UNIVERSAL POSTAL UNION

World Customs Organization
Organisation mondiale des douanes

WCO–UPU Guidelines on the Exchange of Electronic Advance Data (EAD) and Data Quality

2025 Edition

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I. Introduction

These WCO–UPU Guidelines on the Exchange of Electronic Advance Data (EAD) and Data Quality are a joint WCO–UPU tool that can easily be updated as experience is gained and the exchange of EAD grows. This guide is an entry-level information source for designated operators (DOs) and Customs administrations working collaboratively to establish the exchange of EAD, offering advice on how to gain support within the respective organizations for the adoption of this development project, and providing advice on how to improve the quality of the data exchanged within the international mail network.

As e-commerce goods volumes continue to grow, it is important that Customs administrations and DOs work collaboratively on a global scale to improve overall safety and security and risk management, while maintaining efficient service and high quality end-to-end service standards within the postal stream. The capture and transmission of EAD facilitates the exchange of critical Customs and security information between DOs, Customs administrations, and carriers and their agents within the supply chain. It also provides Customs administrations with the information they need to undertake risk assessment prior to the arrival of a parcel or prior to its loading on the conveyance. EAD also facilitates customs procedures associated with revenue collection, as items are fiscally assessed electronically for the collection of appropriate duties and taxes. It helps DOs improve quality of service, while strengthening the integrity of the postal supply chain.

Rapid and ongoing IT developments now enable DOs and Customs administrations to connect the physical flows of postal items with corresponding electronic data flows. The intended purpose of these Guidelines is to offer "clear language" guidance to help all DOs and Customs administrations jointly develop new arrangements or enhance or upgrade existing ones so that they can meet or exceed their emerging processing, fiscal, and safety and security requirements, on time. To that end, the Guidelines provide:

1 challenges and enablers to consider in this context;

2 data quality considerations for effective data exchange and efficient operational use of the data exchanged;

3 information on tools, standards and regulations;[1]

4 information to assist in the development of a business case for DOs and Customs administrations to begin exchanging EAD;[2]

5 a step-by-step approach to assist in process and system development;

6 key considerations for this kind of project as well as lessons learned.

This document also aims to offer guidance to DOs of origin countries sending international postal items (e.g. letters, small packets or parcels subject to customs control) on how to capture customs data at source, with a view to improving data quality and compliance with customs declarations. The main objective of collecting data from customs declarations (CN 22 and CN 23 declaration forms) is to transfer this information from the paper form to its electronic equivalent, an ITMATT (IteM-ATTribute (see UPU technical standard "M33 ITMATT V1")) EDI (electronic data interchange) message, for transmission to the postal item's destination country.

Where electronic data is received directly from a customer, a printed form signed by the declarant (i.e. sender of the postal item) must be attached to the postal item, to confirm that the sender has agreed to the terms of the declaration provided and assumes liability for the item. The electronic and paper data need to match and comply with the requirements of the CN 22 and CN 23 postal customs declaration forms.

DOs may exchange the data with Customs administrations by converting the electronic customs declarations received from the origin DO in the form of an ITMATT message into a CUSITM (CUStoms ITeM (WCO–UPU joint messaging standard)), or its local equivalent. Customs administrations may react to this data by sending a control action or other related guidance by means of a CUSRSP (CUStoms ReSPonse (WCO–UPU joint messaging standard)), or its local equivalent.

[1] UPU and WCO tools, standards and regulations that are the fundamental instruments behind the requirement for EAD.

[2] Business case information can include details such as benefits, opportunities, and challenges of the opportunity being sought.

Once the required information has been captured and transmitted by the DO in the origin country, it will be used by the DO and Customs administration in the transit and destination countries to facilitate Customs and security processing of the postal items in question, and in particular:

- Security risk assessment prior to loading on the conveyance for the purpose of strengthening aviation security (where a Pre-loading Advance Cargo Information (PLACI) regime has been implemented);
- General risk management based on pre-arrival electronic advance data (EAD), including in relation to drugs, intellectual property rights infringements, illicit trade, smuggling and revenue;
- Customs clearance (time in Customs is a critical element in postal end-to-end performance) and revenue collection (collection of duties and taxes);
- Domestic use by the destination DO in the office of exchange: sorting, delivery planning and customer service, maintaining an efficient service and high-quality end-to-end standards within the global postal supply chain.

Comprehensive, step-by-step guidance forms the key part of this document, explaining how to move forward using a phased approach to implementation.

Lastly, the sharing of key considerations and best practices will enable DOs and Customs administrations to take the lessons learned and apply them when developing and implementing their own programmes and processes.

These Guidelines have been created with the support and input of various DOs and Customs administrations and will serve as the key resource to help the WCO and UPU memberships advance EAD collection, exchange and use moving forward.

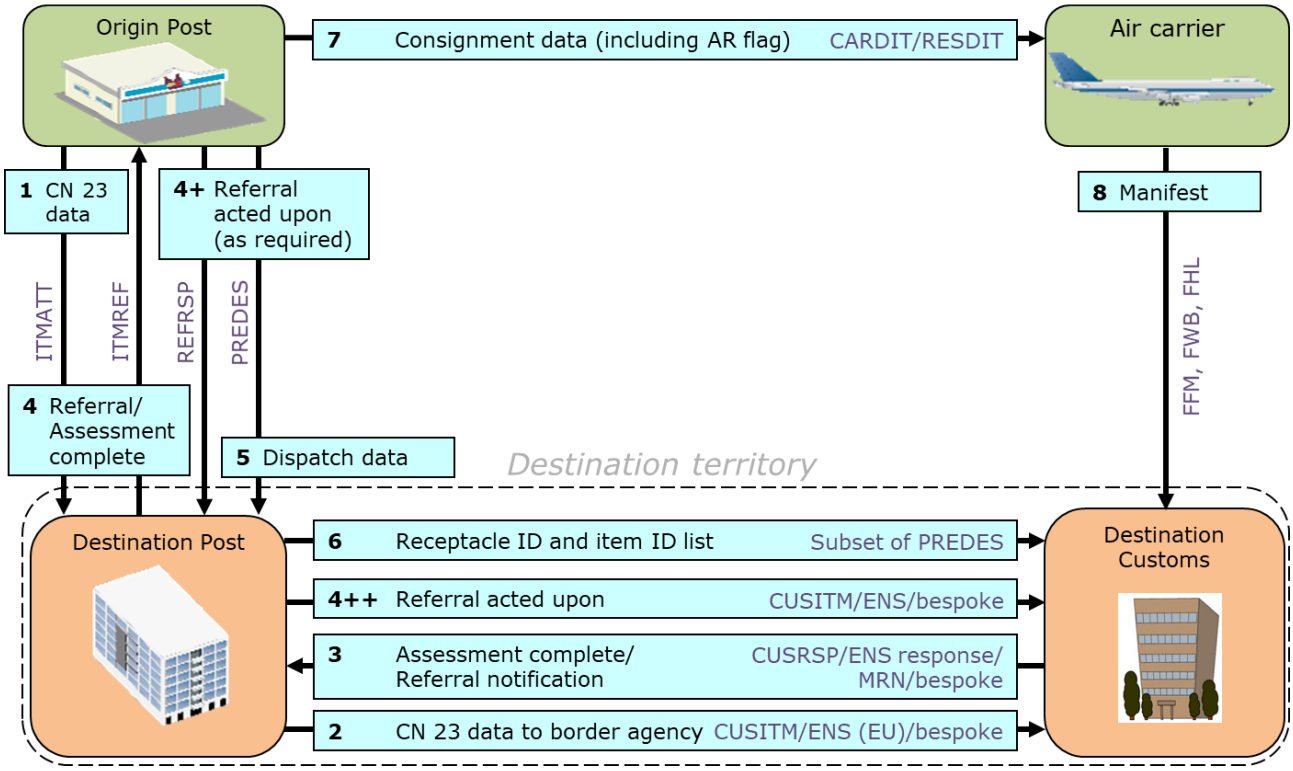
II. Challenges and enablers in the EAD context

EAD has its origins in the October 2010 incident in which terrorists sent improvised explosive devices disguised as toner cartridges concealed in laser printers in courier items. This incident jolted aviation security authorities into adopting a series of new measures to improve aviation security. One of these measures is the requirement to provide EAD to identify all postal items containing goods. The postal sector began to deploy methods to provide EAD in coordination with other stakeholders such as the WCO, ICAO, the European Commission, and national Customs administrations.

Moreover, in view of the phenomenal rise in cross-border e-commerce and the growing role of Posts, it is imperative to move towards an automated pre-arrival processing system.

The biggest challenge in the postal environment is delivering timely and effective risk management to tackle challenges stemming from small and low-value shipments while facilitating legitimate parcels. Timely and accurate EAD helps improve general risk management and also clearance and delivery processes.

These contexts were the precursor to the current UPU Global Postal Model for implementing EAD. The biggest challenge faced by DOs to ensure the proper functioning of electronic flows covered by the UPU Global Postal Model is ensuring data capture and improving compliance with customs declarations in the origin country. This must be done without hampering international mail flows or trade and with due consideration of the specificities of the global postal supply chain and various Customs and other regulatory requirements. While the UPU Global Postal Model was designed for PLACI implementation, it equally supports pre-arrival EAD and associated customs processing.



In order to understand the dimensions and importance of implementing a data capture process in the origin country, a brief analysis of the key challenges and enablers (the 5 Ws and 1 H of EAD) is given below:

a Why do designated operators have to capture electronic data?

Since 2021, DOs at origin may be required to capture and exchange EAD for international postal items containing goods, in order to comply with the specific import Customs and security requirements laid down in the UPU Acts. More specifically, this means that:

– all items containing goods must bear a barcode identifier compliant with UPU technical standard S10;

– ITMATT corresponding to the information on the CN 22/CN 23 Customs declaration and relating to the item must be provided and comply with UPU messaging standard M33;

– S10 item identifiers for all items containing goods must be included in the PREDES message (standard M41) sent to the destination DO, and electronically linked (nested) to the S9 identifier of the receptacle containing that item (such identifiers may not be duplicated within a period of at least 12 months);

– since 1 January 2023, under article 08-002.6 of the Convention Regulations, DOs must assist their air carriers in complying with pre-loading security requirements by ensuring that, where applicable, the relevant CARDIT message is transmitted to the airline, including any applicable regulations (AR) flag, in compliance with UPU messaging standard M48, so as to confirm that the required EAD has been submitted and that there are no known outstanding referrals;

– from 1 January 2025, under articles 08-002.7 and 08-002.8 of the Convention Regulations, the DO of origin shall take reasonable measures to ensure that no “Do Not Load” (DNL) referrals have been received, and that any “Request for Information” (RFI) or “Request for Screening” (RFS) referrals received via ITMREF have been processed and responded to via REFRSP, in compliance with UPU messaging standards M53 and M54.

This implies capturing and electronically transmitting the customs declaration data sets (including sender and recipient information) from the CN 22 and CN 23 paper forms for all postal items containing goods.

The electronic data will be exchanged among DOs and between DOs and their Customs administrations at the national level. The transmission of EAD to Customs administrations must precede the physical entry of postal items into the destination territory in order to facilitate security risk assessment and authorization (or otherwise) for the items to be loaded onto aircraft in the origin country.

EAD provides an additional layer of aviation security that aims to identify potentially high-risk cargo and mail through the risk assessment of item declaration and address data. It complements existing aviation security measures, such as screening and other supply chain security procedures.

The initial motivation for those regulations was security risk assessment. However, the captured data set may also be required, at a later stage, to support the customs clearance process at the destination, including general risk management and fiscal clearance of goods.

Parties involved in data exchanges need to follow applicable legislative and regulatory requirements concerning data privacy and protection. Many DOs will request other parties, including other DOs, to sign a data sharing agreement (DSA) covering these requirements. Owing to the large number of DOs wishing to sign a DSA prior to participation in data exchanges, several plurilateral agreements are maintained by different organizations, such as PUASP (Postal Union of the Americas, Spain and Portugal), IPC (International Post Corporation), and the Kahala Posts Group. In order to provide a globally harmonized approach, the UPU has developed a global multilateral data-sharing framework to offer further facilitation.

b What data do designated operators need to capture?

The data set needed to perform risk analysis for security purposes and to support Customs’ general risk assessment and clearance activities at the destination including customs declaration data covered by postal customs declaration forms CN 22 or CN 23 or by their electronic equivalent, ITMATT.

The October 2010 incident led to the establishment of three PLACI pilots to test the use of an additional layer of advance cargo information for the security risk assessment of airline cargo and mail. PLACI has since been the term used to describe a specific 7+1 data set drawn from consignment data submitted by an entity in the airline cargo and mail supply chain such as, but not limited to, a carrier, freight forwarder, integrator, postal operator or agent, as soon as possible prior to loading of cargo and mail on an aircraft at the last point of departure. Regulators, analysts and targeting specialists can use this data to perform an assessment of the potential risk represented by the consignment.

– The 7+1 data set that should be provided to destination Customs in order to perform pre-loading security risk analysis is set out in Annex III to the WCO Framework of Standards.[3] A summary of this data set is given below:

  1 Consignor, name: Name [and address] of the party consigning goods, as stipulated in the transport contract by the party ordering transport.

  2 Consignor, address: Details relating to an address [to be associated with Consignor information].

  3 Consignee, name: Name [and address] of party to which goods are consigned.

[3] www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/instruments-and-tools/tools/safe-package/safe-framework-of-standards.PDF?la=en.

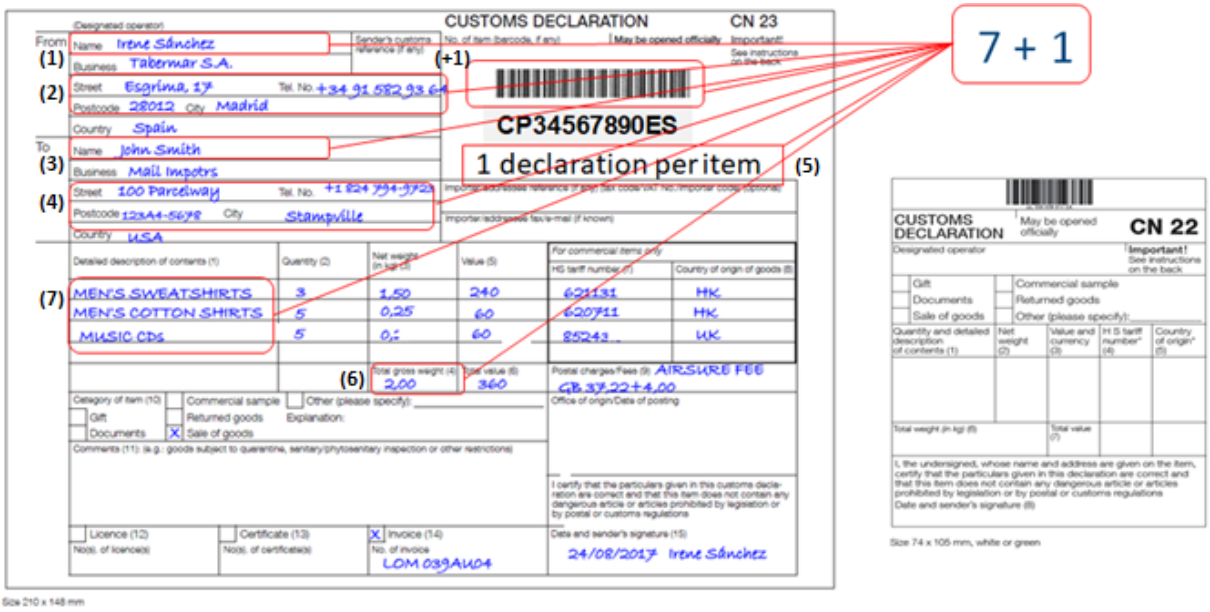
4 Consignee, address: Details relating to an address [to be associated with Consignee information].

