



Australian Government
**Australian Customs and
Border Protection Service**

Customs to Customs Data Exchange Proof of Concept Report



Enhanced Trade Solutions

March 2009

Acknowledgements

The Australian Customs and Border Protection Service (Customs and Border Protection) would like to acknowledge the contribution made by the large number of internal and external stakeholders throughout the Customs to Customs Data Exchange Proof of Concept. A number of these stakeholders have generously given their time and expertise throughout the project.

This report is the product of a true team effort. We have learned much from the project experience and working closely in partnership with our pilot companies, partner economies, other agencies and industry representatives.

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748240
4310

30,480 KG
67,200 LB
3,710 KG
8,180 LB
26,770 KG
59,020 LB
67.6 CU.M.
2,387 CU.FT.

MGW
TARE
NET
CU.CAP.

30,480 KG
67,200 LBS
3,800 KG
8,375 LBS
26,680 KG
58,825 LBS
67.5 M
2,383 FT

NO SU 4 54 92 70

TRLU 434552 2
US 4310

MAX. GROSS
TARE
NET
CU. CAP.

30,480 KGS
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3,850 KGS
8,050 LBS
26,630 KGS
59,150 LBS
67.6 CU.M.
2,387 CU.FT.

APL

TRADO

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APZU 411864 4
4261

MAX. GROSS
TARE

32,500 KGS
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3,770 KGS
8,310 LBS
28,730 KGS
64,160 LBS

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4310

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Overview

In March 2008, Customs and Border Protection published *A Proposal for Enhanced Trade Solutions 2015 Consultation Draft (Consultation Draft)* as a companion document to the *Customs Strategic Outlook 2015 (Strategic Outlook)*. The *Strategic Outlook* outlined Customs and Border Protection's view of the global trade and security environment into the future, and the implications this may have for border management. The *Consultation Draft* outlined a number of initiatives, including the Standardised Data Set and Standard Business Reporting initiatives, that were seen as having the potential to improve facilitation of international trade and border security.

Customs and Border Protection has continued to research opportunities and improvements in the facilitation of international trade, the identification of fraudulent activities, the security of the supply chain and border protection. This research has been undertaken within the context provided by the World Customs Organization's (WCO) Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework) and the goal of exploring greater harmonisation, alignment and standardisation in managing international trade.

This discussion paper outlines the key findings from proofs of concept undertaken by Customs and Border Protection. These proofs of concept explored whether it was possible to obtain earlier information for cargo risk assessment, offer differentiated treatment for industry and reduce the regulatory burden through the international exchange of cargo data.

Research was undertaken to investigate the feasibility and benefits of data exchange between governments and industry using the hypothesis that one country's export is another's import.

The research showed that while on the surface it seems attractive to combine export and import data to improve trade facilitation and risk assessment, more detailed

analysis showed that many of the anticipated benefits – such as reduced reporting burden for industry or earlier certainty of status – were unachievable in the current business environment.

Analysis found that data available at the time of export is not sufficient to meet clearance requirements on import without supplementation at a later time and, in some cases, by other reporting parties.

Notwithstanding these findings, Customs and Border Protection will continue to investigate international data exchange opportunities that may enable earlier risk assessment, reduced regulatory burden on industry across the supply chain or earlier certainty of status for importers. These further research activities will be in line with Customs and Border Protection's *Enhanced Trade Solutions 2015* paper, available at www.customs.gov.au.

Purpose

In June 2005, the WCO adopted the SAFE Framework. The SAFE Framework outlines principles for modern customs administrations to aspire to, including the alignment of import and export data requirements so that seamless data flow can occur between countries. These include both customs-to-customs and customs-to-business information exchange.

In supporting this intention, Customs and Border Protection has looked extensively at international data exchange and performed a series of practical data exchanges. The purpose of this work was to test the feasibility, benefits and implications of international data exchange and ascertain whether it could contribute to:

- **Earlier risk assessment**

Whether the receipt by the importing country of more complete data earlier in the transaction would enable earlier, more comprehensive risk assessment for Australian Customs and Border Protection and therefore facilitate earlier certainty of status for industry.

- **Reduced regulatory burden on industry across the supply chain**

Whether exchanging data could reduce the total costs of reporting across the international supply chain and, in particular, whether some reporting obligations could be eliminated; acknowledging that partially eliminating data elements or reducing reporting for only some companies would not significantly reduce industry costs, if at all.

- **Earlier certainty of status for importers.**

Whether earlier receipt of information for risk assessment by government could result in the provision of certain status earlier to importers (a key benefit identified by industry).

