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WORLD CUSTOMS ORGANIZATION



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World Customs Journal

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EDITORIAL



This edition of the Journal has as its theme the use of information and communications technology (ICT) in the cross-border environment, and features a number of articles that examine the topic from the perspective of coordinated border management.

In his article *ICT and the New Global Investment Paradigm: Challenges to Cross-Border Trade and Investment*, IBM's Andrew Jackson identifies 'horizontal, intergovernmental networks among the world's regulators' as a key facilitator in helping to ensure global stability. In doing so, he points to the WCO's SAFE Framework as a step in the right direction, but warns that 'the ongoing challenge...is to ensure that high level commitments morph into concrete action at the regional and country level as this is where the "rubber hits the road" in respect to ensuring material outcomes for industry and governments alike'. In discussing global developments, Mr Jackson points to the need for individuals, organisations and governments to carefully consider how they may best collaborate in the use of technology in order to achieve their desired outcomes.

The University of Canberra's Adjunct Professor Steve Holloway, in his article *The Transition from e-Customs to eBorder Management*, analyses the e-Customs phenomenon and the obstacles to its expansion across borders. His analysis draws on studies that have found that the interoperability of e-commerce legal frameworks among countries remains low, even among countries that have adopted international standards. The influence of international organisations and regional initiatives on the encouragement of cooperation among countries is discussed, and Professor Holloway argues that the full benefits of ICT and electronic commerce are unlikely to be achieved until there is uniform adoption or adaptation of national policies and legal frameworks that enable and legitimise the interoperable use of ICT in its national and international aspects.

While focusing on more effective automated data management, David Hesketh from HM Revenue and Customs addresses the need for globally networked Customs and integrated border management. This, he points out, is fully consistent with the WCO's perception of Customs in the 21st century, which includes a strengthened cooperation between customs administrations, businesses and other government agencies. Mr Hesketh has provided a very compelling article that examines the way in which seamless electronic data and logistics pipelines are serving to shift the focus of Customs from import declarations to the start of commercial transactions. In his article, he argues the case for a radical re-assessment of the Customs business model by shifting the emphasis 'from the point of importation to as far upstream in the supply chain

as possible'. Drawing on the UK Customs and International Compliance Strategy, he comments that 'through technology and partnerships our control and monitoring can be far more integrated, virtual, broad and global'.

Another particularly interesting article, contributed by Alan Long from Maritime Cargo Processing Plc, discusses key elements of coordinated border management from the perspective of the international trading community. In examining the key attributes of Port Community Systems (PCS), Mr Long identifies the considerable degree of cooperation and coordination that has resulted in the internationally acclaimed Destin8 system. He observes that, despite the obvious improvements in Business-to-Customs and Customs-to Business areas, a notable benefit is the way in which the PCS has 'encouraged data transfer and the single submission of data for multiple use in the Business-to-Business area of port operations'. The lessons learned from the Destin8 experience translate directly to those government agencies involved in border management and, as noted by Mr Long, 'Governments intending to develop Single Windows would...do well to look at the experiences of PCS providers when doing so, or they run the risk of providing systems that do not fully meet the needs of their customers'.

I trust that you enjoy reading these and other insightful articles in this edition of the Journal, and I look forward to receiving your contributions to the next issue which will focus on the impact of the economic crisis on world trade and Customs.



David Widdowson
Editor-in-Chief



Section 1

*Academic
Contributions*

THE IMPACT OF ICT ON CUSTOMS

Gareth Lewis

Abstract

For several years, international organisations including the Organisation for Economic Co-operation and Development (OECD), the World Bank, the World Customs Organization (WCO), the World Trade Organisation (WTO) and the European Union, have considered and provided recommendations on the use of information and communication technology (ICT) to enhance trade facilitation and to improve the processes of customs administrations. Now, governments, the business community and individuals are looking to improve their respective financial situation as a matter of absolute necessity during the current global economic downturn. Trade is a key ingredient to bolstering economic performance, and customs services are one component of a nation's trading profile. Prudent management of ICT is a means to reap benefits that impact positively on the effectiveness of all customs operations, and hence the improvement of national finances. This paper provides some definitions of ICT and identifies the importance of its use in customs environments.

Introduction

To understand the impact of information and communications technology (ICT) on Customs requires consideration of at least three questions:

- What are the relevant aspects of ICT?
- What is 'Customs'?
- What benefits, costs, challenges and risks typify the interaction of modern technology and the core business of Customs?

These questions create the backdrop for this paper.

Winston Churchill (1874–1965) once said 'If you have an important point to make, don't try to be subtle or clever. Use a pile driver. Hit the point once. Then come back and hit it again. Then hit it a third time; a tremendous whack'.

The 'important point' here is aimed at decision-makers within Customs and it is this: ICT is no longer just an enabler, it is fundamental to the future of customs administrations which must acknowledge that technology is a key strategic business issue and accordingly, draft, gain acceptance for and implement corporate business strategies and plans that incorporate ICT.

Definitions

One definition of ICT is:

an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as video-conferencing and distance learning.¹

That is an extremely broad definition and modern customs administrations make use of each component described within it. In the interests of brevity and in the spirit of Churchill's quote, the focus of this paper will be limited to computerisation as it relates to information exchanges between Customs and its stakeholders in international trade.

The Wikipedia definition of Customs is:

an authority or agency in a country responsible for collecting and safeguarding customs duties and for controlling the flow of goods including animals, personal effects and hazardous items in and out of a country. Depending on local legislation and regulations, the import or export of some goods may be restricted or forbidden, and the customs agency enforces these rules.²

It is interesting to contrast this layman's interpretation of the role of Customs with the full array of functions managed by customs administrations globally. Without being unkind to Wikipedia, it is important to note the missing bits of core business that can fall within the ambit of Customs: management of passenger movements, crew, transit, excise, means of transport, transport equipment, coastal and land border surveillance, partnerships with industry, with other government agencies and so on; the global role of Customs is complex and relatively poorly understood.

For the purposes of this paper, 'Customs' is viewed in its widest possible context.

Why adopt ICT solutions?

At this time of crisis in global financial markets, anything that can be done to save money and to mitigate moves towards protectionism would seem to be good policy. The costs associated with inefficient procedures and systems for the trading industry can be enormous. In a 2003 Policy Brief, the Organisation for Economic Co-operation and Development (OECD) reported that:

...surveys suggest that border-related costs such as the expense of supplying the required Customs documents or the surcharges arising from procedural delays when importing goods could total as much as 15% of the value of the goods being traded...³

The adoption of ICT technologies coupled with the adoption of best practice in customs administrations (as described in the WCO's Revised Kyoto Convention) can reduce these costs substantially and, in so doing, limit arguments in favour of restricted trade.

The World Bank, in its 2005 publication 'Customs Modernisation Handbook', suggested that:

it is widely acknowledged that an open trade regime will only foster trade integration when a range of complementary policies is in place. One of the most important complementary policies is to put in place a well functioning customs administration that provides traders with transparent, predictable, and speedy clearance of goods. Indeed, a poorly functioning customs administration can effectively negate the improvements that have been made in other trade-related areas.⁴

The handbook continues by explaining the critical importance of ICT as a means to improve the overall efficiency of Customs.

There are a great number of high-profile arguments, statements and even legally binding decisions in support of the widespread use of ICT in the business of Customs.

In January 2008, the European Union (EU) adopted a decision ‘on a paperless environment for customs and trade’ that requires all Member States to take:

...measures to increase the efficiency of the organisation of customs controls and ensure the seamless flow of data in order to make customs clearance more efficient, reduce administrative burdens, help to combat fraud, organised crime and terrorism, serve fiscal interests, protect intellectual property and cultural heritage, increase the safety of goods and the security of international trade and enhance health and environmental protection. For that purpose, **the provision of information and communication technologies (ICT) for customs purposes is...crucial...** (author’s emphasis).⁵

The legally binding decision goes on to add that:

the Commission and the Member States shall set up secure, integrated, interoperable and accessible electronic customs systems for the exchange of data contained in customs declarations, documents accompanying customs declarations and certificates and the exchange of other relevant information.⁶

Those words sum up the nub of the argument contained in this paper: ICT is a critical strategic measure for modern customs organisations to manage the complexities implicit in today’s global trading environment. The decision by the EU goes on to specify aspects of how to do this – but more on that later.

There are many other sources that make statements or resolutions in the same vein as those just quoted from the EU’s decision. It is impossible in a paper of this kind to explore any of these in any depth, but a very short summary is provided below:

- As part of its Trade Facilitation Program for the Central Asian Republics Economic Cooperation (CAREC), the Asian Development Bank (ADB) has said:

The use of information and communication technology (ICT) for automation of customs services and data-sharing helps reinforce the member countries’ customs legal reforms and simplification of customs procedures, and improve transparency and efficiency of customs services.

ICT also improves governance and reduces corruption by reducing direct interfaces between customs officers and traders in customs clearance. Adequate ICT infrastructure is essential for introducing modern customs practices such as risk management, post-entry audit, and single window.⁷

- In 2005, the OECD released a trade policy working paper that made a similar case for the importance of ICT for customs best practice. It reads in part:

...customs automation...is one of the most powerful tools to increase customs efficiency. It [the working paper] focuses in particular on the benefits and implementation costs of automation. It is part of a series of studies that analyse various aspects of trade facilitation and the objective is to contribute to discussions in the WTO Negotiating Group on Trade Facilitation. Based on cost estimations in customs related lending projects, the paper finds that the costs for implementing, maintaining and operating automated customs systems are substantial. However, the very great majority of WTO members have already implemented such systems and past experiences show that the financial benefits in many cases have exceeded the costs over time. Among the various lessons learned from successful implementation of automated customs systems, two are particularly worth highlighting. First, automation should not be considered a panacea for trade facilitation; and second, commitment and financial sustainability are prerequisites for successful customs modernisation involving automation.⁸

There are similar cases made by the Association of Southeast Asian Nations (ASEAN),⁹ Asia Pacific Economic Cooperation (APEC)¹⁰ and national customs administrations all making the same basic point. There can be little debate that there is global recognition of the role of Customs in overall trade performance, and within that, the role of ICT. The remainder of this paper is devoted to some consideration of the 'how' – what are the international standard instruments that enable this desirable interaction of customs core business with ICT?

What are the ICT solutions?

First, it needs to be said that ICT applications and wider systems cannot exist in a vacuum. There are major issues of political will, leadership, legal context, resources and policy that must be considered. A holistic approach to systems development is essential but the means to develop such an approach is beyond the scope of this paper.

The greater use of electronic systems throughout the supply chain has led to more information being available in an electronic format for use by Customs and other government agencies. In addition to this structured trade data, the internet provides Customs with an invaluable source of information for its control and enforcement functions across the board, including valuation, identity management, goods classification and track/trace activities. This is a changed environment, and it has demanded a new response. The World Customs Organization (WCO) has begun a wholesale review of its structure, instruments and overall strategic response to modern demands. This is termed 'Customs in the 21st Century' (C21)¹¹ and provides a draft strategy and action plan for customs administrations everywhere to adjust their national or regional strategic plans. C21 is entirely consistent with the concepts outlined so far in this paper.

The C21 document is based on ten critical building blocks, including the implementation of modern working methods, enabling technology, globally networked Customs and better coordinated border management. All of these building blocks have a link to the strategic use of ICT, for example 'Globally Networked Customs' envisions 'seamless real-time and paperless flows of information and connectivity' between separate customs administrations. The Co-ordinated Border Management building block touches upon the vitally important need for governments to improve collaboration amongst border agencies and makes specific mention of the electronic trade single window. There are many existing WCO instruments relevant to the use of ICT, some of which are described later, but the important fact is that with C21 there is recognition at the highest levels of Customs internationally that ICT is of critical importance to the future, coupled with enhanced risk management, integrity, capacity building, trade partnership and a professional culture.

The WCO SAFE Framework makes specific mention of the importance of ICT/e-commerce in paragraph 6.2:

Standards 7.1, 6.9, 3.21 and 3.18 of the General Annex to the Revised Kyoto Convention require customs to apply information and communication technologies (ICT) for customs operations, including the use of e-commerce technologies.¹²

This shows further recognition within the WCO of the importance of ICT to help achieve best practice. There are a number of other examples.

The WCO Data Model¹³ is a harmonised maximum set of structured data elements that enables a standard means of communication amongst all parties involved more broadly in the regulation of trade and border management. The data model is more than a list of data elements: it includes actual process and information models where the standard processes are based upon those described in the Revised Kyoto Convention, for example, entry of goods for import, export or transshipment. Another important component is the detailed Electronic Data Interchange (EDI) and XML¹⁴ message implementation

guidelines as it is important to have not only a standard for data representation, but also the means to create messages between Customs and trade, Customs and other government agencies, and between customs administrations as envisaged in C21.

The Revised Kyoto Convention includes a comprehensive set of guidelines associated with Chapter 7 on ICT. They cover all manner of information for customs decision-makers when computerising or upgrading existing infrastructure. They cover business needs, tendering, purchasing, systems development, main application areas, security, audit, authentication technologies and legal issues.

The Integrated Supply Chain Management Guidelines (to be read in conjunction with the SAFE Framework) describe the means to enable the advance submission of manifest data; this is a critical aspect of modern customs controls and implies the necessary legal and ICT enabling environment. These guidelines were published in 2005 and include substantial reference to the WCO Unique Reference number (UCR),¹⁵ another important instrument, although not truly an ICT matter in its own right.

The WCO UCR will become more important as a means for all supply chain parties to be able to interrogate data stores and track consignments online. This has a number of important implications such as the potential to link change of ownership of goods whilst in transit to relevant transport documentation.

The UCR's potential to link commercial and transport documentation offers the means for Customs to perform post-transaction audits more effectively, for example, cargo accounting reconciliations. The UCR is based upon an ISO standard unique reference,¹⁶ and the WCO is working with the ISO to ensure the standard is being upgraded to meet Customs requirements.

In alignment with the SAFE Framework of Standards, the WCO has used the Authorised Economic Operator (AEO)¹⁷ concept to boost the adoption of ICT techniques by industry. The AEO Guidelines are specific with respect to the importance of information technology for security measures but the more general message of the importance of keeping 'timely, accurate, complete and verifiable records relating to import and export' is relevant. There is more explicit reference to the importance of 'electronic data exchange capability' in the Guidelines as part of AEO requirements in the section on information exchange. The AEO Guidelines go on to say that prospective AEO's should be discouraged from 'continued reliance upon documents and hand signatures'.

Finally, the WCO has been active in the global development of the electronic trade single window concept. The WCO data model Version 3.0 (the current version due for final release later in 2009) caters for the data requirements of agencies beyond the customs domain such as human health and agriculture. There are moves to amend the SAFE Framework by the addition of a 3rd pillar 'Customs-to-Government' in recognition of the importance of collaboration. This issue has already been mentioned above in relation to 'Co-ordinated Border Management', which is a critical building block of C21 and seen by many as the definitive strategic issue facing Customs at present. An essential task in any moves towards an electronic single window is data harmonisation and in recognition of that fact, the WCO published its 'Single Window Data Harmonisation Guidelines' in February 2007 as a simple and practical guide to performing this vital activity. The United Nations has been active in this area as well, and there is universal adoption of its recommendation on the single window concept, including a widely quoted working definition. The Single Window has a very significant number of legal issues, both at the national level for the interaction of Customs with other agencies and at the international level. In November 2008, the WCO started a 'joint legal task force' with UNCITRAL, the United Nations' expert body on international trade law. This task force has a mandate to create a template for parties to evaluate the legal issues associated with the Single Window, and to develop suitable legislative, contractual or other legal infrastructure to support it.

Other than the WCO, there are international bodies with important roles in setting global standards that foster the better use of ICT by Customs and other supply chain participants. ISO has already been mentioned but another important body is the United Nations Centre for Trade Facilitation and e-Business,

or UN/CEFACT. In conjunction with the ISO, CEFACT has published the widely used ‘Trade Data Element Directory’ (TDED) which contains nearly two thousand separate data elements covering all parties involved in international trade such as retail, banking, transport, travel/tourism and insurance as well as Customs and other government agencies. Every data element in the WCO data model has been matched with entries in the TDED. In recent years UN/CEFACT has been developing a so-called ‘Core Components Library (CCL)’ of the critical aspects of data used in trade, as part of its Core Components Technical Specifications. The WCO is working with CEFACT to align its data structures with those of the CCL.

Standards for Internet-based data exchange are still under development or in their infancy. In particular, the ebXML initiative is under way to provide a full range of standards for electronic business and this work has been endorsed by UN/CEFACT and the WCO. The UN/EDIFACT standards – perhaps the best known of UN/CEFACT’s instruments – remain the dominant set of standards for defining data structures on a global basis for most types of business and government EDI documents used in international trade.

More information on this and many other UN/CEFACT instruments can be found at the CEFACT website, www.ece.org/cefact. The UN’s ‘Open Development Process’ implies that all its output is in the public domain at no cost.

The WCO and its members use CEFACT’s instruments on a daily basis to go about their core business, for example, country codes (Recommendation 3, also ISO 3166), trade INCOTERMS (Recommendation 5) and codes for measurement (Recommendation 20). Finally, there is Recommendation 33 on Single Window that was mentioned earlier.

The tools are in existence and the relevant standards-setting bodies are constantly upgrading them as needs be. The instruments described in this document are by no means a definitive list of global standards that can help Customs to better utilise ICT. Beyond international standards, there are many national and regional examples as well.

Conclusions

The development of paperless customs systems is seen as the crucial starting point for any country to influence the growth of e-commerce and thereby improve economic performance. The spread of ICT is an opportunity for customs administrations to strengthen their positions as the vanguard of strategic developments in all countries.

The International Chamber of Commerce (ICC) makes the case for the central role of Customs in the creation and fostering of a global e-commerce system by stating that:

Customs should pay special attention to their standards policies because they have the power to impose their requirements. These have special legal status and business people who have to observe customs standards, will tend, for convenience, to support their use in other interchanges. So customs become standards trend-setters and exercise considerable influence on international standards strategy.¹⁸

This is an important dimension to the customs role vis-à-vis ICT. At the beginning, it was argued that one issue stands out as the most important in this paper: that customs administrations must incorporate ICT into their strategic decision-making. This quote from the ICC adds weight to that by making the case that whatever Customs decides tends to set the standard for others to follow.

For its own part, and building upon the strategy outlined in the Baku Declaration,¹⁹ the WCO must ensure that its Strategic Plan addresses the strategic issues related to ICT in its broadest sense, as set out in this document. It is vital here to emphasise the fundamental significance of the Customs in the 21st Century Document, the Revised Kyoto Convention and the SAFE Framework of Standards. In this

context, the WCO will need to set the necessary priorities, trigger the required action plans and work with its Members to ensure the availability of resources.

The WCO will also have to increase its efforts to bridge the digital divide by coordinating its modernisation and capacity-building activities in the customs domain with other international organisations active in this field, particularly the Digital Opportunity Taskforce (DOT Force) set up by the G8 countries, and the United Nations Information and Communication Technologies Taskforce (ICT Taskforce).

Perhaps the last word on computerisation should be given to Robert X Cringely, of *InfoWorld* magazine: 'If the automobile had followed the same development cycle as the computer, a Rolls-Royce would today cost \$100, get a million miles per gallon, and explode once a year, killing everyone inside'. Hopefully, the global customs community can obtain the many benefits of ICT without flirting with such a terrible risk.

Glossary

application	A program or suite of programs written for a specific user activity.
authentication	The linkage of any entity in the physical world to its electronic identity. In data security, it refers to controls that either prevent or detect the tampering and/or accidental destruction of data, including message sender and receiver identity.
Authorised Economic Operator or AEO	Authorised Economic Operator (AEO) is defined in the WCO SAFE Framework of Standards as a party involved in the international movement of goods...complying with WCO or equivalent supply chain security standards.
Baku Declaration	A declaration on e-commerce adopted by the WCO Council at its 97th/98th Sessions in June 2001 that recognised the potential impact of e-commerce on the economic and social wellbeing of nations.
communication network	A system of interconnected communication facilities.
database	A collection of inter-related data stored so that it may be accessed by authorised users with simple user-friendly dialogues.
digital signature	A property private to a user or process that is used for signing messages over a communications link.
document	Any medium (including magnetic tapes and disks, microfilm and EDI/XML messages) designed to carry and actually carrying a record of data entries.
ebXML	Defined XML messages within standard business processes governed by mutually-negotiated agreements.
Electronic Commerce or e-commerce	Conducting business electronically, utilising a range of information formats and communication technologies.
Electronic Data Interchange or EDI	The transmission of data structured according to agreed message standards, between one computer system and another, by electronic means.
electronic forms	A document in which certain items have been pre-coded and into which variable information is entered.
information exchange	In the context of this document, the electronic exchange of information between computer systems.
Information Technology or IT	The management, acquisition, processing, storage and dissemination of vocal, pictorial, textual and numeric information by a micro-electronics-based combination of computing and telecommunications.

international standard	A formally recognised global standard agreed through a recognised international standard setting body, e.g. ISO, UN/ECE, the WCO.
Integrated Supply Chain Management guidelines or ISCM	An integral part of the WCO SAFE Framework of Standards which envisages end-to-end management of international supply chains through common control and risk management standards, sharing of intelligence and risk profiles and the routine exchange of customs data.
Internet	The global network linking computers from educational institutions, government, industry and individuals.
Internet Service Providers or ISP	Companies that provide access to the Internet, also called Internet Access Providers (IAP).
ISO	International Standards Organisation.
protocol	A formally specified set of conventions governing the format and control of inputs and outputs between two communicating systems.
SME	Small to Medium Enterprise (widely different definitions apply to these companies in different countries).
software	The programs, procedures and routines associated with the operation of a data processing system.
telecommunications network	See communication network.
UCR	The WCO Unique Reference number designed to identify goods at all stages in the supply chain.
UNCITRAL	United Nations Commission on International Trade Law (the core legal body in the United Nations responsible for international trade law).
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business (the United Nations body for trade facilitation).
UN/EDIFACT	United Nations Electronic Data Interchange For Administration, Commerce and Transport.
WCO Data Model	Maximum set of harmonised data elements required to cater for all government border regulatory needs.
World Wide Web or WWW	The graphical layer applied above the Internet. Where the standard Internet is text only, the Web is graphical in nature. Text and graphics, stored on servers, are transmitted via the network to client browsers where they are displayed.

Endnotes

- 1 SearchCIO-Midmarket.com, http://searchcio-midmarket.techtarget.com/sDefinition/0,,sid183_gci928405,00.html.
- 2 Wikipedia, <http://en.wikipedia.org/wiki/Customs>.
- 3 OECD Policy Brief August 2003, 'Trade facilitation: the benefits of simpler, more transparent border procedures', <http://www.oecd.org/dataoecd/35/50/8920454.pdf>.
- 4 http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2005/02/03/000090341_20050203145443/Rendered/INDEX/31477.txt.
- 5 Decision No 70/2008/EC of the European Parliament and of the Council of 15 January 2008.
- 6 Article 1, Electronic customs systems, Decision No 70/2008/EC, 15 January 2008.
- 7 ADB CAREC Regional Trade Facilitation Program, <http://www.adb.org/Projects/TradeFacilitation/ictcustoms.asp>.
- 8 OECD 2005, 'The role of automation in trade facilitation', OECD Trade Policy Working Papers 22, 17 October, OECD Trade Directorate.
- 9 TN/TF/W/105 26 May 2006, WTO (Submission by Singapore to WTO on behalf of ASEAN).
- 10 APEC Trade Facilitation Action Plan Scope.
- 11 See www.wcoomd.org.
- 12 WCO 'SAFE Framework of Standards, June 2007', http://www.wcoomd.org/files/1.%20Public%20files/PDFandDocuments/SAFE%20Framework_EN_2007_for_publication.pdf.
- 13 See WCO general website http://www.wcoomd.org/home_wco_topics_pfoverviewboxes_tools_and_instruments_pftoolsdatamodel.htm.
- 14 Extensible Markup Language – the language of the internet.
- 15 Refer to WCO Compendium Number 5 of 2005.
- 16 ISO 15459, Parts II and VIII.
- 17 See Authorised Economic Operator Guidelines, www.wcoomd.org.
- 18 ICC Guideline 34 – Information Technology Standards.
- 19 Declaration on e-commerce adopted by WCO Council at its 97th/98th Sessions in June 2001.

Gareth Lewis



Gareth Lewis is a Technical Officer at the World Customs Organization (WCO) in Brussels. He began work in Customs in Port Adelaide and moved around the South Australian region 'learning the ropes' of customs operations in all the main areas. Later, he worked in Canberra and Melbourne in a range of project management and other senior positions primarily associated with the interaction of IT systems with customs core business. In early 2006, he joined the WCO in the Compliance and Facilitation Division where he works on a range of strategic issues closely aligned to the topics covered in this article: data harmonisation, information standards, international trade Single Window and other aspects of better supply chain management.

THE TRANSITION FROM eCUSTOMS TO eBORDER MANAGEMENT

Stephen Holloway

Abstract

In this article, the concept of eBorder Management is developed from the need for change in customs administrations, especially insofar as that change relates to the adoption of information and communication technology (ICT) to respond to the demands of increased volumes of international trade and the documents that support it. The automation of customs procedures has been a key component of customs reform and modernisation initiatives, and its importance to trade facilitation has been emphasised by the World Customs Organization (WCO), World Trade Organization (WTO), World Bank, the Organisation for Economic Co-operation and Development (OECD) and the United Nations Conference on Trade and Development (UNCTAD). Core functionality of Customs ICT systems and the resultant benefits are identified, as is the significance of developing systems that can be integrated with those in the private sector and other government agencies. The development of eBorder Management at both national and international levels is only possible with uniform adoption or adaptation of policies and legal frameworks that will enable and recognise the interoperable use of the relevant system in both national and international respects.