5 Number of packages: Number of individual items packaged in such a way that they cannot be divided without first undoing the packing.

6 Total gross weight (including measure unit qualifier): Weight (mass) of goods including packaging but excluding the carrier's equipment for a declaration.

7 Brief cargo description: Plain language description of the cargo of a means of transport, in general terms only.

(+1) Identifier.



– All other data elements in the CN 22 and CN 23 forms and/or their electronic version, ITMATT, can be used to support Customs' risk assessment and clearance process at the destination. For example, from 1 September 2025, the six-digit WCO Harmonized System (HS) tariff codes are mandatory for commercial items if the destination country so requires.

ITMATT messages are exchanged between the origin and destination DOs to provide information about an international item in advance of the arrival or loading, as the case may be. The destination DO may, in turn, transfer this data to its national Customs administration, using either the joint WCO–UPU messaging standard CUSITM or a local equivalent. The CUSITM message conforms to the WCO's Data Model v3. In section V: the CN 22 and CN 23 postal customs declaration forms and their fields are described along with the corresponding ITMATT–CUSITM attributes in reference to WCO–UPU messaging standards M55 and M56.

S10 item identifiers for all items containing goods must be included in the PREDES message (standard M41) sent from the origin DO to the destination DO, and electronically linked (nested) to the S9 identifier of the receptacle containing that item; such identifiers may not be duplicated within a period of at least 12 months.

In the context of PLACI and aviation security, the communication of referral instructions from the destination to the origin country is conducted via ITMREF message (standard M53), and the ability of the origin DO to provide a response via REFRSP (standard M54) to the destination DO, which will then relay the response to the destination Customs administration by means of a CUSITM V2 message, or its local equivalent.

DOs must assist their air carriers in complying with pre-landing security requirements by ensuring that, where applicable, the relevant CARDIT message is transmitted to the airline, including any AR flag, in compliance with UPU messaging standard M48, so as to confirm that the required EAD has been submitted and that there are no known outstanding referrals.

UPU member countries and their DOs have the option of specifying security requirements for EAD or EAD/PLACI. The list of member countries and territories that have declared specific Customs- or security-based requirements for the mandatory provision of EAD or EAD/PLACI (ITMATT/applicable regulation (AR) information) is available on the UPU website at: www.upu.int/getmedia/b606dcbc-c9d3-4709-9c1e-2f3e4e0d8db2/mandatoryEadCountries.pdf.

c Who are the parties involved in the data capture process in the origin country?

Individuals and business customers sending international postal items are responsible for providing accurate information in the postal customs declaration forms, which is then reproduced in the ITMATT messages.

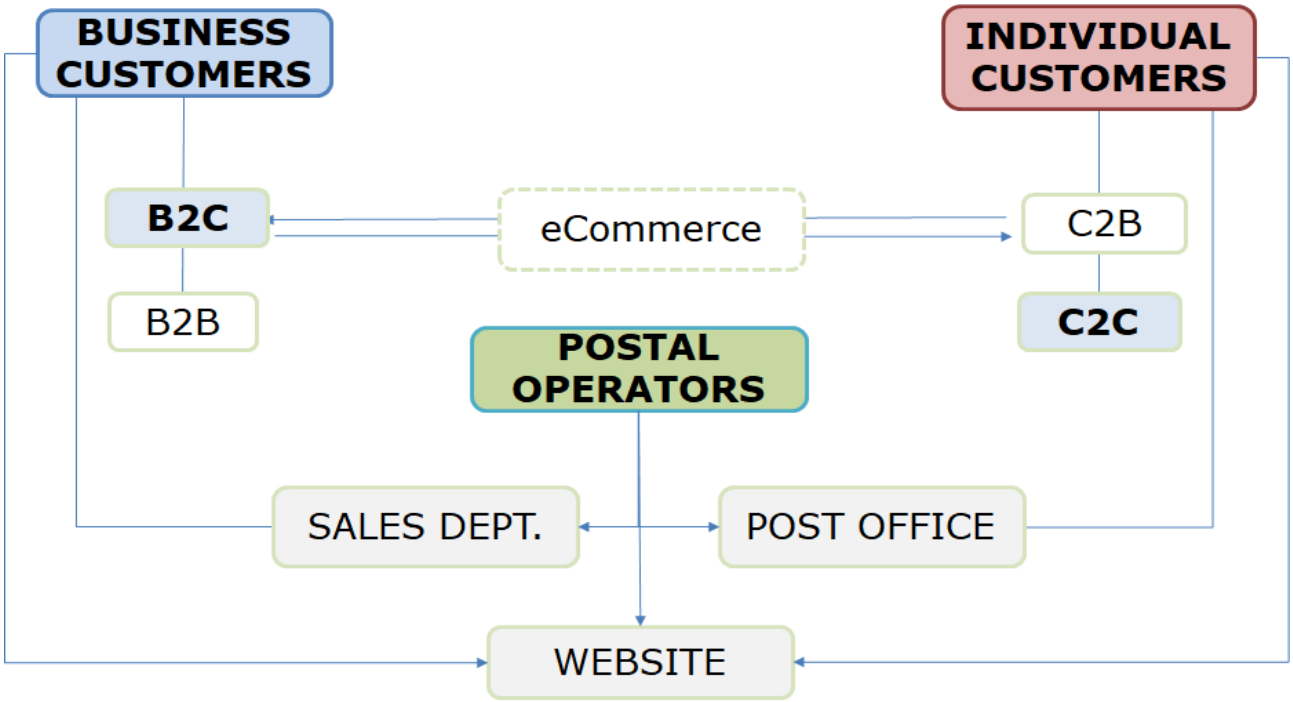
The designated postal operator's role is to act as facilitator, assisting customers in providing electronic customs declaration data by offering them tools, application programming interfaces (APIs) and applications, in order to gather quality declaration data and ensure compliance with the customs declaration forms.

B2C (Business-to-Consumer) is the most common relationship in the e-commerce process. Business customers are usually familiar with commercial and regulatory requirements regarding the goods that they are sending. Normally, they have the requisite means, capacity, tools and resources to obtain the declaration data elements needed.

C2C (Consumer-to-Consumer) is the most common relationship between individual customers who send personal effects, occasional gifts or goods for private use. In terms of their nature and quantity, goods in these postal items are usually non-commercial. These postal item senders are generally not very familiar with all the data elements required when filling in the forms. They often provide their data at the post office in partially completed paper declaration forms, which may not be adequate and complete for Customs and other regulatory purposes.

In most DOs, a sales department leads the relationship with business customers. Individual customers usually go to post office counters to send items and postal staff assist them in filling in the forms. Postal staff also inform customers about the importance of the compliance and quality of the customs declaration data provided.

DO web portals and similar tools can be good information channels. Many DOs provide extensive instructions and information on their websites for senders of postal items on how to complete the customs declaration forms.



To meet the PREDES requirement, origin DOs must ensure that each item containing goods is scanned into its receptacle. During the operational process, origin DOs should also ensure that the ITMATT has been submitted to the destination authority and that there are no known outstanding referrals at the time of closing and handing over the consignment to the carrier, transmitting, where applicable, the CARDIT message with its AR flag.

d Where are declaration data sets collected or captured?

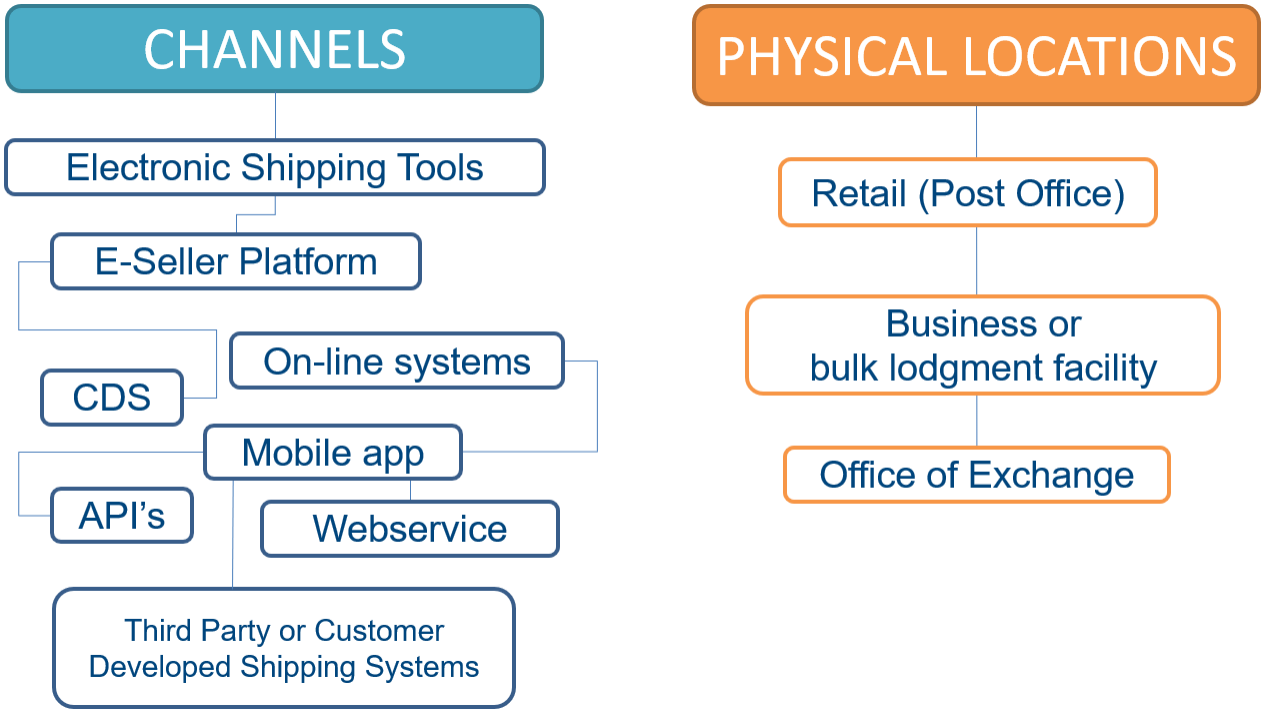
Customs declaration data can be captured for outbound international postal items through multiple channels and in multiple physical locations. The actual configuration and strategy followed by individual DOs depends on many factors, including operational realities and resources available.

In order to meet EAD requirements (pre-arrival and/or pre-loading) and business needs from e-commerce customers, most DOs must deploy a wide variety of technical solutions, each adapted to the needs of different types of customers, with due consideration of data channels, physical locations and the actual source of the data (i.e. directly from the sending customer or keyed in by DO staff).

Examples of data channels include electronic shipping tools, e-seller platforms, online systems, mobile apps, APIs, web services, and third-party or customer-developed shipping systems, which are typically offered to commercial customers. For social customers (i.e. those involved in C2C flows), online solutions like the UPU CDS (Customs Declaration System) kiosk are provided, and their use encouraged, in order to reduce manual entry by the DO of origin.

Examples of physical locations where data is captured directly by DOs include retail (post office), business or bulk lodgement facilities, and offices of exchange.

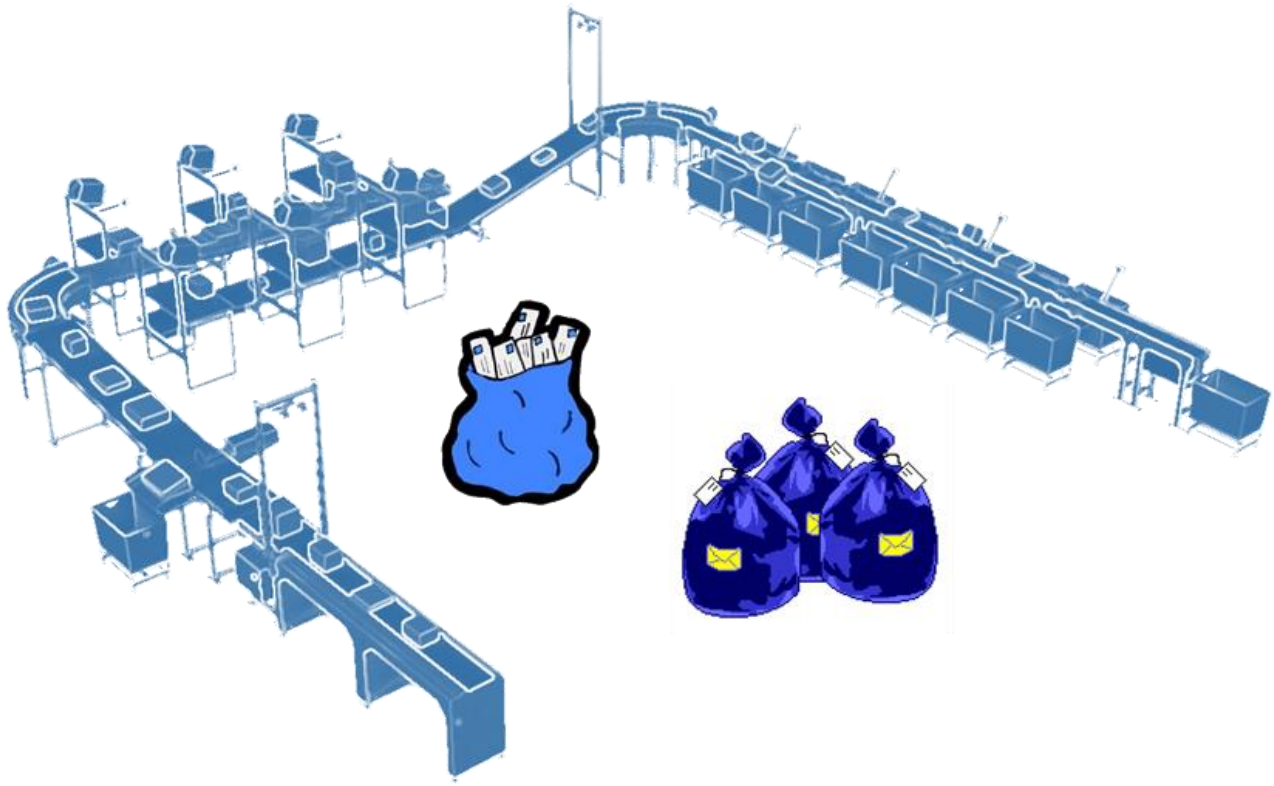
DOs that capture data for postal items themselves should ensure that data is captured in a systematic way, at retail sites/post offices or other set locations. Some DOs record the average time for data capture to monitor this operation.



The exchange of ITMREF and REFRSP messages may occur regardless of the location of the item. In case of an RFI referral, the information requested could be captured at any point in the supply chain prior to dispatch, and from a variety of sources (e.g. postcode databases, customer care centre, etc.). In case of an RFS, the response would typically be transmitted from a facility with screening capabilities.

The PREDES (S9-S10) requirement is fulfilled at the origin office of exchange (or international mail processing centre), where the international postal dispatches are prepared. The CARDIT and its AR flag are to be captured and transmitted at the location where the consignment is prepared (this could be an office of exchange or an airmail facility).

The following is a diagram depicting the operational environment in which the dispatches and consignments are prepared.