Our international data exchange research and proofs of concept were tested against these three criteria.

Additionally, any international data exchange must not have been found in practice to increase complexity or workload for Customs and Border Protection or industry by:

- adding further processing steps for either industry or customs administrations
- applying only to a small segment of industry or trading partners
- creating unique IT and/or business processes, such as a need to report different consignments in different ways
- creating additional information technology or other system processing costs or increased document linking challenges¹.

¹ Specific information is essential for linking import declarations and sea cargo reports within the Integrated Cargo System (ICS) for a specific consignment of goods. Without these linking arrangements, the ICS cannot provide a clearance status for imported goods.

Method

In approaching this research task, considerable analysis was undertaken to review a range of different countries' import and export declarations with data collected by Customs and Border Protection to determine alignment and whether an international data exchange - in either direction - could achieve any of the three criteria for successful data exchange without introducing unnecessary complexity or workload.

Customs and Border Protection collaborated with the New Zealand Customs Service, Korea Customs Service and Japan Customs and Tariff Bureau, as well as a number of Australian and international industry partners, on specific proofs of concept.

These proofs of concept focused on:

- Establishing the level of alignment to the WCO Data Model for the research activities
- Providing a gap analysis of the overseas information reporting requirements at export and subsequent import requirements into Australia
- Verifying the level of commonality between the information provided and identification of possible reusable or redundant data elements
- Testing with an industry partner their ability to provide required information at the time of export.

Findings

This work has shown that there is value in data exchange for specific purposes. However, a number of outstanding issues were identified that demonstrated, according to the benefit criteria above, international data exchange is not a valuable proposition for industry or government at this time. These issues are outlined below.

A high degree of data misalignment that prevented an international data exchange from meeting the three Customs and Border Protection criteria.

A comparison of the fields contained in other countries' export documentation with data elements contained in the Australian import declaration was undertaken. This comparison showed that sufficient similarity does not exist between the overseas government's export data requirements and Customs and Border Protection import data requirements in order to make a data sharing option viable for Australian import clearance purposes. Earlier comprehensive risk assessment (and earlier certainty of status) would not be available given that Customs and Border Protection and other border agencies still require additional data to complete their risk assessment.

The same was found to be true for the reverse direction of trade. For example, Customs and Border Protection are unable to provide House Air Waybill (HAWB) numbers for transactions as they are not collected as part of the export process in Australia. This makes it more difficult for partner administrations to match export data from Australia against their corresponding import data.

Customs-to-Customs data exchange would require the introduction of additional processing steps in Customs and Border Protection's risk assessment practices.

Partial data could be sourced through data exchange from overseas customs administrations or from the exporting company earlier, but to use this data would mean the introduction of additional processing steps in Customs and Border Protection's risk assessment

practices. Border agencies would have to:

- Risk assess the partial data available at export; and
- Complete the risk assessment process against the complete set nearer to the time of importation, requiring a two-step process.

Given the requirement for a two-step process, there would be additional reporting steps and complexity for industry without the benefits of earlier certainty of status. It would also add unnecessary complexity to a data exchange, as our current processes provide for risk assessment against all border risks using a consolidated data set made up of a linked cargo report and import declaration.

Critical data required for import clearance not available from overseas

Key information required on the Australian import declaration for clearance purposes is not collected at the point of export (or is not held by the exporting company at all), which prevents Customs and Border Protection and other border agencies from performing a complete risk assessment and providing certainty of status at that time.

This missing information (such as community protection questions, preference scheme data or quarantine directions) usually requires local knowledge to complete and is required for whole-of-government risk assessment.

Even for related company transactions, very few overseas entities currently possess sufficient information to enable them to complete a full import declaration prior to or at the time of export.

Additional data sources could introduce linking and data quality issues and may not necessarily relieve the reporting burden on Australian importers

Obtaining data from an additional data source (either the exporting company or customs administration) could introduce linking and data quality issues that may place a significant burden on Customs and Border Protection's IT systems and industry service providers. For example, existing challenges faced by industry in linking import declarations with cargo reports would be exacerbated by the requirement to link a third document - the corresponding export declaration.

Sourcing data direct from a limited number of overseas administrations and/or companies would not relieve the reporting burden on Australian companies, as it is unlikely industry would want to introduce additional complexity in their supply chains by having multiple reporting arrangements (one for countries with a bilateral data exchange and one for everyone else).