I. Context

Over the last 30 years or so customs administrations have witnessed an evolution in the processing of imports and exports from a paper-based approach through the automation of customs processes (including the advent of ASYCUDA¹ in 1981) to the utilisation of the internet and the establishment of eCustoms (and 'national single windows'). The logical progression of that evolutionary continuum is going to be the development and implementation of what I call 'eBorder Management', which will be a synthesis of current information and communications technology (ICT) activity in this area, both nationally across government agencies with border responsibilities, and internationally between border agencies in different countries. This will be the real test for the 'single window' concept and an opportunity to solve many of the cross-border issues that are associated with attempts to achieve integrated border management.

This article explores the transition from eCustoms to eBorder Management by, firstly, examining the changing characteristics of 'Customs in the 21st Century', to quote the World Customs Organization (WCO), before analysing some of the key drivers for change and the more recent stages that Customs ICT has gone through. Finally, the article examines what eBorder Management might look like and some of the key obstacles to its achievement.

‘Customs in the 21st Century’

As is often stated, the ongoing challenge for customs administrations is the balancing of trade facilitation with border security and control in an environment of increased trade volumes and static or even decreasing resources. The WCO foresees ongoing complexity in the nature of international trade with the ‘proliferation of regional trade agreements’ (WCO 2008, p. 3) and substantial growth in the number of smaller consignments which are physically delivered across borders, but ordered and paid for over the internet. At the same time, increased security threats to international trade supply chains and organised crime require new approaches to border management.

Governments will continue to expect their customs administrations to maintain or improve the collection of revenue, facilitation of legitimate trade, community protection and supply chain security. Industry is also making demands for improved facilitation and the integration of government systems with existing global logistics systems. This is reflected in government policies to improve the service orientation of their agencies, including customs.

The combination of these factors and innovation within the supply chain puts considerable pressure on regulatory authorities to balance the competing demands on their resources and, at least, match the standard of innovation achieved by industry. This is where ICT plays such an important role. Automation is one of the most important tools for achieving this balance without huge increases in human resources. In the context of the regulation of international trade, it has been most evident with respect to customs administration. Automation has increased the speed with which cargo is cleared, for example, by enabling the required data to be sent in advance of the arrival of the shipment, and not necessarily in office hours. It has also improved the transparency and predictability of customs procedures. As the Organisation for Economic Co-operation and Development (OECD) points out in its Policy Brief on Trade Facilitation: ‘Automation can also be used to harmonize the interpretation and implementation of customs regulations across all border points, reducing the discretionary power of customs officials and improving integrity’ (OECD 2003).

The widespread adoption of the internet as the preferred communications medium for many commercial transactions has highlighted the need for government to examine web-based options for the delivery of services (the concept of eGovernment), and the fulfilment of regulatory obligations. ‘For customs to be efficient and effective in handling this increasing volume of trade transactions and to exchange information with different stakeholders (customs abroad, other government agencies, and the trading community), they must employ e-commerce practices and principles as adopted by the private sector for its daily operations’ (Baioni & Bhatia 2005, p. 1).

What then are some of the characteristics of international trade and ICT that have driven these changes within and across customs administrations and the way in which they approach their regulatory responsibilities?

Key drivers of change

The first and foremost driver of change in customs administration and the adoption of ICT to facilitate customs processes has been the nature and volume of international trade and, in particular, the documents that support it. ‘A trade transaction may easily involve 30 parties, 40 documents, 200 data elements, and require re-coding of 60 to 70 percent of all data at least once. For example, within a port community where the two main actors, namely, the forwarding and the ship’s agents, must communicate and coordinate information flows, the exchange of information can amount to about 10% of the commercial value of the traded goods. Sources of information that could be involved include the port authority, shippers, banks, insurers, carriers, Customs, etc.’ (UNCTAD 2006, p. 3).

A recent SITPRO² study estimated that the UK import perishable food supply chain generates 1 billion pieces of paper annually; duplicate consignment data is keyed in at least 189 million times per year; the cost of document-related administration is estimated to be around 11% of the supply chain value per annum; the cost of delayed, incorrect or missing paperwork costs a little over £1 billion per annum for the sectors studied; and the total cost of generating paper documentation for the perishable sectors studied (4.5 million document sets) is estimated at £126 million per annum (SITPRO 2008).

The United Nations Conference on Trade and Development (UNCTAD) further concluded in its 2006 report on ICT that about one-third of international trade in goods is trade in unfinished goods and components, that is, trade is just part of a global supply chain and a similar percentage represents trade within the same company. It is likely that those percentages have increased since the OECD report and indeed, the WCO estimates that the percentage of intra-company trade is now closer to 50% (WCO 2008). Most of that trade is moved (in a documentary sense) within an integrated global logistics system in diminishing timeframes to meet global sourcing and just-in-time business models that emphasise low inventory.

The other key driver has been the increasing use of ICT itself and the way in which it is utilised to support international trade processes. For example, a forerunner to the ‘single window’ initiatives that are increasingly being adopted by customs administrations and government more broadly is the ‘port community system’ such as those which exist in Felixstowe and Singapore. Port community systems reflect and support an environment in which ports, airports and other transport infrastructures are increasingly being privatised. UNCTAD, quoting Drewry Shipping Consultants, identifies that ‘for example, only 20% of global container port throughput is nowadays moved by government-operated terminals, down from almost 50% in 1990. Electronic port community terminals are an example of public-private partnerships that combine the interests of the private port operators and users with those of Customs and other public sector entities’ (UNCTAD 2006, p. 5).

The fact is that international trade, transport and communication have evolved to the point where closer integration between government and industry systems is not only necessary but inevitable because customs and other border agencies are simply individual nodes within an end-to-end supply chain. As UNCTAD states in their 2006 report: ‘Government agencies, local traders and transport service providers are increasingly being forced to implement ICT solutions to ensure that national ports and border crossings support efficient supply chain operations’ (UNCTAD 2006, p. 5).

The extent and speed of innovation within the ICT industry has greatly reduced the cost of access to ICT which has enhanced its use by individuals and businesses and given rise to new models for sharing information on an ‘open access’ basis (UNCTAD 2007). This in turn, has forced governments to reconsider current approaches to regulation and service delivery including the legal framework that underpins those approaches.

II. Customs automation

The automation of customs procedures has been a key component of customs reform and modernisation initiatives for some time now, and its importance to trade facilitation has been emphasised by a range of international and donor organisations including the WCO, World Trade Organization (WTO), World Bank, OECD and UNCTAD. Customs automation benefits both government and business and some of those benefits are summarised below.

Customs ICT systems have moved from so-called ‘legacy’ approaches to more distributed and web-based approaches but are a relatively mature technology these days. Customs administrations can choose from a diverse range of ‘off-the-shelf’ solutions including ASYCUDA, TATIS, TIMS, SOFIX, ‘Customs

Solutions' (Crimson Logic), Microclear, PC Clear, IBM Customs Agency Solutions and Oracle Customs Framework. They might also choose to pursue a proprietary system as countries including the US, UK and Australia have done. There is some commonality across these various options however in terms of functionality, and it is worthwhile to touch on what constitutes that 'core' functionality so as to inform consideration of future eBorder Management systems.

Core functionality

The following core functionalities or modules of a Customs ICT system can be distilled from the relevant literature including the WCO (2004), UNCTAD (2008) and Baioni and Bhatia (2005):

- *Cargo control* – to monitor all movements of imported, exported and transit goods and ensure that all goods are duly cleared before release.
- *Declaration processing* – to capture and process data for the assessment and collection of relevant duties and taxes.
- *Payments and accounting* – to register and account for payments by importers and exporters.
- *Risk management* – the targeting and selection of those consignments representing a high risk including consignments that may conceal goods seeking to evade duty and tax, illegal drugs or material for terrorism.
- *Statistics and reporting* – the extraction of data for other government agencies including for the dissemination of foreign trade statistics and to generate management reports as required by Customs.
- *An efficient and effective Communications Gateway* – to provide legitimate access to Customs processing systems by traders and other government agencies.
- *Intelligence and enforcement* – to store and exchange data for risk profiling, compliance and enforcement activity.

Benefits of customs automation

Much has been written about the benefits of customs automation and I do not propose to go into detail in this article. The principal benefits as identified by the WCO, UNCTAD, and OECD include:

- More accurate and increased collection of duty and taxes due to the uniform application of the law, automated calculation of duties and taxes, and built-in controls.
- Less corruption due to improvements in the transparency and predictability of decision-making.
- Automation of customs procedures in conjunction with electronic exchange of information, such as cargo data and goods declarations, enables pre-arrival and/or pre-departure information processing. Processing of information in advance of the physical goods arriving in or departing from a country allows Customs to verify information and perform a risk assessment on the consignment. With this data available, decisions on the release status of the goods can be transmitted electronically immediately the goods arrive, therefore facilitating their release.
- As a corollary to the previous point, a reduction in the physical examination of goods.
- The ability to further streamline customs clearance by separating the payment of duties and taxes from the physical clearance of goods (under a deferred payment scheme, for example, payment by week or month coupled with post-transaction audit).
- Improved Management Information Systems (MIS) enabling more effective post-transaction compliance management.
- Faster electronic lodgement of customs declarations, using Direct Trader Input (DTI) via electronic data interchange (EDI) or the internet.

Integration as a step towards eCustoms

As will be discussed in relation to eCustoms in the next section, the internet has provided both opportunities and challenges for customs administrations, not least being the need to maintain data integrity within the customs processing system. This requirement has led customs administrations to work closely with the private sector and other government agencies to come up with information technologies that automate, validate and authenticate the customs process and transfer data in a secure environment (Baioni & Bhatia 2005).

The development of secure systems architectures for customs processing has also provided the opportunity to integrate and harmonise the customs regulatory process with the business processes of traders, shippers, logistics providers and other stakeholders in international trade.

Private sector participants in international trade prefer that customs information requirements draw on existing commercial information rather than requiring the separate submission of data that imposes additional cost on the supply chain. Consistent with that sentiment is a desire to make the interaction between regulatory authorities and business as seamless as possible through increased integration of systems and procedures. This is not a 'zero sum game' because government also gains benefits from closer integration between customs systems and global logistics systems. For example, the ability of Customs to access data directly from industry, such as invoice, manifest, bill of lading and air waybill information, can significantly improve targeting and selectivity as part of a risk management program that relies on advance (that is, early) submission of customs declarations.

Similarly, there are efficiency gains to be had from closer integration across government agencies as well as between government and industry. This is the 'single window' concept that has received so much attention within the customs community in recent times. The integration across government that is embodied in 'single window' initiatives has significant potential to further improve efficiency through the harmonisation of data, elimination of duplication, sharing of information between regulatory authorities and the coordination of border management activity. Unfortunately, the potential for integration is often not being realised. In many cases, perhaps even the majority of cases, data requirements are duplicated across border agencies and traders are asked to submit the same data to different agencies at different times in specific formats that don't allow it to be 'pulled' from existing commercial sources.

The lack of integration is exacerbated by the customs legacy systems mentioned previously. Such legacy systems are generally characterised by individual applications that are difficult to integrate and often inefficient. They are difficult and expensive to change and data migration to new systems is particularly problematic. They present potential data inconsistencies between the different applications and can be very labour intensive because of the need to establish and monitor reconciliation processes between different applications that often utilise the same data. This all equates to high costs of development and maintenance, and the lack of integration across customs applications reduces both the speed of transaction processing and accuracy. Some of those non-automated, labour intensive data collections are critical to the government's ability to prepare accurate trade statistics and provide information to other government agencies.

'Modern integrated customs applications can replace legacy information systems with the necessary means to achieve effective and efficient operations, provide more timely and convenient access to data, and fully comply with internationally accepted standards and requirements' (Baioni & Bhatia 2005, p. 3). This integration can be web-enabled and therefore is comparably less costly than its legacy equivalent. The WCO foresees integration as a critical component of 'globally networked Customs' that achieves 'closer collaboration between customs administrations and between Customs and business in facilitating legitimate trade and undertaking customs controls...the creation of an international 'eCustoms' network that will ensure seamless, real-time and paperless flows of information and connectivity' (WCO 2008).

The WCO describes the ICT framework for integration between business and Customs and between Customs administrations in its June 2008 ‘Resolution of the Customs Cooperation Council on the Role of Customs in the 21st Century’ as requiring:

- Internationally standardized data requirements for export, transit and import and the implementation of the WCO Unique Consignment Reference number as part of a Cross-Border Data Reference Model
- Interconnected systems and aligned customs databases to enable the electronic exchange of data between customs administrations as early as possible in the international movement of goods
- Mutual recognition and coordination protocols between exporting, transit and importing administrations to eliminate unnecessary duplication of controls in international supply chains
- Standards to enable the development of a system of mutual recognition for Authorised Economic Operators (AEOs)
- A set of rules governing the exchange of information between customs administrations, including rules on data protection.

The adoption of the framework suggested by the WCO coupled with web-based customs applications facilitates a level of integration that can appropriately be described as eCustoms which I will now examine in more detail.

III. eCustoms

As electronic commerce has developed in line with use of the internet as a communications medium and supported by improvements in telecommunications infrastructure such as broadband networks, the impetus for a fully electronic customs environment has also grown, culminating in the vision for globally networked Customs articulated by the WCO and outlined previously. However, in considering the further transition from eCustoms to eBorder Management, it is important to understand some of the rationale that has been behind the shift to open networks such as the internet.

Customs administrations have traditionally focused on the use of electronic data interchange (EDI) to conduct electronic transactions.³ But EDI has its limitations, not least being its cost and therefore its lack of attraction for small and medium enterprises (SMEs) and occasional importers and exporters. From a technology perspective, EDI standards also fail to capture the three-dimensional nature of a typical international trade transaction because of their focus on properly formatted single messages. In this regard it has been overtaken by XML⁴ and other web-based protocols but it should be noted that EDI nevertheless remains as the data format used by the majority of electronic commerce transactions.

The progression from EDI to broad-based e-commerce technologies has resulted from customs administrations looking for ways to connect the widest possible user base to their systems. This required Customs to move towards an open system philosophy that would enable the big as well as the small and medium sized trader to exchange information electronically (WCO 2004). The use of open networks such as the internet as the delivery platform for information is a feature of contemporary electronic commerce in contrast to the closed networks associated with EDI such as ‘value-added networks’ (VANs). However, with the advantages of open networks (particularly cost) also come some challenges including the security risks that are a consequence of the network and its data being open and potentially unsecured.

In the Customs context, the factors contributing to the adoption of web-based solutions include ease of network access, easily available and cost-effective software, and low communications costs. SMEs and occasional traders are much more likely to take advantage of the internet to conduct their transactions with Customs than they are to use a private network or VAN. For this reason, customs administrations

need to be able to provide web-based options for their clients. A good example of the direction in which customs administrations are moving in this respect is the European Union (EU).

eCustoms case study

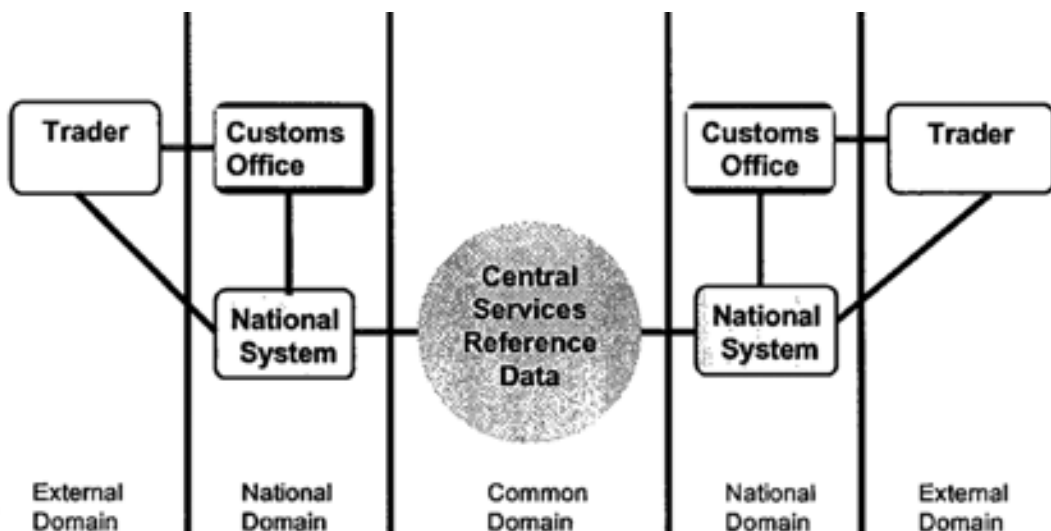
The European Community (EC) is currently developing and implementing a ‘single window’ for the EU, the objective of which is to ‘set up and operate secure, integrated, interoperable and accessible electronic customs systems in order to facilitate end-to-end supply chain logistics and customs processes for the movement of goods into and out of the European Community, and to reduce the risks of threats to the safety and security of citizens by minimising the remaining differences between Member States’ customs processes’ (EC 2008).

This objective is supported by a legal, technical and administrative framework including amendments to the Community Customs Code that take effect from 1 July 2009 to permit and recognise electronic customs declarations and the exchange of data between different customs offices within the EU while the ‘Electronic Customs Decision’ (Decision No. 70/2008/EC):

- Commits all stakeholders to implement pan-European interoperable and accessible electronic customs systems in an agreed timeframe
- Sets the objectives, strategy and coordination mechanism for the electronic customs systems
- Defines EC and national components of the systems and the related responsibilities and tasks
- Establishes monitoring and reporting frameworks for the eCustoms initiative.

It is further intended that the electronic customs systems will be developed according to international standards as regards data models and message formats so that they can interact with the customs systems in other countries external to the EC. It can be graphically represented as follows:

Figure 1: System architecture



Source: European Commission 2008, *Electronic Customs Multi-Annual Strategic Plan – 2008 Yearly Revision*, TAXUD/477/2004-Rev.9_EN, Directorate-General Taxation and Customs Union, EC, Brussels, 22 September, p. 12.

The EC approach is further supported by a project called ITAIDE, that is, Information Technology for Adoption and Intelligent Design for E-government.⁵ To quote from the website: ‘ITAIDE addresses issues related to eCustoms: How can customs documents and procedures be redesigned and supported by ICT? What are the drivers and barriers for adoption? ITAIDE research spans the levels of technology, processes and networks to understand eCustoms in a comprehensive manner. We investigate eCustoms from the following different angles: (1) standardization; (2) interoperability; (3) control and redesign; (4) network innovation and (5) value assessment’.

It is important to note however, that while the overall eCustoms model for the EC has been established along with high-level functional and technical specifications, actual implementation of the model remains the task of individual customs administrations (Raus, Flügge & Boutellier 2009). This creates challenges for harmonisation, standardisation and interoperability and has the potential to create significant complexity within the EC and with respect to traders and external customs administrations. The ITAIDE research will therefore be an important input to the achievement of the EC’s eCustoms objectives.

Benefits of eCustoms

The benefits of customs automation were discussed briefly above. The benefits of an eCustoms approach are essentially the same as those for customs automation generally but of a greater order of magnitude because of the level of integration and response times inherent in eCustoms. Therefore, we see increased time and financial savings and greater accuracy in the processing of data (Raus, Flügge & Boutellier 2009). There are similar improvements in regulatory and business processes that are a consequence of earlier (electronic) provision of data and the ability to risk assess consignments before they actually arrive at a port or airport. This flows through to improvements in supply chain efficiency and lower costs to business. Since the eCustoms system is based on open architecture, it is cheaper and easier for SMEs to access and participate in the electronic process and this further enhances business and regulatory efficiencies.

IV. eCustoms to eBorder Management

The impact of moving from paper-based procedures through basic automation to integrated eCustoms has been significant for business and government both in terms of improvements in efficiency and with respect to cost savings. Imagine then, the possibilities that flow from taking the next step and achieving cross-border and eventually global integration with respect to border procedures, not only for customs procedures but for all border-related regulatory procedures.

There has been considerable progress in establishing a legal and administrative framework for customs procedures and supply chain security. The WCO’s *International Convention on the Simplification and Harmonization of Customs Procedures (Revised Kyoto Convention)* and the Framework of Standards to Secure and Facilitate Trade (the SAFE Framework) provide considerable guidance for customs administrations seeking to modernise their processes. In the latter case the framework is based on two ‘pillars’, namely Customs-to-Customs network arrangements and Customs-to-Business partnerships and consists of a further four core elements, all of which involve the use of ICT.

From a data standardisation perspective, Customs also has the advantage of the WCO Customs Data Model which provides a framework of standardised and harmonised sets of data and standard electronic messages (EDIFACT) to be submitted by trade for Customs and other regulatory purposes to accomplish formalities for the arrival, departure, transit and clearance of goods in international cross-border trade.

There is also the potential for trade rules with respect to Customs as an outcome of the Doha Round of Multilateral Trade Negotiations on ‘trade facilitation’. The achievement of eBorder Management is therefore less an issue of customs processes than it is of other border-related processes where there isn’t the same degree of innovation or integration.

The issue

The regulation of international trade involves a diverse range of controls beyond customs procedures. If the objective of trade facilitation is to improve the efficiency of movement of goods across borders to reduce costs while maintaining security of the supply chain, then the satisfaction of that objective requires not just business involvement but also the involvement of other government agencies with responsibilities at the border.

A country could have the most efficient and effective customs administration in the world but if the clearance of goods is also subject to checks and approvals from other regulatory authorities that result in delays in getting the goods to market, it has not altered the bottom line for the business adversely affected by the loss of opportunity and increased costs that result from that delay. If regulatory authorities with border responsibilities do not coordinate their activities, there is the real danger that such delays will be realised on a regular basis along with the additional costs of having to duplicate information. There is also potential for unlawful goods to enter the country because intelligence is not shared between border agencies to provide a complete risk profile of a particular consignment.

As the World Economic Forum has stated in its *Global Enabling Trade Report 2008*:

Even in developed countries such as the United Kingdom, there are close to 60 or even more distinct regulatory procedures and regimes that affect cross-border operations. These operations fall into the wider categories of revenue collection and fiscal protection, public safety and security, environment and health, consumer protection, and trade policy. Procedures, documentary requirements, inspections, visas, and vehicle regulations, as well as general security issues can all severely hamper the movement of goods across borders (2008, Chapter 1.5, p. 69).

At page 70 of that report, there is a telling observation from the perspective of business that highlights the issue of lack of coordination particularly well:

The private sector can often do no more than comply with the requirements and bear the costs that are associated not only with collecting, producing, transmitting, and processing required information and documents, but also with the expenses of setting up and financing guarantees, laboratory testing, inspection fees, stamp charges, service fees levied by shipping lines and banks, labor and handling charges to deliver goods to inspection facilities and to present goods, storage charges, and possible out-of-hours surcharges...Typically such unpredictable circumstances are the result of multiple and contradictory requirements or lengthy inspection procedures by agencies that include customs, immigration, health and sanitary authorities, police and other security agencies, and standardization or conformity assessment agencies (World Economic Forum 2008).

Similar observations are made by the World Bank in its *Logistics Performance Index (2007)*. It is also interesting to note a World Bank study conducted in 2004 that examined port efficiency, customs, regulatory transparency, and services sector infrastructure. It concluded that increasing global capacity in trade facilitation by half, when compared with the global average, would increase world trade by US\$377 billion, amounting to a 9.7% rise in global trade. The study estimated that about US\$107 billion of the total gains would come from improvements in port efficiency, about US\$33 billion from improvements in the customs environment, and *US\$83 billion from improvements in the regulatory environment* (emphasis added). In other words, there is significant scope for improvement outside of customs regulation, particularly if it is further leveraged through the application of electronic commerce.

A significant obstacle to the achievement of eBorder Management is the lack of interoperability of electronic commerce legal frameworks among countries, even those countries that have adopted international standards with respect to electronic commerce such as the United Nations Commission on International Trade Law (UNCITRAL) Model Laws. As a United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) study conducted in 2004 states:

They still did not permit mutual recognition of electronic data messages and digital signatures necessary for cross-border e-commerce. Other examples included variation across countries in data privacy protection...In some areas, such as communications infrastructure regulations, most countries have elements in their legal enabling frameworks, but the experiences in implementation are widely divergent (2004, p. 4).

The foundation of any electronic transactions initiative including eCustoms and eBorder Management is the ability of electronic documents to perform the same function and have the same legal recognition as that of a paper document. A cross-border legal framework that provides that recognition is therefore essential.

The steps ahead

The development of eBorder Management at both national and international levels is only possible with uniform adoption or adaptation of policies and legal frameworks that will enable and recognise the interoperable use of the relevant system in both national and international respects. The saying about any process only being as effective as its weakest link applies very much to this scenario. As pointed out in the UNESCAP study referred to above, even basing a country's laws on UNCITRAL model laws with respect to electronic commerce and digital signatures is no guarantee of cross-border interoperability.

The implication is that proper coordination and harmonisation between relevant regulatory authorities at both national and international levels together with private sector stakeholders is critical. Governments that possess effective cross-agency coordination mechanisms will have a 'head start' in turning eCustoms into eBorder Management and both international and regional organisations can play a valuable role in achieving cross-border coordination and harmonisation.

