



Final report

DAISY eNVD Integration Project

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Abstract

The DAISY eNVD Integration Project was designed to give the users of the DAISY software quick access to eNVD data within their existing software for tracking and validation. DAISY users indicated a strong interest in the project, and while they still see value in the changes, while the information is split between the eNVD and the paper NVD, using eNVD creates more work for them.

As the industry phases out the NVD in favour of the eNVD, the integration of the eNVD data within DAISY will allow an easier way to view eNVDs, and a quicker and more consistent way to validate eNVD consignments before they arrive onsite.

Executive summary

Background

The eNVD Integration Project into Yartoo Software's Distributed Abattoir Information System by Yartoo (DAISY) attempts to answer the following questions:

- Can we provide access to the eNVD within DAISY?
- How do DAISY users use eNVD and NVD in their daily work?
- By integrating the eNVD data into DAISY, can we make assist or improve user's experiences using eNVDs?

Objectives

The main objectives of this project were to integrate eNVD data within the DAISY software to allow staff to easily view and validate incoming eNVD consignments. Users can now view eNVD consignments from the kill agenda and carcasses. Validation rules can be setup to automatically validate an eNVD consignment against user-defined rules and existing DAISY data to quickly and consistently identify any errors.

Methodology

After speaking with our customers and understanding how they use paper NVD consignments in their daily work, we were able to identify areas within the DAISY software where it would be beneficial to have access to the eNVD consignment data. Looking at how the eNVD system works we were able to establish links to existing DAISY data and provide ways to validate data between the two systems.

Results/key findings

When speaking with Yartoo Software customers, initially they could see the value in the integration of the eNVD system. Being able to access eNVD data within DAISY allows users to easily track livestock and follow up on queries without having to find a paper version, or log into the website. We found less support for the DAISY eNVD validation facility. In both cases, the incomplete nature of the eNVD means that the users constantly having to refer to the paper NVD consignments. While the data is split across the eNVD and the paper NVD, using the system changes requires more work from the user.

Benefits to industry

The intended benefit was to streamline the validation of eNVD consignments as they became available and resolve errors as soon as possible. As the transition continues from paper NVD to eNVD we hope that our customers will see the value of these changes.

Future research and recommendations

From talking with our customers, it seems the biggest hurdle is the reliance on the paper NVD. We have seen many examples of consignments started as an eNVD, but finish as a paper NVD. We've also seen examples where users are contacting livestock suppliers to explain questions and help correct answers.

It seems that there needs to be more focus on training for livestock suppliers and the phasing out of the paper NVD. Our customers have shown an interest in using eNVD within DAISY, but while they have to switch between eNVD and NVD, it's just creating more work for them.

Our customers have indicated that they are keen to move to eNVD completely, with some discussing incentives and training for livestock suppliers.

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1. Background

The electronic National Vendor Declaration platform (eNVDs) is a suite of technologies that supported the end-to-end digital transfer of livestock consignments, including Livestock Production Assurance NVDs, Meat Standards Australia (MSA) vendor declarations, national health declarations and National Feedlot Accreditation Scheme (NFAS) forms. Processing plants are heavily reliant on paper NVDs to support livestock operations and market eligibility checks, and this creates an inefficient process because information from paper forms needs to be manually entered into processor systems and could be delayed further where details were illegible, missing or recorded incorrectly. The project was established in that context, with the intent of reducing manual handling and enabling processors to make better use of digital consignment data within their existing operational systems.

Yartoo Software is an Australian software development and support company that specialises in building customer-specific software solutions for meat processing businesses. Within this project, Yartoo has upgraded its Distributed Abattoir Information System by Yartoo, known as DAISY, so that eNVD web and app data could be integrated more effectively into processor workflows. This reflects the broader industry need for abattoir plant systems and processes to be assessed, digitised, upgraded and integrated to realise the full value of eNVD data and reduce their dependence on paper-based handling.

The project was intended to support Yartoo and its processor customers in planning for, accessing and using eNVD information alongside the production and receival data already available within DAISY. The scope described in the Statement of Work included implementation at Thomas Foods International at Murray Bridge. The purpose of this integration was to allow abattoirs to view eNVD details clearly for delivery and kill scheduling, and to provide greater confidence that livestock were eligible to be slaughtered with respect to withholding periods and other vendor-declared information. The project also contemplated the use of eNVD data within DAISY's MSA grading functions so that the information could support downstream processing decisions as well as receivals activities.

At a system level, the planned integration was to access customer eNVDs through a secure API, automatically extract and transform relevant data, and populate internal DAISY workflows without the need for manual re-entry. In practical terms, the project was intended to improve data validation, reporting and access to eNVD information across the platform, while creating a more secure and streamlined process for handling NVD-related records.

2. Objectives

The objectives of this project were:

Through collaboration between Yartoo, ISC and Yartoo's clients, develop and implement a plan for eNVD data to be incorporated, utilised and additional value extracted from integration into Yartoo's DAISY software by:

1. Review and understand eNVD API requirements
2. Collaborate with supply chain members to understand user requirements for eNVD integration within DAISY
3. Execute implementation of eNVD API to facilitate data flow between eNVD database and meat processing businesses using DAISY
4. Deliver product demonstration of the integrated eNVD API into DAISY

5. Implement integration of eNVD data into DAISY

Implement efforts to improve the uptake of eNVDs within business supply chain partnerships by:

6. Identify and engage with meat processor customers on eNVD integration.
7. Identify what processes currently used are not supported by the eNVD system, and that need to be supported to facilitate data flow within the business.
8. Identify what systems or processes need to be built, customised, upgraded or integrated for eNVD data to deliver additional value to the business.
9. Implement redeveloped receivals module and MSA grading application, training and support to enhance uptake and use of eNVD data.
10. Demonstrate eNVD capabilities following integration with supply chain partners.