Options currently exist for multinational companies to streamline or centralise their customs clearance processing centres

Nothing prevents multinational companies from centralising their documentation and customs reporting processing centres. As long as the legal obligation rests with their local subsidiary, cargo reports and import declarations can be filed electronically from any physical location, subject to IT security requirements. In fact, a number of multi-national companies already take advantage of this option.

Any multinational company considering this option would have to establish a process through which the Australia-specific information could be obtained and this data would need be updated with changes to tariff classifications, statistical codes, community protection questions, lodgement questions and Australian Quarantine and Inspection Service (AQIS) information.

Further consideration would also need to be given to how overseas companies would resolve intervention activity logistics and requests for further information. As all lodgement response messages from the ICS would be sent to the overseas company, this may present issues should Customs and Border Protection or other border agencies require further information about a particular consignment, or if the consignment is subject to Customs and/or AQIS intervention.

Implementation would be costly, require significant changes to business processes and would be difficult to implement as a broad solution.

During the exploration of possible options for implementation of international data exchange, the research showed:

- Implementation costs are likely to be high for both government and industry
- Despite best efforts to define a solution which would fit within current business processes, some changes would be unavoidable. Given these changes could not be applied globally (i.e. they could only apply bilaterally), they would introduce additional complexity for industry and government that would be difficult to cost justify
- The difficulties experienced even with straightforward imports (i.e. no permits, consistent consignees, related companies etc) suggest that it would be difficult to apply a solution more broadly across industry and commodities.

Moving forward

Despite these findings, the key concepts explored through the proofs of concept remain sound. These concepts include:

- lengthening the risk assessment cycle to enable more time for border agencies to react if necessary
- eliminating cargo and entities from border agency consideration through earlier risk assessment and earlier provision of certain status
- reducing the regulatory burden on industry through data re-use.

Customs and Border Protection will therefore continue to monitor and investigate opportunities that assist in meeting future challenges, influence the direction of international standards in the area of data harmonisation and standardisation and explore the uptake of new technologies and supply chain solutions.

Our forward work program will take a cautious and pragmatic approach. When new opportunities are identified, with a clear business case, Customs and Border Protection remains open to commencing further proofs of concept or pilots with industry and other Government agency partners.



Appendix A

The charts below illustrate the extent of matching of those data elements collected by Customs and Border Protection against those collected by partner customs administrations for the following proofs of concept:

- Customs and Border Protection and the New Zealand Customs Service:
 - New Zealand export entry data mapped to Australian import declaration data
 - Australian export declaration data mapped to New Zealand import entry data
 - New Zealand export entry data mapped to Australian sea cargo report data
- Customs and Border Protection and Japan Customs and Tariff Bureau:
 - Japanese export declaration data mapped to Australian import declaration data

- Australian export declaration data mapped to Japanese import declaration data
- Customs and Border Protection and Korea Customs Service:
 - Korean export declaration data mapped to Australian import declaration data
 - Australian export declaration data mapped to Korean import declaration data

The charts show that even with close trading partners (such as Australia and New Zealand) there can be a significant degree of data misalignment between one country's import declaration and another's export declaration. Interestingly, Japan and Korea's export declarations were able to be mapped more closely to Australian import declaration data than New Zealand's. However, in all instances there were notable data gaps when comparing the import and export declarations of the three countries.

The following is a list of definitions and notes accompanying the charts.

Exact match	<ul style="list-style-type: none"> • Data is used in the same context in both business environments and has identical meaning. • Data is in the same format (field length and data type) and either free text or of identical domain sets (code lists). • Data can be moved from the source to the destination environment with no loss of meaning.
Equivalent	<ul style="list-style-type: none"> • Data is used in the same context in both business environments and has identical meaning. • Data is coded and although the code lists are different, in some cases there is a one-to-one correspondence. • Code data type may not necessarily be identical. • Data can be transformed to be used by the destination environment however may range from simple look-up algorithm to complex algorithms for use. • Data may be expressed in different units. • Domain sets may be exclusive (e.g. client ID within a business environment) and the data would only have meaning within the native environment.
No Match Found	<ul style="list-style-type: none"> • There is no match found in the source document for the given item in the destination document.
Mandatory for All Commodities	<ul style="list-style-type: none"> • A reduced data set has been represented in a chart because in all cases there would be additional commodity dependent data required which would increase the ratio of "No match found". • Elements automatically populated by the importing country's information system or the Electronic Data Interchange have been excluded from the charts.
Other Notes	<ul style="list-style-type: none"> • Matching has not been ratified by the relevant partner country with the exception of the NZ Export Entry → Australian Import Declaration, and the Australian Export Declaration → NZ Import Entry. • There are 46 data elements on an Australian import declaration that must be supplied in every case - i.e. they are unconditionally mandatory. • In the following graphs the count of exact match includes elements which are either able to be derived from other data or are supplied/defaulted by the importing country's information system.