An example of a regional initiative in this context is the e-ASEAN reference framework for e-commerce legal infrastructure (2001) which outlines general principles for e-commerce laws that Member States must adopt in drafting their own laws. Those general principles are:

- They should conform to international standards such as UNCITRAL's Model Law on Electronic Commerce and Model Law on Electronic Signatures to be interoperable with similar laws of other countries.
- They should be transparent and predictable so that there is no legal ambiguity between transacting parties in an electronic transaction.
- They should be technology neutral, with no discrimination between different types of technology.
- They should be media neutral, that is, paper-based commerce and e-commerce are treated equally under the law.

It proposes that e-commerce laws should include the following provisions at a minimum: (1) electronic transactions; (2) normal rules of contracts should apply equally to transactions online; (3) the legal effect of using electronic records and electronic signatures; (4) rules regarding the reliability of electronic records and electronic signatures; (5) duties and regulation of trusted third parties and certification authorities; and (6) the extent of legal liability for service providers.

The mutual recognition of different countries' regulations is perhaps the most problematic issue because of its political and sovereignty overtones as has been evidenced by the difficulties being experienced in achieving mutual recognition of AEO programs. Nevertheless, mutual recognition is the backbone of the entire process and without it, international eBorder Management will not eventuate and the potential benefits of truly seamless trade and end-to-end supply chain risk management will not accrue.

Privacy and security issues will be paramount in an international eBorder Management environment because relevant transactions will be taking place over open communications networks such as the

internet, and there will also be information-sharing with overseas administrations as well as other national regulatory authorities involved in border management.

The operational basis of eBorder Management would be harmonised rules and business processes for border clearance and control (including supply chain security) and the re-use of business data, preferably through direct and secure access to global logistics systems as a corollary to government-business systems integration. Of course, online access to supply chain information in a secure environment with real time data access also offers significant opportunities to not only improve transparency but also private sector competitiveness by providing information for better decision making, asset visibility and management that leads to lower trade costs (Baioni & Bhatia 2005).

Of course there are many technological challenges in achieving international eBorder Management and others are better qualified than I to comment on those technical issues. It is possible that a 'distributed computing' approach would be followed because of its advantages in transparency, openness and scalability but this further highlights the importance of establishing interoperability of different systems and either standardisation of data content and format or tolerance of multiple formats so that, for example, invalid messages, which might otherwise bring down the system and perhaps the whole network, are rejected. The ITAIDE research referred to earlier can make an important contribution to meeting these challenges.

If all of the challenges can be overcome to create a fully integrated border management system that is easily accessible and interoperable between regulatory authorities with border responsibilities nationally and internationally, then seamless international trade can be a reality. It will no longer matter where a business is located because their trading transactions can be completed via a single access point, and there will no longer be a clear regulatory demarcation between export and import, at least from an information perspective which means that it should be possible to obtain a detailed picture of a specific international trade transaction from end-to-end. This means better targeted border controls based on more complete risk management information.

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Endnotes

- 1 Automated SYstem for CUstoms DAta.
- 2 SITPRO Limited (derived from Simpler Trade Procedures Board) is a UK non-departmental public body, focused on the removal of barriers to international trade through the simplification and harmonisation of trade procedures.
- 3 EDI (Electronic Data Interchange) is the structured transmission of data between organisations by electronic means, that is, computer-to-computer.
- 4 XML (Extensible Markup Language) is a general-purpose specification for creating custom markup languages. It is classified as an extensible language, because it allows the user to define the markup elements. XML's purpose is to aid information systems in sharing structured data, especially via the internet (www.wikipedia.org, accessed 22 April 2009).
- 5 www.itaide.org, accessed 23 April 2009.

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SEAMLESS ELECTRONIC DATA AND LOGISTICS PIPELINES SHIFT FOCUS FROM IMPORT DECLARATIONS TO START OF COMMERCIAL TRANSACTION

David Hesketh

Abstract

Changes in the business and technology environment within which Customs operate means we have to re-assess our business model. Despite modern risk management techniques, commercial business systems and Electronic Data Interchange (EDI), we, in Customs, still base our ways of operating on traditional concepts such as declarations and ‘regimes’ with the emphasis on imports and, for many countries in the world, on revenue. We need to return to basics and re-assess why we are in business. In the United Kingdom (UK) we have re-confirmed that we collect revenue, facilitate trade, protect society and collect trade statistics. But we are throwing away the old Customs textbooks on how we do that and looking to see if we can make best use of electronic data which is part of businesses’ everyday operations to assess revenue, compliance, admissibility and security risks. This means working in partnership to drive up compliance and bear down on non-compliance using IT systems and intelligence-led risk management. But even more radical is the idea of shifting our emphasis from the point of importation to as far upstream in the supply chain as possible and considering the role of the consignor in feeding accurate information into an electronic data pipeline. After all, who packed the bag?

Automated data management to facilitate trade

International trade is a key driver for United Kingdom (UK) economic growth and development. On the one hand trade is governed by the rules of the regional and multilateral trading systems, preferential trade arrangements, national governments and the European Union (EU) and on the other hand, it relies on an efficient door-to-door, commerce and logistics chain made up of a combination of private and public sector players and interests.¹

In the face of globalisation, Government has a role to play to facilitate trade and to ensure that the UK maintains and strengthens its appeal as a business environment to attract and retain high-value businesses. Our skills infrastructure, legal environment and regulatory framework are all crucial to the UK’s attractiveness and the business voice must be heard as policy is developed.²

In the UK, Customs facilitate the movement of £600 billion worth of goods, process around 22 million import declarations and 5 million export declarations, and analyse 40 million lines of trade data which informs the UK balance of payments. The 37 largest seaports deal with over 400 million tonnes of freight. But although the UK’s 48 largest ports, 30 major airports and the Channel Tunnel together

handle 98% of freight movements, there is a range of smaller ports and airports which also provide a point of entry to the UK. In terms of threats, controls and risks, 'the border' cannot be seen as a purely geographical entity. Through technology and partnerships our control and monitoring can be far more integrated, virtual, broad and global.³

The World Customs Organization (WCO) recognises the modern role of Customs in the 21st century to include certainty, predictability and security of the international movement of goods, eliminating duplication and delays, ensuring fair and equal treatment for businesses, strengthening cooperation between customs administrations, businesses and other government agencies and promoting regulatory compliance in a manner that facilitates legitimate trade.

Together, we see the need for globally networked Customs, integrated border management, intelligence-driven risk management, supply chain visibility, partnerships between Customs and trade and, internally, modern working methods, procedures and techniques including better use of technology underpinned by a professional, knowledge-based customer service culture.

The challenges of the 21st century demand a new concept of Customs-to-Customs and Customs-to-Business cooperation in order to integrate the effective management of the international trade supply chain and even redefine the Customs business model. Critical and central to these issues is automated data management.

Electronic customs business approach

The long term cargo management strategy for UK Customs (started in 2001 and now being updated) remains the development of a harmonised, simplified process which facilitates the movement of goods internationally and assists in the enforcement of Customs laws. The 2001 strategy laid down some of the initial foundations for an electronic customs business approach such as paperless transactions and unique consignment identification. It recognised the strategic value of assessing and certifying the credibility and compliance levels of the trader and the information relating to the goods in focusing on admissibility and risk.

It also built on the WCO's Revised Kyoto Convention in describing the need for simplified and harmonised, integrated governmental border management processes and procedures. Implicit in this strategy for the future of Customs in the UK was the recognition that to make decisions about admissibility, risk, compliance and logistics management, both Customs and the commercial traders need information, to varying degrees, and that information comes from the commercial sector itself. Reducing the burdens on business and helping them with their statutory obligation to provide that information and comply with the increasingly complex regulatory demands became a cornerstone of cross-border trading.

Much of this direction was reflected in the European Commission strategy for EU Customs published over the following years. In particular the modernisation of the Community Customs Code and emphasis on paperless customs and integrated border management served to shape the future of European Customs to 2013.

Then came the attacks of September 2001. Some of the initial reactions were to put to one side the valuable work already achieved in trade facilitation and risk management and move towards greater restriction at the border. More emphasis was placed on the security of the international trade supply chain based on the perceived risk of its disruption from an attack and the resultant economic instability and downturn in confidence. The role of Customs was said to have changed.

In some places the role of or priorities for Customs did change. The emphasis became more on security and border protection. In other places the integration of Customs, tax and border management agencies gathered pace. The WCO, responding to global drivers, produced the SAFE Framework of Standards, the

EU introduced security amendments to its customs legislation and the world recognised that globalisation meant much more than just trade and economics.

End-to-end supply chain integrity

In the UK we are now refreshing the 2001 Customs Strategy. Things have changed and the world, including the international trade supply chain, is different. Trading, manufacturing and consumption patterns are different. The recognition of threats is different and the way we conduct business is different – for all of us.

However, the strategic nature and direction of both the UK's 2001 Customs Strategy and the EU's customs strategy are still sound and on track. The electronic customs business approach, driven through the Multi Annual Strategic Plan (MASP) still provides one of the cornerstones to the transformation of European and UK Customs and the Modernised Customs Code provides another. Many complimentary developments contribute to that forward motion, conceptually described in 2001, such as advance information, authorised trading entities and the simplification of procedures and regimes.

In response to feedback from its trade representative groups, the WCO recommends pushing the cargo control to the exporting country rather than performing these checks at the late stage of arriving in the import country as performed today. Optimal clearance procedures could start with the consignment identification (Unique Consignment Reference), container stuffing, eSeal or Container Security Device, use of Authorised Economic Operator (AEO) schemes along the chain and harmonised procedures between the various customs authorities. This can lead to certainty and predictability for the commercial sector.⁴

Developing end-to-end supply chain integrity requires us to develop the relationships with national, regional and international customers and stakeholders in order to identify their requirements, formulate responses and measure the impact. In addition to developing and managing these relationships, we must focus our efforts on:

- gathering electronic information relating to the international movement of goods as far upstream as possible and provided only once
- continually assessing risk, starting early in the supply chain in order to allow a timely and better-placed response
- having proactive, upfront compliance capability in order to provide support or enforcement where necessary.

Much of the information required for regulatory cross-border processes originates from private-sector stakeholders in the supply chain, mainly exporters, even though the primary player in most customs declarations is currently the importer. Other vital data comes from third party logistics, transport, shipping and port management companies. In today's supply chains, traders re-enter this data in the formats required by the different trade and regulatory bodies in different countries. This re-entering of data is inefficient and fails to meet new security requirements.

Like others, UK Customs is working towards the concept of a Single Window which allows trade and transport parties to lodge standardised, electronic information into a single point to fulfil all import, export and transit regulatory requirements.⁵ However, there are two major Single Window models currently being implemented. The first is the regulatory convergence model, driven by Customs, which focuses on the harmonisation of procedures, electronic messages and data for submission and sharing by all government agencies. The second model revolves around the processes and procedures and data related to logistics, port management and securing the international trade supply chain. In both models the ability to handle data efficiently, swiftly and securely is key and they both offer the possibility of

creating seamless, electronic data pipelines to feed the processes between trade and government. The term 'Single Window' does not accurately reflect the need for several 'windows' in different countries along a global, seamless, integrated data pipeline driven by trade demands together with national, regulatory requirements.

The primary aim is to increase the efficiency and security of international trade using parallel logistics and data pipelines that are secure, credible and well managed. The objective is to eliminate redundancies and duplication in the submission of data, provide real-time supply chain visibility and create a simplified process with a standard set of data and messages that traders will use to meet government, financial and commercial requirements for the admissibility and control of trade and conveyances.⁶

By gathering more accurate and dynamic information further upstream we will aim to reduce burdens on business, increase compliance and facilitate legitimate trade. We will also aim to squeeze out and tackle non-compliant traders and illegal trade (such as counterfeit goods), reduce costs and provide more timely and accurate information reflecting the requirements for data exchange across the entire Global Supply Chain.

Do we need a declaration?

For many years Customs have concentrated mainly on goods arriving into the UK from which we have collected import duty, ensured the protection of society by stopping illegal goods and ensured the fair treatment of UK businesses. Traditionally, we have used the ship or aircraft manifest as the basis for control and the assessment of risk, and the customs declaration as the basis for admissibility and the collection of revenue. In the UK we receive this information in advance of the arrival of the goods and adopt simplified declaration procedures with limited information, supported later with greater detail and the possibility of audit at the trader's premises to verify transactions. But export procedures have not held the same level of attention unless linked with specific controls or revenue accounting.

However, our aim is to recognise that an international shipment is both an export and an import and, by using international standard data and automated electronic processing, allow traders to supply information once in a seamless integrated process utilising commercial systems and data streams thereby minimising the impact of Customs' information requirements on business. The conceptual shift will be for the data relating to the international movement of the goods to start with the input into the data pipeline by the consignor when the consignment starts its journey, then built upon as the goods move along the chain to the point of export then import. Within the EU we are exploring, with our trade partners, the possibility of a VAT-style self-assessment procedure which could replace, for some, the need for a customs declaration.

Upstream, trade-based data

In building and implementing this long term vision, we will establish Customs-to-Business network arrangements to promote the seamless movement of goods from and to the UK through secure international trade supply chains. These network arrangements will result in the exchange of timely and accurate information that will assist all parties in the international trade supply chain. As well, the sending or receiving customs administration(s) will be able to more effectively manage risk, detect high-risk consignments at or before the port or airport of departure, and improve commercial and regulatory controls. Strengthened cooperation and mutual recognition of AEOs between the UK and other customs administrations will enable us to adopt a consistent risk management approach to address regulatory compliance and security threats and allow us to carry out controls more efficiently in the UK or even earlier in the supply chain. This will require the use of advance electronic information, automated targeting tools, harmonised messages and interoperable systems. The WCO Data Model defines the maximum set

of data for import and export formalities along with electronic message formats. In harmonising the data requirements and formats and in adopting the EU Import and Export Control Schemes and Risk Management, we will aim to make the information provided by the consignor and the subsequent logistic chain parties more accurate and efficient and, thereby, work towards the export data becoming the import data along a seamless, integrated data pipeline. The security of the logistics chain through electronic seals, track-and-trace technology and approved entities will be critical in painting the real-time picture of the movement of a consignment along the international logistics chain and will run in parallel to and feed into the data pipeline.

We want to position ourselves in the core of these innovative developments in order to influence and make best use of the systems, procedures and data providing supply chain visibility.⁷ The line of sight from the UK along the data pipeline towards the loading of the container by an AEO or other entity and the subsequent movement of the goods towards the UK will allow us to assess compliance and risk considerably in advance of the border. Other customs administrations along the supply chain and data pipeline will also have this facility. The provision of this real-time trade-based data will be applied to the national and international risk parameters within both the regulatory convergence models (government Single Windows) and the trade-based risk management systems (international trade Single Windows).

Conclusions

The rolling long term Freight Strategy for UK Customs, articulated in 2001, was accurate in both its business environment assessment and its vision for 2008 and beyond. The business concepts of recognising the international movement of goods rather than imports and exports and using automated data to international standards are right. Allowing traders to supply information once in a seamless integrated process and minimising the burden on business by utilising commercial systems and data streams must be the right direction. And we must build partnerships with economic operators in order to understand each other's business and work towards driving up compliance and driving out non-compliance. These concepts will continue to form the foundation for UK Customs' future strategy to 2017 while recognising and taking advantage of developments in technology and best business practice.

Key to our decisions as to admissibility of goods, risk and the type of intervention, if necessary, is accurate upstream information received as early as possible along the international trade logistics chain. That information is provided mainly from the consignor who instigates the movement of the goods and it builds as the goods move along the chain on their way to the point of export, the point of import and their ultimate destination. This information resides in the private sector. The European Commission FP7-funded Integrity Project is to provide that platform through the Shared Intermodal Container Information System (SICIS) which uses state-of-the-art technology including track-and-trace and eSeals.⁸

When considering the quantity and complexity of international trade alongside the equally complex and burdensome regulatory requirements as well as the critical need to ensure the security and quality of goods, it is clear to see the need to distinguish between compliant and non-compliant businesses, movements and transactions. The majority of businesses involved in international trade are compliant so we must work to identify those, explain to them the revenue, trade and security requirements then do what we can to help them meet those requirements at the lowest cost and burden to them and us. Underpinning our upfront compliance strategy will be the information which we will use to assess risk as far upstream as possible to allow us to deal early with any risk and to confirm our ongoing non-compliance targeting.

The modern challenges associated with changing trading patterns and threats to public health and security demand a new concept of regulatory and trade partnerships built on Customs-to-Business cooperation and a new customs business model in order to integrate the effective management of the international trade supply chain.

Information technology drives much of what we do. Nowhere is that more relevant than when we re-assess how Customs do business with business and how we need information from as far upstream as possible in the supply chain in order for us to assess risk and facilitate legitimate trade. We need to shift our emphasis away from import data to data captured electronically at the start of the international commercial transaction. That data will grow with carrier, location and scanning details as the movement becomes an export then an import. We need to de-couple the fiscal risk from the admissibility and security risk in order to cater for commercial sensitivities supported by more sophisticated systems and business methodologies in customs and tax administrations. Finally, I suggest that the technological and systems development in these areas must be driven by commercial incentives in the private sector but within effective partnerships between international traders and the governmental sector including health, standards, agriculture and, of course, Customs. The SICIS ‘pipeline’ currently under construction may well be the first step in this paradigm shift so *‘Build it and they will come’*.

Endnotes

- 1 WCO Customs in the 21st century (adapted specifically for the UK).
- 2 ‘Prosperity in a changing world’, UK Trade & Investment, July 2006.
- 3 Customs and International Compliance Strategy 2008.
- 4 Top priorities for business as identified by AT Kearney and the Aberdeen Group.
- 5 United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT).
- 6 United Nations Economic Commission for Europe (UNECE).
- 7 Reg. (EC) 648/2005.
- 8 <http://incu.org/docs/PICARD2008presentation12.pdf>.

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THE IMPORTANCE OF CHANGE MANAGEMENT IN REFORMING CUSTOMS

Jan-Erland Jansson

This is the second of a two-part article based on research which formed part of Jan Jansson's Masters thesis. Part one was published in volume 2, number 2 of the *World Customs Journal*.

Abstract

Customs organisations operate in a complex environment of constant change. They are required to respond to the promotion of economic development and to comply with regional, national and international obligations. To accommodate changes in these areas, it is important to determine 'a certain management type' to implement change processes. As well, it is critical to identify the most significant characteristics of change management theory. In defining change management, the three constituents identified by Nickols (2004) – the task of managing change, a body of knowledge, and an area of practical application – are regarded as being the most relevant to this particular investigation. Having addressed the first two of Nickols' constituents in part one of this article, the last is now addressed and draws as well on Kanter's (1999) approach. The Latvian Customs State Revenue Service (SRS) presents a striking example of a complex organisation where many factors are to be considered in order to effectively manage change.

Introduction

In this, the second part of my contribution on change management, questions are addressed that relate to the practical application of change management with a view to producing a list of practical recommendations for change managers.

Questions arising in relation to the practical application of change management

This article has highlighted the strategies and conditions for change processes. The next step in the investigation is to examine the relevant considerations when selecting a method that allows the means, ends and purposes of change to be defined and to identify the interrelationships between the various elements as well as their overall significance.

Three questions are often posed in relation to change management in order to identify **why** changes are needed, **what** operational areas are in need of development or change, and **how** a change process can be carried out. These interrogative questions of 'why?', 'what?' and 'how?' form the basis of a very simple method of analysis that will be explained below.

Change as a ‘why?’ problem

The purpose of a ‘why?’ question is to identify the causes of change as precisely as possible. ‘Why?’ questions should not only refer to general issues but should also be formulated in very detailed terms. Motivation forms a further important consideration in this context and is discussed in greater detail below. A ‘why?’ question may also be able to highlight the **connection** between cause and motivation.

It is also important to underline the **connection between cause and need**. Causes for change respond to different needs that, in turn, can be identified by carrying out a needs analysis. The connection between causes and needs is circular: the causes of change can be explained by examining existing needs, and lead to **motivation**. This analysis may also reveal some problems within an organisation that can be solved by change management.

‘Why?’ can also be used to provide a comprehensive picture of the **purpose** of change. To this end, two questions must be asked: ‘Why do we do it like this?’ and ‘Why do we NOT do it like that?’ These questions help demarcate the current situation and identify any limitations. In other words, it helps to make people aware of the ends and means of change. The term ‘means’ refers not only to the financial means but other tools as well, for example, existing laws and regulations that can facilitate or impede the change efforts. Asking ‘why?’ questions in a creative and playful manner can help a manager look beyond everyday reasoning and identify the deeper relationships between ends and means.

Why does a customs organisation have to make continuous changes?

Multinational companies and those, for example, in the express freight business, epitomise the requirement for a fast, efficient and secure international supply chain. For some years now, commercial pressures for lower trade overheads and faster clearance times have been mounting. However, the pre-conditions for making such improvements are increased compliance and trade facilitation, higher quality transactions and processes, greater accountability and transparency and less need for enforcement. More effective relationships and partnerships between the various stakeholders involved in international trade will also be required.

The globalisation of trade is a reality and inefficient customs practices impede trade. National economies will be significantly affected unless the necessary changes in operational practice are implemented. Customs and revenue administrations are facing very real challenges in this regard and the implications are far reaching. For example, if a customs organisation is incapable of adjusting its work practices to meet the needs of international trade and the costs for traders rise as a result, there will be a greater risk of companies leaving the country and re-locating to countries that offer more favourable economic conditions (and a more efficient customs service). This will result in an unacceptable loss of revenue and impact on international trade.

Any customs organisation depends on global trade and must therefore take steps to combat existing threats to security. That is why customs organisations are facing demands to continuously adapt or develop in response to the changing security environment. The change process is now an organisational challenge that demands a great deal of effort and energy. Unfortunately, the results often turn out to be more modest than expected. A really change-adept organisation reacts to events effectively and improves itself accordingly. It also plays a leading role in the innovation and management of change; in other words, it acts proactively instead of reactively (Kanter 1999).

Timing – why now?

Kanter (1999) stresses that today ‘organizational change has become a way of life’ for most companies and agencies. She points out three forces behind this: globalisation, information technology, and industry consolidation. Indeed, these factors contribute to promoting and improving the efficiency of trade

throughout the world and, as such, influence customs authorities. The rapid developments in industry and trade also affect a customs organisation: the different number of customs documents, customs audit and control tasks require different staffing levels and an adaptation of working tasks. Customs organisations throughout the world are developing IT systems that deliver services to trade more efficiently and allow instantaneous communication between customs authorities.

The need to find a new approach to the development of customs administrations throughout the world has been identified by:

- international organisations such as the G8 group of countries, the World Bank, the World Trade Organization (WTO), the World Customs Organization (WCO)
- customs and revenue services
- the 2001 WTO Ministerial meeting in Doha
- the international community owing to the introduction of global security requirements.

Given the difficulties that have prevailed in the past and the increased level of urgency for customs organisations to play a central role in national revenue allocation and the facilitation of global trade, it has to be concluded that the time is always right for improving organisational aspects.

Personal involvement

Efforts to implement change are often met with resistance. This phenomenon is so common that it also begs a ‘why?’ question. In many cases, the answer is surprisingly simple: no-one has taken the time to explain and help people **understand the reasons for change**. If this ‘why?’ question remains unanswered people will have difficulty in grasping the reasons for change. As a result, they will refuse to believe that the changes are in their own best interests and display a lack of enthusiasm for the change process. Resistance to change is dealt with in greater detail in relation to ‘how?’ questions, below.

Change as a ‘what?’ problem

‘What?’ questions help to identify business areas that are in need of change or development. They also help to identify what should be changed in order to reach the aims in question (for example, faster clearance times). Some of the reasons for change must be described in detail by means of inventorying the relevant problems. It is very important to allocate the time to survey **all fields** of activity that require change in order to:

- attain the specified aims as easily or more effectively as possible
- set other priorities, if necessary.

The **aims** must be analysed, too:

- What do we want to achieve?
- Are we doing the right things in order to reach our aims?
- Do we have the right priorities?

There is a difference between describing the aims of a **private company** and those of a **public authority**: the main aim of the former is to earn enough money for its shareholders. The company analyses the most effective way of reaching the aim and identifies the appropriate steps to do so. On the other hand, the aims of a **public authority** are prescribed by politicians, the government and legislation, and often reflect **efficiency considerations** owing to the authority’s budget limitations.

The tasks to be performed by authorities are laid down in laws, regulations and procedures. In contrast to a private enterprise, **a public authority cannot prioritise its general aims and tasks autonomously**.

Once the authority has analysed its activities in detail and set realistic objectives in light of its available skills and resources, the next step must be to develop a **long-term plan/strategy** with operational objectives that correspond to its strategic aims. In most cases, this strategy must be approved by the responsible Ministry. The authority can ensure that the budget is commensurate with the prescribed aims by submitting its own proposals to the responsible Ministry.

European Union (EU) Member States are subject to common legislation that regulates a wide range of customs instruments in detail, including the customs tariff and, in certain cases, the frequency of customs controls. The question concerning ‘what’ must be done by certain authorities is also defined at EU level by the Commission and Parliament, for example, by means of the cooperation procedure.

‘What?’ questions focus attention on the aims to be achieved: What is the new customs strategy trying to achieve? What is the priority of changes? What indicators from clients and stakeholders, other agencies and staff will signal success? What standards of performance and procedures should be applied? What aspects of performance are we trying to improve?

Organisational needs analysis

When analysing the needs for change, many development projects overly focus on change at operational level. Although change at this level is clearly important, it cannot provide the desired outcomes if the **organisational and managerial foundations** needed to ensure effective, robust and sustainable change are not in place.