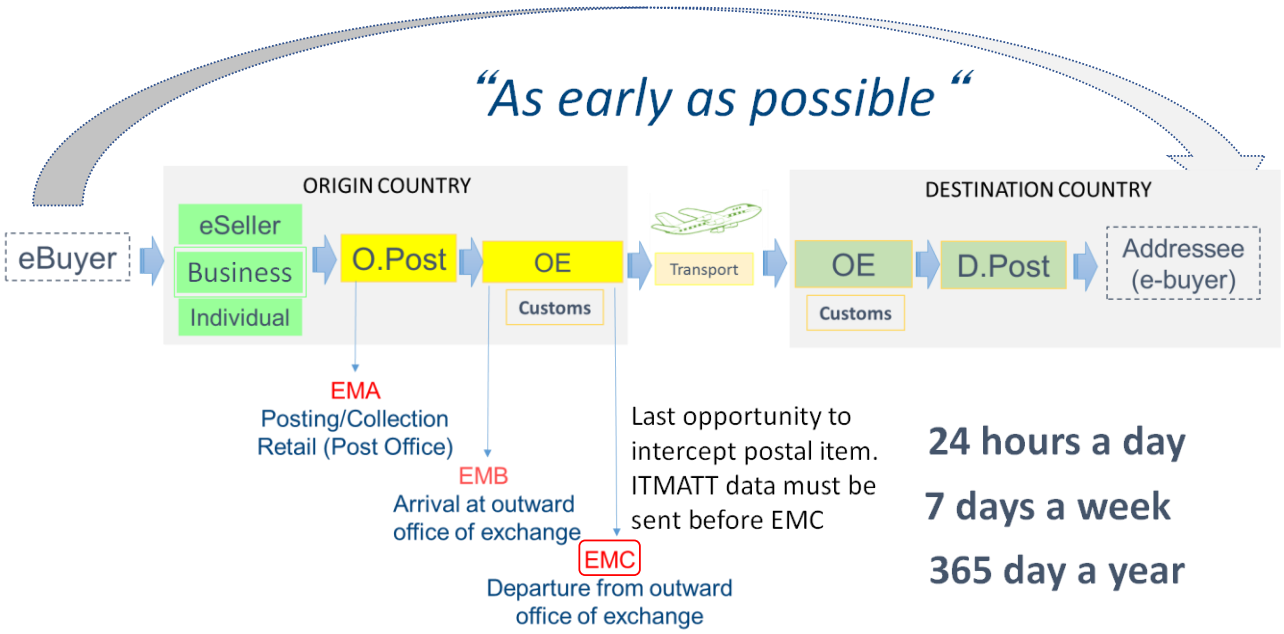
e When should the electronic messages be created and transmitted?

The answer for ITMATT is "as early as possible" but this will depend on the resources available in each country. The ITMATT message should be created and transmitted to the destination country as early as possible, ideally at the time of the EMA (Electronic Messaging "A") tracking event (posting/lodging of the postal item) in the retail post office. The sooner the origin DO sends an ITMATT to the destination DO, the sooner the destination Customs administration will be able to perform security and other risk assessments and send back the electronic response allowing the postal item to be loaded onto an aircraft, in case of PLACI requirements.

If the origin DO cannot send an ITMATT at the time of the EMA tracking event[4] (posting/collection of the postal item), the next best option is at the time of the EMB event (arrival at outward office of exchange). If the origin DO cannot send the ITMATT message at the EMA or EMB event, the EMC event (departure from outward office of exchange) is the last option. However, that EMC event could be the last opportunity to intercept a postal item targeted by the destination Customs, should there be a PLACI requirement. Therefore, in the long run, the correct functioning of the UPU Global Postal Model will require capture and transmission of the ITMATT data prior to the EMC event.

In some cases, owing to geographical, commercial or infrastructural constraints faced by the origin DO, data can only be captured before or after the arrival of postal items at the office of exchange. Examples of such constraints include: small territories (islands or cities) where the distance between the pick-up location and the outward office of exchange is short; late pick-up times for business areas or counter collection at offices of exchange; or communication infrastructure that is unequipped for data transfer from the pick-up or drop-off areas.

[4] www.iata.org/contentassets/1f5e024735384c8888617a1f6f01bd28/edi-brochure.pdf.



To reduce disruptions or delays, response times and messaging delays need to be as short as possible and referrals should be limited to cases of serious concern to the destination Customs administration.

The PREDES (S9-S10) message should be transmitted at the time of closing the international postal dispatch, whereas the CARDIT message with any AR flag should be sent once the consignment is closed and ready for handover to the carrier. An REFRSP should be transmitted only if a relevant ITMREF message has been received.

In some cases, DOs of origin may agree with the carrier to hand over the consignments only after receipt of an "Assessment Complete" (ASC) ITMREF message from the destination DO, allowing it to proceed with preparing an item for dispatch with certainty that the destination Customs has completed the initial PLACI security-related risk assessment. In these cases, dispatches and their associated consignments should only be prepared once the ITMREF ASC message has been received for all international postal items planned for transport. If the destination Customs authority does not transmit an ASC, the origin DO can assume that the item is clear to load, provided sufficient time (e.g. at least 120 minutes) has elapsed and no referral (RFI, RFS, DNL) has been issued.

III. Data quality considerations

a Customs declaration data

Data quality processes should ensure the adequacy, accuracy, completeness, consistency, integrity, non-repudiation and reliability of the information contained in postal customs declarations. Customs administrations need quality data as the key input to processes including, but not limited to: risk management, security and safety controls, admissibility checks, revenue collection and statistical reporting.

Some of the key issues with regard to the quality of data in CN 22 and CN 23 forms that have been noted by Customs administrations include: use of unclear language, mandatory fields left blank, illegible handwriting or use of a different character set, and incomplete and/or incorrect information.

These issues have adverse effects on customs risk analysis, efficient processing, clearance and release of goods, and service delivery, and can also lead to misallocation of resources and misdirected policy decisions.

In the area of data quality, in 2015, the WCO issued the Recommendation of the Customs Cooperation Council on the Guiding Principles for Data Quality and the Guidelines on Acceptable and Unacceptable Terms for the Description of Goods, along with a list of examples of acceptable and unacceptable descriptions of goods.

2015 Recommendation of the Customs Cooperation Council on the Guiding Principles for Data Quality

Principle I – Partnership between Customs administrations and the trade community is critical to establishing an understanding of each other's respective data quality requirements, and identifying new processes and improving upon those already in existence. In a constructive environment, this understanding can ensure that the right data of the right quality is delivered at the right time.

Principle II – Analysis of data, systems and procedures should occur on a regular basis to identify any areas of concern related to data and its quality. Data quality is also dependent on systems being properly configured to accept data in the most efficient way from the sources of the data in the normal course of business, whilst fully respecting applicable data privacy and data confidentiality laws and regulations, as well as an appreciation of the roles and functioning of different supply chain parties that provide that data.

Principle III – Coordination within the global Customs community through the WCO to: implement and maintain systems that recognize and apply global messaging standards; reduce manual and paper processes and procedures and promote electronic messaging; encourage implementation and updating of a non-exhaustive list of acceptable and unacceptable goods descriptions; identify originators of data in the global supply chain and facilitate their ability to provide data directly to Customs administrations; and encourage the use of coded information based on international standards, including the tools and instruments of the WCO, whenever possible.

Principle IV – Education of all relevant stakeholders in the international trade supply chain on data quality principles and improvements, based on identified weaknesses, in a systematic manner. Such education and awareness should not only take into account national and international Customs interests, but also give due consideration to those raised by the trade community.

Guidelines on Acceptable and Unacceptable Terms for the Description of Goods

Principles of the list contained in the Guidelines

– The list concerns descriptions provided in customs declarations.
– The list is not of an exhaustive nature and aims at providing examples of unacceptable and acceptable wordings that are meant as a guide.
– The list is by nature dynamic. Everyday practice will show that new unacceptable terms will be identified and will need therefore to be added to the list as time goes by. This dynamic aspect of the list will require a certain level of maintenance by the WCO secretariat in coordination with member administrations.

For the purposes of the advance screening of pre-loading air cargo information for air cargo security, raw data terms for the description of goods (as received by the shipper) may continue to be submitted.

List of examples of acceptable and unacceptable descriptions of goods

Unacceptable	*Acceptable*
Apparel	Men's shirts, lingerie, girls' vests, boys' jackets Shoes Footwear Jewellery Watches
Clothing	Leather clothing Textile clothing Woven shirts Knitted pullovers Hats

Unacceptable	*Acceptable*
Electronics	Computers, televisions, CD players, Walkmans, tape recorders, mobile phones, monitors, printers, electronic toys (can include Game Boys, Game Cubes, dancing Elmo dolls, etc.)
Gifts	Dolls, remote-controlled cars

b Information on the receptacle(s) in which the item(s) are dispatched (S9/S10)

The origin DO provides the dispatch-level information (item-receptacle S9/S10 link) to the destination DO via a PREDES message, and the destination DO shares this information with the destination Customs administration to enable the rapid location of items within the postal supply chain, where potential threats have been identified by the risk assessment processes.

One of the issues encountered when handling international mail, is correctly and efficiently identifying the international postal items subject to EAD requirements. For letter mail, sorting of LC (letters, postcards) and AO (other objects) in separate receptacles of the same dispatch is indicated by using corresponding mail subclass codes at receptacle level. If the separation of AO items by contents (i.e. goods and documents) is recommended by the destination designated operator, the receptacle code UA may be used for goods (small packets) and the receptacle UL may be used for documents (bulky letters, no goods contained). By performing this content separation, the DO of origin facilitates the prompt identification, by all global postal supply chain stakeholders, of postal receptacles subject to the EAD requirements, and of those that are exempt (i.e. not containing goods).

Manual dispatch processes require the individual scanning of each postal item containing goods into its receptacle. The manual scanning operation is sometimes error prone, hence many DOs are looking at automated solutions. The Edge feature of the UPU Global Monitoring System (GMS) radio frequency identification (RFID) based solution automates the capture of multiple item identifiers simultaneously, enhancing the completeness and accuracy of data and removing manual errors. GMS Edge also detects misrouted items in real time, allowing such items to be removed from the wrong receptacle and eliminating erroneous processes and related data.

c Quality considerations related to referral messages

The ITMREF “Error” (ERR) message is used as a consequence of the destination DO’s assessment of the item-level data, to indicate when it is established that the data related to the item in the ITMATT file was erroneous (i.e. it did not meet the requirements of the ITMATT standard). The generation of ITMREF ERR messages should be limited to mandatory data values that are used in the PLACI risk analysis process. The ITMREF ERR message uses reason codes to pinpoint where data may be erroneous, which may be a symptom of poor data quality in the original ITMATT message, in order to facilitate updating of the information by the origin DO. The expectation is an updated ITMATT message that can be forwarded to the Customs authority for assessment. Without an updated ITMATT message, in case of an ERR ITMREF message received on a particular postal item’s ITMATT, this cannot be considered to be in compliance with the applicable EAD regulations, as the destination Customs authority would have not risk assessed the item.

The ITMREF RFI message is used as a possible consequence of the initial PLACI assessment by the destination Customs authority of the item-level data, i.e. the 7+1 data set in the ITMATT. The RFI is not to be used to request from the origin other information that a destination Customs might desire to facilitate its fiscal or other processing. PLACI risk management principles should guide the issuance of RFIs to avoid hindering the flow of cross-border mail, which is already undergoing traditional screening. If no updated information can be provided, this type of ITMREF can also be responded to with an “export cancelled” or “requested information cannot be provided” REFRSP. In the latter case, the DO of origin is advised to wait for a subsequent ASC ITMREF confirming that the referral has been cleared and that the initial risk assessment process is completed.

Items with open referrals should not be included in consignments handed over to carriers, as these items would not be in compliance with the applicable EAD regulations. In order to avoid a situation of erroneously dispatching an item without EAD or with an open referral, DOs are advised to consider introducing technological solutions to support the operational process.

The EAD Check functionality is available to users of the UPU Customs Declaration System (CDS) and International Postal System (IPS). It can also be accessed via an application programming interface (API) for DOs using bespoke systems for international mail. Furthermore, if origin DOs use UL-mail-subclass receptacles for registered items containing documents, this EAD Check function would allow streamlining of operational processes by identifying the UL-registered items as exempt from the EAD requirement (i.e. not containing goods).

Another solution worth considering is GMS Edge, which relies on RFID to detect and intercept non-EAD-compliant items, allowing DOs at origin to automatically separate items from the export operation. These items could be detected as lacking ITMATT, as having open referrals, or as containing dangerous goods (e.g. non-authorized equipment containing lithium batteries).

IV. Instruments and tools

a Introduction

DOs and Customs administrations looking to design and implement processes involving the exchange of data should become familiar with the relevant WCO and UPU tools and instruments below. These publications provide information about various standards, regulations and systems that could significantly ease the design phases of the project. The referenced tools are all available through the UPU or WCO websites should more details be required.

b Regulatory

i UPU Convention article 20 on customs control, customs duty and other fees

Convention article 20 reads as follows:

> "1 The designated operators of the countries of origin and destination shall be authorized to submit items to customs control, according to the legislation of those countries.
>
> "2 Items submitted to customs control may be subjected to a presentation-to-Customs charge, the guideline amount of which is set in the Regulations. This charge shall only be collected for the submission to Customs and customs clearance of items which have attracted customs charges or any other similar charge.
>
> "3 Designated operators which are authorized to clear items through the Customs on behalf of customers, whether in the name of the customer or of the designated operator of the destination country, may charge customers a customs clearance fee based on the actual costs. This fee may be charged for all items declared at Customs according to national legislation, including those exempt from customs duty. Customers shall be clearly informed in advance about the required fee.
>
> "4 Designated operators shall be authorized to collect from the senders or addressees of items, as the case may be, the customs duty and all other fees which may be due."

ii UPU Convention article 8 on postal security, and implementing provisions

The 2012 Doha Congress adopted article 8 of the UPU Convention on postal security (the text of the article is reproduced below).

In summary, the text of the article urges DOs to make efforts to develop a mechanism for sending EAD on international postal shipments, to be used for both Customs and aviation security purposes. The provision of EAD is complementary to the use of scanning equipment to perform non-intrusive inspections.

Efforts are to be made to ensure people's safety and the sustainability of the postal sector through the integrity of the global supply chain. The goal is to prevent sudden changes in procedures that could disrupt postal traffic and cause problems around the world. Increased security measures in 2010 temporarily forced DOs to partially or totally suspend mail services, causing backlogs of mail, shutdowns of transit hubs and increased transportation costs.

The perceived threat level is high, with the result that individual countries, groups of countries and other intergovernmental organizations are enforcing new security requirements and regulations. Some of these requirements and regulations are already in force, while others will come into force in the near future. Member countries and their DOs have to urgently anticipate these requirements and regulations or risk having them unilaterally imposed upon them. If quality of service – and consequently the competitiveness of DOs – is to be maintained, member countries and their DOs have to work proactively and urgently to improve their security measures and update them to meet accepted global minimum standards, if they do not already do so.

Given the need for heightened security, and with a view to maintaining the ability of DOs to meet their customers' needs, it is imperative that international security measures be taken collectively and collaboratively, involving all stakeholders in the preparation and decision-making process.

UPU members will also benefit, as expeditious customs clearance and secure transportation of postal items are essential components of the overall quality of international postal services. Advance submission to Customs administrations and other border or security authorities of information about postal shipments in an electronic format can accelerate the processing of postal items and enhance transportation security across the board.

UPU Convention article 8 reads as follows:

> "1 Member countries and their designated operators shall observe the security requirements defined in the UPU security standards[5] and shall adopt and implement a proactive security strategy at all levels of postal operations to maintain and enhance the confidence of the general public in the postal services provided by designated operators, in the interests of all officials involved. This strategy shall include the objectives defined in the Regulations, as well as the principle of complying with requirements for providing electronic advance data on postal items identified in implementing provisions (including the type of, and criteria for, postal items) adopted by the Council of Administration and Postal Operations Council, in accordance with UPU technical messaging standards. The strategy shall also include the exchange of information on maintaining the safe and secure transport and transit of mails between member countries and their designated operators.
>
> "2 Any security measures applied in the international postal transport chain must be commensurate with the risks or threats that they seek to address, and must be implemented without hampering worldwide mail flows or trade by taking into consideration the specificities of the mail network. Security measures that have a potential global impact on postal operations must be implemented in an internationally coordinated and balanced manner, with the involvement of the relevant stakeholders."

