

# SUPPLY CHAIN SECURITY: THE CUSTOMS COMMUNITY'S RESPONSE

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## **Abstract**

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The international customs community has developed measures to secure and facilitate global trade which have been transformed into international standards for global implementation. These standards are designed to improve customs operations through enhanced risk management that is built upon Customs-to-Customs cooperation and Customs-to-Business partnerships. The standards are supported by existing WCO instruments, including the Revised Kyoto Convention on the Simplification and Harmonization of Customs Procedures, and fulfil the requirements of enhanced security and facilitation for legitimate trade in the 21st Century global trading system. The majority of WCO Members are currently implementing these standards through the development of Authorised Economic Operator (AEO) programs, ensuring that they have the capacity to do so by requesting appropriate capacity building assistance.

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## **Introduction**

As is often pointed out, the role of Customs has evolved over time from its original revenue collection function to one that encompasses a range of missions at national borders. The basic function for customs officers remains essentially the same however, as they control the cross-border movement of goods and examine accompanying documents. Through this border control function, Customs plays a role in protecting society from the inflow and outflow of prohibited or controlled goods that pose a threat to the health and safety of nationals, such as drug trafficking. Meanwhile, there is growing recognition that Customs plays an important role in promoting economic prosperity by facilitating international trade. Therefore, it is imperative for Customs to maintain effective and efficient control without hindering the smooth flow of legitimate trade.

To improve border control whilst discharging a variety of responsibilities, the international customs community has developed a range of standards and best practices. They recommend the maximum use of information technology and the adoption of risk management and other modern techniques, which are embodied in the Revised Kyoto Convention<sup>1</sup> and other WCO instruments. Moreover, the WCO has made every effort to promote international cooperation and provide technical assistance and capacity building to its members in need of help to implement its standards.

Following the terrorist attacks that occurred on September 11, 2001 in the United States, there was a heightened recognition that the global trading system is vulnerable to possible exploitation by terrorists and organised crime. Located on the borders and knowing those involved in international trade, Customs was expected by the international community to contribute to enhancing the security of global trade. The new mission of security has shifted the focus of Customs from its traditional 'place of import' to encompass the entire trade supply chain that covers the movement of goods from origin to destination. It has also heightened the awareness of the need to enhance cooperation among customs administrations to cover the global supply chain. On the other hand, while supporting the enhanced security measures, the trade community expressed a concern over possible setbacks for trade facilitation efforts. In response, Customs perceived the need to enhance partnerships with compliant businesses in strengthening the security of the supply chain while preserving facilitation for legitimate trade.

This article reviews the development of the WCO standards on supply chain security and the WCO's efforts to promote their implementation effectively. In 2002, in response to the new challenges, the international customs community embarked on an initiative to develop security measures, through the WCO Task Force, in close consultation with business and relevant international organisations. After completion of the package of measures, the WCO began focusing on their implementation at the global level, and it did this by transforming its guidelines into standards through the guidance and direction of the WCO High Level Strategic Group. In 2005, the WCO finally adopted the Framework of Standards to Secure and Facilitate Global Trade, (the 'SAFE Framework of Standards' or 'SAFE Framework') to secure and facilitate global trade. The SAFE Framework is based on the two pillars of Customs-to-Customs cooperation and Customs-to-Business partnerships and is aimed at improving customs operations, supported by existing WCO instruments.

Finally, WCO members are jointly making efforts to effectively implement the SAFE Framework. The Authorised Economic Operator (AEO) Guidelines have been developed and are expected to be used by WCO members to launch their own individual national AEO programs. Progress towards mutual recognition on AEO status and customs control results is another challenge. Most of all, many members have expressed their need to build customs capabilities in implementing the SAFE Framework. To this end, the WCO established a Capacity Building Directorate within the Secretariat and launched the Columbus Program to prioritise this task. Moreover, coordination with other border agencies has emerged as a critical way forward to achieve the goal of supply chain security.

