

case study



#3/2008

SUPPLY CHAIN MANAGEMENT

Electronic meat transfer certificate (eMTC) at Nolan Meats

Key points

The eMTC system applies global standards to uniquely track and trace individual cartons of meat back to the country of origin and their production source.

The eMTC system is built on the GS1 global trading standards for unique product identification (GS1 bar code) and electronic messaging (EANCOM Despatch advice Message).

The eMTC:

- Was developed by key industry organisations including MLA, AQIS and GS1
- Has been trialled with large and small industry participants to ensure suitability with existing on plant and trading partner systems
- Can be used by processors, cold storage facilities, shipping companies, exporters, importers, country of destination cold storage facilities and the buyers

The benefits included:

- Can be added to your existing plant system
- Reduced labour costs compared to the preparation of paper MTCs
- Reduced labour costs due to the automatic reconciliation and attestation of received copies
- Improved inventory visibility due to the availability of electronic records
- Improved market eligibility management by improved location accuracy
- Improved traceability

Case study

This case study looks at how the electronic meat transfer certificate (eMTC) system was utilised by Nolan Meats as part of a supply chain integration project.

Project coordinator Timothy Discher said several factors, including differing barcode standards and outdated or non-existent data transfer, hampered the beef industry's supply chain traceability.

"Products from different establishments are often consolidated to make a consignment, it can be very difficult to scan the many different types of barcode from these different establishments. This makes creating accurate data for product consignments and individual records that need to be transferred with the load very difficult," he said.

"The 'GS1 integration at Nolan Meats' project allowed our systems to overcome these issues through using the globally recognised GS1 supply chain standards. Standardised barcodes allow all members throughout the supply chain, including those overseas, to scan and recognise every establishment's barcodes. Following the implementation of GS1 bar codes, consignments can use standardised electronic messaging for information flow between supply chain members."

Yearly savings for Nolan Meats along the whole supply chain were estimated to be around \$65,000 with a return on investment in approximately two years.

"The success of this project demonstrates to the industry the benefits of the GS1 system by providing greater supply chain traceability and cost savings to all members of the supply chain," Mr Discher explained.

Background

Most of the export meat industry utilise computer based inventory systems. These systems are used to generate waybills and other transfer documents. Quite a number are sending electronic messages containing the relevant information about the consignment to the receiving establishment. AQIS has long recognised the benefit to industry in terms of both improved efficiency and better integrity that an integrated approach brings to the supply chain. Part of this recognition is allowing industry to integrate and automate the Meat Transfer Certificate process.

To facilitate this AQIS has been involved in the industry funded Meat and Livestock Australia project dealing with supply chain and traceability issues. The result of this work was the development of the electronic meat transfer certificate process, the "eMTC".

How the eMTC is used

The eMTC system is directly used by processors, cold storage facilities, shipping companies, exporters, importers, country of destination cold storage facilities and finally the buyers.

Indirectly the regulatory authorities use the eMTC to validate the details and contents of consignment by being able to verify each and every carton uniquely by reconciling to the export documentation. The key to the success of the new system is the application of GS1 bar coding and classification.

Challenges to implement the eMTC

Nolan Meats need to address the following issues:

- Labels needed to be redesigned to provide for the larger bar code
- New labels would be required for both slaughter floor (hanging labels) and boning room (carton labels)
- New GS1 product codes needed to be determined
- Software needed to be modified and upgraded to handle the new codes and the co-existence of the original and new codes
- New printers required to print the new labels
- Staff training in the new systems and codes would be required to ensure a smooth implementation

The change in the bar codes on the labels was significant with the new GS1 barcodes carrying 44 numbers compared with the 16 numbers in the non-GS1 bar codes requiring finer lines to fit onto the labels.

There was concern with the ability to read the GS1 bar codes without error at the same rate the old bar codes and on this basis the bar codes were made wider, new printers installed and an extensive program of testing undertaken.

With the new GS1 bar codes, systems and labels in place the company was ready to move on to implementing EANCOM systems for messaging and communicating between systems on different sites and with other companies.

The ultimate goal of the new system was to allow Nolan Meats to replace the paper based system with a wholly electronic system and to do this a number of the documents needed to be redesigned to fit the new systems and provide traceability for the product through the supply chain.

With the implementation of electronic messaging at Nolan Meats the flow of information is much faster, allowing data to be sent ahead of loads and removing double data entry from the supply chain.