Appropriate operational procedures require systems and processes that enable the organisation to continually re-position itself and effectively respond to its operating and political environment. In order to identify what should be changed, a strategic analysis should consider the following ‘what?’ questions:

- What must be done to clearly understand the external operating environment of Customs?
- What are Customs’ stakeholders and their needs?
- What requires continual adjustment in line with internal and external environment needs?
- What is needed to make the organisation work properly at all levels?
- What has to be done to meet targets and standards?
- What strategy makes best use of the limited physical and human resources?
- What decision-making procedures ensure that decisions are effective, transparent and within the law?
- What measures must be taken to progressively improve compliance levels?

The process of organisational improvement and capacity building must, of necessity, have the commitment of politicians and top-level management in Customs. In order to secure this support, the financial and organisational benefits of the development program must be clearly articulated in business terms. This ‘business case’ must address the following ‘what?’-related issues:

- the requirements of government and other stakeholders that influence policies and targets
- any structural and operational efficiencies
- efficiency indicators such as cost to revenue, performance measurement, systems, stakeholder feedback, compliance and non-compliance
- revenue contribution to the economy along with potential revenue obtained from international trade statistics (that is, the revenue gap)
- intelligence, level of non-compliance, trade flow data, security, seizures versus cost.

Analysis of this information will identify the potential as opposed to actual revenue yield and thereby identify causes of revenue shortfall. It will also identify the potential for increasing societal protection

through increased compliance levels as well as establishing supply chain security regimes. Stakeholder consultation will help confirm the drivers for change and expected levels of service.

When pieced together, the various parts of the analysis reveal the overall potential benefits of change versus cost. Adopting such a guided, structured approach will prove especially attractive to Ministers and other key stakeholders. As a result, it may succeed in ensuring the necessary high-level understanding, commitment and support for change.

To summarise, the key to the success of the entire process is to identify ‘drivers of change’ at the outset of the project. The initial analysis phase of the project will not only identify the base line and organisational data described above but also the internal and external environment relevant to the project as well as the stakeholders most affected by it.

Key stakeholders include government ministers, other government departments, those involved in the international supply chain as well as travellers, the public and even the press. Consulting with stakeholders will ensure that their interests are properly taken into account.

Last but not least, the success of the entire process depends on the staff who need to be kept fully informed of the vision, purpose, timeline and process of change. Mobilising staff to support change thereby releasing their potential and improving the quality of their work, must be linked to education and training, development and good management.

Considering the relevant ‘drivers of change’ will help to increase organisational capacity. This will complement organisational reinforcement measures which ultimately lead to improved organisation and increased outputs.

Change as a ‘how?’ problem

Following the ‘why?’ and ‘what?’, the final interrogative to be investigated is the ‘how?’ question. The ‘how’ perspective can be divided into two parts. First, a ‘must-how?’ part comprising factors that are impossible to influence because they are givens, for example, customs procedures and other regulatory systems to be followed during the exercise of a customs officer’s duties. The second part of a ‘how?’ question comprises factors that are susceptible to influence. For example, it is possible to choose the mode of procedure: how the customs work should be organised, which methods should be chosen and how the capacity building/change process should be carried out. The questionnaire mentioned previously is also geared towards the second part of the ‘how?’ questions: those examining how the implementation of targets and tasks is prepared, carried out and followed up vis-à-vis respective groups of respondents.

The ‘how?’ questions in an analysis are crucial in achieving the aims and objectives of all changes. They consider people’s reactions and backgrounds as well as their ability to accept, involve themselves in and motivate themselves for a change program. For these reasons, the ‘how?’ questions forms the foundation of the change process.

At the early stages of the change, problems are often formulated in terms of the ‘how?’ question: How do we balance resources between trade facilitation and control? How do we make customs control more effective? How can we develop information systems for customs declarations? How can we simplify customs procedures? How can we get a customs organisation to operate more effectively? These examples show that, at the early stages, problems are formulated with a **concentration on means**. It is not enough to simply explain the purpose (why) of the changes effectively and know what should be changed. The mode of procedure must also be very carefully considered in order to clearly understand how to attain the aim of change efforts.

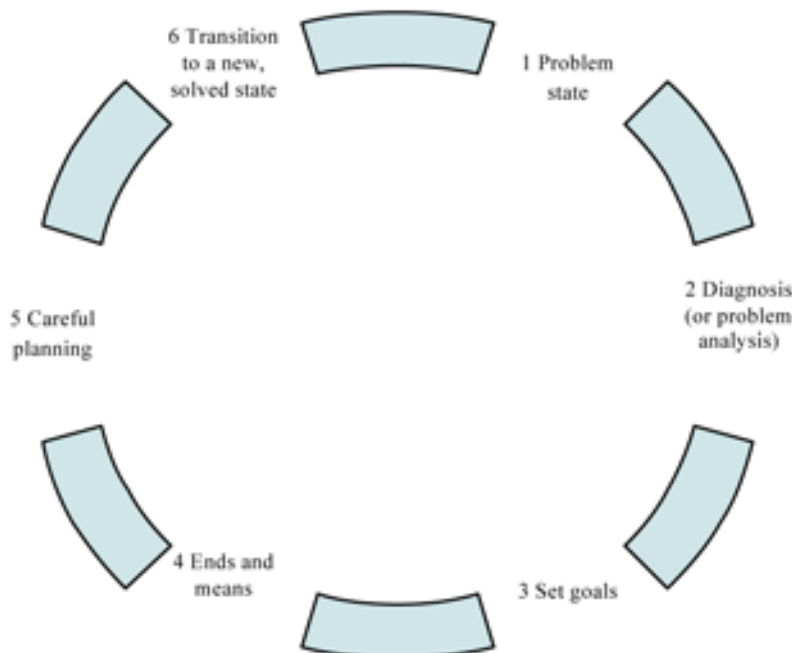
When searching for answers to all three interrogative questions (and the ‘how?’ question, in particular), it becomes obvious that they help a manager not only to think in certain terms but also to become

aware of the different ways in which people are involved with change depending on their position in the organisation. Both the **temporal aspect** and **range of changes** that the various staff members have to manage differ. Persons working in the lower echelons of the hierarchy are likely to deal with precisely defined, practical changes in their department or division. By contrast, managers will face wider, more comprehensive change processes and therefore be expected to demonstrate a more holistic approach. In this respect, the ability to **consider these aspects when implementing changes** assumes great importance. In an ever-changing world, organisations are being forced to react quickly and flexibly. Adaptation to external factors (for example, new trade routes or IT systems), must be carried out when these changes occur. A customs organisation within the EU must operate in compliance with Community legislation and be compatible with a variety of IT systems. Sometimes the changes amount to nothing more than adaptive manoeuvring but it may be necessary to question the design of an organisation itself. One such example is provided by EU expansion that necessitated far-reaching changes in the customs organisations of accession candidates. In some cases, changes only influence certain individuals or groups, while others affect a division or the entire organisation. Then again, change may only affect one aspect of an organisation's environment, or as previously mentioned, its very design. Therefore, the manner of implementing the change process must also reflect the **scale and scope** of the changes. The mode of procedure must also take account of the task to be changed as well as the target group(s) affected by the change efforts.

The model of problem solving

The following diagram illustrates Nickols' planned change model:

Figure 2: Model of planned change (Nickols 2004)



This framework shows how a carefully planned change process can be regarded as a progression from one state to another. The starting point is a 'problem state'. Many people regard the term 'problem' as referring to something negative and troublesome and therefore prefer to use the word 'opportunity' instead. However, the tag 'problem' or 'opportunity' is, in fact, irrelevant and does not influence the situation in question or the basic need to move from one state to another, that is, to take action. Moreover,

willingness to change might occur even in the absence of any particular problem as a result of the desire to change and create something new in an organisation. Therefore, it is better to use the term ‘needs analysis’ insofar as it points to both solutions and opportunities.

It must be borne in mind that this represents only a very schematic model of **planned** change. In reality, change agents will always face unpredictable situations that call for a flexible approach and the revision of set goals and methods in order to move from one state to another. Planning is obviously necessary but, since it refers to something new and innovative, managers should be ready to make serious departures from existing plans. One must be prepared for the unexpected because the circumstances can change at any time and it is only very rarely the case that the planned scenario actually occurs.

What characterises the progression between these states? Nickols (2004) describes the process as follows:

Moving from A to A’ is typically accomplished as a result of setting up and achieving three types of goals: *transform, reduce, and apply*. Transform goals are concerned with identifying differences between the two states. Reduce goals are concerned with determining ways of eliminating these differences. Apply goals are concerned with putting into play operators that actually effect the elimination of these differences.

According to Nickols (2004), therefore, the analysis of a change problem will identify the desired outcomes of change, the measures necessary to achieve them as well as the methods of implementation. In other words, the change problem can also be viewed and managed as a number of smaller problems. Each of these problems can then be analysed with the help of ‘how?’, ‘what?’ and ‘why?’ questions.

People’s reactions and how to deal with them

The planned change model and movement from one state to another have just been discussed. However, further aspects to consider are people’s reaction to these changes and the speed at which they can be implemented. In addition, what is the relationship between change and transformation?

One of the big mistakes is **to initiate changes without first allocating the necessary resources** – time, knowledge and financial means – and expecting an immediate improvement in performance. Even if the resources are available, change agents must always bear in mind that transformation will not be instantaneous. There is a steep learning curve associated with the change process: it takes time and learning can often be inefficient. People will always need time to leave old behaviour and habits behind them and familiarise themselves with new sets of behaviour. Ken Murrell, Professor of Organization Change at the University of West Florida, illustrates this phenomenon using the following example:

Football teams get to practice six days to prepare for one day of performance, whereas organizations are expected to perform every minute of every day. Where is the opportunity to practice the new behaviors required for organization change? (Worley & Vick 2005, p. 3).

Therefore, it is important to be patient and tolerate people’s confusion and repeated attempts to succeed. The main thing is to focus on a limited number of set goals, invest adequate resources and accept that people will use different ways to attain these goals.

The mistake of not allocating the necessary means and time for implementation gives rise to the following statement about quality of change: poorly implemented change is often worse than not implementing change at all (Worley & Vick 2005). Considering that people often resist change, poor implementation of change will only reinforce their negative attitude and make future changes even more difficult. This represents a sort of defence mechanism to avoid new problem situations and is a very typical form of human behaviour.

Another typical mistake is to undertake wholesale reform, abandoning and rejecting all existing methods and approaches. The desire to sweep away previous regimes, even those that worked perfectly well, and start from scratch is likely to reduce people's enthusiasm for change. The staff may even regard such a radical approach as casting aspersions on their competence and skills. In many cases, there is no need to re-invent the wheel: once again, it is appropriate to ask a 'how?' question.

The best way of avoiding such mistakes is to adopt a holistic approach, that is, by formulating a comprehensive picture of how the change process will be carried out in the organisation as a whole as well as its constituent parts. How will changes affect the staff and how will it be possible to obtain their greater participation and motivation? How will change efforts in one part of the system influence the other parts – both directly and indirectly? As a result of globalisation, changes often are initiated by international requirements that originate in other countries and reflect their cultures. However, even if change agents represent a foreign culture, they must still adopt a holistic approach and acquire a comprehensive picture of the organisation's foundations, that is, its culture and history.

Establishing communication

The most important resource of a change process is **people**. It is crucial to ensure that there is good communication between change managers and staff at all levels of the organisation and that the necessary notifications reach as many members of staff as possible. Since large scale changes will impact many people, it is important that the various parts of the organisation understand their own role as well as the role of others. Some organisations have set up a special 'development department' in order to drive the change process forward. However, this organisational measure can run the risk that the department works in isolation and becomes viewed as a threat instead of the resource it was intended to be.

More specifically, it is important not only to discuss the small tasks that each department at lower levels of the hierarchy have to perform but also to bear in mind the need to bring people together and spread information about the general vision and **shared goals** of the organisation. Change managers must involve all staff members in the change efforts before formulating and adopting the change strategy.

In some organisations, it may happen that change is implemented 'by itself' in the sense that staff simply must respond to new internal and external requirements. In such circumstances, they display a positive attitude towards the rapidly changing conditions. They may not even be aware of the change but simply continue as normal, share ideas, try to do their best for their customers or clients and adapt to new situations. Such flexibility may vary according to the type of organisation concerned: in a traditional, steered organisation (for example, a state agency/authority) people are not used to rapid change, for example, unlike a printing house that must continuously adapt to new orders and requirements.

The 'natural way of change' as described above might be regarded as the smoothest way of change. A deeper analysis would show that success is not only about change programs and concepts but also depends to a large extent on some intangible assets and people's personal skills that facilitate a natural change process. However, even in this case, it is important to ensure that people **are aware** of what they are doing. They will then utilise their knowledge more effectively and apply it to other situations, too.

What are the key factors to consider when deciding how to achieve a change-adept organisation? Kanter (1999) points out three important aspects that are very closely linked to the role of a good leader.

- *The imagination to innovate.* To encourage innovation, effective leaders help develop new concepts – the ideas, models, and applications of technology that set an organization apart.
- *The professionalism to perform.* Leaders provide personal and organizational *competence*, supported by workforce training and development, to execute flawlessly and deliver value to ever more demanding customers.
- *The openness to collaborate.* Leaders make *connections* with partners who can extend the organization's reach, enhance its offerings, or energize its practices.

It follows from this that the leader's role is also to facilitate change and create opportunities for other co-workers. The leader's task in a change-adept organisation can shift 'from monitor[s] of the organization to monitor[s] of external reality' (Kanter 1999). In other words, the leader should continuously monitor the external situation and consult with the users of the new service or business activity. The leader should be on the look out for possible threats and opportunities and display intuition when doing so.

Summary

This article has attempted to define change management in three different ways: first, as a task of managing change; second, as an area of professional practice and, third, as a body of knowledge. Further, it has highlighted a number of given internal and external conditions affecting organisations, thus setting the background for change efforts. Awareness of these conditions will help select the right change tools and avoid predictable failures. The article has also reviewed four strategies for the change process and analysed how different factors (target group, people's resistance, timeframe, etc.) can point towards one particular strategy or a mix of several strategies. Finally, a method of posing the three questions of 'why?', 'what?' and 'how?' has shown how asking these questions can help identify and structure the ends, means and purposes of a change process. Particular attention has been paid to the 'how?' question, and those factors that the organisation itself is capable of influencing, for example, the choice of methods. The following is a summary of the more significant of the conclusions and recommendations that resulted from my investigation.

Conclusions

- The constant growth in world trade, globalisation processes and security requirements are putting pressure on all stakeholders to adapt to the changing conditions.
- Nowadays, customs organisations are facing very real challenges as their performance has a significant impact on the flow of trade and revenues.
- It follows, therefore, that finding effective tools for handling changes is one of the keys to survival in a rapidly changing world.
- There is a range of management theories that deal with change processes and offer various perspectives. Change management differs from other management systems by adopting a holistic approach to the problem of change.
- Reform efforts must be based on the internal and external conditions of the organisation.
- Change management strategies range from the empirical-rational, normative-reductive, power-coercive and environmental. The choice of strategy depends on the target group, the degree of people's resistance to change, timeframe, expertise, and other factors.
- Strong and qualified leadership, deep conviction, motivation, patience and flexibility must endure and are needed to manage the sometimes messy and turbulent process of change as well as to handle any resistance to that change.
- Change efforts stand or fall by their leaders. A clever and skilled leader has the ability not only to achieve good results in business performance but also to effectively manage the human aspects of change.
- Based on basic human needs, strong motivation is one of the most effective tools in achieving sustainable results.
- Latvian Customs is a prime example of an organisation that has undergone steady changes since its re-establishment in 1990. The most comprehensive changes in Latvian Customs were caused by Latvia's accession to the EU in May 2004.
- Swedish Customs has been one of Latvian Customs' leading cooperation partners since 1995 with the author as project leader for both bilateral and twinning projects. The current and previous customs

business strategies have been produced within the framework of twinning projects between the two customs authorities.

- The Latvian National Customs Board (LNCB) sets its operational goals in its strategic documents. Customs business strategies had previously been adopted in 1999 and 2002. The Customs Business Strategy for the years 2005-09 was adopted in March 2005. The adoption of a new strategy document simultaneously raises the question of its effective implementation within the customs organisation.
- Comprehensive reform work aims not only to achieve tangible results in professional performance but also to influence attitudes and patterns of behaviour.
- The questionnaire developed by the author to evaluate the quality of the implementation of the customs strategy proved an effective tool in revealing respondents' attitudes.
- The results of the questionnaire revealed a rather broad variation of evaluations within groups and among groups when answering the same question. This suggested that not all of the respondents were aware of implementation methodology; however, it may also indicate a lack of team-spirit and shared goals.
- Analysis of the questionnaire confirmed the author's hypothesis about the need to clearly identify management methods.

Recommendations

Based on the findings of this study, the following recommendations were made to the LNCB:

- Make broader use of theoretical approaches and practical methods of change management in the Latvian Customs State Revenue Service (SRS) with regard to both the administration of customs and taxation.
- Elaborate an implementation strategy that includes motivational elements. This depends on the people in charge of implementation learning how people are influenced by the comprehensive changes demanded by the new customs strategy.
- Launch a uniform information campaign about the new customs strategy throughout the SRS. Since the new customs strategy entails changes that will influence the whole organisation to a certain degree, all staff members must receive adequate information.
- Estimate the time needed for implementation tasks and relieve persons responsible for these tasks from their regular work assignments accordingly. This will also raise levels of motivation as it will send a clear and distinct signal that implementation tasks are accorded high priority.
- Calculate and plan the time for regular follow-up meetings with every group as well as joint information meetings with all persons in charge. This information should be passed on to those people who will implement the results achieved by change leaders in practice.
- Design and launch training for team building so that all those involved work towards a common goal. Start from the top! Top managers must provide an example in this respect.
- Design and launch methods that can influence trade and the wider public in order to achieve the preventive effects desired. Dealing with preventive issues is one of the most complicated tasks in customs business.
- Develop methods to deal with resistance to the change process and train change managers accordingly. This is a frequent problem in situations relating to comprehensive changes: people working in the organisation oppose the changes because they will disrupt their regular working routines and create insecurity.
- Start benchmarking programs to obtain a broader view of stakeholders' needs and expectations. In other words, collect external opinions about Customs' performance and make use of others' experiences from large-scale reform efforts. These reference points can also be used to measure the value and quality of the customs strategy.

- Reduce the old-fashioned, bureaucratic decision-making system and introduce delegation of power to middle managers. Routines should be reformed and replaced by an improved system of delegation and follow-up.
- Create a recruitment profile for managers that includes both business and leadership skills. The selection process should look for a certain proficiency of professional business knowledge and, even more importantly, specific leadership skills in line with the recruitment profile elaborated by senior managers of SRS and LNCB.
- Analyse and select the most appropriate methods for the various tasks required by the new customs strategy. There are essential differences in the methodologies for implementing legal changes and those that influence attitudes and values in the provision of service and prevention.
- Analyse and identify the most appropriate models of organisational schemes and management, bearing in mind the different nature of the tasks to be performed by Customs.

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REVISITING THE FIRST SALE FOR EXPORT RULE: AN ATTEMPT TO REMOVE FAIRNESS IN THE INTERESTS OF RAISING REVENUES, WITHOUT IMPROVING LEGAL CERTAINTY

Laurent Ruessmann and Arnoud Willems¹

Abstract

The World Trade Organization (WTO) Valuation Agreement sets out rules to determine the customs value of imported goods. However, imports of the same goods in different countries are valued using different valuation methodologies. Currently, major trading nations of the world — the European Union (EU), the United States (US) and Japan — accept some form of a ‘first sale rule’. This article summarises the current application of the first sale rule in the EU and the US, analyses and rebuts the position taken in the World Customs Organization (WCO) Commentary 22.1, and discusses recent developments in both the EU and the US. It concludes that the reasoning of the Commentary is flawed and that the first sale rule should not be discarded.

Introduction

The customs value of imported goods is determined on a case-by-case basis. The national legislation of most World Trade Organization (WTO) countries follows the rules set out in the WTO Valuation Agreement (Valuation Agreement), but the Valuation Agreement rules leave room for differing interpretations. As a result, imports of the same goods in different countries are valued using different valuation methodologies. Needless to say, this lack of legal certainty is complicating the life of global companies.

Recently, the World Customs Organization (WCO) discussions have attempted to clarify customs value determinations, especially valuation in the context of a series of transactions. Currently, major trading nations of the world — the European Union (EU), the United States (US) and Japan — accept some form of a ‘first sale rule’. Under this rule, when goods are sold and resold several times before importation, customs duties may be assessed using the price of the first sale, provided certain conditions are met. If the customs value of imported goods is determined on the basis of this first sale price, that is, the price of the transaction between the manufacturer and a middleman, the value added in subsequent sales is effectively ignored. Thus, an importing company may achieve considerable savings on duties by using the first sale as the basis for the customs value.

Since 2007, WCO discussions have weakened support for the first sale rule on both sides of the Atlantic. The recently published WCO Commentary 22.1 (Commentary) has been particularly influential.² The

Commentary argues that in a series of sales, the first sale should not be allowed as the basis for customs valuation. Rather, it puts forward a sort of ‘last sale rule’: duties should be assessed using the price paid in the last sale prior to the physical introduction of goods into a country, that is, the price of the transaction between a middleman and an importer. However, this recommendation is based on several incorrect assumptions about cross-border trade.

This article summarises the current application of the first sale rule in the EU and the US, analyses and rebuts the position taken in the Commentary, and discusses recent developments in both the EU and the US. It concludes that the reasoning of the Commentary is flawed and that the first sale rule should not be discarded.

Assessing the customs value of imported goods in the US and the EU

The Valuation Agreement provides a set of rules for establishing the value of goods for the purposes of customs duty assessment. Most imports are appraised based on their transaction (invoice) value: the price paid or payable for the goods in a sale for export, adjusted in accordance with required additions and deductions. Many methods exist, however, to determine the customs value in addition to the transaction value of the imported goods. The Valuation Agreement allows the use of the transaction value of identical goods, the transaction value of similar goods, the deductive or ‘sales minus’ method, the computed or ‘cost plus’ method, and, when all else fails, a (reasonable) residual method. In a series of transactions, the question arises as to which transaction must be used as the transaction to determine customs value.

In the US, with its common law system, the first sale rule was first confirmed through a series of court rulings.³ This was followed by the publication of a Treasury Decision on the requirements for establishing the application of the first sale rule.⁴ That publication confirms that the transaction value is the primary method of appraising imported goods, and is defined as ‘the price actually paid or payable for merchandise when sold for export to the United States’, plus specified additions to that amount.⁵ This normally equates to the commercial invoice price paid by the importer on an FOB US basis. In the EU, by contrast, the transaction value is the commercial invoice price paid by the importer on a CIF EU basis.

Where a series of sales occurs during the process of exportation, US Customs and Border Protection (CBP) has taken the position that the transaction value can be the price paid in the first sale, so long as:

- the first sale between the factory and the middleman is a *bona fide* sale
- the goods were demonstrably, clearly destined for the US at the time of the first sale, and
- the sale was made at arm’s length in the absence of any non-market influences that affect the legitimacy of the sales price.

Evidently, CBP imposes a significant burden on importers to establish a *bona fide* case for the application of the first sale rule. To avoid discussions with the US authorities, importers usually label products specifically for the US.

The first sale rule is also recognised in EU legislation. Article 147 of the current implementing provisions of the Customs Code states:

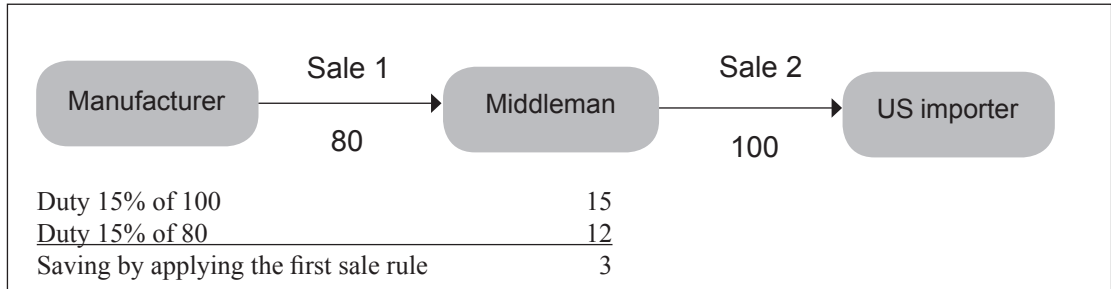
[W]here a price is declared which relates to a sale taking place before the last sale on the basis of which the goods were introduced into the customs territory of the Community, it must be demonstrated that this sale of goods took place for export to the customs territory in question.⁶

Like the US Treasury Decision, this Article places the burden on importers to prove a *bona fide* case for the application of the first sale rule. In practice, customs authorities of the various EU Member States interpret the rules differently.

The application of the first sale rule

Ordinarily, the declared customs value using the first sale invoice is lower than the declared customs value using the FOB/CIF invoice. The former is usually based on the price paid by a middleman to the manufacturer, while the latter is based on the price paid by an importer to the middleman. The example in Figure 1 illustrates this.

Figure 1: Example of first sale rule



In this example, a company makes shoes in China and exports them for US\$80 per pair to a middleman which, in turn, sells the shoes for US\$100 per pair to a retailer in the US. Provided that each sale in this series of transactions is carried out at arm's length, and that the shoes the manufacturer sold to the middlemen were clearly destined for the US, the importer would have the choice of using the first sale to calculate the duty (*ad valorem* duty of 15%). When the duty savings per pair of shoes (US\$3) is multiplied by the 40,000 pairs in that order, it is clear that the application of the first sale rule represents significantly lower customs charges (US\$120,000).