WCO members should endeavour to adopt national legislation to support the postal electronic submission of data. In the development of practices and regulations pertaining to the exchange of electronic postal data, it will be important to support appropriate security of the data to prevent misuse or compromise by unauthorized entities, which could violate individual privacy or divulge proprietary business information.

Article 08-002 of the Regulations to the Convention (Implementing provisions for providing electronic advance data) includes the following provisions:

> "2 Each item for which electronic advance data is provided shall be accompanied by the appropriate UPU customs declaration form.
>
> "3 The electronic advance data required to meet such requirements shall, in all cases, replicate data documented on the appropriate UPU customs declaration form."

UPU postal security standards S58 (General security measures) and S59 (Office of exchange and international airmail security) were compared with those of the WCO SAFE Framework of Standards

In the comparison of the security standards, reference to the UPU Acts has been made when necessary. Mapping of the WCO and UPU security standards shows a great deal of consistency and alignment. An understanding of the WCO and UPU security standards is useful in enhancing opportunities to further align and harmonize the respective security requirements and implement them in a coordinated and effective manner.

The mapping of standards provided potential opportunities for future work on harmonizing and aligning these programmes, such as cross-referencing standards with their respective instruments/tools, and conducting a

[5] Security standards S58 and S59.

joint audit/accreditation of security requirements to prevent duplication of validation processes and leverage synergies where possible (e.g. having DOs join AEO programmes).

It may be noted that UPU security standards S58 and S59 are mandatory for all UPU member countries. For the full description of S58 and S59, please visit the Standards section of the UPU website at www.upu.int. These have been referenced in pillar 3 of the 2018 SAFE Framework of Standards.

iii WCO SAFE Framework of Standards[6]

The WCO SAFE Framework of Standards to Secure and Facilitate Global Trade is a Customs instrument covering all modes of transport to secure and facilitate goods moving through international supply chains. This framework has both national and international implications and is composed of distinct standards that call for, inter alia:

– partnerships to be established between Customs administrations, between Customs administrations and the private sector, and between Customs administrations and other government agencies at borders;

– harmonized electronic advance information requirements for conducting risk assessments to address security threats;

– the use of modern, non-intrusive detection equipment;

– the introduction of authorized economic operators (AEOs) which, having satisfied pre-determined security standards, receive the benefit of enhanced facilitation; and

– mutual recognition between the Customs administrations of their respective AEOs and Customs control procedures.

The WCO has also issued its SAFE Package, which groups together all WCO instruments and guidelines that support implementation of the SAFE Framework.

As the SAFE Framework continues to be more fully implemented by WCO Members, a substantial amount of additional support material has been developed and incorporated into the SAFE Package. The 2021 edition of the SAFE Framework provides for EAD for postal items. In addition, a number of new and updated tools have been added to the SAFE Package: Advance Cargo Information Implementation Guidance, Online AEO Compendium, Mutual Recognition Arrangement/Agreement (MRA) Strategy Guide, WCO Guidelines on Trader Identification Number, Data Analysis Practitioner's Handbook, etc.

iv Customs declaration forms CN 22 and CN 23

The CN 22 and CN 23 are the customs declaration forms for postal items as described in the Acts of the UPU currently in force. This enables customs officials to use those forms for customs purposes.

The CN 22/23 contains the following information:

1 Sender and recipient information (CN 23)

2 Postage paid and insurance costs (CN 23)

3 S10 item identifier

4 Designated operator

5 Category or nature of transaction (i.e. gift, commercial sale of goods (B2B), e-commerce goods, returned goods, documents, other)

6 Quantity and detailed description of contents

7 Weight (individual item weight and total weight)

8 Value (individual item value and total value)

9 HS tariff number per item (for commercial items, mandatory from September 2025 if required by the destination country)

[6] www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/safe_package.aspx.

In a manual postal environment, CN 22/23 forms are presented to Customs administrations as a hard copy form or image that is physically reviewed for fiscal charging and risk targeting. Therefore, to facilitate the effective use of EAD by Customs administrations, the CN 22/23 data should be used to generate the minimum information required in EAD messages. Without the CN 22/23 information, Customs administrations would not be able to use the EAD as required to assess risk and to implement advance Customs decisions (pre-arrival/pre-loading), and manual intervention would be required for fiscal charging and risk targeting purposes.

CUSTOMS DECLARATION — May be opened officially — **CN 22**

Designated operator — **Important!** See instructions on the back

- ☐ Gift (non-commercial) ☐ Commercial sale of goods (B2B)
- ☐ Documents ☐ Returned goods
- ☐ E-commerce goods ☐ Other (please specify):_____

Quantity and detailed description of contents (1)	Net weight (2)	Value and currency (3)	H S tariff number* (4)	Country of origin* (5)
Total weight *(in kg)* (6)		Total value (7)		

I, the undersigned, whose name and address are given on the item, certify that the particulars given in this declaration are correct and that this item does not contain any dangerous article or articles prohibited by legislation or by postal or customs regulations

Date and sender's signature (8)

Optional. Must meet S10 standard, including barcode height

Minimum size 74 x 105 mm, white or green
Maximum size 105 x 148 mm, white

CN 22 (Back)

Instructions

To accelerate customs clearance, you must complete all applicable fields, and fill in this form in English (preferably), French or in a language accepted by the origin and destination countries. If the content of the fields does not fit in the space available, you must use a CN 23 form. You must give the sender's full name and address on the front of the item.
For commercial items, it is recommended that you complete the fields marked with an asterisk (*), and attach an invoice to the outside, as it will assist Customs in processing the items.
Select a reason for export. ("Gift" (non-commercial) is not an acceptable reason for export for commercial items.) An item is considered to be commercial in nature if there is a financial transaction between the sender and addressee associated with it. "Commercial sale of goods (B2B)" may be used only for items sent from one business to another business. "E-commerce goods" may be used only for items sent as a result of an online (B2C) transaction.

(1) Give a detailed description (generic descriptions such as "clothes" are not acceptable), quantity and unit of measure for each article, e.g. two men's cotton shirts.

(2), (3) Give the total weight and total value with currency for each article, (line item) e.g. CHF for Swiss francs.

(4*) The HS tariff number (6 digits) is based on the Harmonized Commodity Description and Coding System developed by the World Customs Organization.

(5*) Country of origin means the country where the goods originated, e.g. were produced, manufactured or assembled.

(6), (7) Give the total value, indicating the currency, and total weight of all articles (line items).

(8) Your signature and the date confirm your liability for the item.

CUSTOMS DECLARATION — **CN 23** — **Important!** See instructions on the back — May be opened officially

(Designated operator)

From
Name
Business
Street — Tel. No.
Postcode — City
Country

To
Name
Business
Street — Tel. No.
Postcode — City
Country

Sender's customs reference (if any)

No. of item (barcode, if any)

Importer/addressee reference (if any) (tax code/VAT No./importer code) (optional)

Importer/addressee fax/e-mail (if known)

Detailed description of contents (1)	Quantity (2)	Net weight (in kg) (3)	Value (5)	*For commercial items only* HS tariff number (7)	Country of origin of goods (8)
		Total gross weight (4)	Total value (6)	Postal charges/Fees (9)	

Category of item (10)
- ☐ Gift (non-commercial) ☐ E-Commerce goods ☐ Other (please specify): _____
- ☐ Returned goods Explanation:
- ☐ Documents ☐ Commercial sale of goods (B2B)

Comments (11): (e.g.: goods subject to quarantine, sanitary/phytosanitary inspection or other restrictions)

Office of origin/Date of posting

Number of parcels — certificates and invoices

Insured value SDR

Total gross weight of the parcel(s) — Charges

- ☐ Licence (12) — No(s). of licence(s)
- ☐ Certificate (13) — No(s). of certificate(s)
- ☐ Invoice (14) — No. of invoice

Sender's instructions in case of non-delivery
Treat as abandoned ☐ Return to sender ☐
☐ Priority ☐ Non priority

I certify that the particulars given in this customs declaration are correct and that this item does not contain any dangerous article prohibited by legislation or by postal or customs regulations

Date and sender's signature (15)

Declaration by addressee

I have received the parcel described on this note

Date and addressee's signature

c Standards

With the continuous development of technology and security requirements, the use of UPU and WCO standards has become crucial.

As the postal community and its supply chain partners (carriers, Customs authorities, handling agents, etc.) come to rely increasingly on digital data exchanges, it is becoming essential that all parties implement and comply with standards. This is the first step in ensuring data provision and data quality.

i UPU M33, ITMATT V1.2

The M33 standard specifies how item information is encoded for electronic communication purposes and defines ITMATT as a message that supports such communications. Version 1 of the standard was granted UPU status 2 (approved UPU standard) in 2017. Status 2 means that the standard is considered very stable and has been used effectively by several parties for a significant length of time.

In the EAD context, it is a message exchanged between DOs, and covers the electronic representation of existing UPU CN 22/23 customs declaration forms.

ii WCO–UPU M55 CUSITM V2 – M56 CUSRSP V2

The joint WCO–UPU messaging standards were developed to assist the interfacing of DOs and Customs. They are independent of the software or IT systems used to send and receive them. Any DO–Customs electronic interface (including those that already exist) is suitable as long as it is functional and based on the joint messaging standards in order to prevent a fragmented approach.

CUSITM V2 is a message used by a DO to transmit postal item information to its Customs administration. It covers the electronic representation of existing UPU CN 22/23 customs declaration forms, agreed standards between the UPU and the WCO, plus additional attributes, in alignment with the WCO Data Model. The message structure clearly separates information in UPU forms from other information. The other information is considered optional and for future consideration.

N.B. – The CUSITM V2 specification is not mandatory, as it does not impose an obligation to provide Customs with any of the attributes it supports in electronic format. CUSITM is an interface tool; its exact usage should be agreed bilaterally between each DO and Customs administration.

For a full description of M55, please visit the Standards section of the UPU website at www.upu.int.

CUSRSP is a message used by a Customs administration to transmit postal item information to its DO, usually in response to a CUSITM message. Both parties must agree on the exact use of the message. The intended business benefit for both parties is to automate and therefore speed up the customs clearance process. Version 2 of the standard supports conveying the result of a pre-loading advance cargo information (PLACI) risk assessment carried out by the destination Customs authority.

For a full description of M56, please visit the Standards section of the UPU website at www.upu.int.

iii Mapping of paper form fields with electronic attributes

The ITMATT message is the electronic equivalent of the CN 22 and CN 23 customs declaration forms. The table below shows how the ITMATT corresponds to the paper forms and explains the numbered zones on the templates given in section III.

– The first column shows the number used in the templates in Section III.

– The second column defines the CN 22/CN 23 data element.

– The third column shows the nature of the data (mandatory, optional, etc.) on the CN 22.

– The fourth column shows the nature of the data on the CN 23.

– The fifth column describes the purpose of the data element and provides guidance on proper form completion.

– The sixth column shows the corresponding item attributes(s) in ITMATT V1.5.0 messages.

– The seventh column shows the corresponding item attributes(s) in CUSITM V1.2 messages.

Codes used in the second and third columns to define the nature of the data:

C Conditional (should be supplied if applicable and known);

D Derived (calculated from other information);

M Mandatory (must be supplied);

MC Mandatory for commercial items;

O Optional (supplied if available in electronic form);

R Recommended (should be supplied, but not mandatory);

RC Recommended for commercial items (should be supplied, but not mandatory);

X Not supported or not applicable.

N.B. – The CN 22 and CN 23 forms are used for letter-post items. The CN 23 form is used for parcels. Parcels can have a CP 72 manifold set instead of a CN 23 form; the CP 72 encompasses the CN 23 information.

CN 22/CN 23 customs declaration data elements

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
1	Designated operator	M	M	This field identifies the designated operator of origin. The name of the DO is typically pre-printed on the form. "Designated operator" is defined in UPU Convention article 1.1.12 as: "any governmental or non-governmental entity officially designated by the member country to operate postal services and to fulfil the related obligations arising out of the Acts of the Union on its territory".	N/A	
2	May be opened officially	M	M	This text informs the sender that the item may be opened (e.g. by Customs) to inspect the items. This text is typically pre-printed on the form.	N/A	
3	Item No.	C	M	From 1 January 2018, the S10 barcode (13-character identifier) needs to be either indicated on the CN 22 form or affixed to letter-post items (including small packets) containing goods, using specific service indicator range UA–UZ. For more details, see UPU standard S10 (Identification of postal items – 13-character identifier).	item.ID.type item.ID.value	item.ID
4	Sender's full name and address, including the business name on the CN 23	M	M	Full name of the sender, street address of the sender, postcode of the sender, city of the sender, country of the sender (pre-printed), e-mail address of the sender (optional on EMS label but not included on CN 23). Sender's telephone number is important in order to contact the sender when necessary (but is an optional element). It is the responsibility of the sender (who completes the form) to decide whether or not to provide the telephone number. The exchange of this additional (personal) data falls under the protection of article 10 of the UPU Convention.	sender.identification.name sender.identification.additional-data sender.postal-address postal-address.premises .postal-address.locality locality.code	sender.identification.name sender.postal-address postal-address.premises .postal-address.locality locality.code locality.name

<table>
<tr><th>No.</th><th>CN 22/CN 23 data elements</th><th>CN 22 status</th><th>CN 23 status</th><th>Explanatory remarks</th><th>Corresponding item attribute(s) in ITMATT</th><th>Corresponding CUSITM attributes</th></tr>
<tr><td>4</td><td>Sender’s full name and address, including the business name on the CN 23 (cont.)</td><td></td><td></td><td>UPU Regulations article 17-106.3.3 stipulates:
“The addressee’s address and name shall be worded in a precise and complete manner. They shall be written very legibly in roman letters and Arabic numerals. If other letters and numerals are used in the country of destination, it shall be recommended that the address is given also in these letters and numerals. The name of the place of destination and the name of the country of destination shall be written in capital letters together with the correct postcode number or delivery zone number or post office box number if any. The name of the country of destination shall be written preferably in the language of the country of origin. To avoid any difficulty in the countries of transit, it is desirable for the name of the country of destination to be added in an internationally known language. Designated operators may recommend that, on items addressed to countries where the recommended position of the postcode is in front of the name of the location of the destination, the postcode should be preceded by the EN ISO 3166–1 Alpha 2 country code followed by a hyphen. This shall in no way detract from the requirement for the name of the destination country to be printed in full.”
The following table from the M33 ITMATT v1 EDI messaging standard shows examples of addresses using ITMATT v1.5.0
<table>
<tr><th>Full address representation</th><th>ITMATT field</th><th>value</th></tr>
<tr><td rowspan="6">ABC Media Technologies GmbH
Shipping department
Postfach 73 09 10
22129 Hamburg
GERMANY</td><td>identification.name</td><td>ABC Media Technologies GmbH</td></tr>
<tr><td>identification.additional-data</td><td>Shipping department</td></tr>
<tr><td>postal-address.premises</td><td>Postfach 73 09 10</td></tr>
<tr><td>postal-address.locality.name</td><td>Hamburg</td></tr>
<tr><td>postal-address.locality.code</td><td>22129</td></tr>
<tr><td>postal-address.country-code</td><td>DE</td></tr>
<tr><td rowspan="6">Parliament of Canada
Parliament building
Ottawa, ON K1A 1M4
CANADA</td><td>identification.name</td><td>Parliament of Canada</td></tr>
<tr><td>postal-address.premises</td><td>Parliament building</td></tr>
<tr><td>postal-address.locality.name</td><td>Ottawa</td></tr>
<tr><td>postal-address.locality.code</td><td>K1A 1M4</td></tr>
<tr><td>postal-address.locality.region</td><td>ON</td></tr>
<tr><td>postal-address.country-code</td><td>CA</td></tr>
<tr><td rowspan="4">BCD Ltd.
1647 Shinomyia
Kanagawa
JAPAN</td><td>identification.name</td><td>BCD Ltd.</td></tr>
<tr><td>postal-address.premises</td><td>1647 Shinomyia</td></tr>
<tr><td>postal-address.locality.name</td><td>Kanagawa</td></tr>
<tr><td>postal-address.country-code</td><td>JP</td></tr>
<tr><td rowspan="8">Ilmo. Sr.
Adolfo Martins
Banco do Sudeste S/A
Avenida Ribeiro Junqueira, 2935
Esplanada
Governador Valadares – MG
35010-911
BRAZIL</td><td>identification.name</td><td>Adolfo Martins</td></tr>
<tr><td>identification.additional-data</td><td>Ilmo. Sr.</td></tr>
<tr><td>postal-address.premises (line 1)</td><td>Avenida Ribeiro Junqueira, 2935</td></tr>
<tr><td>postal-address.premises (line 2)</td><td>Esplanada</td></tr>
<tr><td>postal-address.locality.name</td><td>Governador Valadares</td></tr>
<tr><td>postal-address.locality.code</td><td>35010-911</td></tr>
<tr><td>postal-address.locality.region</td><td>MG</td></tr>
<tr><td>postal-address.country-code</td><td>BR</td></tr>
</table></td><td>locality.name
locality.region
postal-address.country-code
sender.contact.email
sender.contact. telephone
sender.contact.fax</td><td>locality.region
postal-address.country-code
sender.contact.email
sender.contact. telephone
sender.contact.fax</td></tr>
</table>