By integrating eNVD data within DAISY, our intention was to reduce the amount of time it takes for a user to validate an eNVD consignment, and to provide easy access to eNVD consignments throughout the system. While we were able to achieve these objectives, the uptake has been affected by amount of incomplete eNVD consignments.

3. Methodology

The project was delivered through a combination of user engagement, software development, and testing within a live processing environment, focused on integrating eNVD data into the DAISY system.

Engagement with processor users was undertaken to understand how paper NVDs and eNVDs were used within existing workflows, including receivals, kill agenda processing and quality assurance activities. This informed identification of where eNVD data could be incorporated into DAISY to improve visibility and reduce reliance on manual processes.

Development activities focused on integrating DAISY with the eNVD system via a secure API, enabling retrieval and display of consignment data within the platform. Functionality was progressively developed to present eNVD information within relevant areas of the system and to enable comparison between eNVD data and internal plant data.

The project included the design and implementation of rule-based validation functionality, enabling users to define checks to compare eNVD consignments against plant records. This capability was intended to support existing validation practices and provide a more structured approach to identifying discrepancies.

Testing was undertaken in collaboration with Thomas Foods International at the Murray Bridge site, using both test and live consignment data. Functionality was released in stages to allow users to test features within their operational environment and provide feedback. This supported iterative refinement of system functionality and data presentation.

Throughout the project, development was informed by ongoing user feedback, including identification of usability improvements and additional functionality requirements. This included consideration of features such as enhanced data validation, improved handling of incomplete consignments, and mechanisms to support communication between processors and suppliers.

4. Results

The project delivered integration between the eNVD system and the DAISY software, enabling access to eNVD consignment data within the processor's operational system. Users were able to view eNVD information within DAISY, reducing reliance on external systems to retrieve consignment data.

Functionality was delivered to access lists of consignments and view individual eNVD records, improving visibility of consignment information and supporting tracking and follow-up activities. The integration also enabled association of eNVD data with internal plant records, providing greater context for operational use.

Validation capability was introduced through rule-based checks, allowing users to identify discrepancies between eNVD data and plant records, including inconsistencies in livestock details and consignment information. This provided a more structured approach to identifying errors compared to manual processes.

At the Thomas Foods International Murray Bridge site, the integration supported improved access to eNVD data during operational activities, including receivals and quality assurance processes. Where consignments were complete and accurately recorded, the system enabled more efficient validation and reduced the need to reference paper documentation.

The project findings highlighted that the effectiveness of the integration was dependent on the completeness and quality of eNVD data. Where consignments were incomplete or required reference to paper records, users continued to rely on multiple sources, limiting efficiency gains. This outcome was consistent with user feedback that dual use of paper and eNVD documentation increased workload rather than reducing it.

Technical and data-related limitations affected the scope of delivered functionality. These included challenges in retrieving and displaying all relevant consignment data, handling complex or multiple data entries within consignments, and ensuring consistent representation of all required forms and data fields within DAISY.

Additional functionality, including validation rule templates and mechanisms to support communication with suppliers, was partially implemented or remained under development at project completion.

Overall, the project demonstrated that integration of eNVD data into the DAISY system was achievable and provided improved access to and visibility of consignment information. The results also identified that realisation of full benefits was dependent on consistent and complete eNVD usage across the supply chain and reduced reliance on paper-based processes.

5. Conclusion

The project delivered integration of eNVD data into the DAISY system, enabling processors to access and validate consignment information within their existing workflows. This supported improved visibility and more consistent validation where eNVD data was complete and accurately recorded.

The project confirmed that benefits were constrained by incomplete data and continued reliance on paper NVDs. Where consignments required cross-referencing between paper and electronic records, efficiency gains were reduced.

Overall, the project met its core objective of integrating eNVD data into DAISY and demonstrated its practical application in a processing environment. Broader adoption of complete and consistent eNVD usage is required to fully realise the benefits of integration.

5.1 Key findings

Based on consultations with customers, the following was determined:

- There are differing levels of computer skills among livestock suppliers that could be affecting the uptake of eNVD usage.
- The level of training between livestock suppliers on how to fill out an eNVD can be quite different and affect the quality of the data
- Our customers are keen to use eNVDs with some thinking about providing their own incentives and training to livestock suppliers.
- As paper NVDs are phased out, our users will start to see more value from DAISY eNVD integration

5.2 Benefits to industry

As paper NVDs are phased out we expect:

- the quality of the data captured in the eNVD will improve
- processors will be able to validate eNVD data faster and more consistently
- there will be better traceability of changes and corrections

6. Future research and recommendations

Further work should focus on improving data quality and consistency across the supply chain, as the value of integration was reduced where eNVDs were incomplete or supported by paper records. Targeted training and improved system prompts at the point of entry would support more consistent completion and enable processors to rely on digital workflows.

There is also opportunity to enhance system functionality within DAISY, including further development of validation rules, improved handling of complex data structures, and refinement of communication features such as comments and notifications. Broader rollout to additional processor sites and continued integration with other supply chain data would further increase the value of eNVD across operations.