The changes brought about by WCO Commentary 22.1

At the 24th session of the WCO Technical Committee on Customs Valuation (Technical Committee), held 23–27 April 2007, experts discussed the concept of the first sale rule in the Valuation Agreement. The Valuation Agreement provides that the customs value of imported merchandise 'shall be the transaction value, that is the price actually paid or payable for the goods when sold for export to the country of importation, adjusted in accordance with the provisions of Article 8'. But it does not define or otherwise address the phrase 'sold for export to the country of importation'. In a series of sales, it is unclear whether a first sale can be a 'sale for export to the country of importation'⁷.

To answer this question, the Technical Committee evaluated the intent of the use of the transaction value as the basis for a customs value declaration under Article 1 of the Valuation Agreement. It examined this in conjunction with the proviso for the use of Article 8 of the Valuation Agreement which covers amounts to be added to the price paid by the importer in order to arrive at an appropriate transaction value. The Technical Committee then issued a Commentary which states that:

[T]he underlying assumption of Article 1 is that normally the buyer would be located in the country of importation and that the price actually paid or payable would be based on the price paid by this buyer. The Technical Committee concludes that in a series of sales situation, the price actually paid or payable for the imported goods when sold for export to the country of importation is the price paid in the last sale occurring prior to the introduction of the goods into the country of importation, instead of the first (or earlier) sale. This is consistent with the purpose and overall text of the Agreement.⁸

In other words, the Commentary argues that a sort of ‘last sale rule’ should be preferred over the first sale rule. In a series of sales, it does not consider the first sale to be a sale for export, even if the later transaction with the EU importer has already been made, or the goods are labelled according to the requirements in the country of importation. The Commentary advances the following five arguments in support of this conclusion:

1. The implicit underlying assumption of Article 1 of the Valuation Agreement is that the buyer is located in the country of importation, as it refers to possible restrictions in the country of importation that have an impact on the declared value.
2. The terms ‘buyer’ and ‘importer’ are used interchangeably among the provisions of the Valuation Agreement and the various explanatory or additional texts. This implies that the drafters took the position that the buyer in the sale for export and the importer are one and the same.
3. Article 8 of the Valuation Agreement requires certain additions to an invoice price, such as:
 - selling commissions incurred by the buyer
 - apportioned costs of goods provided by the buyer free-of-charge for the production of the imported goods (also known as ‘assists’)
 - royalties payable by the buyer in relation to the imported goods
 - proceeds of resale in the country of import that accrue to the seller.

In a series of sales, the buyer in the first sale is not necessarily the party who pays royalties or provides assists. Thus the application of the first sale rule would allow such costs to be excluded from the transaction value which is against the intent of Article 8.

4. In a series of sales, the first sale usually involves a sale between a producer and a local distributor in the same country. Such sales cannot be used to determine the customs value under Article 7 of the Valuation Agreement which excludes the use of a price in the domestic market of the seller.
5. Member countries may find it difficult to verify the information related to the first sale. Therefore, they will find it difficult to use the first sale rule as a basis for determining customs value.

The Commentary concludes, based on the above arguments, that the WCO is of the opinion that the intent of the Valuation Agreement is not to allow the first sale rule, as it would cause inconsistencies in the application of the Valuation Agreement.

Analysis of the WCO arguments

While the WCO’s objective of clarifying the transaction value determination is laudable, its arguments against the first sale rule are fragile to say the least. When looking at actual importation practices, one sees that the Commentary is based on several incorrect assumptions.

First, the Commentary ignores commercial reality and over-generalises when it claims that the Valuation Agreement assumes that the buyer is located in the country of importation. Though it may be the general situation envisaged by the Valuation Agreement, the commercial reality is that in modern cross-border trade, and particularly in raw material importation, there is often a series of sales of goods between the foreign factory and the ultimate user. Sometimes the middlemen are located in a third country, sometimes in the country of import, and sometimes in the country of export. Why should middlemen be defined as ‘buyers’ only when they are physically located in the country of import? This interpretation, rather than clarifying things, would actually render many situations less clear.

Consider the following hypothetical scenario: EU Company A purchases an excavator from EU Company B for EUR50,000. EU Company B then purchases this excavator from People’s Republic of China (PRC) Company C for EUR30,000. PRC Company C ships the excavator directly to EU Company

A which handles the import formalities. The excavator is dutiable at 10%. Using the first sale rule, where Company B is accepted as a buyer, the duty payable would be EUR3,000; following the WCO recommendation, however, Company B would not be considered a buyer, and the duty payable would be EUR5,000. Both Company A and Company B are EU companies, and both transactions occur *before actual importation into the EU*: there is no substantial basis for considering Company A to be a buyer for customs purposes, but not Company B.

Second, the Commentary argues that the terms ‘buyer’ and ‘importer’ are interchangeable. In Article 1, however, the interchangeability is confined to the situation where the import transaction involves only one sale. Article 1 clearly does not refer to import transactions involving a series of sales. Accordingly, general reliance on the interchangeable use of ‘importer’ and ‘buyer’ in the context of Article 1 is simply misplaced.

Third, the Commentary argues that the first sale rule may not fully capture all the elements of valuation, such as assists. This argument confounds many experts on cross border trade but the concern is unfounded. Detailed guidance and procedures in US and EU case law have established criteria to ensure that all elements necessary to establish the transaction value are included, and these criteria cover the first sale situation as well.

In the US, the burden lies on importers to include all the value elements required to properly appraise the transaction value. If some elements are missing, the transaction value will not be deemed acceptable and the application of the first sale rule will similarly be denied.

In the EU, Article 32(1)(b) of the Community Customs Code⁹ and the interpretative notes in Annex 23 of the Implementation Provisions of the Community Customs Code¹⁰ provide importers with an exhaustive list of items to be added to the transaction value. Case law interprets this legislation. For example, in the IT sector, the European Court of Justice (ECJ) has specified that a buyer of a personal computer must adjust the value of the transaction if the buyer provides the manufacturer of the personal computer with free operating systems software.¹¹ The ECJ applied the first sale rule in that case, and even specified that the assists of the first buyer are relevant for the adjustment of the transaction value.

Fourth, the Commentary argues that the first sale price is usually a domestic sales price in the country of export. As the example above shows, there are many cases where this assumption is incorrect. Frequently, neither the first sale nor subsequent sales are between a producer and a reseller in the same country.

Finally, from a practical point of view, the Commentary worries that many customs authorities would not be in a position to verify the circumstances of a first sale as it takes place outside their jurisdiction. Therefore, they would find it difficult to accept such a first sale for the purpose of customs declaration.

This argument is entirely misconceived. Customs authorities have no more burden in the application of the first sale rule than in the application of the proposed last sale rule. WCO Member States can and do impose on the importer the burden of providing proper support for the application of the first sale rule; when the proof supplied is insufficient, customs authorities can simply deny the application of the first sale rule.

The legal effect of WCO Commentary 22.1

Despite the significant impact of the Commentary, it has only an advisory status. As stated in Annex II, Para. 2(a) of the Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994:

The Responsibilities of the Technical Committee shall include the following: (a) to examine specific technical problems arising in the day-to-day administration of the customs value system of Members and to give advisory opinions on appropriate solutions based upon the facts presented.

The Commentary is therefore only a WCO opinion, not an amendment by the WTO of the Valuation Agreement. Notwithstanding the Commentary, there is thus no inconsistency in principle with WTO obligations for a WTO Member to continue to apply the first sale rule.

Recent developments in the US: the Commentary is likely to be transformed into law

So far, the Commentary has had a significant impact in the US. On 24 January 2008, US CBP published a Federal Register Notice proposing to reinterpret the term ‘sale for export’ so as to eliminate the first sale rule.¹² Based on WCO Commentary 22.1, the CBP notice concludes that the current interpretation of transaction value in a series of sales situation is incorrect. It proposes that in a transaction involving a series of goods, the price actually paid or payable for the imported goods when sold for exportation to the US should be defined as the price paid in the last sale occurring prior to the introduction of the goods into the US, instead of as the first or earlier sale. CBP argues that its proposal would bring US law into conformity with the non-binding views of the Technical Committee. Furthermore, CBP states, shifting to the ‘last sale’ interpretation would obviate the importer’s need to engage in ‘formidable fact-finding’ to determine whether a first sale was at arm’s length and whether the merchandise at the time was clearly destined for the US.

This proposal, however, prompted opposition from importers, especially because of its potential to drive up duties (and thus costs). CBP received dozens of comments criticising its proposal on both legal and policy grounds. The legal objections were mainly of a procedural nature, that is, that the CBP cannot change established US law through an administrative rule-making process. In order to do that, congressional legislation is required.

So far, the US industry’s decisive action has been effective. When Congress passed the Food, Conservation, and Energy Act of 2008 (known as the Farm Bill) on 22 May 2008, it inserted a ‘sense of Congress’ provision requiring CBP to obtain permission before changing its interpretation of the First Sale Rule.¹³ Under that provision, CBP may not change the first sale rule until 1 January 2011. Further, any future attempt by CBP to revoke the first sale rule would be subject to a number of congressionally imposed standards. For example, it would have to consult with the Commercial Operations Advisory Committee (COAC), a group of industry experts who advise CBP, and with the House Ways and Means and Senate Finance committees which have oversight of the agency. Several months of consultation would be required prior to a rule change. CBP would also have to obtain the ‘explicit approval’ of the Secretary of the Treasury before publishing a change.

Finally, under immense pressure from industry and Congress, CBP formally withdrew its proposal. The withdrawal is included in an interim rule entitled ‘First Sale Declaration Requirement,’ published in the Federal Register on 25 August 2008.¹⁴ The interim rule obliges importers to comply with a new one-year first sale data reporting requirement. The CBP began to enforce this requirement in September 2008.

Recent developments in the EU: The EU is examining whether to include (aspects of) the Commentary in its revised customs legislation

The EU attempted to abolish the first sale rule as early as 1994. Now, in light of the recent Commentary of the WCO Technical Committee, the European Commission and the EU Member States are returning to the theme. Discussions are under way on whether, how, and when to change the EU’s interpretation and application of the ‘first sale’ rule. The matter has recently been discussed within the Valuation Committee, a sub-group of the Customs Code Committee which consists of experts from the 27 EU Member States.

These discussions are part of the review of the Community Customs Code and its implementing provisions that are under way.¹⁵ With regard to the Modernised Community Customs Code, the sale for export concept in a series of sales is to be covered in Article 230 of the Implementing Provisions of the Modernised Customs Code (MCCIP). However, the consolidated preliminary draft of the MCCIP, published on 30 June 2008, is silent on this issue.¹⁶ It seems that the EU Member States have not yet agreed on a proposed text on the first sale rule. Presumably, one of the reasons for this is that the various EU Member States have applied the first sale rule differently. Nonetheless, the final implementing provisions of the MCC are scheduled to come into force at some point between 24 June 2009 and 24 June 2013. Whether these provisions will entail the abolition of the first sale rule remains to be seen.

Conclusions

Experience has shown that the WTO Valuation Agreement leaves substantial room for interpretation. While the Commentary serves as a valuable guide towards achieving uniformity in the Agreement's interpretation and application, its reasoning in the case of the first sale rule, as the analysis above illustrates, is rather inadequate.

Nevertheless, the Commentary has been influential in increasing the chances of the abolition of the first sale rule in the EU and the US. Canada and Australia have already abolished the first sale rule through legislation.¹⁷ The US effort to abolish the first sale rule has been halted by intensive industry lobbying — for now. It is unclear what the EU will do.

What is clear, though, is that the potential impact on international trade of the abolition of the first sale rule in the EU and/or the US would be profound. At the micro level, it would immediately increase the dutiable value of many imports and force businesses to restructure or eliminate business units that were set up on the assumption that the first sale rule would apply. At the macro level, countries which currently do not apply the first sale rule will be less likely to reconsider it in the future.

The first sale rule has been in place in the EU and the US for more than 20 years and reflects a commonsense recognition that, in international trade, the first buyer for export may be located anywhere and a resale of the product before importation is not uncommon. In the absence of more compelling reasons than those cited by the Commentary, the first sale customs valuation rule should not be discarded.

Endnotes

- 1 Laurent Ruessmann and Arnoud Willems are working with Sidley Austin LLP, the law firm, in Brussels, Belgium. The views expressed in this article, however, are exclusively those of the authors and do not necessarily reflect those of Sidley Austin LLP nor of its partners. This article has been prepared for academic purposes only and does not constitute legal advice. The authors would like to thank Huijian Zhu for his help in preparing this article.
- 2 WCO Technical Committee, Commentary 22.1: Meaning of the Expression 'Sold for Export to the Country of Importation' in a Series of Sales.
- 3 *McAfee Co. v. United States*, 842 F.2d 314 (Fed. Cir. 1988); *Nissho Iwai America Corp. v. United States*, 982 F.2d 505 (Fed. Cir. 1992).
- 4 General Notice, Determining Transaction Value in Multi-Tiered Transactions, TD96–97, vols. 31/31 Cust. B. & D. 52/1 (January 2, 1997).
- 5 9 U.S.C. No. 1401a.
- 6 Commission Regulation (EEC) No. 2454/93 laying down provisions for the implementation of Council Regulation (EEC) No. 2913/92 establishing the Community Customs Code, OJ L 360, 19.12.2006, as amended.
- 7 Contrary to pages 98–103 in *Customs valuation — Commentary on the GATT Customs Valuation Code* by S Sherman and H Glashoff, ICC Publication 429, 1988, Kluwer Law and Taxation Publishers.
- 8 See Endnote 2.

- 9 Council Regulation (EEC) No. 2913/92 of 12 October 1992 establishing the Community Customs Code, OJ L 302 of 19.10.1992, as amended. The relevant valuation provisions of the Modernised Customs Code, Regulation (EC) No. 450/2008 of the European Parliament and of the Council, will only be applicable when the implementing provisions take effect.
- 10 Annex 23 of Commission Regulation (EEC) No. 2454/93 laying down provisions for the implementation of Council Regulation (EEC) No. 2913/92 establishing the Community Customs Code, OJ L 360, 19.12.2006, as amended.
- 11 C-306/04, *Compaq Computer International Corporation v. Inspecteur der Belastingdienst — Douanedistrict Arnhem* [2006] ECR I- 991.
- 12 Proposed Interpretation of the Expression ‘Sold for Exportation to the United States’ for Purposes of Applying the Transaction Value Method of Valuation in a Series of Sales, 73 Fed. Reg. 4254, 4255 (24 January 2008).
- 13 Public Law 110-234, 122 Stat. 1547 (19 U.S.C. 1484 note).
- 14 Federal Register, 25 August 2008, vol. 73, no. 165, pp. 49939-499.
- 15 Regulation (EC) No. 450/2008 of the European Parliament and of the Council of 23 April 2008 laying down the Community Customs Code (Modernised Customs Code), OJ L45, 4.6.2008.
- 16 Consolidated preliminary draft of a Commission Regulation of the Modernised Community Code Implementing Provisions (MCCIP), Taxud/1717/2008, Brussels 30.06.2008.
- 17 When the Canadian customs authorities lost in *Harbour Sales (Windsor) Ltd v. D/MNR* [1994] 4647 ETC., they succeeded in getting the valuation law changed to require a transactional value based on a sale to a purchaser in Canada.

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Section 2

Practitioner Contributions

ICT AND THE NEW GLOBAL INVESTMENT PARADIGM: CHALLENGES TO CROSS-BORDER TRADE AND INVESTMENT

Andrew Jackson

Abstract

This article explores the broader context of the use of Information and Communication Technology (ICT) in the cross-border environment from the perspective of one of the world's largest providers of IT hardware, software and services. It highlights a number of new and emerging thoughts and approaches around the continuing challenges of globalisation as it relates to business growth, investment, technological advancement and economic development. These developments are then discussed in the context of their applicability to the cross-border environment with a specific focus on the role that ICT can play in achieving a balance between trade facilitation and compliance in the customs environment. Existing mechanisms for achieving this balance are also explored along with some recommendations for ensuring that future developments align with the broader globalisation agenda and the key role that technology will play in determining the prosperity of individual nations and trading blocs.

Introduction

IBM currently operates in over 170 countries and moves approximately \$US24 billion worth of goods around the globe annually. In addition it employs nearly 400,000 people and had annual revenues of \$US103.6 billion in 2008. As a truly global provider of IT hardware, software, services and consulting, the company is able to provide unique insights into important developments in the global economy as a business, a corporate citizen and an innovator.

The following examples represent some of the recent thinking and observations around developments in the global economy. While they may not appear particularly relevant to the day-to-day challenges faced by cross-border agencies and related policy makers, it is important to grasp how rapidly technological innovation, true globalisation of the supply chain and skills/knowledge transfer are transforming the international trading landscape.

1. The Globally Integrated Enterprise

In an article for *Foreign Affairs* in 2006, IBM Chairman, President and Chief Executive Officer, Samuel J Palmisano posited the idea of the Globally Integrated Enterprise. The central premise of the article was that the multinational corporation (MNC) is taking on a new form as the result of increasing liberalisation of trade and investment flows and development and standardisation of new technologies:

Many parties to the globalization debate mistakenly project into the future a picture of corporations that is unchanged from that of today or yesterday. This happens as often among free-market advocates

as it does among people opposed to globalization. But businesses are changing in fundamental ways – structurally, operationally, culturally – in response to the imperatives of globalization and **new technology** [emphasis added] (Palmisano 2006, p. 127).

The article identified distinct phases in the evolution of the corporation from the early mercantilists to mid-nineteenth century hub-and-spoke networks with a basic structure of home country manufacture and international distribution to the post World War I MNC that responded to rising tariffs and other trade barriers by establishing local production facilities in major markets. In the last three decades of the twentieth century, the combination of increasing trade liberalisation and the information technology revolution enabled the true internationalisation of the global corporation with the old model of country-based subsidiaries, business units and product lines superseded by a truly global approach to procurement, manufacturing, research, sales and distribution, etc.

These decisions are not simply a matter of offloading noncore activities, nor are they mere labor arbitrage. They are about actively managing different operations, expertise, and capabilities so as to open the enterprise up in multiple ways, allowing it to connect more intimately with partners, suppliers and customers (Palmisano 2006, p. 131).

Mr Palmisano went on to outline a number of challenges that this new model will face moving forward, including skills development, regulation of intellectual property, governance, security and organisational culture. Importantly, he identified security and order as critical challenges:

Among the most urgent of the challenges facing emergent global institutions in all spheres of society is global security and order. Companies will only invest in global systems of production if they believe that the geopolitical relationships that enable their investments will be stable and lasting. Without such confidence, investment will collapse (Palmisano 2006, p. 135).

He also identified the growth of horizontal, intergovernmental networks among the world's regulators as a promising development in helping to ensure global stability. The World Customs Organization (WCO) could be described as one such example.

2. Major markets and growth markets

In 2008 IBM implemented a new global strategy that centered on the unique characteristics of 'major markets' and 'growth markets'.

The traditional approach to doing business in different economic markets around the world involves grouping clients and markets according to their physical location and serving them via geographic units. The new approach recognises that geographic location may not be a critical factor from a strategic market development perspective.

Major markets are large, stable, mature markets with a high penetration of IT. IT investment in major markets – which represent more than 70 per cent of global Gross Domestic Product (GDP) and 85 per cent of global IT spending – requires sophisticated products and services that enable differentiation from competitors. Clients in these markets implement innovation and technology to generate cost savings, increased productivity, new opportunities and the ability to compete in the global economy.

Growth markets are expanding rapidly through different stages of development as clients build new IT infrastructures and implement innovative business models to compete and stimulate growth in their market. These markets, which encompass 140 of the countries in which IBM does business and 85 per cent of the world's population, comprise 60 per cent of the world's IT growth. IBM's business in Brazil, Russia, India and China collectively grew 25 per cent in 2007. Mexico, Egypt and Vietnam are examples of the many countries in growth markets that grew more than 10 per cent.

Countries in growth markets are focused on expanding infrastructures – from airports and subways to highways, buildings and stores. They are increasingly participating in the global economy and have growing consumer populations.

For example, at first glance, Egypt, Mexico, Poland and Vietnam seem worlds apart. Each has a different culture, language, history and geographic location. However, from a strategic market development perspective, these countries have more similarities than meet the eye. For example, each has:

- high GDP growth
- low IT market penetration
- market share and vendor leadership that are still being established
- limited resources requiring innovative business models.

These hyper-growth economies, spread across the Asia Pacific, Latin America, Central and Eastern Europe, the Middle East and Africa, are at varying stages of development.

Interestingly, IBM's strategy for growth markets includes a specific commitment to 'reinforce business integrity and compliance'. This represents a clear acknowledgement that understanding and adhering to compliance requirements will form an important part of IBM's value proposition as it ramps up investment in growth markets. In other words, the efficiency, transparency and security of cross-border transactions and processes will be determining factors in these investment decisions, as will the willingness of individual border agencies to proactively balance enforcement and revenue responsibilities with the broader need to facilitate trade, promote investment, and implement risk management schemes that focus limited resources on higher risk transactions.

3. A Smarter Planet

In his address to the Council on Foreign Relation in November 2008, Mr Palmisano introduced the idea of a Smarter Planet.

The premise of a Smarter Planet adds a further dimension to the earlier discussion on the globally integrated enterprise in that it recognises the increasing interconnectedness of the world with reference to a number of geopolitical issues and challenges:

In the last few years, our eyes have been opened to global climate change, and to the environmental and geopolitical issues surrounding energy. We have been made aware of global supply chains for food and medicine. And, of course, we entered the new century with the shock to our sense of security delivered by the attacks on 9/11.

These collective realizations have reminded us that we are all now connected – economically, technically and socially. But we're also learning that being connected is not sufficient. Yes, the world continues to get 'flatter.' And yes, it continues to get smaller and more interconnected. But something is happening that holds even greater potential. In a word, our planet is becoming smarter.

This isn't just a metaphor. I mean infusing intelligence into the way the world literally works – the systems and processes that enable physical goods to be developed, manufactured, bought and sold... services to be delivered...everything from people and money to oil, water and electrons to move... and billions of people to work and live (Palmisano 2008).

Several reasons were provided to help explain what is behind this development:

- **First, our world is becoming instrumented:** The transistor, invented 60 years ago, is the basic building block of the digital age. Now, consider a world in which there are a billion transistors per human, each one costing one ten-millionth of a cent. We'll have that by 2010. There will likely

be 4 billion mobile phone subscribers by the end of this year...and 30 billion Radio Frequency Identification tags produced globally within two years. Sensors are being embedded across entire ecosystems – supply-chains, healthcare networks, cities...even natural systems like rivers.

- **Second, our world is becoming interconnected:** Very soon there will be 2 billion people on the Internet. But in an instrumented world, systems and objects can now ‘speak’ to one another, too. Think about the prospect of a trillion connected and intelligent things – cars, appliances, cameras, roadways, pipelines...even pharmaceuticals and livestock. The amount of information produced by the interaction of all those things will be unprecedented.
- **Third, all things are becoming intelligent:** New computing models can handle the proliferation of end-user devices, sensors and actuators and connect them with back-end systems. Combined with advanced analytics, those supercomputers can turn mountains of data into intelligence that can be translated into action, making our systems, processes and infrastructures more efficient, more productive and responsive – in a word, smarter (Palmisano 2008).

Given this rapid convergence of digital and physical infrastructures and computational power, the real challenge will be how to harness these innovations to address numerous social and economic challenges facing the planet:

How much energy we waste: According to published reports, the losses of electrical energy because grid systems are not ‘smart’ range as high as 40 to 70 per cent around the world.

How gridlocked our cities are: Congested roadways in the U.S. cost \$78 billion annually, in the form of 4.2 billion lost hours and 2.9 billion gallons of wasted gas – and that’s not even counting the impact on our air quality.

How inefficient our supply chains are: Consumer product and retail industries lose about \$40 billion annually, or 3.5 per cent of their sales, due to supply chain inefficiencies.

How antiquated our healthcare system is: In truth, it isn’t a ‘system’ at all. It doesn’t link from diagnosis, to drug discovery, to healthcare deliverers, to insurers, to employers. Meanwhile, personal expenditures on health now push more than 100 million people worldwide below the poverty line each year.

How our planet’s water supply is drying up: Global water usage has increased six-fold since the 1900s, twice the rate of human population growth. According to the Asian Development Bank, one in five people living today lacks access to safe drinking water, and half the world’s population does not have adequate sanitation.

And, of course, the crisis in our financial markets: This will be analyzed for decades, but one thing is already clear. Financial institutions spread risk but weren’t able to track risk – and that uncertainty, that lack of knowing with precision, undermined confidence (Palmisano 2008).

Of most relevance to this article, the address pointed out that smart infrastructure is becoming the basis of competition between nations, regions and cities:

In a globally integrated economy, investment and work flow not only to the places in the world that offer cost advantages, skills and expertise. It is flowing to countries, regions and cities that offer smart infrastructure – everything from efficient transportation systems, modern airports and secure trade lanes...to reliable energy grids, transparent and trusted markets, and enhanced quality of life (Palmisano 2008).

The cross-border context

A common thread in each of the global developments outlined above is not so much the increasing pervasiveness of technology in driving economic and social outcomes but that individuals, organisations and governments alike need to think carefully about how they should best collaborate in the use of that technology to achieve their desired outcomes.