## **Development of supply chain security measures**

### **Establishment of a task force**

In early 2002, in the aftermath of the terrorist attacks on September 11, 2001, the US Customs launched its Container Security Initiative to increase the security of US-bound sea cargo. The vulnerability of the international supply chain was recognised as a global problem rather than the problem of a specific country. This heightened awareness of the need to secure the supply chain at the global level was epitomised by the G8 Kananaskis Summit in June 2002. The G8 leaders announced that they would work expeditiously, in cooperation with relevant international organisations, to develop and implement an improved global container security regime to identify and examine high-risk containers and ensure their in-transit integrity.<sup>2</sup> They also pledged to begin work expeditiously within the G8 and the WCO to require advance electronic information pertaining to containers as early as possible in the trade chain. Based on the US initiative, and spurred on by the Summit declaration, in June 2002 the WCO Council recognised the importance of enhanced supply chain security by using advance transmission of standardised customs data to identify those goods and conveyances that may pose a security risk. It therefore adopted a resolution creating a Task Force to develop guidelines necessary to secure and facilitate global trade for adoption by the WCO Council.

The Task Force was mandated to deliver a package of measures, which included three priorities to be completed by June 2003, namely:

- to re-examine the WCO Customs Data Model to ensure it includes a standardised dataset necessary to identify high-risk goods
- to develop guidelines to assist WCO Members in developing a legal basis and other necessary steps to enable the advance electronic transmission of customs data
- to develop guidelines for cooperative arrangements between WCO Members and private industry to increase supply chain security and facilitate the flow of international trade.

### **Data elements for risk assessment**

Subsequently, the Task Force worked in close consultation with the trade and other international organisations to develop a package of measures. As a result, the list of essential data elements for identification of high-risk consignments, amounting to 27 data elements, was finalised and adopted by the WCO Council in 2003 to address the first priority. At the same time, the WCO Customs Data Model, aligned with the data elements contained in the above list, was adopted as version 1.

The Customs Data Model<sup>3</sup> was originally initiated by the G7 in 1996 to standardise and reduce the data requirement by Customs across the G7 countries, and thereby improve the flow of goods across international borders and reduce costs and complexities associated with meeting government requirements. The Model was transferred to the WCO in February 2002 to broaden its application to the current 171 WCO Members. The WCO Customs Data Model defines common datasets and uniform electronic messages for the accomplishment of export and import formalities. This will be the maximum data requirements for the routine exchange of information between Customs and trade. In terms of supply chain security, the Customs Data Model provides a common platform for Customs-to-Customs and Customs-to-Business data exchange, enabling Customs to obtain advance cargo information. The Customs Data Model will be reviewed in a cycle of three years, and version 2 was approved by the WCO Council in June 2005. Currently, the work on version 3 is ongoing and efforts are also under way to enlarge its scope to include the data requirements by other government agencies which will support a Single Window environment.

### **Johannesburg Convention**

As to the second priority, in order to provide the legal basis for the collection and exchange of advance cargo information at international level, in June 2003 the WCO Council adopted the International Convention on Mutual Administrative Assistance in Customs Matters (Johannesburg Convention).<sup>4</sup> Based on the principles of a received request and of course reciprocity, the Convention facilitates customs cooperation by providing a legal basis for the exchange of information and provision of administrative assistance between Contracting Parties for the proper application of Customs laws. It also provides for the exchange of information in advance of the shipment of goods.

### **Integrated Supply Management Guidelines**

Moreover, it was found necessary to develop new customs processes to enable customs administrations to obtain advance information from non-traditional sources, including producers and suppliers, earlier in the supply chain. After agreeing on the principles of the draft guidelines addressing this concern in June 2003, the WCO Council finalised and adopted in June 2004 the Customs Guidelines on Integrated Supply Chain Management (ISCM Guidelines).<sup>5</sup> Since the supply chain consists of the physical origin-destination movement of the goods and the parallel movement of commercial data, it is essential for customs to receive the necessary information to perform risk assessments as early as possible in the global supply chain. The ISCM Guidelines provide implementation guidelines on who has to provide which information to whom for risk assessment, when and how the information has to be provided, used and protected, and what facilitation customs should provide to those security partners in the private sector.