Customs and Border Protection ↔ New Zealand Customs Proof of Concept

Chart 1: Of the 46 mandatory data elements in the Australian Import Declaration, 10 are completely satisfied by elements in the NZ Export Entry (or system populated or derivable information) and 6 are partially satisfied (i.e. Equivalent).

NZ Export Entry Data mapped to Australian Import Declaration Data, Mandatory Fields

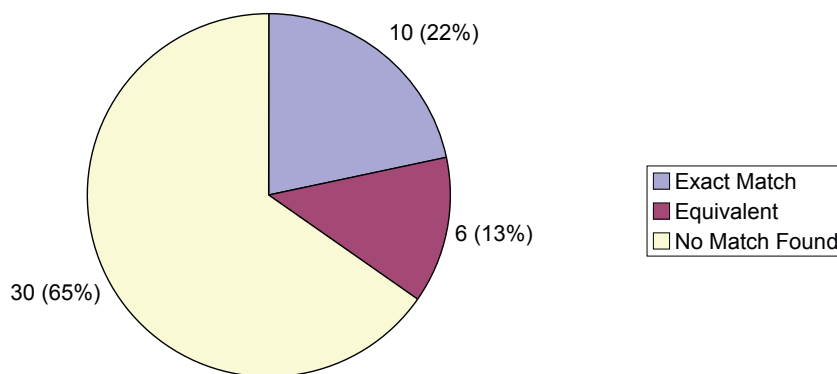


Chart 2: Of the 67 data elements on a NZ Import Entry, the Australian Export Declaration satisfies 8 completely and 5 partially (i.e. Equivalent).

Australian Export Declaration Data mapped to NZ Import Entry Data

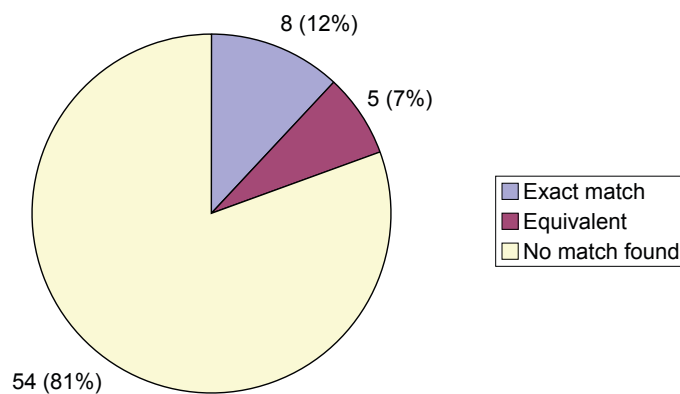
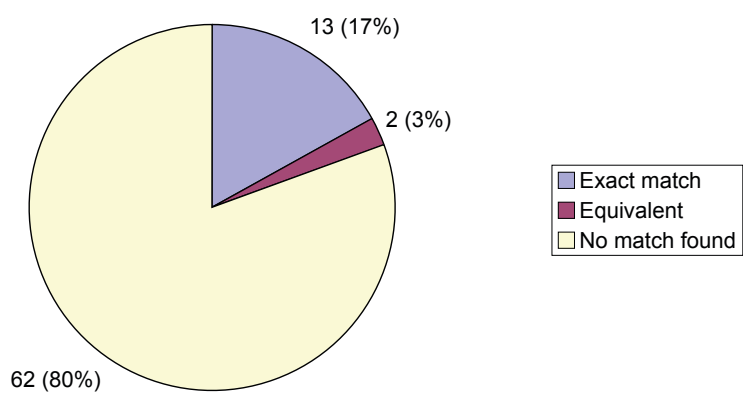


Chart 3: Of the 77 data elements on the Australian Sea Cargo Report, the NZ Export Entry satisfies 13 completely and 2 partially (i.e. Equivalent).

NZ Export Entry Data mapped to Australian Sea Cargo Report Data



Customs and Border Protection ↔ Japan Customs Proof of Concept

Chart 4: Of the 46 mandatory data elements in the Australian Import Declaration 15 are completely satisfied by elements in the Japan Export Declaration (or system populated or derivable information) and 19 are partially satisfied (i.e. equivalent).