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
5	Sender's customs reference	X	C	Any exporter reference number supporting import clearance (i.e. VAT identification No., EORI No.).	sender.identification.reference	sender.identification.reference
6	Recipient full name and address, including the business name on the CN 23	M	M	Full name of the addressee, street address of the addressee, postcode of the addressee, city of the addressee, country of the addressee, e-mail address of the addressee (optional on CN 23 label). Addressee's telephone number is important in order to contact the addressee when necessary (but is an optional element). It is the responsibility of the sender (who completes the form) to decide whether to provide the telephone number or not. The exchange of this additional (personal) data falls under the protection of article 10 of the UPU Convention.	addressee.identification.name addressee.identification.additional-data addressee.postal-address	addressee.identification.name addressee.identification.additional-data addressee.postal-address
7	Importer's reference (tax code, VAT No., etc.)	X	O	Any importer reference number supporting import clearance (i.e. tax code, VAT identification No., EORI No., personal ID, etc.).	addressee.identification.reference	addressee.identification.reference
8	Importer's telephone/fax/e-mail	X	C	The importer's telephone/fax/e-mail is for contacting the importer when needed. This ensures that postal items can be delivered to the correct address and provides an opportunity for customers to give feedback through various channels, including text messaging.	addressee.contact.email addressee.contact.telephone addressee.contact.fax	addressee.contact.email addressee.contact.telephone addressee.contact.fax
	Category/ nature of the item	R	R	Reason for export: one category/nature should be selected per item. These boxes can be used to accelerate customs clearance in the destination. For example, many countries have a different customs duty threshold for gifts.	item.nature-of-transaction-code	nature-of-transaction-code

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
9	– Gift (non-commercial)	R	R	"Gift (non-commercial)" is not acceptable for export if the sender is a business. Under Standard 11 of Specific Annex J, Chapter 2, the WCO recommends that national legislation enable the tax- and duty-free importation of gifts up to a nationally specified value. In this regard, "gift (non-commercial)" could be defined as an item that: a is sent to a private person by or on behalf of another private person residing abroad; b is occasional; and c consists of goods for personal use by the addressee or his/her family, the nature and quantity of which are such that the item is obviously not of a commercial nature. For more details, see UPU code list 136 (Item nature indication codes): support.ptc.post/scms_public The code for "gift (non-commercial)" is 31. Provides Customs with an indication of the type of contract under which the item is mailed, expressed as a value from UPU code list 136. For more details, see UPU code list 136 (Item nature indication codes): support.ptc.post/scms_public	item.nature-of-transaction-code item.nature-of-transaction-description	nature-of-transaction-code nature-of-transaction-description
10	– Documents	R	R	The code for "documents" is 91. Relevant articles of the UPU Convention: Article 1 Definitions 1.4 documents: a letter-post, parcel-post or EMS item consisting of any piece of written, drawn, printed or digital information, excluding objects of merchandise, whose physical specifications lie within the limits specified in the Regulations Article 17 Basic services 2 Letter-post items containing only documents are: 2.1 priority items and non-priority items, up to 2 kilogrammes; 2.2 letters, postcards and printed papers, up to 2 kilogrammes;	item.nature-of-transaction-code item.nature-of-transaction-description	nature-of-transaction-code nature-of-transaction-description

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
10	– Documents (cont.)			2.3 items for the blind, up to 7 kilogrammes; 2.4 special bags containing newspapers, periodicals, books and similar printed documentation for the same addressee at the same address called “M-bags”, up to 30 kilogrammes. (If an M-bag contains any tangible item that may be considered an “Object of merchandise”, it would instead fall under the category “Sale of goods”.)		
11	– Sale of goods E-commerce goods (from June 2026) Commercial sale of goods (B2B)	R	R	Definition of “goods” in UPU Convention article 1.1.5: “a letter-post, parcel-post or EMS item consisting of any tangible and movable object other than money, including objects of merchandise, which does not fall under the definition of “documents” as provided in paragraph 1.4 above and whose physical specifications lie within the limits specified in the Regulations”. **N.B. –** “Object of merchandise” refers to anything that is bought or sold (wholesale or retail), i.e. anything that is the object of trade and commerce, or an article of commerce. Article 17 Basic services 3 Letter-post items containing goods are: 3.1 priority and non-priority small packets, up to two kilogrammes. “Commercial item” means any goods exported/imported in the course of a business transaction, whether they are sold for money or exchanged. In order to be considered “goods”, the item concerned has to be: i) any tangible and movable object other than money (including objects of merchandise); or ii) a piece of information which constitutes an article of commerce, as a result of trade between two parties. Provides Customs with an indication of the type of contract under which the item is mailed, expressed as a value from UPU code list 136. “Commercial sale of goods (B2B)” may be used only for items sent from one business to another. “E-commerce goods” maybe used only for items sent as a result of an online (B2C) transaction.	item.nature-of-transaction-code item.nature-of-transaction-description	nature-of-transaction-code nature-of-transaction-description

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
11	– Sale of goods E-commerce goods (from June 2026) Commercial sale of goods (B2B) (cont.)			For more details, see UPU code list 136 (Item nature indication codes): support.ptc.post/scms_public The code for “sale of goods” is 11. The code for “commercial sale of goods (B2B)” is 111. The code for “e-commerce goods” is to be specified by the UPU Standards Board by 1 June 2026.		
12	– Commercial sample	R	R	Articles which are regarded by Customs to be of negligible value and which are to be used only for the purpose of soliciting orders for goods of the kind they represent. Provides Customs with an indication of the type of contract under which the item is mailed, expressed as a value from UPU code list 136. For more details, see UPU code list 136 (Item nature indication codes): support.ptc.post/scms_public The code for “commercial sample” is 32.	item.nature-of-transaction-code item.nature-of-transaction-description	nature-of-transaction-code nature-of-transaction-description
13	– Returned goods	R	R	Provides Customs with an indication of the type of contract under which the item is mailed, expressed as a value from UPU code list 136. For more details, see UPU code list 136 (Item nature indication codes): support.ptc.post/scms_public The code for “returned goods” is 21.	item.nature-of-transaction-code item.nature-of-transaction-description	nature-of-transaction-code nature-of-transaction-description
14	– Other (please specify)			Provides Customs with an indication of the type of contract under which the item is mailed, expressed as a value from UPU code list 136. For more details, see UPU code list 136 (Item nature indication codes): support.ptc.post/scms_public The code for “other” is 999.	item.nature-of-transaction-code item.nature-of-transaction-description	nature-of-transaction-code nature-of-transaction-description
15	Explanation about the nature of the item	X	C	This field is used to provide more details concerning an item categorized as “other”.	item.nature-of-transaction-description	nature-of-transaction-description

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
	For each article within the item[2]			*[2] The CN 22 provides one box for HS tariff number and country of origin, rather than a box per article.*	item.content-piece	content_piece
16	– Description, quantity and unit of measure	M	M	Description: Give a detailed description of each article in the item, e.g. “men’s cotton shirts”. General descriptions (e.g. “clothes”, “spare parts”, “samples” or “food products”) are not permitted. This is especially true for gifts. Plain language description of the nature of the article, sufficient to identify it at the level required for banking, customs, statistical or transport purposes, avoiding unnecessary detail. Quantity: indicate the quantity of each article and the unit of measurement used. The number of separate units of the same article (content-piece), which are included within the net weight and value provided for that article (content-piece).	content_piece.number_of_units content_piece.description	content_piece.number_of_units content_piece.description
17	– Net weight in kg	M	M	Indicate the net weight of each article (in kg).	content_piece.net_weight	content_piece.net_weight
18	– Value and currency	M	M	Give the value of each article, indicating the currency used (e.g. CHF for Swiss francs). The monetary value of the article (content-piece), declared for customs purposes. If the number of units is more than one, the value declared is the total for all units (e.g. three units of 5 USD each means a value of 15 USD).	content_piece.declared_value	content_piece.declared_value
19	– HS tariff number (six digits)	RC	RC	The six-digit code of the article (content-piece) in accordance with the Harmonized System (HS) of tariff nomenclature, an internationally standardized system of classification. Codes shorter than 6 digits are not allowed. Longer codes (8 or 10 digits, but not 7 or 9) may be used to provide more information based on the destination classification. Alphabetic prefixes are not supported.	content_piece.tariff_heading	content_piece.tariff_heading

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
19	– HS tariff number (six digits) (cont.)			The Harmonized Commodity Description and Coding System (HS) is a multipurpose international product nomenclature developed by the WCO. It comprises about 5,000 commodity groups, each identified by a six-digit code arranged in a legal and logical structure and supported by well-defined rules to achieve uniform classification. Customs Declaration System application programming interfaces (APIs) provide HS code look-up functionality.		
20	– Country of origin of the goods	RC	RC	The two-letter country code defined in the ISO 3166-1 alpha-2 list. "Country of origin" means the country where the goods originated, e.g. were produced/manufactured or assembled. Senders of commercial items are advised to supply this information, as it will assist Customs in processing the items.	content_piece.origin_location	content_piece.origin_location
21	Postal charges	X	M[3]	Amount of postage paid to the Post for the item. Specify separately any other charges, e.g. insurance. Though the specification of postal charges paid to the office of origin is mandatory on the CN 23, the two postal operators involved may agree to support the sending of ITMATT data as soon as it is available, which may be before the item is posted. The postal charges might therefore not be known at the time of capture of the data for an ITMATT message, and are therefore not mandatory in the message. The amount of postage paid can be provided later, either in a further ITMATT message with updated details (including the relevant event data) or by means of a separate EMSEVT message.	item.postage-paid	postage_paid
22	Other fees (insurance, etc.)	X	C	Other fees such as insurance	item.additional_fees	additional_fees
23	Total item weight in kg	M	M	Give the total weight of the item (in kg), including packaging (corresponding to the weight used to calculate the postage).	item.declared_gross_weight or item.measured_gross_weight	gross_weight
24	Total item value and currency	D	D	Indicate total item value and currency, for customs purposes.	item.total_declared_value.amount	item.total_declared_value.amount

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
				The monetary value of the item, declared for customs purposes: this is normally the sum of the declared values for each article (content-piece). In the case of letter-post items for which the value of the contents declared by the sender exceeds 300 SDR, the items must be accompanied by a CN 23, since that form is more detailed and will accelerate customs clearance. The SDR (special drawing right) is a monetary unit used between Posts. The corresponding ISO 4217 currency code is XDR. The UPU publishes SDR/national currency conversion factors periodically by circular. The website www.xe.com can also be used to unofficially determine the SDR equivalent of national currencies. In the case of items from commercial senders with the value underdeclared on the customs declaration (e.g. as compared with the invoice), the origin Post should be informed, which, in turn, should take the issue up with its customer. **N.B. –** Information in ITMATT reflects information on the paper CN 23 form. It may happen that the total declared value does not correspond to the sum of the article (content-piece) values on the paper form, typically if the paper CN 23 form was completed manually (wrong calculation or no information entered at content-piece level).	item.total_declared_value.currency	item.total_declared_value.currency
25	Comments (e.g. quarantine)	X	C	To accelerate customs clearance in the destination country, the sender should provide a brief description of goods subject to quarantine (plants, animals, food products), sanitary/phytosanitary inspection or other restrictions, involving agencies other than Customs.	item.observations	item.observations
26	Licence	X	C	In cases where an item is accompanied by a licence, the sender should tick the appropriate box and state the number.	associated_document.doctype associated_document.name item.accompanying_document.identifier	associated_document.doctype associated_document.name item.accompanying_document.identifier
27	Certificate	X	C	In cases where an item is accompanied by a certificate, the sender should tick the appropriate box and state the number.	associated_document	associated_document

No.	*CN 22/CN 23 data elements*	*CN 22 status*	*CN 23 status*	*Explanatory remarks*	*Corresponding item attribute(s) in ITMATT*	*Corresponding CUSITM attributes*
28	Invoice (with a reference number on the CN 23)	RC	RC	In cases where an item is accompanied by an invoice, the sender should tick the appropriate box, state the number, and attach an invoice for the commercial items.	associated_document	associated_document
29	Office of origin	X	M	Office of origin is mandatory on the CN 23. This information (along with the date of posting) is useful in tracing missent or lost items.	event.location.code if the event corresponds to posting	–
30	Date of posting	X	M	Date of acceptance by the origin designated operator. Date of posting is mandatory on the CN 23.	event.latest-date if the event corresponds to posting	posting_date
31	Date of the sender's signature[3]	M	M	*[3] The sender's signature is not provided for.* The signature and date confirm the sender's liability for the item. Designated operators are not liable for customs declarations.	–	–
32	Sender's signature	M	M	Sender's signature not supported electronically: it should be on the physical CN 22 or CN 23 that accompanies the item.	–	–

iv WCO Data Model

The WCO Data Model (DM) has been the data foundation for global trade interoperability for over two decades. It was developed to provide a universal language for cross-border data exchange enabling the implementation of Single Window systems and fueling Data Analytics. It is a compilation of clearly structured, harmonized, standardized, and reusable sets of data definitions and electronic messages designed to meet the operational and legal requirements of Customs and other cross-border regulatory agencies (CBRAs) responsible for border management. It is mapped to the United Nations Trade Data Elements Directory (UN/TDED) and leverages standards established by international organizations such as the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) and the International Organization of Standards (ISO) to ensure global interoperability. The DM significantly reduces costs and improves efficiencies for Members and other stakeholders, such as the business community.

The current version of the DM, version 4, has evolved to meet the needs of its users over the years. It incorporates key enhancements such as the WCO DM app, and offers improved quality and simplification, increased guidance and support, and compatibility with modern technologies such as JSON- and open APIs. Previous versions introduced important features, such as solutions for Customs-automated systems. Multi-Modal Manifest and XML are also offered to meet increased governmental regulatory requirements and the demand for new technologies. Beyond Customs requirements, the WCO DM also includes harmonized datasets that facilitate inter-agency collaboration within a Single Window environment eliminating redundancy in export, import, and transit procedures. These datasets were developed by the WCO in cooperation with relevant international organizations, including the UPU, the International Maritime Organization (IMO), and CODEX.