In more detail, to achieve the objective of gaining the necessary time for risk management and to receive quality information, customs administrations throughout the supply chain should develop and agree on an integrated customs control chain, commencing at the time goods are being prepared for export by the exporter, and through the verification of consignment integrity, throughout the supply chain. To enable such an integrated customs control, Customs will have to agree bilaterally or multilaterally on customs control and risk management standards, the sharing of intelligence and risk profiles as well as the routine

exchange of customs data. This control system requires harmonised customs procedures, including a seal integrity program as detailed in the WCO Revised Kyoto Convention Guidelines, standardised data requirements as defined in the WCO Customs Data Model, and a Unique Consignment Reference (UCR)<sup>6</sup> to establish an origin to destination information and documentation trail. As an integral part of the integrated customs control chain, the ISCM Guidelines outline the authorised supply chain concept under which all participants in an international trade transaction are approved by customs as observing specified standards in the secure handling of goods and relevant information, defined as Authorised Economic Operators (AEOs). In return, customs administrations should generally grant rapid release to AEOs. This concept is based on 'special procedures for Authorised persons', as defined in the Revised Kyoto Convention. In addition to the detailed description on integrated customs control procedures, the ISCM Guidelines specify data privacy and data protection, as well as the IT systems.

### **Additional measures**

With regard to the third priority, in June 2003 the WCO Council adopted the High-Level Guidelines for Cooperative Arrangements between Members and Private Industry.

In addition to the Guidelines on the three priorities, in June 2003 the WCO Council adopted additional guidelines and recommendations which consist of a package of measures.

## **From guidelines to standards**

### **Need for global implementation of security measures**

As described above, the WCO has produced a package of measures, including legal, procedural and risk-assessment instruments to protect the supply chain at the early stage. These measures are essentially guidelines of a non-binding and voluntary nature. They can only become effective when customs administrations:

- agree on bilateral or multilateral arrangements
- have implemented the common guiding principles described in the Guidelines.

While significant progress has been made by some countries in implementing supply chain security and facilitation measures, WCO Members recognised the need for all members to introduce and apply such measures in accordance with their capability to enhance security at the global level. Various trade associations that participated in the Task Force meetings also demanded the establishment of international standards on supply chain security, rather than being faced with a plethora of national regulations and requirements in security which might not be compatible or consistent with each other. They suggested the swift implementation of measures required and the realisation of facilitation through efficiency gains.

Additionally, it was pointed out that it would be necessary to keep pace with the development of security measures by related transport and trade areas. In fact, international organisations in transport, such as the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO), have already taken initiatives to enhance transport security, in response to the call from the G8 and other stakeholders. The IMO has amended its 1974 Safety of Life at Sea (SOLAS) Convention, through the creation of an International Security Procedures (ISPS) Code,<sup>7</sup> to enhance maritime security measures applicable to ships and port facilities, implemented in July 2004. The ISPS Code provides for a standardised framework to assess and address the risks, involving ships and ports, and the control and compliance measures are well defined for its implementation. This mandatory approach can be contrasted with the WCO's voluntary mechanism based on Guidelines.

### **Establishment of a High Level Strategic Group**

In June 2004, the WCO Council considered this implementation aspect of supply chain security measures and decided to transform the guiding principles contained in the Guidelines into formal standards which can be implemented. Standards are considered to provide a normative nature to the guidelines, in that they should be adhered to by the stakeholders. They are expected to increase predictability, assurance and uniformity of approach for each participant in the supply chain and will therefore offer meaningful facilitation to those commercial entities applying the Standards.

Following these deliberations, in June 2004 the WCO Council created a High Level Strategic Group to prepare a WCO framework for the security and facilitation of global trade. The Group, which consisted of a small number of Customs Directors General, was assigned to build upon and consolidate the work of the Task Force. In this connection, capacity building was viewed as a critical aspect of any successful security regime for those administrations that have insufficient resources to successfully implement all security standards. Accordingly, the WCO Council decided to establish a Capacity Building Directorate to help members in need to achieve effective implementation.