This is just as relevant to customs processes as it is to health records, vehicle congestion or water management. In fact it is hard to think of a customs reform or improvement project today that would not involve the use of ICT – from the complexity of a multilateral Single Window project to the publication of customs notices via a website to the risk management systems used for targeting cargo for inspection.

A key challenge remains, however, at the intersection of Customs' traditional enforcement and revenue collection mindset and the increasing need for a more collaborative and facilitative approach to managing cross-border transactions.¹

There is little doubt that much can be done to improve the efficiency of cross-border procedures in many countries and particularly those in developing countries. A cursory glance at the Doing Business Report² or World Bank Logistics Performance Index³ only serves to reinforce this point. Similarly, a reliance on import duties as a key revenue generator⁴ also creates challenges for customs administrations and can act as an inhibitor to facilitation-based reform. More importantly, however, is the need to look beyond these raw numbers and identify distinct opportunities to drive mutually beneficial reforms that take advantage of the trends in global commerce and smart technologies – and this is a challenge for industry as much as it is for governments.

Existing mechanisms and initiatives

Previous editions of this Journal have focused on a number of existing mechanisms and initiatives designed to introduce standards and drive improvements in cross-border trade and security. This has included discussion on relevant WTO General Agreement on Tariffs and Trade (GATT) articles, the WCO SAFE Framework of Standards to Secure and Facilitate Global Trade, the Revised Kyoto Convention and the United Nations Centre for Trade Facilitation and Electronic Business.

There certainly appears to be strong support at the global level in respect to international cooperation and agreement around standards setting, harmonisation and simplification in customs procedures consistent with the 'growth of horizontal, intergovernmental networks among the world's regulators' referred to above. The following is an extract from the WCO SAFE Framework:

This Framework provides a new and consolidated platform which will enhance world trade, ensure better security against terrorism, and increase the contribution of Customs and trade partners to the economic and social wellbeing of nations. It will improve the ability of Customs to detect and deal with high risk consignments and increase efficiencies in the administration of goods, thereby expediting the clearance and release of goods (WCO 2006, p. 5).

The ongoing challenge, however, is to ensure that high level commitments morph into concrete action at the regional and country level as this is where the 'rubber hits the road' in respect to ensuring material outcomes for industry and governments alike. Countries and trading blocs that are able to grasp the critical role that transparent and efficient cross-border transactions play in enabling trade and investment stand to gain the most, not only from existing mechanisms but from the flexibility that this will provide to deal with the next wave of challenges in the global economy – technological, economic or social.

As a globally integrated enterprise, IBM has a strong incentive to not only ensure the highest level of compliance and integrity in its cross-border activity but also to participate in trusted partner initiatives that deliver quantifiable benefits while also meeting the risk management and enforcement imperatives of the respective border agencies.

IBM has been very active in this sphere in recent years particularly in the area of Authorised Economic Operator (AEO) implementation, and has previously contributed to this Journal on that topic (Fletcher 2007). IBM is also a member of the WCO's Private Sector Consultative Group and has participated in and presented at numerous forums such as the Asia-Pacific Economic Cooperation (APEC) and the Association of Southeast Asian Nations (ASEAN) on the topic of supply chain security and trade facilitation. More importantly, however, we have worked with a number of countries worldwide on the development and implementation of their AEO programs and have been a strong proponent of the mutual recognition aspect of this process. We also participate in a number of trade facilitation programs worldwide and are continually advocating the introduction of similar initiatives in other countries.

Conclusions

The global economy is posing many challenges for border agencies, including the need to balance law enforcement and revenue collection with the pressure to promote and facilitate trade in the face of increasingly complex global supply chains, technological developments and investment attraction parameters. While there are positive signs that these challenges are understood by international agencies and national policy makers, there remains a disconnect with action at the country and regional level. While technology in itself is not the panacea for meeting all these challenges, it is certainly a common denominator in many of the current global initiatives and standards and appears to have a high correlation to customs modernisation status.

There is also a lot more that can be achieved in respect to the Customs-to-Business dynamic. From IBM's experience to date, this can best be achieved through a true partnership that enables consultation at the development and implementation stages of both policy and program development. This is particularly relevant to developing or growth market countries where IBM's reputation as a trusted partner and experience with existing programs can be shared along with the many capacity building initiatives currently under way.⁵

Technology is not only an enabler of customs modernisation – it is also driving adoption of the business models, organisational culture and global standards that are necessitating that change.

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Endnotes

- 1 See Kafeero 2008, pp. 63–71, and Buyonge & Kireeva 2008, pp. 41–54, for two excellent articles on the customs reform challenges faced in Africa.
- 2 See: <http://www.doingbusiness.org/>.
- 3 See: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTTRANSPORT/EXTTLF/0,,contentMDK:21514122~menuPK:3875957~pagePK:210058~piPK:210062~theSitePK:515434,00.html>.
- 4 See: <http://www.wcoomd.org/files/1.%20Public%20files/PDFandDocuments/Harmonized%20System/SurveyCDEN20080910.pdf>.
- 5 For example, see http://www.wcoomd.org/home_wco_topics_cboverviewboxes.htm.

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PORT COMMUNITY SYSTEMS

Alan Long

Abstract

Ports are natural bottlenecks in the transport chain, yet they are logical places to carry out customs controls. Port Community Systems have played a major role in facilitating the more efficient movement of goods while allowing Customs and other government departments to maintain effective controls. This article traces the history of one such system from the early days of planning through to the current day, in order to provide an insight into the benefits that can be achieved by both Government and the trade, transport and logistics communities. In so doing, the role that such systems can play in terms of implementing a comprehensive Single Window is highlighted.

Introduction

The development and implementation of Port Community Systems (PCS) have been significant contributing factors to the more efficient movement of cargo across international borders. These systems vary in both technical and functional design and operation and in coverage in terms of users and locations. Some are effectively message switches, others incorporate messaging with a database, some are designed for specific ports and others try to offer a generic solution. It is interesting to note that, in recent years, they have been held up as examples of Single Windows and in many respects, this is true. The most effective PCS also provide services which most government Single Windows do not, that is, Business-to-Business information exchange.

The Felixstowe Port Community System

January 2009, the time of writing this article is, by coincidence, the 25th Anniversary of the implementation of the PCS in Felixstowe, the United Kingdom's (UK) premier container port and the first in the country to introduce such a system. Maritime Cargo Processing Plc is the community-owned company established to manage and market the system.

Planning for the system, which started its life as FCP80 (Felixstowe Cargo Processing for the 80s) began in 1981 when the East Coast port was facing a time of crisis in terms of throughput which had reached over half a million TEU (Twenty Foot Equivalent Units). Ports are obvious potential bottlenecks for international trade and transport, and the explosive growth of Felixstowe meant that it had reached the stage where it needed to find a way of streamlining the processes and procedures that were causing delays to the movement of goods or it would not be able to continue to expand.

The reason for this approach, rather than just seeking to expand the operational area of the port, was quite simple. Senior management recognised that if they did not tackle the bottlenecks that were occurring because of the cumbersome documentary processes and procedures associated with the clearance and movement of the cargo, this problem would not be resolved even if the port itself was extended. An increase in physical capacity and throughput would only lead to an increase in documentation, all of which would require the same onerous manual processing. In fact, the situation would worsen, because the

primary documentary requirements, the manifest and the Customs Declaration, relied on the availability of personnel (particularly Customs) to process them and in the late 1970s and early 1980s, one of the main aims of the UK Government was to reduce the number of Civil Servants.

The decision was therefore taken to develop and implement a PCS with the whole emphasis being to eliminate, as far as possible, the number of paper documents, often in multiple copies, that were carried around the port. Shipping lines and agents, forwarders and brokers, customs and other government authorities, transport operators and the ports/terminal operators are reliant on information from each other to perform their functions effectively. Activity in each sector has an impact on the others. It was clear that if information could be passed between them in an accurate and speedy manner and without paper, there was the potential for the whole operation to improve its efficiency and this would allow throughput to continue to rise through faster movement of goods, thus also making the physical expansion a more attractive proposition.

In order to ensure that the system would be a success, or at least mitigate against possible failure, the various sectors of the Felixstowe port community were engaged in the design process and a Steering Committee, project team and various sub-groups were established. HM Customs & Excise (now HM Revenue & Customs) played a key role in this by setting up a dedicated local team as well as providing technical and policy support from Headquarters. It has often been stated that one of the major reasons for the overwhelming success of the system is that it was ‘designed for the users, by the users’, a philosophy which has continued for the past 25 years.

It was identified at an early stage that one of the main causes of delay was the processing of customs declarations. Average clearance times were between four and five days and figures showed that one in three declarations received by Customs contained errors. At this time, maritime declarations were prepared on paper by Freight Forwarding Agents/Customs Brokers and presented to Customs, where the details were entered into the central customs declaration processing system by data processors employed by the Department. Validation of the declaration data by the Customs system often resulted in the identification of errors and then a process of notification, amendment, re-submission and re-keying of the data followed. It was this which largely contributed to the lengthy average clearance times.

The Customs system was, however, capable of handling declarations in a Direct Trader Input (DTI) environment and indeed, the larger UK airports were already utilising DTI. The Steering Committee therefore decided to implement the PCS in two phases. The first phase would see the introduction of DTI to the port and as this was largely a technical issue, the design of Phase 2, which would achieve the full objectives of the PCS, was to take place in parallel. An Invitation to Tender was issued in 1981 and the contract awarded. By January 1982 the necessary resources were in place and design of the PCS functionality began. The intention from the beginning was for the eventual users of the system to dictate exactly how the system would function and the responsibility of the contractor was to ensure that their requirements were met.

Included in the constraints placed on the project team was that the PCS should only deal with major operational processes; it must not duplicate those functions where efficient systems already existed and it must, from the very beginning, provide for the electronic exchange of data, including manifest information. The reason for this is simple and obvious – the Port of Felixstowe and many of its major customers, the carriers and shipping lines, already had systems of their own in which they had invested heavily and they did not want to jeopardise that investment.

Phased approach

Phase 1 was implemented on 28 January 1984 and essentially provided Freight Forwarders in the Felixstowe port community access to the Customs central declaration processing system through a

single gateway, the PCS. Could this eventually provide a single gateway to a Government International Single Window?

Using DTI, declarations prepared off-line using application packages developed by specialist software houses working with the Freight Forwarding industry, are sent by Electronic Data Interchange (EDI) message to the customs system through the forwarders link to the PCS, where they are processed on a real-time, interactive, basis. Any validation errors are reported directly back to the forwarder's system, by EDI, via the PCS gateway where they can be corrected and the data re-submitted in a single operation. The forwarder is therefore effectively fulfilling the role previously undertaken by Customs personnel, freeing them to concentrate on more productive activities. The introduction of DTI alone led to a dramatic improvement in clearance times, from the previous four to five days to around six hours. Developments since 1984, together with the impact of Phase 2 implementation, have reduced clearance times to zero in the majority of cases. In other words immediate release is notified to the PCS by the customs declaration processing system on acceptance of the declaration. Only those declarations requiring further documentary or physical checks to be carried out do not receive immediate release.

Phase 2 (also known as Inventory Control) development continued and implementation took place some 18 months later. The time lag between the two phases was sufficient for the completion of the functional specifications, development of the application itself by the contractor and for full testing to take place by volunteers from the community enlisted to the project team and its various sub-groups. The basic concept of Phase 2 is to capture data relating to every import, export and transshipment container/consignment on every vessel, to store that data and to use it to allow the various sectors of the port to carry out their physical operations without having to resort to paper documents.

Phase 2 consists of several modules and in the years since its original implementation there have been substantial changes, additions and improvements made. The concept of the system however, to replace paper documentation with electronic equivalents, has not changed. The following list represents the majority of documents that have been replaced through use of the PCS:

- Manifests and associated amendments
- Customs release notes
- Ship's out-turn/discharge reports and amendments
- Bonded removal documents (for example, inter port, ICD, CFS, etc.)
- Local transshipment documentation
- Lines' commercial release
- Acceptance of rent/storage charges
- Delivery instructions to transport operators (road/rail)
- Export delivery advice
- Export arrivals
- Export load list
- Loading reports
- Customs scanning/examination/sealing requirements
- Port health/quarantine and other government departments' activities
- Requests to out-turn in sheds/warehouses (devanning)
- Shed/warehouse out-turn reports and amendments
- Customs declarations for exports
- Ship planning notifications and amendments
- Dangerous/hazardous goods reporting

The most significant of these in terms of Customs are probably the first three, as they previously represented the most labour-intensive in terms of manual processing, after the customs declaration itself. Almost 100% of manifests are now received electronically into the PCS, predominantly using the UN/EDIFACT CUSCAR message.¹ Indeed, the first manifest received in 1985 was actually electronic (using a proprietary message) and replaced the seven copies that were previously circulated around the port on paper! A screen input facility is available for the very few companies that do not have the capability to send data electronically. The manifests submitted to the PCS are used by Customs for all fiscal control purposes and manifests submitted to the system in CUSCAR format are forwarded to the central customs anti-smuggling system, for profiling purposes. An extract of the manifest is also sent to the port operator's own computer system, for operational purposes. The manifest is also made available to other government departments, such as quarantine, veterinary and agriculture that also use the system. No paper manifests are required to be produced to Customs, to the port operator, or to other government departments using the system. The manifest data is stored on the PCS database and amendments can be made by the carriers without the need to obtain prior approval, with notification of sensitive amendments being immediately notified to Customs.

Each item on the manifest is allocated a unique reference number by the PCS and because this number is included in the associated customs declaration, this allows automatic 'writing-off' to take place. As clearance messages are received from the customs declaration processing system, the PCS sends a message to the appropriate Forwarding Agent/Broker and to the port, thus eliminating the paper customs release note. During discharge of the vessels, the port operator's own computer system sends messages to the PCS as each container (or Bill of Lading for general cargo) is landed and the PCS in turn sends messages to the carrier's in-house system and records the status on its database. On completion of discharge, the PCS compares the data received from the port operator with that held against the original manifest and issues 'discrepancy lists' to Customs and the carriers detailing short- and over-landed containers or general cargo items which may need further investigation or action.

Customs practitioners in particular will recognise the benefits of the electronic processing described in these examples when compared to the previous manual experience. Similar explanations could be recounted for the other documents listed.

It is not only in the Business-to-Customs and Customs-to-Business areas, however, that the PCS has made an impact in the cross-border environment, although these are often the most documented and are certainly how most PCS providers like to promote their systems. It is true that they have helped to reduce clearance times and reduced paper documents but, perhaps more importantly, they have encouraged data transfer and the single submission of data for multiple use in the Business-to-Business area of port operations. The concept of single submission is held up as one of the major benefits of International Trade Single Windows. Governments intending to develop Single Windows would therefore do well to look at the experiences of PCS providers when doing so, or they run the risk of providing systems that do not fully meet the needs of their 'customers'.

Conclusions

To summarise, the experience at many ports worldwide has shown the significant gains to be made by developing port community systems. Such systems reduce the overall amount of clerical work by providing a means of capturing information once and allowing controlled access by all appropriate members of the port community. Wasted effort is avoided because duplication of entry and storage of data is reduced to a minimum. The time required to release cargoes is reduced because the necessary information is instantly available to those who need it.

Overall, the ports offering such systems are easier to use and therefore, more attractive to existing and potential users. Benefits accrue to all members of the port community, which has an effect on the future of the port. It cannot be overstated, however, that the fundamental prerequisite for such port community systems is the sense of ‘community’. It is essential that all the major members of the community agree their common interests and accept a common action plan to achieve the required development. One must not lose sight of the fact that the community system must be designed by the users for the users.

The system used in Felixstowe, originally FCP80, changed its name in 1990 to FCPS (the Felixstowe Cargo Processing System). By 2002, the FCPS Community system was processing some 70%-plus of containerised trade through UK ports and a significant proportion of the country’s general cargo. Although very efficient and effective, FCPS was based on technology that was being rapidly overtaken. In late 2002, the decision was taken to undertake a complete re-write of the system onto a modern technical platform and this commenced in December of that year. The replacement system, Destin8, was successfully implemented after more than five years of development and testing, being rolled out to approximately 650 customers and 3200 users overnight on 13 May 2007. The system is now in operation in Felixstowe, Harwich, Ipswich, Immingham, Hull, Teesport, Tyne, Grangemouth, Aberdeen, Glasgow, Liverpool, Bristol, Thamesport, the Medway Ports and Tilbury as well as approximately 70 inland clearance locations (Container Freight Stations).

Endnotes

- 1 United Nations/Electronic Data Interchange For Administration, Commerce and Transport Customs cargo report message.

Alan Long



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MANAGEMENT TEAM COMMITMENT IS KEY FOR SUCCESSFUL AUTOMATION IN CUSTOMS ADMINISTRATION

Ajantha Dias

Abstract

Besides its traditional revenue collection and enforcement tasks, Customs places great importance on facilitating and promoting trade and automation provides tools to accomplish this. Customs plays a pivotal role in international trade transactions and in this paper, the use of an automated systems approach to the processes involved in cargo clearance is highlighted. The successful implementation of automation projects largely depends on an effective project team and the unequivocal commitment of senior management. Better results can be achieved by simplifying procedures in accordance with international best practices instead of simply automating manual systems.

From traditional tasks to trade facilitation

Customs formalities at border crossings are key elements in international trade insofar as they serve to monitor and control the movement of goods and passengers through customs barriers. The collection of revenue by way of duties and taxes is one of the main activities of any customs administration. The percentage of revenue collected by the customs administrations of developing countries can be up to 50 per cent of total government revenue.

Certain commodities require the approval of other statutory agencies before they are released from the border-crossing point (for example, quarantine and health authorities). Statutory agencies rarely delegate authority to clear such cargo to Customs. As a result, the cargo clearance procedure has become complicated and cumbersome.

The World Customs Organization (WCO), the United Nations Conference on Trade and Development (UNCTAD), the World Trade Organization (WTO) and other international organisations all promote trade facilitation. As a result, several countries have established their own bodies to promote and implement trade facilitation measures, for example, SITPRO (Simplification of International Trade Procedures) of the United Kingdom, and JASTPRO (Japan Association for Simplification of International Trade Procedure).

Nowadays, trade facilitation is one of the key activities in most customs administrations. Many have changed their mission statements to reflect this fact and refer explicitly to 'trade facilitation'.

Customs automation

It was soon recognised that automation was an important means of trade facilitation and the automation of customs processes marked a giant leap forward in its implementation. During the 1980s, customs automation gathered momentum: developed countries created their own systems while UNCTAD designed a system now known as ASYCUDA (Automated SYstem for CUstoms DAta) to assist

developing countries. Now, decades later, most customs administrations use automated systems in relation to cargo processing. During this time, the number of ASYCUDA user countries has risen to 90.

Not all customs administrations have automated at the same pace. Some have attained a paperless trading environment while others are still at an early stage of automation. Even where administrations use the same or similar software, there are still different levels of automation.

There are a number of articles, books and guides written on customs automation. For example, the Customs Compendium No. 2 published in 2004 by the WCO is a useful guide that highlights issues relating to this subject.

There are many sound reasons for automating customs processes: among the most important are expediting cargo clearance, the timely and accurate reporting of statistics, greater integrity and transparency, and more effective monitoring and control mechanisms – to name but a few. Whereas automation measures in a private company mainly seek to improve profit, those in customs administrations focus on striking a balance between revenue collection and trade facilitation.

Once the decision has been taken to automate, careful planning is required. Any information and communication technology (ICT) project follows certain steps, including a feasibility study, establishment of project management, system development, procurement, installation, implementation, testing, training, post-implementation review and maintenance (see Customs Compendium No. 2, p. 8).

There are many textbooks explaining exactly what the tasks are and what is expected at each step. Therefore, what follows in this paper is my experience gathered from automation projects in which I have been directly or indirectly involved, and includes some recommendations for an effective automation process. It is not my intention to belittle the efforts made by those involved in unsuccessful attempts.

Contribution of the project team

In one of the automation projects in Sri Lanka (which I will refer to as ‘Project X’) the customs administration decided to develop software locally and awarded the contract to a reputable and well-established local software company. Most members of the project team were from statistical and administrative backgrounds – generally they had worked in Customs for a few years before moving on to another department. They were the only people the software developer met regularly. After an initial study of the tasks performed by the department to be automated, they hardly discussed the progress or the proposed new procedure with the users themselves. They proceeded to design and install the system. At the training stage, potential users pointed out some flaws and shortcomings of the system. However, by then it was too late to modify the software. As a result, users felt that they were being forced to use a flawed system and, moreover, that the system did not ‘belong to them’. Soon after, the decision was taken to abandon the project.

A few months after Project X was abandoned, the customs administration decided to use an off-the-shelf package for its automation of the cargo clearance procedure and the Ministry of Finance arranged the necessary funding. This time, the project team consisted of customs officers selected from various sections of the department. They brought a wealth of customs experience to the project and were prepared to make changes. The project team had regular meetings with both potential users and representatives of the trading community. By the time it was ready to implement, users had a good idea of the proposed procedure which meant there was minimum resistance. The users also believed that they were under an obligation to implement the system because they had contributed to its development. The project was implemented successfully by the target date.

One could argue that there were several reasons for the failure of Project X, but one of the most important was the composition of the project team. That team has a pivotal role in the successful implementation of

any automation project. The team's experience and its ability to work effectively as a team, its acceptance of change, and its ability to convince colleagues and users of the significance and viability of the project are all equally important.

If it is decided to entrust software development to in-house or external developers, the project team must also include computer specialists. In this situation, detailed discussions should be carried out with users prior to the software design stage. It is always better to design a prototype and evaluate the feedback from potential users because any changes to the software after installation and acceptance will prove very costly. Had the project team followed these basic recommendations, Project X would probably have been successful.

Commitment of the management team

Guides and articles written on customs automation always emphasise the commitment of politicians and management. Commitment from senior management is the most important: even the best software and most dynamic project team will not achieve the goals of the automation project if senior management is not willing to accept the changes. Moreover, the commitment and support of senior management are required not only during the project implementation period but also during the entire life cycle of the system. There are a series of decisions to be taken when introducing an automated system. Management is required to take drastic action and must have the courage to make changes. Otherwise, the automated system could be lumbered with the remnants of the old manual system. The most common example of this is where manual records and a computerised system exist side-by-side. A comparison of the processes of countries that use the same version of ASYCUDA software reveals that some have almost attained a paperless environment whereas others still require several copies of cargo declarations.

Simplification of procedures

According to the UN/CEFACT definition, trade facilitation involves the simplification, standardisation and harmonisation of procedures and associated information flows that are required to move goods from seller to buyer and to make payment.

A customs automation project should not simply aim to automate a manual system or to upgrade an existing computer system with modern, high-tech equipment. Rather, the aim should be to eliminate or reduce all unnecessary elements and duplications in formalities, processes and procedures and to align national formalities, procedures, operations and documents with international conventions, standards and best practices. Internationally agreed formats for practices, procedures and data fields should be used, and data requirements limited to those data fields referred to by the WCO Data Model.

A couple of decades ago, the main aim was to link processes within customs administrations. Today, it is necessary to link other departments and government agencies such as those departments regulating agriculture, health and standards that are involved in the processing of customs declarations. The 'one-stop-shop' and Single Window concepts have been realised and authorisations are issued electronically instead of on paper. In computer terms, we are progressing from 'Vertical Integration' to 'Horizontal Integration'.

Conclusions

Technology has evolved to such an extent during the last two decades that software today can handle even the most complex customs formalities. The most difficult aspect that is often overlooked by management is the streamlining and simplification of the processes. As far as possible, those processes should be

aligned with the best practices set out in the Revised Kyoto Convention. Better results could be achieved if automation is introduced as part of customs reform and modernisation projects.

Customs automation is no longer a one-off exercise or isolated event. It influences or stimulates the use of ICT in other departments and statutory bodies as well as in the private sector. What is required are a transparent and collaborative approach and the commitment of senior management. It is the responsibility of the latter to sustain the computer system. Due recognition should be given to staff of the ICT section and they should be motivated and rewarded appropriately.

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US IMPORTER SECURITY FILING: ADVANCE ELECTRONIC DATA UNDER THE SAFE FRAMEWORK MEETS THE REAL WORLD

Bryce C Blegen

Abstract

The World Customs Organization (WCO) SAFE Framework of Standards (SAFE Framework) incorporated as a core element the idea of utilisation of advance electronic information as a means for Customs to perform a security-based risk assessment of inbound consignments prior to their physical arrival in a country, allowing for detention of harmful shipments prior to their departure at origin, and more effective targeting of high-risk consignments prior to their arrival at the port of destination. The United States Importer Security Filing constitutes the first implementation of this principle into widespread practice. This article provides a comprehensive overview of the new requirements, an analysis of their impact on traders, and draws attention to certain aspects of the US initiative which may, if not modified, impede its successful implementation, and which should be considered by other countries looking to put in place similar requirements.

1. Introduction

Under the World Customs Organization (WCO) SAFE Framework of Standards (SAFE Framework), adopted at the WCO Council in June 2006, the first of the four Core Elements for customs administrations provides for the use of advance electronic information on in-bound cargo as an essential tool for Customs to perform a risk assessment on a consignment intended for import (or transit), whether the data is obtained prior to import, prior to their physical arrival, prior to their departure from origin, or even prior to their lading on an out-bound means of international transport. Regardless of timing of the advance data transmission, the idea is to give Customs more data, in an electronic form which is subject to automated analysis, at an earlier point in order to allow effective risk analysis to be performed prior to presenting the consignment for customs inspection. The intent is to enhance targeting effectiveness, allowing low-risk cargo to proceed without inspection and consignments deemed to be high risk to be inspected or interdicted. This should allow Customs to more effectively exercise its role in protecting the public from the risk of terrorist abuse of the international trading system to transport weapons of mass destruction, or their components or precursors, from one country to another, as well as to minimise disruption of legitimate trade. Aside from this anti-terrorism focus, it is evident that advance data should also allow Customs to better target smuggling or non-compliant import consignments, and is a widely accepted rationale for the implementation of new regulatory requirements in these areas.