eMTC details

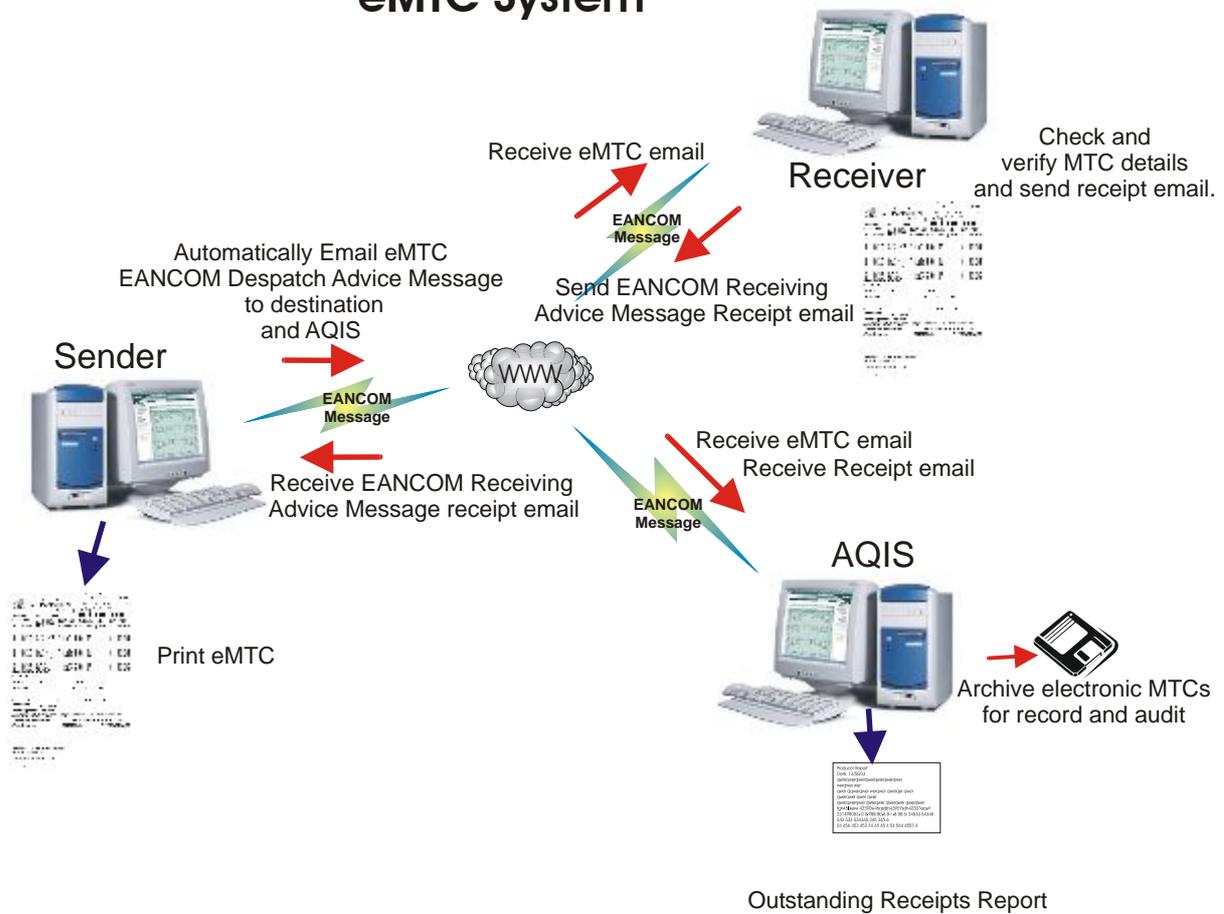
The Electronic Meat Transfer Certificate (eMTC) system works by recording the required MTC information by the consignor (sender). The information is then sent electronically to both the consignee, AQIS central recording systems and where relevant to the nominated AQIS on-plant email address. A "look a like" MTC form can be printed to accompany the consignment and/ or for record keeping.

When the consignee (receiver) receives the physical shipment the consignee checks it against the eMTC and if all is correct generates a receipt message. This message is automatically emailed back to the consignor (sender) and the AQIS officer.

The eMTC system uses the EANCOM Despatch Advice message for the consignment details and the EANCOM Receiving Advice message for the proof of delivery.

For security purposes the function to create an eMTC specific GS1 EANCOM Despatch Advice is password protected.

eMTC System



GS1 registration

For the eMTC system to work correctly through the whole supply chain and logistic channels requires each organisation that creates and uses eMTC to have a registration with GS1 Australia. GS1 Australia is part of GS1 International which is the global organisation responsible for numbering, bar coding and electronic messaging for trade and commerce. To obtain more information and to apply for a company registration, go to:

http://www.gs1au.org/_home.asp

Summary

To implement the eMTC system in your organisation, you need to:

- Obtain GS1 Registration
- Integrate the eMTC function into your existing on-plant systems (System vendors should contact MLA for additional requirements)
- Start using GS1 Bar code printing/ scanning
- Update your approved arrangements with AQIS

For more information on utilising the GS1 system along the red meat supply chain please refer to the following documents available from MLA:

- *Guide to Information Standards – Numbering, bar coding and eMessaging for the Australian Red Meat Industry*
- *Australian Red Meat Industry Technical Fact Sheet – Variable Weight Carcase Label*
- *Australian Red Meat Industry Technical Fact Sheet – Variable Weight Carton Label*
- *Australian Red Meat Industry Technical Fact Sheet – Pallet Label*
- *Australian Red Meat Industry Technical Fact Sheet – the electronic Meat Transfer Certificate (eMTC)*
- *Australian Red Meat Industry Technical Fact Sheet – the electronic Messaging for Cattle and Sheep National Vendor Declaration (eDEC) System*
- *Australian Red Meat Industry supply chain information standards projects example cost benefits*

For more information

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