### **SAFE Framework of Standards**

Based on the subsequent work of the High Level Strategic Group, in June 2005 the WCO Council adopted the WCO Framework of Standards to Secure and Facilitate Global Trade, which was later referred to as the SAFE (security and facilitation in a global environment) Framework of Standards.<sup>8</sup>

### **Objectives**

The SAFE Framework of Standards aims to enhance security and facilitation of global trade and improve customs operations. Modern customs principles include risk management, use of technology and a partnership with the trade. They are well developed by the WCO and are incorporated in the Revised Kyoto Convention, adopted by the WCO Council in 1999. Based on past efforts, the SAFE Framework of Standards further improves customs operations and addresses the security concern by expanding the customs focus to the entire trade supply chain and setting the necessary security requirements. Enhanced cooperation between customs administrations and strengthened Customs-to-Business partnerships are recognised as the key to achieve this goal. These Standards enable Customs to receive cargo information for security risk assessment as early as possible in the trade supply chain. This enables Customs to concentrate on a small percentage of cargo that poses a genuine security risk, while promoting the free and smooth flow of legitimate trade. Security and facilitation are thus combined as two sides of the same coin, because only efficient and effective Customs can meet these requirements. Moreover, the establishment of global standards will avoid an unnecessary burden on the trade as it obviates the risk of different sets of requirements by different customs administrations and improves coordination with other governmental agencies. In this way, the new WCO Standards will enhance the role, functions and capabilities of Customs to meet the challenges and opportunities of the 21st Century. This feature will help governments to improve revenue collection and the proper application of laws and regulations to protect society while continuing trade facilitation efforts, thereby contributing to economic and social development.

### **Content**

In substance, the WCO SAFE Framework consists of the following four core elements:

- harmonisation of the electronic cargo information requirements by Customs
- a consistent risk management approach
- an outbound inspection of high-risk cargo, preferably using non-intrusive detection equipment, at the reasonable request of the receiving nation
- partnership with trade.

These core elements are achieved through the two-pillar approach: Customs-to-Customs network arrangements and Customs-to-Business partnerships. The first pillar encourages cooperation among customs administrations on the basis of common and accepted standards to facilitate the use of advance electronic information to identify high-risk cargo. The second pillar encourages the establishment of Customs-to-Business partnerships by enabling customs to identify businesses with a high degree of security guarantees as Authorised Economic Operators (AEOs).

### Pillars

#### Pillar one: Customs-to-Customs

The first pillar on Customs-to-Customs network arrangements consists of the following eleven standards, many of which are accompanied by technical specifications with reference to the available WCO tools (attached as Annex 1 to the Framework):

- Standard 1 provides for the use of ISCM guidelines, which is supported by technical specifications that outline the requirements for the submission of data and the Authorised Supply Chain. The former requirements include the list of standardised data elements for assessing security risk as well as the time limit for their submission.
- Standard 2 provides for the customs authority to inspect outbound, inbound, transit and transshipment cargo.
- Standard 3 provides for the use of modern technology in inspection equipment, such as large-scale X-ray machines and radiation detectors.
- Standard 4 provides for the establishment of risk management systems, including automated selective systems.
- Standard 5 provides for the identification of high-risk cargo or containers.
- Standard 6 provides for advance electronic information in time for risk assessment, supported by information and communication technologies, as outlined in the Revised Kyoto Convention Guidelines and other WCO tools.
- Standard 7 provides for joint targeting and screening based on standardised criteria and information exchange, which will lead to mutual recognition of control between customs administrations.
- Standard 8 provides for the maintenance of reports of customs performance, to be compiled by the WCO.
- Standard 9 provides for cooperation with other competent authorities to identify security gaps.
- Standard 10 provides for employee integrity of customs and other competent authorities, based on the WCO Revised Arusha Declaration, which contains the guiding principles to establish anti-corruption systems.
- Standard 11 provides for the conduct of outbound security inspection of high-risk cargo at the reasonable request of the importing country.