Although the European Union (EU), Japan, and other countries are in the process of formulating advance data-related regulatory requirements, with implementation dates in some cases already set, the United

States (US) which since 9/11 has been at the forefront of formulating and enacting supply chain security initiatives, is almost certain to be the first country to roll out an advance data initiative focused on imports. On 25 November 2008, the US Department of Homeland Security, through its subdivision US Customs and Border Protection (CBP), issued an interim final rule entitled 'Importer Security Filing and Additional Carrier Requirements'. This rather innocuously titled 57-page regulation contains what is likely to represent the single most significant change in the US import process in at least 15 years, and is the culmination of approximately two years of concentrated effort by CBP in the face of widespread trade opposition within the US. The initiative embodied in the interim final rule has become widely known as '10 + 2', due to the number of key data elements required, although it is now officially known as the Importer Security Filing (ISF). It has its legal basis in Section 203 of the *Security and Accountability for Every Port Act* of 2006 (Pub. L. 109–347, 120 Stat. 1884), widely known as the 'SAFE Port Act', which requires the Secretary of Homeland Security to promulgate regulations to 'require the electronic transmission to the Department [of Homeland Security] of additional data elements for improved high-risk targeting, including appropriate security elements of entry data...to be provided as advanced [*sic*] information with respect to cargo destined for importation into the United States prior to loading of such cargo on vessels at foreign seaports'. CBP's official rationale for the ISF regulation, as included in the 25 November 2008 rule notice, was 'the information required is that which is reasonably necessary to enable high-risk shipments to be identified so as to prevent smuggling and ensure cargo safety and security pursuant to the laws enforced and administered by CBP'. CBP announced that implementation of the ISF requirements were to go into effect, in large part, on 26 January 2009, with full implementation (and enforcement of violations) scheduled for one year later, in early 2010.

The implementation of the ISF requirements in the US is sure to have far reaching effects, as it will directly or indirectly affect all parties engaged in the sales and subsequent supply chain process related to all overseas consignments travelling by ocean vessel and entering US ports (even temporarily), even though its legal purview is limited to US-bound carriers, freight forwarders acting as 'virtual' carriers (the Non-Vessel Operating Common Carriers [NVOCCs]) and importers (even temporary importers) of the inbound consignments. As the first real-world example of the SAFE Framework's advance data core element to be implemented, the US ISF regulations are worth careful examination, as they will by definition provide a precedent for other countries looking to implement similar initiatives, and already may be useful to provide insight into some of the factors that should be considered both prior to and during implementation of such initiatives. There is no doubt that the next year of phased enforcement of the ISF requirements will lead to many further lessons learned, and continued close scrutiny by international policymakers of the US ISF roll-out is warranted.

2. US import process today

In order to appreciate the significance of the changes introduced under the ISF regulations, it is important to understand the current US import process. For a number of years, ocean carriers have been required to submit advance manifest data, generally in electronic form, for goods coming into the US. Manifest data is submitted to the US Government's Automated Manifest System (AMS), where it is used to target shipments for inspection by CBP. After the events of 9/11, advance manifest requirements were strengthened under the so-called '24-Hour-Rule', promulgated under the Trade Act of 2002, which mandated both an expanded data set (see column 1 of Figure 1 below for a listing) and the requirement that manifest information be submitted 'no later than 24 hours before the cargo is laden aboard a vessel at a foreign port' (although in practice the data is normally required to be ready for submission at the vessel's arrival at the port for loading, and especially in the case of consolidated cargo, even earlier). The key identifier for manifest information for shipments inbound into the US is the Bill of Lading number, which is an alphanumeric consignment reference satisfying strict requirements set out in the US Customs Regulations (19 CFR §4.7a). Carriers, freight forwarders and consolidators accepting goods via ocean

freight destined for the US issue Bill of Lading numbers for each individual consignment accepted under a schema designed to enable them to function as a unique reference for reporting to CBP. These service providers generally have direct access to the AMS, which has historically been the primary conduit for communication with CBP for port- and vessel-related activity occurring outside of the US.

Figure 1: Current Status Versus New Requirements

Current Status Versus New Requirements

<h3 style="margin: 0;">Required Manifest Data</h3> <p style="margin: 0; background-color: #e0e0e0; padding: 2px;">Generally, 24 Hrs Prior to Lading</p> <ul style="list-style-type: none"> • Bill of Lading Number • Foreign Port before vessel departs for U.S. • Carrier SCAC • Carrier Assigned Voyage Number • Date of Arrival at First U.S. Port • U.S. Port of Unlading • Quantity • Unit of measure of Quantity • First Foreign Place of Receipt • Commodity Description (or HTS-6) • Commodity Weight • Shipper Name • Shipper Address • Consignee Name • Consignee Address • Vessel Name • Vessel Country • Vessel Number • Foreign Port of Lading • Hazmat Code • Container numbers • Seal Numbers • Date of departure from Foreign Port • Time of Departure from Foreign Port 	<h3 style="margin: 0;">Security Filing Data</h3> <p style="margin: 0; background-color: #e0e0e0; padding: 2px;">ISF-10 "Regular" Cargo (3461, IT, FTZ)</p> <ul style="list-style-type: none"> • 24 Hours Prior to Lading <ul style="list-style-type: none"> • Seller (Owner) name/address • Buyer (Owner) name/address • Importer of record number • Consignee number • 24 Hours Prior to Lading--Range of Responses <ul style="list-style-type: none"> • Manufacturer (Supplier) name/address • Ship to Party • Country of Origin • Commodity HTS-6 • No Later than 24 Hours Prior to Arrival <ul style="list-style-type: none"> • Container Stuffing location • Consolidator name/address <p style="margin: 0; background-color: #e0e0e0; padding: 2px;">ISF-5 "Transit" Cargo (FROB, IE, TE)</p> <ul style="list-style-type: none"> • Booking Party Name/Address • Ship to name/address • Commodity HTS-6 • Foreign Port of Unlading • Place of Delivery <p style="margin: 0; background-color: #e0e0e0; padding: 2px;">Stow Plan Data Container Status Message (CSM) Data</p>	<h3 style="margin: 0;">Entry Data Elements</h3> <p style="margin: 0; background-color: #e0e0e0; padding: 2px;">Generally, up to 15 Days After Arrival</p> <ul style="list-style-type: none"> • Entry Number & Type • Entry – Dist & Entry – Port • Filer Code • Importer of Record • Ultimate Consignee • Surety Number • Filing Date & Time • Importing Carrier • Vessel Name • Country of Origin • Exporting Country • Exporting Date • Foreign Port of Arrival • Estimated Arrival Date • Entry Value • HSUSA (10) • Manufacturer ID <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center; margin: 0;">Identification of:</p> <ul style="list-style-type: none"> • Supply Chain Entities • Cargo Descriptions • Cargo Origins • Container Routing • Conveyance Routing </div> <p style="text-align: right; margin-top: 5px;">5/3/2009</p>
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U.S. Customs and
Border Protection

Source: U.S. Department of Homeland Security, U.S. Customs and Border Protection 2009, 'Importer Security Filing and Additional Carrier Requirements, 10+2 Program: Importer Presentation, 02/13/2009', slide 74, http://www.cbp.gov/xp/cgov/trade/cargo_security/carriers/security_filing/

Commercial goods imported into the US are generally subject to a two-step filing process, with qualified importers entitled to file an Entry for Immediate Delivery (often referred to as a '3461' from its CBP form designation) prior to arrival of the vessel at the port, and to receive a provisional release of the goods, subject to the requirement to file a subsequent full declaration (called the Entry Summary, or '7501') within 10 working days thereafter. For both declaration types (note that there are others for special categories of merchandise, but the same time periods generally apply), the filings are done either directly (by an importer via self-filing) or via the importer's agent (the US Customs Broker) electronically to the US Government via a messaging interface called ABI (Automated Broker Interface, currently undergoing transition to a new system environment called the Automated Commercial Environment or 'ACE'). Electronic communications with ABI are conducted in a prescribed messaging format, and must be generated by a CBP-approved software application, after strict qualification testing. Filings must be done by approved filers (whether importers acting as self-filers or customs brokers filing on behalf of importer clients), each of which is identified by a unique Filer Code issued by CBP after an approval process. The Bill of Lading number of the single or multiple consignments covered by the import entry

is a required element in all importer declarations, and is utilised by CBP as the key matching element between the data submitted to the AMS system and that submitted to the ABI system

It should be noted that the data required in the advance AMS filing (see Figure 1), even as modified by the 24-hour rule, is focused on transport- and high-level commodity information, not on details of the commercial transaction underlying the consignments covered, such as buyers, sellers, other parties and service providers involved and details of origin, place of manufacture, and ultimate destination. The data provided in the import declarations does cover much of this information but is generally provided after the arrival of the consignment in the US, often several days thereafter. Since knowledge of the parties to an import transaction is a key element in determining the terrorism risk status of a consignment, the import declaration timing requirements have, as a practical matter, historically precluded CBP from effectively targeting high-risk consignments prior to lading or arrival in the US. Lack of advance data on parties to and origin of a consignment have also limited CBP's ability to tie targeting activities to party risk status (for example, a party's compliance record or membership in the Customs-Trade Partnership Against Terrorism [C-TPAT] program) until after the goods physically arrive in the port. CBP's primary purpose in promulgating the ISF regulation was to fill this perceived gap.

3. Advance data under the SAFE Framework and under ISF

The WCO SAFE Framework emphasises, with regard to Pillar 1 (Customs-to-Customs cooperation), that:

The central tenet of this pillar is the use of advance electronic information to identify high-risk containers or cargo. Using automated targeting tools, Customs administrations identify shipments that are high-risk as early as possible in the supply chain, at or before the port of departure.

Provision should be made for the automated exchange of information. Systems should therefore be based on harmonized messages and be interoperable (2007, p. 7).

While it could be argued that the above applies only to harmonised messaging between customs administrations, the SAFE Framework goes on to state in Standard 6 for customs administrations that 'The Customs administration should require advance electronic information on cargo' (2007, p. 20), and then goes into great detail in terms of what data (in terms of data elements and their definitions, which are included in the SAFE Framework after Section 1.3) may be obtained. With regard to import, it states the following:

1.3.3. Import Goods declaration: The importer or his/her agent has to submit an advance electronic import Goods declaration to the Customs at import prior to arrival of the means of transport at the first Customs office. For security purposes, Customs should not require more than the details listed in 1.3.1 (2007, p. 15).

The ISF regulations, by and large, do not refer to existing international standards, but rather explicitly enumerate and define the data elements to be provided, as well as the acceptable transmission methods. Messaging requirements for the primary interface to be used by ISF Importers, the ABI system, were published on 3 December 2008. It is notable that neither a number of the data elements themselves, nor their definitions, are in conformity with the standards set out in the WCO SAFE Framework. Nor are they in conformity with the WCO Data Model, nor, in most cases with the UN data standards. Although the US has been actively engaged in proposing modifications to the WCO SAFE Framework data standards to encompass the ISF requirements, it elected to go forward with the ISF requirements without achieving these changes. With the exception of the use of international standards-based messaging on a portion of the carrier ISF filings made in the AMS system, it appears that ISF messaging is to be based primarily on ABI-specific requirements and protocols.

4. What does the ISF rule require?

The new regulation imposes requirements on (1) ocean carriers bringing goods into the US and (2) importers, as defined in the regulation, to transmit an Importer Security Filing to CBP.

A. Carrier requirements (the ‘2’)

From ocean carriers, including the ‘virtual’ carriers known as NVOCCs being generally operating units of international freight forwarders, the regulation requires two data elements different from those already submitted as part of their AMS requirements (see Figure 1), namely the (1) stow plan and (2) container status messages. Under the new regulations, CBP must receive ‘the stow plan no later than 48 hours after the carrier’s departure from the last foreign port. For voyages less than 48 hours in duration, CBP must receive the stow plan prior to the vessel’s arrival at the first port in the United States’. Vessels exclusively carrying bulk and break bulk cargo are exempt from the ISF requirements, and do not need to submit either stow plans or status messages.

‘The vessel stow plan must include standard information relating to the vessel and each container laden on the vessel’, as indicated in Figure 1. With regard to the Container Status Message requirement, the regulations require ‘carriers to submit container status messages (CSMs) to CBP daily for certain events (see Figure 1) relating to all containers laden with cargo destined to arrive within the limits of a port... [for example, including freight to remain on board (FROB) and destined for a port outside of the United States]. CSMs created under either the American National Standards Institute (ANSI) X.12 standard or the United Nations rules for Electronic Data Interchange For Administration, Commerce and Transport (UN EDIFACT) standard are acceptable’.

‘Carriers must submit CSMs [to CBP] no later than 24 hours after the message is entered into the carrier’s equipment tracking system’, when any of the required events occurs. Events to be reported (only if the carrier otherwise tracks or enters them into its own or client systems) include:

- (1) When the booking relating to a container which is destined to arrive within the limits of a port in the United States by vessel is confirmed;
- (2) When a container destined to arrive within the limits of a port in the United States by vessel undergoes a terminal gate inspection;
- (3) When a container, which is destined to arrive within the limits of a port in the United States by vessel, arrives or departs a facility (These events take place when a container enters or exits a port, container yard, or other facility. Generally, these CSMs are referred to as “gate-in” and “gate-out” messages.);
- (4) When a container, which is destined to arrive within the limits of a port in the United States by vessel, is loaded on or unloaded from a conveyance (This includes vessel, feeder vessel, barge, rail and truck movements. Generally, these CSMs are referred to as “loaded on” and “unloaded from” messages.);
- (5) When a vessel transporting a container, which is destined to arrive within the limits of a port in the United States by vessel, departs from or arrives at a port (These events are commonly referred to as “vessel departure” and “vessel arrival” notices.);
- (6) When a container which is destined to arrive within the limits of a port in the United States by vessel undergoes an intra-terminal movement;
- (7) When a container which is destined to arrive within the limits of a port in the United States by vessel is ordered stuffed or stripped;
- (8) When a container which is destined to arrive within the limits of a port in the United States by vessel is confirmed stuffed or stripped; and

(9) When a container which is destined to arrive within the limits of a port in the United States by vessel is shopped for heavy repair.

CBP has offered carriers the option of transmitting all CSMs, rather than just those relating to containers destined for the United States or relating only to the required events. By doing so, however, the carrier authorises CBP to access and use those data for targeting.

B. Importer requirements (the ‘10’, or sometimes, the ‘5’)

Under the new ISF regulations, there are two categories of Importer Security Filing. The first applies to consignments which (a) are to remain on board the vessel while in the US port or ports (‘freight remaining on board’, or FROB), or (b) will move under transit procedures for transportation onward to a final destination in another country. The party designated by the ISF regulations as the ‘ISF Importer’, and therefore responsible for the ISF filing, is deemed to be the carrier in the case of FROB and the party filing the transit document for the transit category. This designation appears to be designed to distinguish application of the ISF regulations’ requirements from those applying to classic US concept of ‘Importer of Record’, which has its own set of obligations under US customs law and regulation. This brings the party responsible for FROB (who would not otherwise be deemed an Importer under US customs law) within the coverage of the ISF regulations.

Note that consignments in temporary transit status destined to a Foreign Trade Zone (FTZ) in the US are subject to the full 10-element ISF requirements (see below for the details of ISF-10). Consignments originally intended to transit the US for re-export but which undergo a change in status in transit (for example, re-designated for an import or a FTZ) become subject to the 10-element requirement. Otherwise, however, for the ISF-5 importer category, a 5-element advance data submission is required. Note that only two of these, elements 4 and 5, are also required under the 10-element ISF category. The elements, and their definitions, are as follows:

- (1) *Booking party*. Name and address of the party who initiates the reservation of the cargo space for the shipment. A widely recognized commercially accepted identification number for this party may be provided in lieu of the name and address (Dun and Bradstreet Data Universal Numbering System, or ‘DUNS’ numbers are listed as being acceptable).
- (2) *Foreign port of unloading*. Port code for the foreign port of unloading at the intended final destination.
- (3) *Place of delivery*. City code for the place of delivery.
- (4) *Ship to party*. Name and address of the first deliver-to party scheduled to physically receive the goods after the goods have been released from customs custody. A widely recognized commercially accepted identification number for this party may be provided in lieu of the name and address (DUNS or Facilities Information and Resources Management System ‘FIRMS’ numbers are listed as being acceptable).
- (5) *Commodity HTSUS number*. Duty/statistical reporting number under which the article is classified in the Harmonized Tariff Schedule of the United States (HTSUS). The HTSUS number must be provided to the six digit level. The HTSUS number may be provided to the 10-digit level.

The second ISF category applies to all consignments destined for import (whether upon arrival or after storage or processing in a FTZ). The ISF consists in general of 10 elements, unless an element is specifically exempted. The 10 elements are as follows: (1) Seller; (2) Buyer; (3) Importer of record number/Foreign trade zone applicant identification number; (4) Consignee number(s); (5) Manufacturer (or supplier); (6) Ship to party; (7) Country of origin; (8) Commodity HTSUS number; (9) Container stuffing location; and (10) Consolidator (stuffer). The manufacturer (or supplier), country of origin, and commodity Harmonized Tariff Schedule of the United States (HTSUS) number must be linked to one another at the consignment line item level, meaning that each combination of commodity, origin, and manufacturer/supplier in a consignment would need to be reported as a separate line in the ISF.

The definitions of the ISF-10 data elements are as follows:

- (1) *Seller*. Name and address of the last known entity by whom the goods are sold or agreed to be sold. If the goods are to be imported otherwise than in pursuance of a purchase, the name and address of the owner of the goods must be provided. A widely recognised commercially accepted identification number for this party may be provided in lieu of the name and address (DUNS numbers are listed as being acceptable).
- (2) *Buyer*. Name and address of the last known entity to whom the goods are sold or agreed to be sold. If the goods are to be imported otherwise than in pursuance of a purchase, the name and address of the owner of the goods must be provided. A widely recognized commercially accepted identification number for this party may be provided in lieu of the name and address (DUNS numbers are listed as being acceptable).
- (3) *Importer of record number/Foreign trade zone applicant identification number*. Internal Revenue Service (IRS) number, Employer Identification Number (EIN), Social Security Number (SSN), or CBP assigned number of the entity liable for payment of all duties and responsible for meeting all statutory and regulatory requirements incurred as a result of importation. For goods intended to be delivered to a foreign trade zone (FTZ), the IRS number, EIN, SSN, or CBP assigned number of the party filing the FTZ documentation with CBP must be provided.
- (4) *Consignee number(s)*. Internal Revenue Service (IRS) number, Employer Identification Number (EIN), Social Security Number (SSN), or CBP assigned number of the individual(s) or firm(s) in the United States on whose account the merchandise is shipped.
- (5) *Manufacturer (or supplier)*. Name and address of the entity that last manufactures, assembles, produces, or grows the commodity or name and address of the party supplying the finished goods in the country from which the goods are leaving. In the alternative the name and address of the manufacturer (or supplier) that is currently required by the import laws, rules and regulations of the United States (i.e., entry procedures) may be provided (this is the information that is used to create the existing manufacturer identification (MID) number for entry purposes). A widely recognized commercially accepted identification number for this party may be provided in lieu of the name and address (DUNS numbers are listed as being acceptable).
- (6) *Ship to party*. Name and address of the first deliver-to party scheduled to physically receive the goods after the goods have been released from customs custody. A widely recognized commercially accepted identification number for this party may be provided in lieu of the name and address (DUNS or FIRMS numbers are listed as being acceptable).
- (7) *Country of origin*. Country of manufacture, production, or growth of the article, based upon the import laws, rules and regulations of the United States.
- (8) *Commodity HTSUS number*. Duty/statistical reporting number under which the article is classified in the Harmonized Tariff Schedule of the United States (HTSUS). The HTSUS number must be provided to the six digit level. The HTSUS number may be provided up to the 10-digit level. This element can only be used for entry purposes if it is provided at the 10-digit level or greater by the importer of record or its licensed customs broker.
- (9) *Container stuffing location*. Name and address(es) of the physical location(s) where the goods were stuffed into the container. For break bulk shipments, as defined in § 149.1 of this part, the name and address(es) of the physical location(s) where the goods were made “ship ready” must be provided. A widely recognized commercially accepted identification number for this element may be provided in lieu of the name and address (DUNS numbers are listed as being acceptable).
- (10) *Consolidator (stuffer)*. Name and address of the party who stuffed the container or arranged for the stuffing of the container. For break bulk shipments, as defined in § 149.1 of this part, the name and address of the party who made the goods “ship ready” or the party who arranged for the goods to be made “ship ready” must be provided. A widely recognized commercially accepted identification

number for this party may be provided in lieu of the name and address (DUNS numbers are listed as being acceptable).

In terms of timing, submission of the ISF to CBP, via one of the two authorised electronic systems (ABI or AMS), must be done no later than 24 hours before the cargo is laden aboard a vessel destined to the US. An exception exists for FROB, for which the Importer Security Filing is required any time prior to lading. For the initial year, and as part of the ‘interim’ portion of the ISF rule, CBP is being ‘flexible’ for Importer Security Filing elements 5 through 8, being Manufacturer/ supplier, Ship-to party, Country of origin, Commodity HTSUS number, in that while data must be provided for all four elements by the time of the pre-lading filing deadline, the data within these elements can be general or summary data which is then refined and amended up to a time ‘no later than 24 hours prior to arrival in a US port (or upon lading at the foreign port if that is later than 24 hours prior to arrival)’. Further flexibility is being provided on elements 9 and 10 (Container stuffing location; and Consolidator/stuffer), in that they will not required to be submitted until the same 24-hour prior to arrival deadline as the final data for elements 5-8.

For all ISF filings, CBP will transmit an electronic acknowledgement to the filer of an ISF, and will include a unique identification number. That unique number can be used by the Importer Security Filing filer to amend an Importer Security Filing, as in the case when it adds data or changes data as more precise information becomes available. It should be noted, however, that as of early 2009, a number of uncertainties continued to exist in the details of ISF message transmittal, its timing, and how the various parties which need to be aware of the transmittal and acceptance (or complete or partial rejection) on a particular consignment represented by a bill of lading number will have access to that information.

It should also be noted that the ISF regulations provide the opportunity for importers to file their complete customs declaration at the time of ISF filing, which eliminates the need for subsequent filing of the customs entry after arrival at the US port. Importers who wish to take advantage of this (potential cost saving) opportunity must make the filing in the ABI system, either as an authorised direct filer or via a US customs broker, and must use the full HTSUS number in the ISF, not the abbreviated 6-digit number. Due to the timing issues and some of the hurdles discussed below, it is unlikely that many importers will take advantage of this option, at least initially.

5. Enforcement and phase-in

As noted, the ISF regulations went into effect on Monday 26 January 2009. Failure to comply with the requirement of timely submission of a complete ISF subjects the party obligated under the regulation (the ISF Importer) to pay US\$5,000 in liquidated damages per incident, which is defined at the ISF consignment level. For a single vessel (which may incorporate a very large number of ISF consignments), the liquidated damages are capped at US\$100,000. Because the ISF institutes a new customs bonding requirement to cover the ISF obligation, and mandates that for each ISF, either the ISF Importer or its agent and the carrier be covered by a bond, CBP will be able to issue a bill for liquidated damages directly to the bond carrier (this is the same mechanism currently used for late filing of import declarations).

CBP has indicated that it recognises that the ISF regulations represent a major change for the trade community, and have stated that ‘in order to provide the trade sufficient time to adjust to the new requirements and in consideration of the business process changes that may be necessary to achieve full compliance, CBP will show restraint in enforcing the rule, taking into account difficulties that importers may face in complying with the rule, so long as importers are making satisfactory progress toward compliance and are making a good faith effort to comply with the rule to the extent of their current ability. This policy will last for twelve months after the effective date and will apply to all aspects of the filing rule’. CBP has also indicated that it does not intend to use the ISF regulations as a basis to issue ‘Do Not Load’ orders, although it reserves the right to do so if a national security threat is perceived.

6. ISF impact on carrier and forwarder industry

For carriers and freight forwarders operating as NVOCCs, and already serving the US market, the ISF and its requirements relating to the '2' are basically an enhancement of the already existing 24-hour rule manifest process, and should not, in and of themselves, represent an overwhelming challenge in terms of new process. The requirements for the ISF-5 applicable to FROB, do, however, represent a significant new compliance burden on carriers, but only if they route cargo to include FROB while visiting US ports. Perhaps the most significant challenge for the carrier/freight forwarder community will be the necessity to allocate bill of lading numbers conforming to the CBP requirements to their overseas service provider and consigner network sufficiently in advance to allow ISF Importer filing, to devise methods to effectively track both their own and importer ISF filings, link them to individual containers for their own filings, communicate status to all affected parties, and to ensure that delays related to ISF submission by the importers or their agents do not unduly delay loading, clogging the ports.