The global trade landscape continues to rapidly change as advancements in technology make data more accessible and governments adjust regulations to leverage these advancements. The role of the DM as the data foundation becomes even more essential as the WCO and Members focus on formulating a data strategy.

v UPU M41, PREDES V2.1

The PREDES version 2.1 message contains information about dispatches of mail prepared by an origin office of exchange for transportation to a destination office of exchange, typically in another country. It describes the dispatch-level information, such as the dispatch identification data and the planned transport, the individual receptacles contained in the dispatch, and the individually identified (trackable) items in each receptacle.

In the EAD context, for direct flows, the item-receptacle S9/S10 link (receptacle ID – postal item ID) is communicated in the PREDES transmitted from the origin DO to the destination DO. This information allows items of interest to be located, following a risk assessment process.

vi UPU M48, CARDIT V2.1

The CARDIT message contains information about consignments of mail handed over to a carrier. It is a consignment-level message. In the EAD context, the CARDIT message provides the carrier with the list of receptacle IDs contained in a postal consignment handed over for transport. The carrier may then be able to communicate this receptacle list to the destination Customs authorities, which will then be able to monitor and control the movement of goods through the postal supply chain. Furthermore, the origin DO may communicate, where relevant, the AR flag to confirm that EAD has been filed with the destination authorities and that there are no outstanding referrals in the consignment handed over to the airline.

vii UPU M53 ITMREF V1 – M54 REFRSP V1

The ITMREF V1 (item referral) message provides the logical definition of an electronic message which supports the communication from the destination postal operator to the origin postal operator of information on the PLACI risk assessment carried out by the destination Customs authority or the destination postal operator's assessment of ITMATT data.

The REFRSP V1 (referral response) message is sent in response to an ITMREF message. The standard provides the logical definition of an electronic message which supports the communication from the origin postal operator to the destination postal operator of information on action taken and/or information required subsequent to the receipt of an ITMREF message.

d Publications

i Updated Guidelines to Specific Annex J2 of the WCO Revised Kyoto Convention

The Revised Kyoto Convention (RKC) sets out principles for simplified and harmonized customs procedures. In particular, Specific Annex J, chapter 2 (Specific Annex J2) of the RKC provides for simplified customs provisions applicable to postal traffic.

The Guidelines were updated in 2016. In addition to explaining and providing practical examples for the implementation of various standards and recommended practices contained in Specific Annex J2, the Guidelines contain the following appendices:

– Appendix I, on the use of information technology, contains information on advance data exchange (including an advance data flow chart), information on a standard adopted by the WCO and UPU for the messaging of electronic customs information, and commentary on future directions for the exchange of electronic customs information between DOs and Customs administrations.

– Appendix II presents the MoU between the WCO and the UPU and its accompanying Guidelines on cooperation between Customs administrations and DOs.

– Appendix III contains the Guidelines for Establishing an MoU between a Customs Administration and a DO at the National Level, jointly developed by the WCO and the UPU.

ii WCO–UPU Postal Customs Guide

The WCO–UPU Postal Customs Guide is a joint WCO–UPU tool and information source for postal and Customs staff dealing with postal customs clearance. The guide was last updated in 2024.

For DOs, the guide is intended to help familiarize staff with the customs components of the postal supply chain and with WCO standards, instruments and tools.

For Customs administrations, the guide will help staff responsible for postal customs clearance become more familiar with the postal processes involved in the international exchange of mail.

The guide also seeks to form a common basis for dialogue and discussion at a national level between the DOs of UPU member countries and the Customs administrations of the WCO.

The WCO–UPU Postal Customs Guide is available on the WCO website and in the Customs section of the UPU website.

iii UPU Customs and EAD Compendium

The UPU Customs EAD Compendium contains country-specific information on customs clearance processes and information relating to EAD exchanges between DOs. It contains the following sections:

– Electronic advance data;

– Import processing of customs duties and postal charges;

– Delivery of taxable/dutiable items;

– Other agencies responsible for customs clearance of postal items;

– Questions relating to customs declarations; and

– Miscellaneous information.

It is intended as an information source to allow DOs to more easily meet Customs and EAD requirements.

iv WCO–ICAO Guiding Principles for Pre-Loading Advance Cargo Information

This WCO–ICAO document provides general guidance, principles, and a description of the risk assessment process to assist International Civil Aviation Organization (ICAO) Member States and WCO Members that are considering the option to implement a Pre-Loading Advance Cargo Information (PLACI) programme, as an additional layer, for aviation security purposes. It provides a useful starting point for further discussions between Customs and Aviation Security (AVSEC) authorities and the private sector with the goal of refining PLACI concepts and ensuring the optimum degree of alignment between existing and future PLACI programmes.

The concept of PLACI was already under consideration by regulators as an aviation security extension to the Advance Cargo Information (ACI) regime. ACI enables Customs to target and risk-assess cargo shipments for a range of regulatory issues in advance of the arrival to the country of destination. The development of PLACI was given an added impetus by the terrorist incident in October 2010 when Improvised Explosive Devices were concealed in computer printer cartridges and placed on an aircraft. This incident led to the establishment of the United States Air Cargo Advance Screening (ACAS) pilot, followed by the European Union's PREloading Consignment Information for Secure Entry (PRECISE) and Canada's Pre-load Air Cargo Targeting (PACT) pilot. The pilot projects have tested the use of PLACI for assessing if a shipment is being used to conceal an improvised explosive or incendiary device (IED, IID), i.e. a "bomb in a box", and how to mitigate that risk. PLACI is an additional layer to the current cargo security regimes.

The Joint WCO–ICAO Guiding Principles for PLACI articulate the general approach for the consideration of ICAO Member States and WCO Members, should they wish to implement a PLACI system for aviation security purposes through mutual cooperation.

e Systems and additional resources

i UPU International Postal System

The UPU International Postal System (IPS) is a software application provided by the UPU's Postal Technology Centre and developed to support DOs of UPU member countries in managing their international mail flows in accordance with the Acts of the UPU. It provides, among others, for the following:

– An operational module for processing inbound and outbound international mail;

– An EDI module that allows DOs to exchange the latest versions of the UPU standard EDI messages (item, dispatch and consignment level as well as electronic verification notes);

– An international accounting module that can:

  - Generate all the UPU accounting forms;
  - Perform the validation of accounting forms received from partners; and
  - Perform the validation of transport invoices.

Three optional add-ons are:

– IPS Web Tracking: an Internet website which customers of DOs can use to track their postal items along the global postal supply chain;

– IPS Web Client: a web application which can be used by DOs in remote locations where the full IPS client version cannot be installed;

– IPS portable scanning device (PSD): A version of IPS dedicated to PSDs, with a limited set of functionalities that can be deployed in mobile-oriented settings, such as certain operations within an airmail facility.

ii UPU Customs Declaration System

The UPU Customs Declaration System (CDS) is a software application provided by the UPU's Postal Technology Centre and developed on the basis of the WCO–UPU Customs–Post EDI messages. It performs the following functions:

– Implements and supports Customs-related UPU–WCO standard EDI messaging (CUSITM/CUSRSP) and inter-postal standard messaging (ITMATT, ITMREF, REFRSP);

– Links DOs with Customs administrations and other border/security agency systems;

– Conveys pre-advised electronic customs declarations and responses;

– Assists in manual data entry and the sharing of declarations and responses using a web interface;

– Enables interconnectivity with other systems to import/export postal item declaration and customs response data through a platform-independent standard interface (SOAP[7] protocol);

– Supports automated risk assessment through a rules engine and plug-in application programming interface (API) (access for other IT systems);

– Facilitates the automated calculation of duties and taxes through a rules engine and a plug-in API (access for other IT systems);

– Provides a watchdog list functionality that can be integrated into operational processes handled by mail management systems (e.g. International Postal System);

– Allows for the provision of security or other feedback from import country to origin DO via CUSRSP message;

– Offers two implementation modes:

  - Infrastructure-free: a central system hosted at the UPU;
  - Self-hosted CDS: a locally installed version of the system operated by DOs or Customs administrations (or both), allowing for tighter system integration, better performance, fine-tuning for high volumes, and local control of the data held by the system.

iii ASYCUDA system

UN Trade and Development (UNCTAD) has developed an interface between ASYCUDA and the CDS to address the need for the exchange of EAD between Posts (using the CDS/IPS systems) and Customs (using the ASYHUB/ASYCUDA system) to enable efficient customs clearance processes and the timely delivery of postal items, based on the joint WCO–UPU messaging standards CUSITM/CUSRSP.

Through risk assessment and categorization of the EAD received prior to arrival, the customs clearance procedure for postal consignments becomes streamlined and expedited, facilitating processing prior to the arrival of goods with a view to expediting the release of goods upon arrival. Customs authorities may consider pre-assigning the EAD of incoming postal items one of the following categories:

– *Automatic release* of category 1 consignments (documents and correspondence) upon the arrival of consignments;

– *Immediate release* of category 2 consignments (low value consignments for which no duties and taxes are collected – de minimis threshold) on the basis of the CUSITM declarations provided by the DO;

– Request for *simplified declaration* for category 3 consignments (low value dutiable consignments);

– Request for *detailed declaration* for category 4 consignments (high value consignments).

[7] SOAP is an XML-based messaging protocol. It defines a set of rules for structuring messages that can be used for simple one-way messaging but is particularly useful for performing RPC-style (Remote Procedure Call) request–response dialogues.

The ASYHUB Post module can be integrated and customized to operate in the national ASYCUDAWorld/ ASYCUDA Single Window environment providing for:

– automated Post-Customs data exchange;

– pre-categorization of postal items (based on content and de minimis thresholds);

– efficient use of available postal supply chain data;

– simplified declarations tailored specifically to postal items exchanged under the UPU Convention; and

– pre-arrival processing and enhanced risk management.

The data-driven process may incorporate new EAD-based selectivity functions and variables to introduce risk management in relation to the postal customs declaration at different stages (pre-departure/pre-arrival on EAD/ and during the post-arrival clearance process, as applicable. Controls can be introduced through the provision of clear instructions to Customs staff on the type(s) of control/intervention and instructions on how the control should be performed upon arrival of the item. An arrival notification can then be communicated by the destination DO upon scanning of the item on the IPS system. If Customs have transmitted a pre-arrival category or control action to the destination DO, the postal staff can sort the item according to this initial EAD-based Customs decision, for more effective customs processing.

The DOs and Customs administrations of over 100 member countries and territories currently using the ASYCUDA system may consider the introduction of this ASYCUDA-CDS interface as part of their EAD implementation project at the national level.

iv WCO Trade Tools and tariff codes

WCO Trade Tools compiles information to support international trade actors, such as DOs and their customers, in the classification of goods and the determination of the corresponding Customs tariffs. This new database offers a single point of access to the HS preferential Rules of Origin and Valuation, through a completely new, user-centric and ergonomic interface.

In addition to a new interface design and new search engines, this new platform offers the following key features:

– Ability to cross-reference information by using a comparison tool in the HS and Rules of Origin;

– A direct overview of the most recent HS updates, highlighting the changes introduced;

– A system for tracking the evolution of the HS codes across editions, thanks to the correlation tables;

– A facility for searching through the product specific rules in more than 400 free trade agreements (FTAs), and access to the corresponding HS entries.

This platform also promotes cooperation among the different teams within Customs administrations, as well as with Customs brokers, DOs and companies, through various features such as the possibility of tagging information, writing comments and sharing folders. It offers the possibility of further enhancing use of the platform. Users can search through the extensive databases, and organize and store the content according to their personal preferences.

This new tool includes the 2022, 2017, 2012, 2007 and 2002 editions of the HS, around 400 FTAs with their preferential Rules of Origin/product specific recommendations, and the set list of valuation texts, including those of the Technical Committee on Customs Valuation.

WCO Trade Tools is accessible via the following link www.wcotradetools.org.

v UPU addressing solutions

To ensure data quality and compliance, it is crucial that senders' and recipients' addresses adhere to accurate national address and postcode formats. Understanding the nuances of postcodes across different countries is vital for correctly inputting and assigning them to their respective localities. The UPU provides standardized address reference data for all its member countries, facilitating the verification of address accuracy.

With a view to enhancing postcode quality within the ITMATT framework, the UPU has introduced the Post*Code API. This service integrates address verification logic and auto-complete functions, accessible via the UPU's CDS or other domestic systems. By validating correct postcodes for specified locality names, this API assists users in inputting precise information, reinforcing address accuracy, and ensuring compliance with EAD standards. Offering a variety of functions for checking postcode formats, verifying postcode correctness and establishing locality connections, the API supports auto-completion for locality names and addresses.

Moreover, one of the API's services includes a translation feature between Latin and other character sets, streamlining address verification and character translation processes. This feature seamlessly aligns with ITMATT standards, facilitating smooth data exchange with national Customs authorities.

Additionally, the UPU provides a range of publicly available tools for formatting entered postcodes and conducting comprehensive checks on length, composition and other relevant factors. This feature serves as a valuable asset for EAD, promoting consistency and accuracy in postal data exchange procedures.

vi Compliance to UPU Standards project

The project to measure compliance with UPU standards was launched at the end of 2017 within the framework of the POC Quality of Service Group. The project is cross-cutting and covers all mail products, regardless of the electronic data interchange (EDI) network used for message exchanges and the mode of international mail transport. Compliance checks are performed for all EDI messages and for the most widely used technical standards, such as those governing international mail processing centres (IMPCs) and identifiers. Participating DOs receive a monthly report containing details about message completeness, EDI compliance, and any needs for version upgrades to message standards identified in their exchanges with other Posts.

Additionally, a compliance dashboard allows DOs to immediately detect any problems identified in their messages. This dashboard is not limited to ITMATT messages. It includes all EDI messages exchanged in accordance with UPU standards, namely: EMSEVT (for tracking purposes); PREDES/RESDES (for handling postal dispatches); PRECON/RESCON (for handling postal consignments); and CARDIT/RESDIT (for data exchanges with airlines). The dashboard also indicates the completeness of the information provided regarding IMPCs where international mail is handled by DOs.

Compliance dashboard - March 2024

Operator:

overall compliance 88.51% rank: 120 / 198

EDI indicators:

common features 100% rank: 1 / 194	ITMATT 88.12% rank: 134 / 183	PREDES 100% rank: 1 / 182	PRECON 100% rank: 1 / 178	CARDIT 100% rank: 1 / 160
EMSEVT 99.74% rank: 59 / 189	ITMREF %	RESDES 55.22% rank: 188 / 189	RESCON 51.95% rank: 183 / 186	CARDIT EAD 100% rank: 1 / 116

Other indicators:

own IMPC 100% rank: 1 / 200	msg upgrade 100% rank: 1 / 208	1st flight quality 88.89% rank: 31 / 168	EMSEVT unique events 29.45% rank: 189 / 189	ITMATT: sender addr 90.93% rank: 59 / 173	unique dispatch ID 100% rank: 1 / 202
partner IMPC 100% rank: 1 / 195	EDI connectivity 98.94% rank: 86 / 200	ongoing flight quality 80.52% rank: 27 / 162	EMA-EMC mismatch 99.51% rank: 123 / 174	ITMATT: dest address 87.02% rank: 38 / 182	rcv ITMATT: dest address 4.46% rank: 189 / 195

Top 3 EDI issues:

Message	Isssue #	Description	% non-compliant
RESCON	131	Receptacle in multiple RESCON messages	48.1%
RESDES	43	Receptacle in multiple RESDES messages	44.6%
ITMATT	114	Invalid addressee phone/fax	4.9%

Details per mail class:

	EMSEVT	PREDES	RESDES	ITMATT	EMSEVT unique evts	ITMATT: sender address	ITMATT: dest address
C (parcels)	99.81	100	52.38	83.18	38.08	93.4	77.53
E (EMS)	99.21	100	54.94	77.45	31.42	87	64.84
U (letters)	99.93	100	57.14	89.16	26.58	91.01	88.62

More information can be found on the UPU website: www.upu.int/en/postal-solutions/programmes-services/quality-of-service/compliance-to-upu-standards.

vii UPU Quality Control System (QCS) Big Data

QCS Mail is a web-based system that uses real-time information from EDI exchanges between DOs and carriers to generate statistics about the quality of messaging and mail operations. QCS is also used for support activities, such as track and trace.