Japanese Export Declaration Data Mapped to Australian Import Declaration (Fields Unconditionally Mandatory)

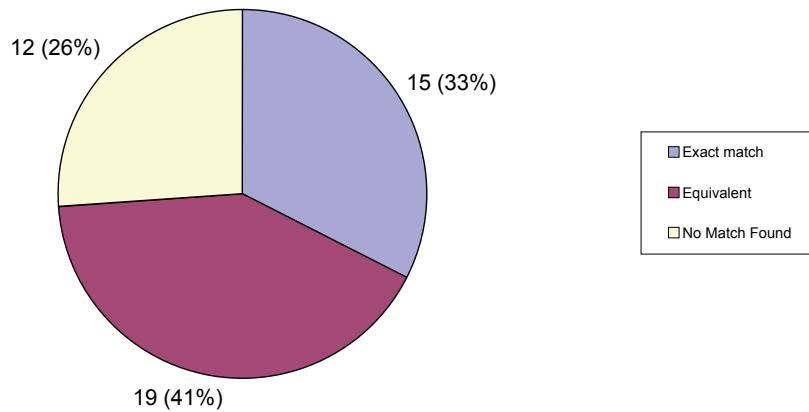
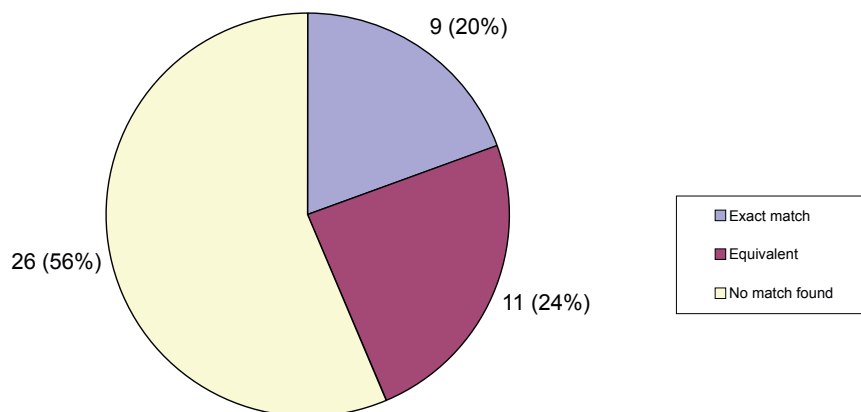


Chart 5: Of the 46 mandatory data elements on a Japan Import Declaration, 9 are completely satisfied by the Australian Export Declaration (or system populated or derivable information) and 11 are partially satisfied (i.e. equivalent).

Australian Export Declaration Data Mapped to Japanese Import Declaration (mandatory for all commodities)



Customs and Border Protection ↔ Korea Customs Proof of Concept

Chart 6: Of the mandatory 46 data elements in the Australian Import Declaration, 16 are completely satisfied by the Korean Export Declaration (or system populated or derived information) and 12 are partially satisfied (i.e. equivalent).

Korean Export Declaration Data Mapped to Australian Import Declaration Data (unconditionally mandatory fields)

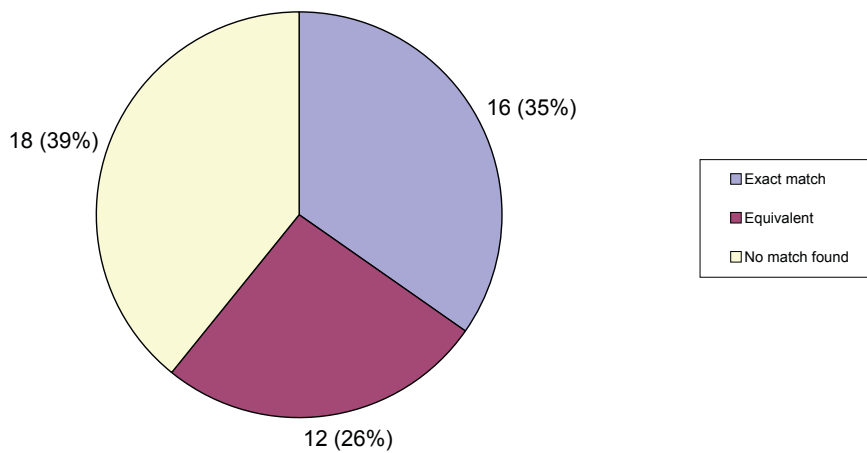


Chart 7: Of the 64 mandatory data elements on a Korea Import Declaration, 18 are satisfied completely by the Australian Export Declaration (or system populated or derivable information) and 12 are partially satisfied (i.e. equivalent).

Australian Export Declaration Data Mapped to Korean Import Declaration Data