Although the ISF regulation explicitly states that carriers and freight forwarders operating as NVOCCs are responsible under the regulation ONLY for their '2' filings, and not for the ISF Importer obligations, as a practical matter many consignments move under door-to-door or similar arrangements under which the service provider is responsible not only to ensure the movement of the shipment, but also to provide export filing services in the port of departure and import clearance in the port of arrival. It seems likely that in many cases, providers will be asked by their customers to add the ISF filing to their menu of services. Since successful filing requires the gathering of a large amount of data at the port of departure, this will lead to a slower process, as providers gather the required information from their customers and the customers' suppliers. Especially in multi-party consolidation situations, service providers (possibly multiple per container) will not wish to undergo the risk of being responsible for all or part of a container on which all required ISFs have not been filed, which may lead to new and time-consuming verification processes prior to loading. A further complicating factor is that significant differences in functionality and data availability exist in the ISF protocols in the AMS system versus the ABI system, which may limit the feasibility of doing (in particular) ISF-10 filings in the AMS system.

7. ISF impact on US importers and overseas suppliers

Notwithstanding the above, it seems fair to say that the major burden of the ISF will fall on the traditional US import community and its overseas supply base, in particular those that transport most goods via sea, and which typically import smaller consignments packed in consolidated containers. The bulk of data relating to an imported consignment and the parties associated with it has historically been in the hands of the US importer of record, and, unless a self-filer, its customs broker, which had up to two weeks after arrival of a shipment in a US port to collect, validate and file the information. Moreover, in order to import into the US at all, the US importer and/or its broker had gone through the process of obtaining a Customs bond, an EIN number and a filer code, had connectivity (directly or indirectly) with ABI, and could be assumed to be familiar with the expectations of CBP in terms of data elements such as country of origin and HTSUS classification. The freight forwarder and its overseas network, in collaboration with the overseas supplier, was relied on to handle the formalities and steps necessary to get a consignment exported and on a vessel at the port of origin, and the US importer (even if an overseas non-resident importer) could rely on its personnel or agents in the US to handle US requirements.

The ISF, particularly ISF-10, has turned this situation on its head, and represents a radical departure from the status quo. It is true, as CBP states, that most of the data elements required under the ISF were required before. But they were required at a point in time typically 15-45 days later, and from different parties, and they were never all required at one time as a pre-requisite for the loading of a consignment onto a vessel. The ISF-10 requires the amalgamation and submission at one time of transport (data elements 6, 9, 10 + the bill of lading number), commercial (data elements 1 through 5), and compliance (elements 7

and 8) data prior to physical movement of the consignment. Previously, the transport data was either not reportable or else easily ascertainable from the record of the transport after it happened; the commercial data was reported by the party best able to obtain accurate information, namely the importer (generally either a party to the commercial transaction or closely linked to one or more of them), and at a point in time when the goods were physically in the US and therefore within the jurisdiction of CBP, and the compliance data was provided by either a licensed expert (a US customs broker) or the importer familiar with the laws of the US or at least able to access that expertise. Perhaps some importers, especially the larger ones, have most or even all of the data required by ISF in their ERP or other systems, through linkages with their supply chain service providers. But it is much more likely that they have only the commercial data, or perhaps the commercial and compliance data (linked to invoice and part numbers), and the service providers, usually multiple providers in multiple roles, have the transport data (or that portion thereof that relates to them), linked to a bill of lading. Since there has historically been no business need to link these disparate data universes, it is not an easy task to get the entire dataset in one place, especially at a time prior to loading.

It should also be noted that the ISF data elements are defined in light of traditional US customs law and practice. Country of origin is to be indicated in accordance with US origin rules (which vary from those in the EU and elsewhere), and commodity tariff codes (whether at the 6 or optional 10-digit level) are to be provided in accordance with US classification practice. Similarly, data elements 3 and 4 under the ISF require the provision of US official entity identification numbers which, while sometimes known at the time of import filing, are often difficult to obtain or which may be subject to confidentiality concerns, especially prior to the loading of the consignment, and if given into the hands of overseas service providers. As a practical matter, the fact that the ISF must be submitted prior to the consignment's loading at the overseas port may create a good deal of difficulty in ensuring data quality if overseas personnel are making determinations on which data to use. Processes and service providers used for the ISF should be evaluated in light of their ability to meet the US standards and have access to accurate data.

The name '10+2' was always somewhat deceptive, and has now been abandoned in favour of the ISF. Nevertheless, the core of the regulations still summarises datasets related to '2', for the carriers, '10', for most importers, and now '5', for certain categories of merchandise. It is imperative, especially for persons not familiar with current US import processes, to understand that CBP is assuming that parties subject to this regulation already know that they must also provide other data, such as bill of lading numbers, filer identification codes, customs bond codes, and date and time information relevant to the consignments covered by the ISF along with the ISF message itself. Since CBP and members of the US trade community have known that these requirements apply to virtually every electronic transaction made with US Government systems like ABI and AMS, it is assumed that all parties dealing with the ISF will also be aware of them. Because the data is being assembled much earlier in the import process than previously, and at the port of origin prior to lading, it is important that these additional requirements be considered and satisfied while putting the required ISF processes in place, especially if the transaction is subject to DDP Incoterms or the ISF importer is a non-resident importer into the US.

8. ISF filing: changed processes and cost burdens

There are two basic alternatives: the ISF importer requires its supply chain service providers to provide it (the importer) with the transport-related ISF data, and the importer (or its agent) takes on the burden of amalgamating that data with the commercial and compliance data, making the ISF filing, and returning the acknowledgement to the service provider loading the consignment at the point of origin in a timely manner. Or, the importer provides the service provider with its commercial and compliance data (unless the service provider has that responsibility) related to the consignment in time for the service provider to amalgamate the data, make the ISF filing, and get an acknowledgment prior to loading. Both scenarios may have pluses and minuses, and depend in part on the circumstances of the companies

involved. Clearly, for a service provider to take on the burden of the ISF, it will demand compensation through additional fees. It will most likely also impose strict requirements on the importer to provide its commercial information in a timely manner, or refuse to perform the ISF transmission (which may result in the goods staying at the port). The importer cannot, however, pass off its legal liability to CBP for ISF compliance, and, being subject to fines for infractions, may determine that it is better off ensuring the accuracy and timely filing of the ISF itself.

In the run up to the ISF regulations, and also in the CBP responses to trade comments made in the rulemaking process, CBP took the position that the ISF was focused on the minimisation of security risks, in particular those from potential terrorist activity. Many statements were made that indicated that ISF responsibility for strict data accuracy and even strict timing was not the focus; instead CBP states in the ISF regulation notice that ‘Where the ISF Importer is not reasonably able to verify the information, the regulations allow the party to submit the information on the basis of what it reasonably believes... this rule provides flexibilities with respect to certain elements of Importer Security Filings such as the ability to provide a range of possible responses based on the best data available in lieu of a single specific response’.

Yet parties making ISF filings would do well to keep in mind that an importer is otherwise responsible under US customs law and regulations for the accuracy of the data contained in its declarations, and the jury is quite literally still out on how this standard will ultimately be applied to the ISF. Moreover, CBP has already signalled that it will track the overall quality of ISF Importer filings, and even provide ‘report cards’. And as the first step in what is now a potentially three-step standard import filing process, it is not only possible but quite likely that CBP’s systems will perform comparisons of the data provided in the ISF versus that provided in the later import entry filings, and that discrepancies will be either deemed errors or become a factor in the compliance rating of the parties involved. Indeed, such data analysis is directly in line with the stated reasoning behind incorporation of advance electronic data as a core element of the SAFE Framework, as being an effective tool in customs risk-based targeting of high risk consignments or parties involved in the supply chain (whether that risk relates to terrorism, smuggling or non-compliance).

Aside from the costs associated with additional service fees and investments in IT, one should not overlook the likelihood of additional inventory, demurrage and storage costs related to delays in gathering the data prior to submission of the ISF. Ultimately, the increased costs will be borne by the US consumer, and CBP has itself estimated the cost impact of rule implementation to be on the order of US\$7.6 to US\$56 billion over the next ten years. This is not a trivial amount (and some commentators think the true cost will be even higher) at a time when the global economy is in a severe downturn and protectionism is on the rise.

It is certain that new ISF-related service offerings and fees are being negotiated around the world as you read this, and it may be some time before best practices develop in this area. The impact of Incoterms on the ISF, and who bears which portion of the data provision, amalgamation, transmission and cost responsibility associated therewith, will undoubtedly be the subject of much discussion between sellers, buyers, importers and CBP for years to come.

9. ISF in the global context: the future of advance electronic data initiatives

As formulated under the WCO Safe Framework, advance electronic data on consignments moving in international trade was intended to be a tool for Customs to better enable it to target high-risk consignments at a point in time earlier than the goods were presented for customs inspection. Data to be collected was to be limited to a specified set of elements, with standard definitions. Data collection

was to be done under national law by the national customs administration, and the collected data could be shared between administrations. Because advance data was contemplated as a consignment moves outbound (that is, is exported) and as it later moves inbound (is imported), explicit provision was made for transmission of the outbound data and subsequent risk analysis by the exporting country (which should, arguably, be in the best position to know the risk status of its exporters) to the importing country, where it could be used in lieu of a second trader-based inbound advance electronic message in the risk analysis prior to consignment arrival. Early pilots between the EU and its neighboring countries have proven the effectiveness of this concept, both in terms of risk-targeting and cost. Because this concept contemplates international standards-based cooperation between origin and destination administrations, it allows both a more effective risk assessment at an earlier time (perhaps early enough to catch the risk-laden goods before they are able to arrive at their point of deployment), and leverages already existing international supply chain milestones (for example, export filing, manifest filing, import filing) and parties thereto (for example, exporter, Customs in the country of departure, carrier/forwarder, Customs in the country of arrival, importer) in a way which could, at least in theory, increase effective risk targeting on international consignments without a significant incremental cost for the legitimate trader.

Yet, as outlined in more detail above, the first real-world implementation of the concept, namely the US ISF regulations, may well prove that an attractive concept in theory is a completely different animal when put into practice. It seems likely that the ISF may achieve its underlying goal of giving CBP better data much earlier to make its risk targeting more effective. Because, however, it is not in conformity with the standards set by the SAFE Framework, and utilises data elements, definitions, and messaging formats which, although in many cases rooted in longstanding US import processes and legal traditions, are neither known nor in use overseas, which is where a good deal of its impact falls, it seems likely to be burdensome in terms of cost and process-related delays. Furthermore, the concept of Customs-to-Customs exchange of risk information on consignments which was so prominently featured in the SAFE Framework is completely missing in the ISF implementation. Even though the EU is on track to implement its own inbound and outbound advance electronic data requirements later this year (although it seems the July deadline may be delayed), the disconnects between the EU outbound data set (which is quite closely linked to the SAFE Framework data set) and the US inbound ISF data set ensure that traders will have to be prepared to comply with both on an ocean-bound shipment from Rotterdam to New York, and almost certainly still do a European export filing and a US import filing as well. That is sure to lead to cost increases for the trader, and does not take advantage of the efficiency gains contemplated by the WCO SAFE Framework.

10. Conclusions

It is still much too early to ascertain what lessons the planned implementation of ISF, or subsequent advance electronic data initiatives planned by the EU and others will bring. But the success of all such initiatives is dependent on their successful adoption by the members of trade communities affected, and by effectively moving the borders outward, customs administrations which impose such requirements have to be cognisant of the fact that their initiatives affect a much broader community than the members of the trade in their own country, over whom they have legal jurisdiction. Communication of requirements to overseas traders, and achieving success in their adoption and implementation of them, is never an easy task when multiple cultures and languages are involved. In a time of global economic uncertainty, these difficulties are magnified, especially where what is expected is not international standards-based and does not leverage what is already required, familiar, and in-place in the exporting country. There is no doubt that a risk management-based approach to international trade can be a win-win situation between customs administrations looking to increase productivity and traders looking to reduce costs through efficient border crossings for their goods, nor is there any doubt that advance electronic data can increase both customs productivity through improved risk targeting, which should speed processing for

legitimate trade. But customs administrations cannot lose sight of the fact that data integrity and efficient automation are predicated on effective data-sharing, whether between trade and Customs or Customs-to-Customs, and on them playing an active role in ensuring new requirements do not simply mean new burdens for legitimate trade. As the US ISF implementation plays out over the next year, it should be carefully looked at by other customs administrations prior to their implementing similar initiatives, and by the WCO in its further work to keep the SAFE Framework up to date and to further develop the standards-based approach.

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Bryce received a Juris Doctor and a Master of Arts in International Studies from the University of Denver in 1989 and was admitted as an attorney in Illinois in 1990.

CHINA: INTERMEDIATE AGENCY CUSTOMS AUDITS

Damon Paling

Abstract

Over the past few years, the responsibilities and tasks of the China Customs authority have increased significantly and this has placed great strain on the authority itself and its control mechanisms. Since 2006, in order to maintain enforcement of customs laws and meet revenue collection targets, Customs has been trialling the use of intermediate agencies to conduct customs audits of import/export organisations. A brief summary of the general principles that have been developed and two issues that are pending are identified in this article.

Introduction

The China Customs authority, an organisation of some 48,000 officers, is tasked with overseeing those imports and exports which involve multiple and often competing objectives including the enforcement of customs laws and the facilitation of legitimate trade. Of particular note is that the revenue collection target of Customs over the past seven years has increased annually at a rate of about 11 per cent. The revenue collected by Customs, including customs duty, consumption tax and import VAT, accounts for approximately 23 per cent of total government revenue collection.

This has placed great strain on China Customs and their control mechanisms. Since 2006 therefore, in order to maintain enforcement of customs laws and meet revenue collection targets, Customs has been trialling (on a pilot basis) the use of intermediate agencies – typically local Certified Practising Accountants (CPA) auditing firms – to conduct customs audits.

Customs has been holding consultation meetings with interested parties in selected cities and PricewaterhouseCoopers has participated in several of these meetings. One of the main developments from this initiative is that China Customs will create and publish a so-called recommended list of auditing firms to conduct audits of companies engaged in Processing Trade and General Trade.

General principles of the new initiative

Subject to what is learnt during the trial period, the intended general principles of intermediary agency audit are summarised as follows:

- Customs will solicit, then review and approve qualifying audit firms. Relevant selection criteria include auditing firm size and qualification, fee estimation, business licence and reputation with the government.
- Customs will provide some training to the auditing firm.
- Customs will profile and determine which import/export companies will be subject to a customs audit.

- Customs will refer to the list of recommended suitable audit firms and contact an approved firm for assistance in conducting a customs audit. The approved auditing firm will have the right to accept or decline the request.
- The fees of the local auditing firm may be paid either by the Customs authority, the company selected for audit or a combination of the two.
- The local auditing firm will conduct the audit, typically on-site over a period of several days and then will submit a short report of findings to the local officer in charge of Customs.
- The local officer in charge of Customs will work with the company that has been audited to conduct further checks and validate the findings.
- The local officer in charge of Customs will discuss non-compliance issues directly with the audited company, including the assessment of customs duties, interest, financial penalties, and any corrective action to be taken.

Latest developments – Circular [2008] 181

The General Administration of Customs (GAC) recently issued an internal circular 181/2008, under which five Customs regions (Tianjin, Shanghai, Qingdao, Wuhan and Guangzhou) were selected to participate in the trial of the new initiative, adopting the principles outlined above. Under the trial, the intermediary agencies can be used to provide three different levels or types of services:

1. To fully or partially conduct a customs audit on site at the company that is subject to a customs audit. Under this scenario, the intermediary agencies will be engaged by Customs to assist them in their audit activities and Customs will bear the professional fee. Accordingly, the audit report produced by the intermediary agencies will be delivered to Customs.
2. To provide technical support to Customs during an audit. Under this scenario, the intermediary agencies will, again, be engaged by Customs and Customs will bear the professional fee. The difference between (1) and (2) is that under (2), the intermediary agencies will provide their service ‘behind the scene’, that is, the intermediary agencies will have no direct interface with the company under customs audit.
3. To provide audit services, upon Customs’ consent, to the company that is under customs audit in order to assist the company respond to Customs’ requests for data or other information. Under this scenario, the intermediary agencies will be paid by the company which engages them.

These arrangements will only apply where:

- a. The company under audit is classified as ‘AA’ grade.
- b. The companies other than ‘AA’ grade which are under customs audit apply to Customs for approval to engage an audit firm to conduct a self-review process and submit the audit report prepared by the audit firm for Customs review.
- c. If the company under customs audit has already engaged an audit firm to conduct the self-review before receiving the Customs Audit Notice, it is possible for the company to submit the audit conclusion drawn by the audit firm to Customs for review.

In any one of the scenarios mentioned above, if after review, Customs can accept the audit report/conclusion prepared by the audit firm, they may close the audit case without triggering a further on-site review.

Circular 181/2008 also further stipulates that:

- GAC will establish a recommended list of audit firms at a national level, while the regional Customs headquarters will also have its recommended list at a local level.

- The list of recommended audit firms should be renewed and updated on a timely basis so as to enable unqualified firms to be removed from the recommended list.

Pending issues

The current trial of intermediary agency customs audits has been under way for approximately two years. Based on our research and understanding from both the local officers in charge of Customs as well as GAC, the following issues are currently pending:

- Who should pay for the service provided by the intermediary agency and how should this be done?
- Can Customs' powers in conducting customs audits be extended to these external intermediary agencies?

Outlook

Without a long term solution to the above two issues, it is difficult for Customs to expand the pilot and make the program permanent. Furthermore, although funding has been secured to support the continued audit by intermediary agencies of companies that are engaged in Processing Trade, these Processing Trade intermediary agency audits are likely to be patchy in nature given the funding constraints.

Nevertheless, it is anticipated that other divisions in Customs, such as the Audit Division, will also seek special funding from the Ministry of Finance to employ external intermediary agencies to conduct customs audits.

With whatever funding is obtained, it is expected that local officers in charge of Customs will continue the pilot phase to the extent that financial resources permit. Those intermediary agencies that perform the audit for the lowest fee are more likely therefore to be used by the Customs authority to conduct such audits.

Once the abovementioned issues are resolved, we expect that the GAC will issue a more comprehensive rule regarding the use of intermediary audit agencies.

Damon Paling



Damon Paling has 11 years experience in Asia advising companies on customs, trade and related supply chain and logistics matters, the last five years of which have been spent in Shanghai, China. Prior to joining PricewaterhouseCoopers, Damon was a Customs Officer with the New Zealand Customs Service, based in Auckland. He has a Masters degree in International Customs Law and Administration from the University of Canberra, having graduated in Business Studies in 1997 from the Auckland University of Technology. Damon is a member of the AMCHAM Shanghai Customs Task Force.



Section 3

Special Report

COLLABORATIVE APPROACH TO SINGLE WINDOW DESIGN A DRIVING FORCE BEHIND PAPERLESS TRADING INITIATIVES

Update from the APEC Sub-Committee on Customs Procedures Single Window Working Group

Working under increased pressure to enhance border security and paperless reporting to government, customs administrations are seeking to implement initiatives to simplify, centralise and harmonise current processes to improve international interoperability that will support legitimate trade whilst maintaining effective border control.

International trade single window developments have been identified as a priority on the Asia-Pacific Economic Cooperation (APEC) trade facilitation agenda. The APEC Sub-Committee on Customs Procedures (SCCP) Single Window Working Group together with subject matter experts, standards organisations and other relevant stakeholders from industry are working to support the realisation of the single window vision for the region.

The Single Window Working Group's aim is to deliver capacity building assistance to APEC economies to support the development of paperless integrated border management initiatives in the region. The group is also working to bring together the experience of APEC member economies by establishing a repository of pilot projects and proofs of concept thus enabling economies to publish their work and share experiences, results and lessons learnt. The repository will provide a valuable source of information not currently captured or available in a single location.

Promoting and supporting the development of paperless trading initiatives and use of international standards will lead to improvements in supply chain reporting, which will be of benefit to all APEC economies.

In response to the current financial crisis, we may see APEC economies take a more cautious approach to implementing large multi-agency change preferring to adopt a staged approach focussing on high priority areas that demonstrate greater need and solid return on investment for government and the private sector. The adoption of an incremental or staged approach combined with early identification of the longer term intent would assist in developing a solid foundation that could accommodate subsequent expansion.

In 2008 in Lima, Peru, at the Twentieth APEC Ministerial Meeting, the APEC Ministers released a Joint Statement. In that statement the Ministers 'instructed officials to work towards the implementation of international trade "Single Windows" across APEC using recognized international instruments and standards to enhance interoperability of trade systems' and 'reinforced the importance of a strategic, goal-orientated and multi-year approach to capacity-building that assists APEC economies achieve the Bogor Goals'.

The Single Window Working Group's capacity building efforts are in harmony with this Joint Statement and support the efforts of APEC economies in reducing trade transaction costs by an additional five per cent by 2010.

The opportunity for innovation inevitably brings with it a number of challenges. This is evident in efforts to create a roadmap and implementation strategy to guide APEC economies towards achieving the single window vision. All member economies operate within a unique environment and are looking for a flexible approach to the design, build and implementation of single window systems.

Despite the challenges, there are a number of important benefits to be realised from a collaborative effort and exchange of ideas including the opportunity to establish global partnerships to facilitate paperless trading, a shared understanding of aims and objectives, identification of differences and alignments, exploration of opportunities for international interoperability, early advice of overseas developments, the promotion of a whole-of-government approach and the establishment of a shared vision and development pathway for single windows.

In Sydney in April 2007, the newly-formed Single Window Working Group invited a wide range of stakeholders to contribute to the formation of an APEC Single Window Strategic Plan and Development Report, subsequently published in 2007. The workshop created positive momentum, providing a solid foundation for future cooperation, and industry representatives were appreciative of the opportunity to provide input into future trade-related developments.

The final workshop, to be held in Singapore in April 2009, will showcase the outcomes relating to the six recommendations outlined in the Single Window Strategic Plan. At this final workshop, member economies and industry will once again be invited to contribute their comments and ideas on the draft version of the final deliverable prior to its presentation for endorsement at the second meeting of the Sub-Committee on Customs Procedures in July 2009.

The delivery of this final report will conclude Phase 2 of the Single Window Working Group and the group's term. The exchange of ideas at the April workshop in Singapore will contribute to the discussion regarding the potential continuation of the working group and identification of possible future objectives.

Further information can be obtained by contacting APECSWWG@customs.gov.au



Section 4

*Reference
Material*

GUIDELINES FOR CONTRIBUTORS

The *World Customs Journal* invites authors to submit papers that relate to all aspects of customs activity, for example, law, policy, economics, administration, information and communications technologies. The Journal has a multi-dimensional focus on customs issues and the following broad categories should be used as a guide.

Research and theory

The suggested length for articles about research and theory is approximately 5,000 words per article. Longer items will be accepted, however, publication of items of 10,000 or more words may be spread over more than one issue of the Journal.

Original research and theoretical papers submitted will be anonymously refereed. This process may result in delays in publication, especially where modifications to papers are suggested to the author/s by the referees. Authors submitting original items that relate to research and theory are asked to include the following details separately from the body of the article:

- title of the paper
- names, positions, organisations, and contact details of each author
- bionotes (no more than 50 words for each author) together with a recent photograph for possible publication in the Journal
- an abstract of no more than 100 words for papers up to 5,000 words, **or for longer papers**, a summary of up to 600 words depending on the length and complexity of the paper.

Please note that previously refereed papers will not be refereed by the *World Customs Journal*.

Practical applications, including case studies, issues and solutions

These items are generally between 2,000 and 5,000 words per article. Authors of these items are asked to include bionotes (no more than 50 words for each author) together with a recent photograph for possible publication in the Journal. The Editorial Board will review articles that relate to practical applications.

Reviews of books, publications, systems and practices

The suggested length is between 350 and 800 words per review. The Editorial Board will review these items submitted for publication.

Letters to the Editor

We invite Letters to the Editor that address items previously published in the Journal as well as topics related to all aspects of customs activity. Authors of letters are asked to include their name and address (or a pseudonym) for publication in the Journal. As well, authors are asked to provide full contact details so that, should the need arise, the Editor-in-Chief can contact them.

Authors of papers previously published should provide full citations of the publication/s in which their paper/s appeared. Where appropriate, authors are asked to obtain permission from the previous publishers to re-publish these items in the *World Customs Journal*, which will acknowledge these source/s. Copies of permissions obtained should accompany the article submitted for publication in the *World Customs Journal*.

Authors intending to offer their papers for publication elsewhere—in English and/or another language—are asked to advise the Editor-in-Chief of the names of those publications.

Where necessary and appropriate, and to ensure consistency in style, the editors will make any necessary changes in items submitted and accepted for publication, except where those items have been refereed and published elsewhere. Guidance on the editors' approach to style and referencing is available on the Journal's website.

All items should be submitted in Microsoft Word or RTF, as email attachments, to the Editor-in-Chief: editor@worldcustomsjournal.org

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Professor David Widdowson is Chief Executive Officer of the Centre for Customs & Excise Studies at the University of Canberra. He is President of the International Network of Customs Universities; a member of the WCO's PICARD Advisory Group, and a founding director of the Trusted Trade Alliance. David holds a PhD in Customs Management, and has over 30 years experience in his field of expertise, including 21 years with the Australian Customs Service. His research areas include trade facilitation, regulatory compliance management, risk management and supply chain security.

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Christopher Dallimore



Dr Christopher Dallimore studied Law and German at the University of Wales, Cardiff and obtained a Magister Legum at Trier University, Germany. His doctoral thesis was on the legal implications of supply chain security. For a number of years, Chris was Course Co-ordinator of the Master of Customs Administration postgraduate program at Münster University, Germany, and currently works for the Trusted Trade Alliance Europe GmbH. He is a lecturer at Münster University and translator of a number of legal texts.

