because they can manage their production volume with real time data and perform quality control. The solution maintains the product quality since the tags are attached seamlessly and they store the cleaning instructions.

This is another example of the rapid development of the technology that enables new applications everyday. This solution was presented in Japan this year but is not yet available in Australia.



To learn more about the Laundry Tag, visit [our website](#).



Interested in becoming a sponsor or a member of RFIDAA?

E-mail us at rfidaa@rfidaa.org

Visit our website: www.rfidaa.org





Short courses with GS1: RFID & EPCglobal Standards



Get the whole picture on RFID and the new global standards system, Electronic Product Code (EPC) that supports RFID technology in one day.
Dates & locations:

- ▣ 9/11/06: Queensland
- ▣ 16/11/06: Victoria
- ▣ 23/11/06: New South Wales

For more information about the short courses and how to register, visit [GS1's website](#) or [Ferret website](#).

RFID in libraries: An RFID Data Model for Libraries



Radio Frequency Identification is beginning to find a home within the worldwide library sector. The technology promises to both increase efficiency in current library operations while at the same time opening doors to new ways of managing library collections. By replacing the

traditional barcode and also the item security tag, RFID tagged library books and other materials are liberated from the line-of-sight restrictions imposed by optical barcode technology. In a productivity sense, this means the difference between issuing books individually and issuing an entire stack of books in one action. Similarly, a complete shelf of books could be read for inventory or shelf-order purposes by means of a compact hand held device - in a matter of seconds.

One of the major impediments for libraries considering migration to RFID is the lack of purpose designed standards. Currently, library RFID vendors are shipping systems that comply with ISO 15693 and ISO 18000-3 Mode 1. These standards were developed with applications other than libraries in mind and are weak in areas important to libraries such as data security, reader authentication, password protection etc. In addition, the standards do not prescribe a tag data-model with the result that there is currently no interoperability between vendor's systems.

The Standards Australia working group IT-019-01-02 has examined proposals for an appropriate data-model for Australian libraries keeping in mind considerations such as:

- ▣ Borrower Privacy
- ▣ Cooperative arrangements between library organizations
- ▣ The desirability of employing existing standards
- ▣ Laying a foundation for an open library RFID architecture
- ▣ Achieving maximum flexibility for libraries



The working group is currently finalising its summary and proposal document which will be forwarded to ISO as an input into the international standards project expected to commence in October 2006. At that point the document will be released for public comment.

Broadly, the working group is suggesting that many of the current data-model proposals are too prescriptive to be effective in the global library community. The working group will propose an approach which embeds standards in the higher layers of the RFID systems architecture, leading to greater interoperability, not only at the tag level but also at the component level. The standards involved provide the necessary functions to create compact formatted data objects, combinations of which may be selected by individual libraries based on their tag-data needs.

Alan Butters

Chairman of Standards Australia Working group IT-019-01-02

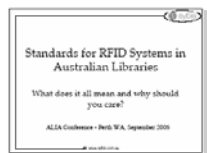
Update about the Australian Library & Information Association (ALIA) Biennial Conference in Perth

Alan Butters gave two presentations on the 22nd of September at the ALIA conference that attracted a lot of interest.



Download [RFID & Privacy within Libraries: Myths, Misconceptions, and the Future pdf](#)
137Kb

Download [Standards for RFID Systems in Australian Libraries: What does it all mean and why should you care? pdf](#)



Further information may be requested from Alan Butters, alan@sybis.com.au

Learn more about this topic on www.rfidaa.org and on Alan's website: www.sybis.com.au



The National Livestock Identification System (NLIS) *(from page 1)*



To maintain this competitive advantage and along with a growing worldwide trend for countries to implement whole-of-life traceability systems for livestock, Australia has been implementing a world leading RFID enabled cattle identification and tracing system, called the National Livestock Identification System or more simply as NLIS.

The NLIS system had its origins in Victoria where the Department of Primary Industries prototyped and implemented a system that could potentially be managed nationally. In October 2003, all Australian state and territory governments agreed to implement the NLIS (Cattle) on a national basis over a four year period to provide unprecedented levels of livestock traceability. This has provided a genuine competitive edge for Australian Livestock whilst providing a sophisticated capability to manage food safety risk.



Reading NLIS tags at the Saleyards

During his presentation "From the Paddock to the Plate" at RFID World last month Rick Beasley, Operation Manager NLIS at Meat and Livestock Australia presented a number of facts about the NLIS system most notable were:

- NLIS began in Victoria Australia in 1999,
- NLIS is now the nationally adopted standard to the traceability of cattle enforced by state based legislation
- There are now over 10 million individual animals being traced through properties, saleyards, feedlots and abattoirs
- It represents the largest application of RFID technology in the country
- All transactions are recorded in a central database managed by Meat and Livestock Australia (MLA)
- It is now recognised as world's best livestock identification, traceability and product integrity system.

So, how does NLIS work? The identification of livestock commences on the property of birth through the application of a low frequency passive RFID tag with a unique, unalterable sixteen character 'licence plate'. Tags come in the form of an ear tag or rumen bolus (a device swallowed by the animal and resides in the animal's stomach) /ear tag combination.



The details about each animal's history such as changes of ownership and property, as well as information that may affect their suitability for human consumption are stored in the secure central NLIS database managed on behalf of the industry by Meat and Livestock Australia.

As the cattle identified with NLIS devices move through the livestock chain they are scanned and the transaction information are updated on the NLIS database via the internet by all elements of the livestock industry e.g. producers, agents, saleyards, manufacturers.

This system is a national system but is coordinated and enforced at a state level. Each state has adopted a different rollout timetable. Victoria was the first state to have NLIS mandatory in 2002 with the requirement to notify changes in ownership changes and recently expanded to include changes in property of residence in 2005.

Commencement dates for rollout throughout the states:

VIC - 1 January 2002
SA - 1 January 2004
NSW, ACT, TAS - 1 July 2004
WA, NT, QLD - 1 July 2005.

The NLIS provides many benefits for the Australian livestock industry as a whole as well as at an individual level. At a National level the NLIS provides:

- A reduction of the financial and social impact of a livestock disease epidemic or residue incident.
- preparedness for international customers demanding whole-of-life, property-of-origin traceability.
- access and development of restricted markets. For example, the NLIS facilitates access to the EU market.
- improved 'on farm' productivity through the integration of the NLIS System with other farm management business processes (e.g. Animal identification)
- domestic and export consumers with continued confidence in Australian beef and dairy products.

Food safety is a key global issue, a guarantee of food safety and product integrity in red meat and dairy products is non negotiable for Australia. The NLIS has enhanced Australia reputation as a supplier of wholesome beef and dairy products. Australia is leading the world in the implementation of this best-practice system and it has been done by using RFID technology to identify and track beef and dairy cattle for food safety, disease control and market access purposes.

The NLIS is unique as it has been able to deploy RFID technology using approximately 10,000,000 tags in a wide variety of physical environments, with a wide variety of stakeholders in one of Australia's largest industries using a centrally managed database enforced by state legislation. The RFIDAA believes that the lessons learned and knowledge of simply getting the system to this point will be invaluable to the success of other RFID enabled schemes. As such we intend to run a series of themed articles each identifying a specific aspect of this implementation to showcase achievements as well as lessons learned

Read the full article on www.rfidaa.org

For more information on the NLIS please visit :
- www.nlis.com.au and www.dpi.vic.gov.au/

Interested in becoming a sponsor or a member of RFIDAA?

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