As described above, the eleven Standards, together with their technical specifications, outline the basic and common requirements for enhanced risk management, using advance electronic information. They are the basis for future customs cooperation to ensure security and facilitation of global trade. It is therefore important to improve the competencies of customs administrations through capacity building to assure the compatibility of customs systems in the global supply chain. This should lead to mutual recognition of customs control, upon which customs cooperation should be further developed.

#### Pillar two: Customs-to-Business

The second pillar on Customs-to-Business partnerships consists of the following six standards, each accompanied by technical standards (attached as Annex 2 to the Framework):

- Standard 1 provides for the partnership program with AEOs who will carry out a self-assessment to ensure security in their business model.

- Standard 2 provides for the incorporation of pre-determined security best practice into the business practice of AEOs.
- Standard 3 provides for the validation and accreditation process of AEOs.
- Standard 4 provides for the encouraged use by AEOs of more advanced technologies to maintain cargo and container integrity.
- Standard 5 provides for Customs-to-Business communication to promote security.
- Standard 6 provides for the joint efforts of Customs and AEOs to maximise security and facilitation.

As described above, the six Standards focus on the identification of private businesses that offer a high degree of security guarantees with respect to their role in the supply chain as AEOs. To the extent that Customs can rely on its partners in the trade community to evaluate and address threats to their own supply chain, the risk confronting Customs is reduced. Therefore it is essential to define the tangible benefits that the AEOs reap from their status. These benefits should include quicker cargo through customs with reduced examination rate and priority clearance in case of trade disruption or high security threats.

### **Implementation issues**

When the WCO Council adopted the SAFE Framework in June 2005, it adopted the Resolution on the Framework of Standards, resolving that Members should notify the WCO of their intention to implement the Framework. A vast majority of WCO Members expressed their intention to begin the process of implementing the Framework. In fact, within three months of the adoption of the Framework, 90 members signed the letter of intent to implement the Framework and 25 EU members also indicated that they would apply the Framework. To date, 147 WCO Members have expressed their intention to implement the Framework.

#### **Authorised Economic Operator (AEO)**

In recognition of the urgency to launch the new AEO program, the WCO Council directed the High Level Strategic Group to develop more detailed implementation provisions for the AEO concept, in close consultation with business. A Private Sector Consultative Group comprising 30 business members was established to advise the WCO on implementation of the Framework, including the development of AEO Guidelines. Based on the work of both groups, in 2006 the WCO Council adopted the AEO Guidelines that provide technical guidance on the implementation of AEO programs at global level. Incorporated in the Framework, they are designed to serve as a starting point for national AEO program implementation and support the effective application of the Standards outlined in Pillar two (Customs-to-Business partnerships) of the Framework. It sets the conditions and requirements for Customs and the AEO, benefits to the AEO, as well as validation and authorisation procedures. There are already several AEO programs that have been launched at national and Economic Union level.

#### **Mutual recognition**

The Resolution of the SAFE Framework of Standards that the WCO Council adopted in June 2005 calls upon customs administrations to work with each other to develop mechanisms for mutual recognition of AEO validation/authorisation and customs control results, in order to eliminate or reduce redundant and duplicated efforts. Mutual recognition is a concept whereby an action or a decision taken or an authorisation that has been properly granted by one customs administration is recognised and accepted by another customs administration. The standardised approach to AEO authorisation, as outlined in the AEO Guidelines, provides a solid platform for developing an international system of mutual recognition of AEO status at bilateral, sub-regional, regional, and in the future, global level. Mutual recognition is an essential element for consideration in developing a national AEO program. It is expected that bilateral,

sub-regional and regional initiatives under development will gradually pave the way for a global system of mutual recognition of AEO status, although it will require some time to accomplish along with the phased approach of implementing the Framework. Likewise, mutual recognition of customs controls presents a challenge to customs administrations, as it involves relatively new measures, such as routine sharing of information and control results. WCO Members are encouraged to use WCO forums to share reports of pilot projects and progress made towards the goal of mutual recognition.