QCS can provide up to five years of online reports, including summary and detailed reports on operators as well as regional and global performance.

All messages that are sent and/or received via the POST*Net network are copied to QCS Mail. Messages that are both sent and received via other networks, external to POST*Net, are copied to QCS Mail if the operators have made a prior agreement to do so.

viii UPU Trainpost and capacity-building resources

The UPU Trainpost system aims to develop and reinforce local capacities in training and human resources through a cooperative training network.

Trainpost is based on a modular training system that allows greater simplicity in course design and a higher performance learning mode. The programme comprises a series of online courses developed by the UPU, which are aimed at developing and enhancing the proficiency of the postal staff of UPU member countries.

Via its platform, which is hosted by the Tunisian Post, the UPU provides online courses in a wide variety of areas, such as postal regulation/reform, operations, postal management, human resources and postal technology. The Trainpost site can be accessed at www.upu-trainpost.com.

These courses, which are provided to postal employees free of charge, are available in English, Arabic, French, Russian and Spanish.

ix WCO e-learning offer

The WCO provides cutting-edge e-learning platforms designed to empower Customs professionals around the world with comprehensive knowledge and skills in Customs matters. Customs officers from WCO Member administrations can access e-learning courses on the WCO CLiKC! Platform (clikc.wcoomd.org).

The CLiKC! app allows online courses and learning materials to be accessed directly from mobile devices. On the app, courses can be completed and certification can be obtained anywhere, anytime. The learning journey can even be continued while the user is offline.

The WCO Academy is the e-learning portal for the private sector and academia. Self-paced e-learning modules are provided in areas related to Customs, such as the Harmonized System, Customs valuation, rules of origin, the WCO Data Model, data analytics, the Revised Kyoto Convention, the TIR system, AEO validation and many more topics.

V. Business case for national EAD exchange and step-by-step approach

a Introduction

It is important to take a collaborative project planning approach when developing an electronic interface for the exchange of EAD. This will ensure that the business case used to seek executive-level support is complete and concise, and the details therein are sufficient to meet the needs of both organizations.

The main purpose of the business case is to outline the project rationale in order to facilitate decisions about the project. It summarizes the costs, benefits and risks, and provides the project manager with a tool to guide the design, management and evaluation of the project. The business case enables both DO and Customs decision makers to come to a final conclusion on whether or not to allocate the necessary resources, including funding, to the project. The business case is important because it enables these decision makers to evaluate the validity and benefits of the project based on realistic facts.

b Benefits

Time spent in Customs is a critical element in end-to-end postal performance. Moreover, DOs and Customs administrations are increasingly aware of the need and opportunity for enhancement of border security, aviation safety, and transportation security and facilitation throughout the postal network. Currently, most items moving through the postal network are subject to some form of manual risk assessment by Customs administrations for release or referral decisions within DO facilities, for examination, or for other purposes such as revenue collection. Owing to increasing e-commerce volumes, a manual processing environment is no longer feasible to accommodate the resulting changes in the mix of mail. On the other hand, e-commerce growth presents an excellent opportunity for DOs and Customs administrations – it represents a potential growth in the destination country's risk assessment and revenue collection activities, and a source of data for items with EAD already generated through order entry systems. It is in the best interest of DOs and Customs administrations to embrace this growth and ensure their capabilities match the ever-increasing demand. In cases in which DOs are responsible for the collection of duties and taxes, consideration should be given to compensation for these activities when developing an MoU, which could take the form of a service or handling fee.

By exchanging EAD, Customs administrations have the opportunity to leverage the data supplied by the exporting DO to facilitate advance customs decisions and more efficient customs processes. This allows the inbound Customs administration to target items of interest in advance, while ensuring continuous flow of legitimate postal traffic. It could eliminate or at least reduce the need for a physical review of items with an advance "customs release" decision (i.e. pre-clearance).

There are several other benefits associated with the use of EAD, including:

– Improved visibility, timelines and quality of service for items in the postal network;

– Improved safety and security of the mail, employees and citizens of the inbound DO by using historical electronic customs data to predict patterns and detect trends relating to common senders suspected of shipping illicit items;

– Improved safety and security of the aviation supply chain;

– Effective and accurate collection of leviable duties and taxes, and efficient implementation of *de minimis* thresholds;

– Leveraging of electronic systems to effectively adapt to the changing postal environment, including customer needs;

– Support for aviation transport partners with respect to their requirements;

– Opening up of avenues that might lead to pre-payment of duties and taxes or the establishment of account-based deferred payment of duties/taxes;

– Facilitation of the use of data analytics using "big data" for better risk assessment and targeting;

– Provision of better financial records on revenue assessment, as well as drawbacks/refunds for items returned by customers to the supplier.

c Challenges and opportunities

i IT systems

In order to facilitate the effective exchange and use of EAD, it is critical that DOs and Customs administrations develop/acquire/maintain IT systems that effectively communicate with each other. This will enable Customs administration to achieve greater efficiencies in data analysis, successfully target suspected items, and enforce national Customs regulations while applying accurate duty and tax calculations related to item content. To achieve this, DOs and Customs administrations must jointly build an electronic interface to ensure an appropriate IT infrastructure capable of managing and processing high volumes of EAD. The acquisition and/or development of such systems is cost and labour intensive, as well as time consuming, as the needs and requirements of each DO and Customs administration must be taken into account.

The parties will need to identify the resources required to adopt an appropriate EAD infrastructure that can facilitate the exchange of data. Key considerations include looking at existing solutions, budget, operational processes, business process re-engineering, and human resources needs (i.e. engineering, IT specialists, operations specialists, business process experts, learning and development and communications staff).

ii Operational processes (including safety and security and fiscal charging impacts)

The adoption of EAD systems will have a significant impact on operational and logistical processes within postal facilities. Currently, most DOs process items through Customs in a manual environment, where each item, upon request, is made available by DOs for presentation to Customs administrations for targeting and revenue collection purposes.

With the implementation of EAD, DOs and Customs administrations will want to adopt a revised processing model to suit the requirements of EAD while using the customs advance decision. This is because, in most cases, EAD alleviates the need for Customs administrations to physically review each item. Rather, EAD helps in evaluating risks and allows Customs administrations to target items that are deemed to be high risk or that have been selected for revenue collection.[8]

DOs and Customs administrations must also understand that data quality[9] is critical to risk management, customer compliance and service delivery. Training to ensure the capture of high-quality EAD is extremely important to ensure Customs administrations are capable of using EAD. The complexity of accurately classifying items for revenue collection based on the EAD description has become increasingly relevant. It is essential that DO agents, senders and mailers providing EAD are instructed on how to provide accurate and complete descriptions to ensure that EAD can easily be interpreted by IT systems without manual intervention.

Furthermore, when designing data collection systems for the purpose of EAD generation, DOs should thoroughly understand the schema and limitation of the UPU customs EDI standards (ITMATT). IT systems are limited to the type of data they are capable of interpreting, obliging participants to adhere to standard language requirements.[10]

The success of EAD implementation relies heavily on comprehensive training programmes for all those involved in the EAD transaction. DO agents, product specialists, IT specialists and Customs agents require specific training on EAD formats to ensure a seamless transition from a fully manual environment. Given that IT platforms are regularly updated and improved, it is essential that DOs and Customs administrations invest in continuing education to ensure that all parties involved are kept up to date on EAD systems and formats. Furthermore, it is essential that customers are given sufficient resources to provide good quality, comprehensive EAD.

Quality EAD data capture is one of the main challenges to be addressed in implementing EAD. According to the principles and processes of the use of pre-loading advance cargo information (PLACI), EAD adoption requires the submission of the following data elements, known as the 7+1 dataset, to initiate a risk assessment for aviation security purposes:

1 Consignor name

2 Consignor address

3 Consignee name

4 Consignee address

5 Number of packages

6 Total gross weight (including measure unit qualifier)

7 Brief goods/cargo description

8 Identifier[11]

[8] For example, Canada has chosen to adopt a semi-automated environment. EAD is examined, and the Canada Border Services Agency (CBSA) systems make the decision as to whether or not the items will be selected for physical examination or fiscal charging. This allows for a streamlined customs clearance process where, under most circumstances, the CBSA physically examines only those items that have been targeted, easing customs clearance for legitimate postal traffic.

[9] www.wcoomd.org/-/media/wco/public/global/pdf/about-us/legal-instruments/recommendations/facilitation/transport/recommendation-data-quality-en.pdf/t_blank?la=en.

[10] This becomes increasingly challenging in markets where the Roman alphabet and Arabic numerals are not standard. In such cases, special characters may be rejected in EAD IT systems.

[11] Postal shipments are not accompanied by a house air waybill (HAWB) or master air waybill (MAWB), but do have a unique identifier (S10 identifier), which can be used in the same way as an HAWB or MAWB to identify a postal item.

iii Data sharing agreements

Data sharing agreements (DSAs) need to consider the issues of data sharing between DOs and between DOs and Customs administrations. The importance and diversity of data privacy, data protection and security legislation have become increasingly relevant, as reflected in multilateral and bilateral privacy agreements.

Agreements between DOs: Many DOs have an existing standard multilateral DSA that can be used to protect the privacy interests of all parties involved in the transmission of personal data. However, the agreement is limited and may not cover the extensive legal requirements of all DOs. In such cases, a suitable bilateral agreement may be needed to ensure both local and international privacy laws are adhered to when exchanging EAD.

Agreement between DOs and Customs: The data protection aspects of data sharing need to be addressed in formal arrangements with Customs administrations, such as with an MoU. When developing an MoU, Customs administrations must give consideration to privacy commitments made in a DSA between DOs.

The UPU Multilateral Data Sharing Agreement (MDSA)[12], adopted by the POC in April 2021, is a legal instrument created to facilitate the exchange of data necessary for the operations of international postal services and to enable the implementation of such exchanges in accordance with the UPU Acts.

The MDSA incorporates and expands on the substantive provisions of existing and privately established multilateral data sharing arrangements concluded by the DOs of Union member countries. The goal is to better reflect the relevant data-sharing obligations contained in the Acts of the Union and to establish the relevant conditions for a UPU-managed instrument with global reach.

Eligible postal sector entities are invited to adhere to the UPU MDSA and to contribute to the development of an evolving global framework for the sharing of international postal data in accordance with the relevant provisions of the Acts of the Union.

d Development phases

i Phase 1 – Strategic overview and planning

It is imperative that the objectives are agreed upon between both parties to ensure alignment among all stakeholders. Both parties should decide on the **vision**, **mission**, **core principles** and **overall objectives** the organizations seek to achieve.

– *Vision* – A joint vision statement must be created that contains an agreed upon view of what the partnership wishes to achieve. A vision statement should be clear, concise and descriptive enough to ensure that current and future readers are able to understand, at a high level, the main driver(s) of the project.

– *Mission* – The mission statement sets out the issues that need to be overcome in order to achieve the target expressed in the vision. The difference between a mission and a vision is that a mission changes as it is achieved, while a vision guides the organization throughout the duration of the project.

– *Core principles* – Core principles specify the minimum standards that will influence the project. When identifying core principles, areas such as quality, innovation, customers, partners and technology need to be considered. These principles must be clearly defined so that each organization and its respective staff understand the concept and do not deviate from it. For example, a core value could be: “Implement an effective end-to-end customs process and leverage electronic customs data, while maintaining or improving current throughput.”

– *Overall objectives* – When the elements above (vision, mission and core principals) are combined, they create the basis for each organization’s goals and responsibilities in the project. When the goals and responsibilities of each organization are clearly defined, the expectations, accountability and culture are easily determined. These elements contribute significantly to how the project is managed, and are therefore important to consider when developing objectives. In addition, management plays the most important role, as it takes the lead in executing the established vision, mission and core principals. As a result, management’s role must be clearly defined.

[12] More information on the UPU MDSA can be found in the UPU Supply Chain integration website www.upu.int/en/Postal-Solutions/Programmes-Services/Postal-Supply-Chain/Postal-Supply-Chain-Integration.

The ultimate goal of phase 1 is to determine the overall project objective. For the purpose of this document, phase 1 will involve a conducting a critical review of the current situation, identifying the governance structure and business capabilities, and designing the IT Infrastructure and physical processes that enable DOs and Customs administrations to share data and exchange decisions on an item, ultimately facilitating the customs clearance process. Governance can be defined in terms of mechanisms for decision making and resolution. A sample approach for UPU CDS piloting in the United Kingdom would be as follows:

– Daily postal–Customs operations in the offices of exchange;

– Weekly monitoring of postal–Customs project initiatives;

– Monthly postal–Customs steering committees at the programme level to present results to the programme board, monitor performance, and provide input for strategy-level decisions;

– Quarterly reporting to postal–Customs director-level strategy meetings.

Phase 1 is when the parties should discuss IT development and begin plans to build the solution and conduct tests. It is also a suitable time to begin joint discussions around timelines, expenses and funding, ensuring that all stakeholders are in agreement with who is financially responsible for the various parts of IT development and any other associated costs.

During the strategic planning process, the vision, mission and overall objectives defined should follow the core principles underlying the global postal model. The following core principles are provided as a reference:

1 In line with article 8.2 of the Universal Postal Convention, EAD must be implemented without hampering trade and mail flows.

2 Roles and responsibilities must be defined for origin and destination DOs and security authorities (e.g. Customs administrations, border agencies, aviation security bodies) to ensure monitoring and reliability of end-to-end message flows.

3 It must be possible to exchange ITMATT messages and their corresponding responses 365 days a year, 24 hours a day.

4 “Assessment complete” denotes that the appropriate destination authorities have, subject to any further advice, cleared the item to be conveyed by air to the destination country.

5 Aviation security risk assessment and decisions in response to the receipt of item-level data will be carried out as soon as possible.

6 Only items that have obtained explicit or implicit “assessment complete” status or that have been processed in compliance with defined security referral procedures will be dispatched.

ii Phase 2 – Development/signing of a data sharing agreement between origin and destination designated operators

Phase 2 is strictly an agreement between DOs. However, it is an important step to remember in the planning process, as it is a precursor to enabling DOs to share data with Customs administrations. Many or even most DOs may not agree to begin exchanging data without a signed DSA in place.

Multilateral DSAs currently exist and are open to additional signatories. Most DOs would likely prefer that a multilateral agreement be signed to avoid having to manage a large number of bilateral agreements.

iii Phase 3 – Engagement and cooperation between designated operators and Customs administrations

The WCO–UPU Guidelines for Developing a Memorandum of Understanding (MoU) between Customs and Posts at National Level indicate that WCO and UPU members will agree to seek each other’s expertise “*to consider practical measures to increase and facilitate the use of electronic data interchange systems between Posts and Customs.*” This is the basis behind this document. With these Guidelines in mind, it is recommended that DOs and their national Customs administrations produce and sign an MoU prior to beginning the initiative to exchange EAD. If an MoU already exists, it is recommended, if applicable, to add an annex regarding data exchange. Likewise, it is recommended that DOs include data exchange in their contract agreement. Alternatively, a stand-alone agreement/arrangement on the use of EAD between DOs and Customs could also be established.

The WCO–UPU Guidelines for Developing an MoU between national Customs administrations and DOs are available in the Customs section of the UPU website (www.upu.int), as well as on the WCO website (www.wcoomd.org).