### **Capacity building**

The June 2005 Resolution also suggests that WCO Members implement the Framework in a progressively 'phased approach', in accordance with each administration's capacity and necessary legislative authority. In this respect, customs capacity building is of prime importance because the implementation of the Framework requires necessary improvements in customs capabilities and integrity to provide a comprehensive framework for global trade security. The WCO established its Capacity Building Directorate in 2006 and launched the Columbus Program to support its members in their implementation of the Framework. The Columbus Program consists of three phases: diagnosis (Phase One), Implementation (Phase Two) and Monitoring (Phase Three). At Phase One, the WCO diagnostic team will help each member in need to produce a country report showing the current situation, a gap analysis and recommendations. During Phase Two, the WCO will help members implement the recommendations included in the country reports, including action planning and donor coordination. Whilst in Phase Three, the WCO will help members monitor and assess their progress. The WCO has almost completed Phase One and has provided assistance to more than 100 members in producing country diagnostic reports. Based on these diagnostic missions, the WCO Secretariat drafted the WCO Trends and Patterns Report which identifies implementation challenges for the SAFE Framework and presented this Report to the WCO Council in June 2007.<sup>9</sup> Now, the focus of the Columbus Program is shifting to Phase Two.

### **Integrated Border Management**

Finally, it is important to note that Customs has to involve other border agencies to ensure and improve integrated border management and control. In this connection, the WCO has been working in cooperation with other international organisations – including the United Nations, IMO, ICAO, and ISO – as Customs is only one part of the trade supply chain. It is therefore essential to strengthen partnerships with all stakeholders to achieve the common goal of supply chain security. The WCO SAFE Framework of Standards, together with other international standards, will provide an excellent opportunity for all major players in the supply chain to develop best practices for facilitated and seamless movement of goods in a transparent and secure transaction environment.

## **Conclusions**

The WCO SAFE Framework of Standards provides a structured framework for Customs and business to secure the international supply chain and facilitate the movement of legitimate trade. It will enable Customs and business to gain better insight into the supply chain from point of origin to the arrival of cargo for customs clearance purposes. A more secure supply chain will increase transparency and predictability of the movement of goods and reduce the opportunity for theft and pilferage too. This will act as a deterrent to potential terrorist threats, trans-national organised crime and smuggling whilst protecting revenue collection. In order to realise this global trade scheme of the 21st Century, customs administrations around the world will have to work in partnership with the business community and other stakeholders. It is only through commitment, dialogue and close cooperation between all role-players that we will be able to jointly address the issues associated with supply chain security.



## Endnotes

- 1 Available at [www.wcoomd.org](http://www.wcoomd.org).
- 2 2002 Kananaskis Summit, 'Cooperative G8 Action on Transport Security', 26 June 2002, viewed 31 August 2007, <http://www.g8.gc.ca/2002Kananaskis/tranterror-en.asp>.
- 3 WCO, Customs Compendium No. 10 'WCO Customs Data Model', February 2007, WCO, Brussels.
- 4 Available at [www.wcoomd.org](http://www.wcoomd.org).
- 5 WCO, Customs Compendium No. 6 'Integrated Supply Chain Management', October 2005, WCO, Brussels.
- 6 WCO, Customs Compendium No. 5 'WCO Unique Consignment Reference (UCR)', May 2005, WCO, Brussels.
- 7 IMO, 'Maritime Security', viewed 31 August 2007, <http://www.imo.org/>.
- 8 Available at [www.wcoomd.org](http://www.wcoomd.org).
- 9 Available at [www.wcoomd.org](http://www.wcoomd.org).

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### Kunio Mikuriya



Kunio Mikuriya had spent 25 years with Japan's Ministry of Finance before he was elected Deputy Secretary General of the WCO in June 2001 and 2006. He has been leading an effort to promote Customs' role in securing and facilitating global trade and co-ordinate the work of the WCO Secretariat with other international organisations such as the WTO and the World Bank.