The section of an MoU between DOs and Customs administrations pertaining to EAD should contain agreement on matters such as:

– What to do in the event of data/manual form inconsistencies: Generally, the hard copy form takes precedence until the whole process is made electronic.

– Process for onboarding new countries: Consider whether all data is passed on to the Customs administration, or whether the Customs administration wishes to review the volume and quality of incoming data beforehand.

– Interface type:
  - The DO and Customs administration must agree on IT solutions, systems and interfaces used.
  - Declaration data from the DO to the Customs administration can usually be exchanged in batch mode through EDI message files at an agreed upon frequency using CUSRSP.
  - Response data (i.e. customs decisions) can be exchanged either via batch EDI message files (whether in EDIFACT or XML formats) or in real time via direct web service calls using CUSITM.

– Frequency of transmission:
  - This would depend partly on the volume of data. Higher volumes would demand more frequent file transmission, while lower volumes could mean less frequent transmission. This approach would control the size of the files being sent.
  - Frequency should not be dependent on the operational hours of the parties involved in the exchange.
  - Given the time-critical nature of most EAD data flows, frequency of transmission should be as high as possible (ideally on a 24/7 basis) to avoid hampering physical processes in the global postal supply chain.

– File size limitation:
  - To prevent system latency, file size should be agreed upon between the DO and the Customs administration.
  - File size should be based on IT Infrastructure limits and capacity.
  - When determining infrastructure and capacity requirements, consideration should be given to peak values and volume growth.

– Outages:
  - An acceptable window for recovering system functionality before the issue is escalated should be decided on.
  - A manual process that can be used in the event of a system outage needs to be established.
  - Business continuity plans and the roles and responsibilities of the parties must be developed.

– Response times:
  - See the section on frequency of transmission.
  - Response times should be discussed and agreed upon by both parties.
  - Responses should be received prior to the arrival of the postal items (prior to dispatch or, for those following a PLACI regime, prior to loading).
  - Automated responses should be taken into account, as response times are critical.

– Data protection:
  - DSAs should already be in place between DOs.
  - See section III (b)(iii) for information on agreements between DOs and Customs administrations.

iv Phase 4 – Pilot

After development and the associated testing is complete, the next step could be a collaborative pilot phase. A pilot is intended to take a small-scale approach to implementation, which is reversible. The benefits of a pilot are reduced risk, ability to learn and validate based on outcomes, ability to improve upon the solution, and the ability to demonstrate successes to stakeholders. Pilots can also give insight as to whether or not the solution may have unintended or unknown consequences. It is important to remember that, although pilots are highly recommended, they do not always take into consideration the full scale/volume of the project. For example, what works for 10 items may not work for 10,000 items.

Much like a full-scale implementation, a successful pilot will need to be strategically planned by both parties and executed collaboratively. It is very important to have a successful pilot in order to convince stakeholders and executives to move forward with full-scale implementation. Below is one approach that can be adopted when planning the pilot phase of a project.

Proposed approach

1 Establish a business case – The first step is to build the business case to secure political will and executive commitment, and to ensure that funding and other resource requirements can be secured. The best way to gain support is to demonstrate the changes in the international market that necessitate the shift. In the postal world, e-commerce and emerging legislation are the reasons behind the need for change. The fundamental objective is to show how EAD exchange will address current and emerging concerns.

2 Involve key stakeholders – It is important to gain support for the pilot by getting all relevant stakeholders from both organizations involved. The rationale for doing this is to identify and/or share any risks/rewards that may result from the pilot programme. This process may even result in peers achieving their own benefits, which could lead to a sharing of costs.

3 Identify the test criteria – Ensure that what is being tested and measured is clear and concise so that test participants have a good understanding of the situation. Elements that could be measured include the number of items successfully rated or cleared automatically, the number of items released versus those sent for inspection, and so on. Overall throughput could also be a determining factor.

4 Identify the test participants – The organizational structure for the strategic overview will have been established at this point; however, a test team is still required. To ensure that all viewpoints are considered, the test team should consist of individuals representing multiple areas from both organizations (e.g. operational, business, technical and customer service units). The roles of each of the testers need to be clearly defined and communicated in advance of the tests to ensure a clear understanding and optimal results.

5 Offer training – Test participants must have training in the environment in which they will be working. Since the pilot most likely involves new systems and processes, a training programme should be developed. This will evolve into a user manual when the pilot is expanded to full-scale implementation. A plain-language user manual should be created that includes screen shots of the relevant systems and detailed user instructions.

6 Measure and share – During and after the pilot programme, it is important that a factual report be collaboratively developed to describe the results of the pilot from the perspective of both parties. It is imperative to include data demonstrating actual volumes and how they were managed through the pilot (e.g. volumes vs decisions given upon arrival at the destination vs total throughput). This will enable data sharing among colleagues, partners, and other who were not involved in the pilot.

7 Summarize the experience – Using the factual data, a collaborative summary of the pilot as a whole needs to be drafted. The following areas should be addressed:

- Were the outcomes consistent with what was expected?
- Based on the outcomes of the pilot, are there any recommended changes?
- What is the estimated time frame for rolling out the project in a production environment?

v Phase 5 – Implementation

When writing the implementation plan, the pilot plan can be used to prevent duplication of work. It contains all of the same content.

When reviewing the pilot plan:

1 Keep in mind any problems and/or lessons learned during the pilot.

2 Consider the feedback that was received as a result of the pilot.

3 Take into account the difference in size between the pilot and full launch.

4 Decide on the stabilization strategy.

5 Review the training material previously drafted.

6 Identify the various forces that may work in favour of or against the new process, and identify any risks/barriers that may arise.

7 Adjust the plan accordingly.

Lastly, stabilization needs to occur.

vi Phase 6 – Stabilization, monitoring and enhancement

After the project goes live, use the joint goals that were set at the beginning of the initiative and compare them to the new environment. Determine whether there are any defects that need to be resolved, and ascertain how successful the implementation has been and how much support the operation needs to fully achieve the set goals.

Following implementation, the demand for additional support will likely be higher in a number of areas to address:

– user issues;

– technical issues;

– change management issues.

The support requirements should normally settle within a four-week period.

During the various phases of stabilization, in order to get a sense of how things are transitioning, determine the answers to the following questions (non-exhaustive):

1 How are the operational personnel of each organization adapting to the new environment and any changes in their roles? Are they adequately trained and informed?

2 How are the technical support teams adapting to the new environment and any changes in roles? Are they adequately trained and informed?

3 Is the support that is being demanded appropriate, considering the current phase of stabilization?

4 Have the parties involved in the project, from both organizations, had the opportunity to think about routine maintenance and improvement opportunities?

vii Phase 7 – Lessons learned

Following implementation and stabilization, it is important to bring the stakeholders together to identify the lessons learned. This is key for two main reasons:

1 Lessons learned can be applied to the future phases of a phased implementation; and

2 Lessons learned can be shared with any business partners, as appropriate.

While the finalization of a formal lessons learned document is completed during the project close-out process, capturing lessons learned should occur throughout project development and roll out. This will ensure that all relevant information is documented and nothing pertinent is excluded. The lessons learned document should describe what went wrong and include suggestions on how to prevent similar occurrences in the future, as well

as what went well and how similar projects may benefit from this information. This document should be drafted using input from all stakeholders, and the final copy should be widely communicated.

A lessons learned tracking table/document can consist of the following headings:

– Category (i.e. procurement, human resources, data capture, data quality, risk management)
– Subject matter (i.e. training)
– Problems/successes
– Impact
– Recommendations

VI. Best practices in data capture

a Introduction

In consultation with DOs and restricted unions, the UPU International Bureau has identified various measures adopted by member countries to capture data at export and gathered a collection of best practices in data capture.

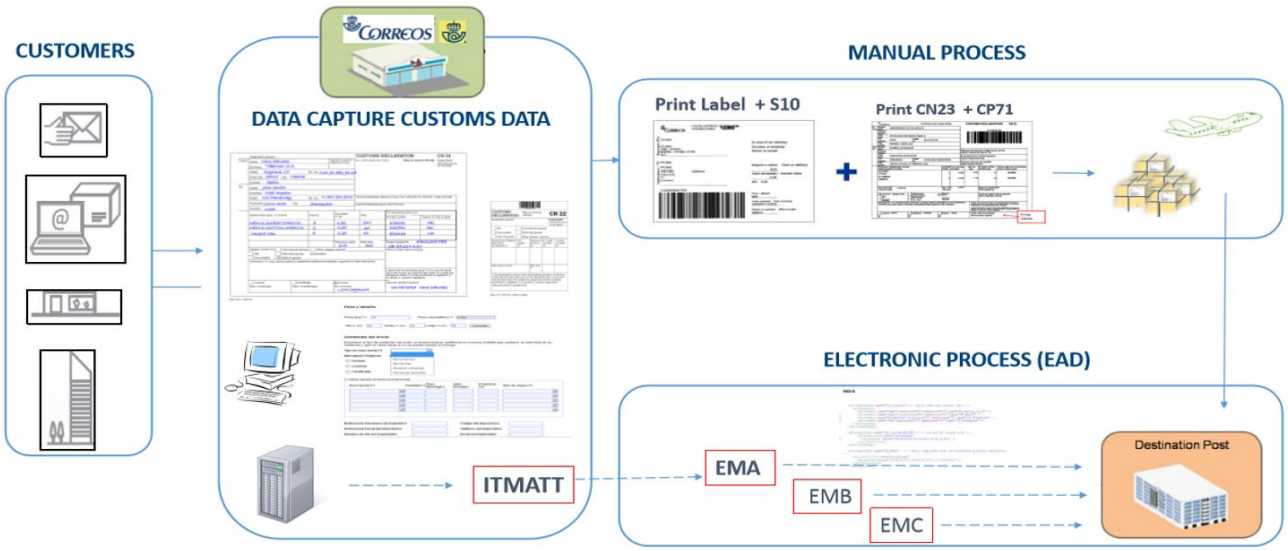
Below are the key points highlighting some of these best practices in the data capture process.

Most countries identify various sources of data capture: retail/post offices, online and approved private vendors, shipping tools, S-FTP (Secure-File Transfer) files, web services, web applications, private individuals or businesses, mobile applications, third-party shipping systems used by commercial mailers, franking/meters, and other shipping APIs.

Regarding procedures for data capture at retail/post offices, the DOs explain how the data is captured in a systematic way at retail/post offices, after which an ITMATT message is sent. When capturing data, DOs pay attention to security-related aspects, such as obtaining a signature and entering the Harmonized System (HS) code. Several DOs record the average time for data capture to better manage queues in their retail spaces. Through the UPU CDS Kiosk, data capture for items can be done directly by the senders of postal items at the post office or online before the international postal items are brought to the counter. This approach has been implemented in, among others, Bhutan, Indonesia, Togo, the Cayman Islands and Gibraltar (see pictures below).

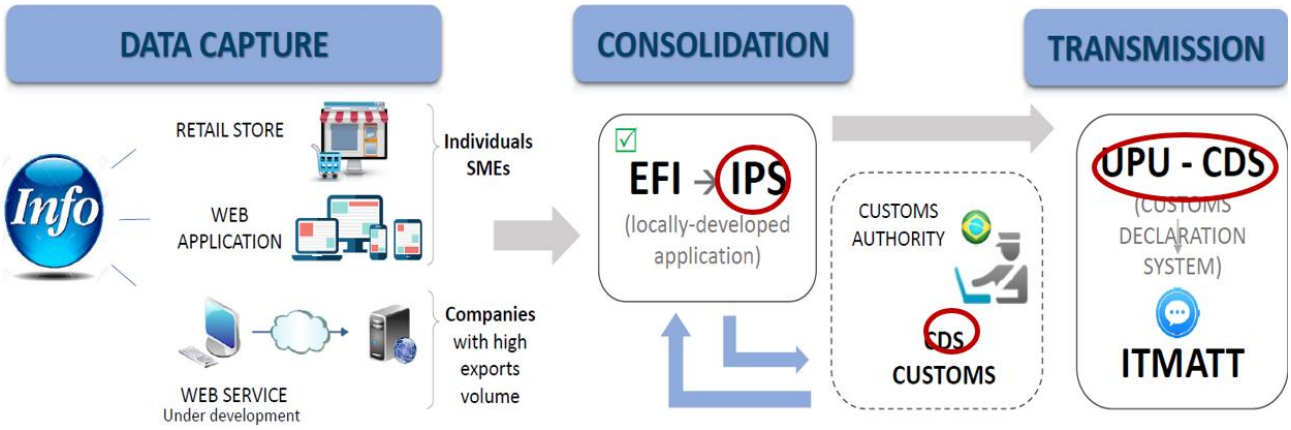
b Options for online data capture

These include online channels through which private individuals and businesses can prepare their international postal items. To capture data online, Correos (Spain) uses a shipping software tool to upload files (S-FTP). The following graphic shows the data capture end-to-end flows at Correos.

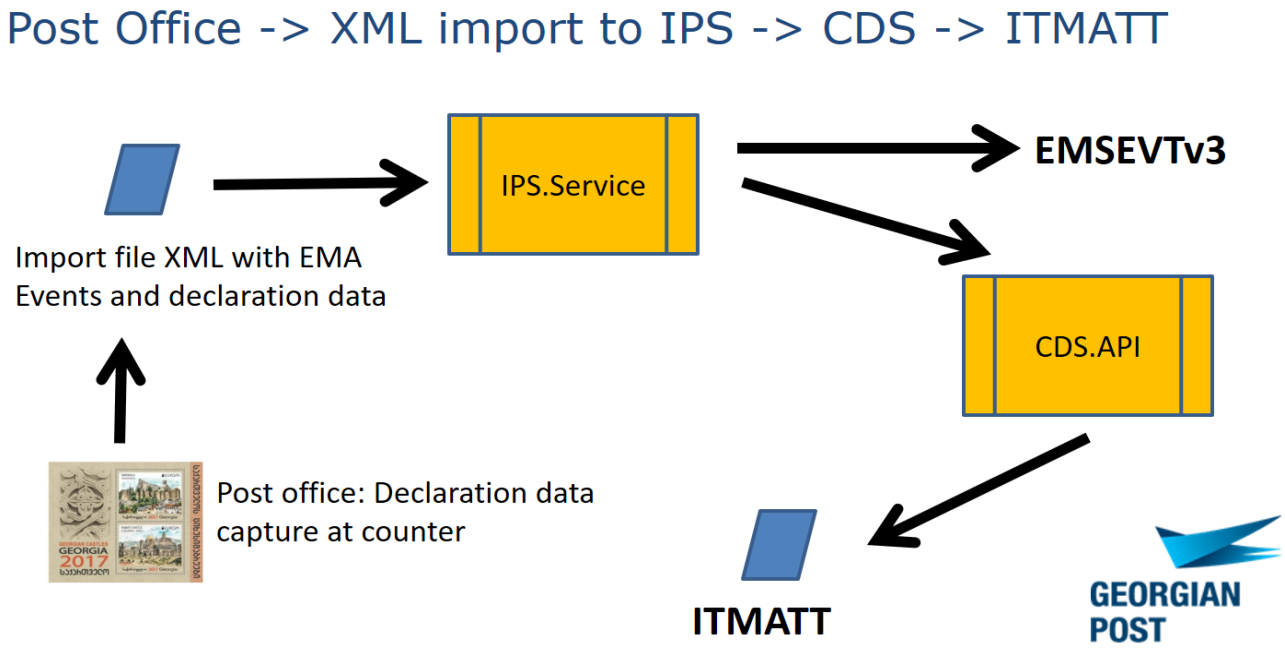


It is worth noting that the United States Postal Service (USPS) has made huge investments in developing software to support small, medium and large mailers. For ordinary customers, online solutions are provided to decrease manual entry.

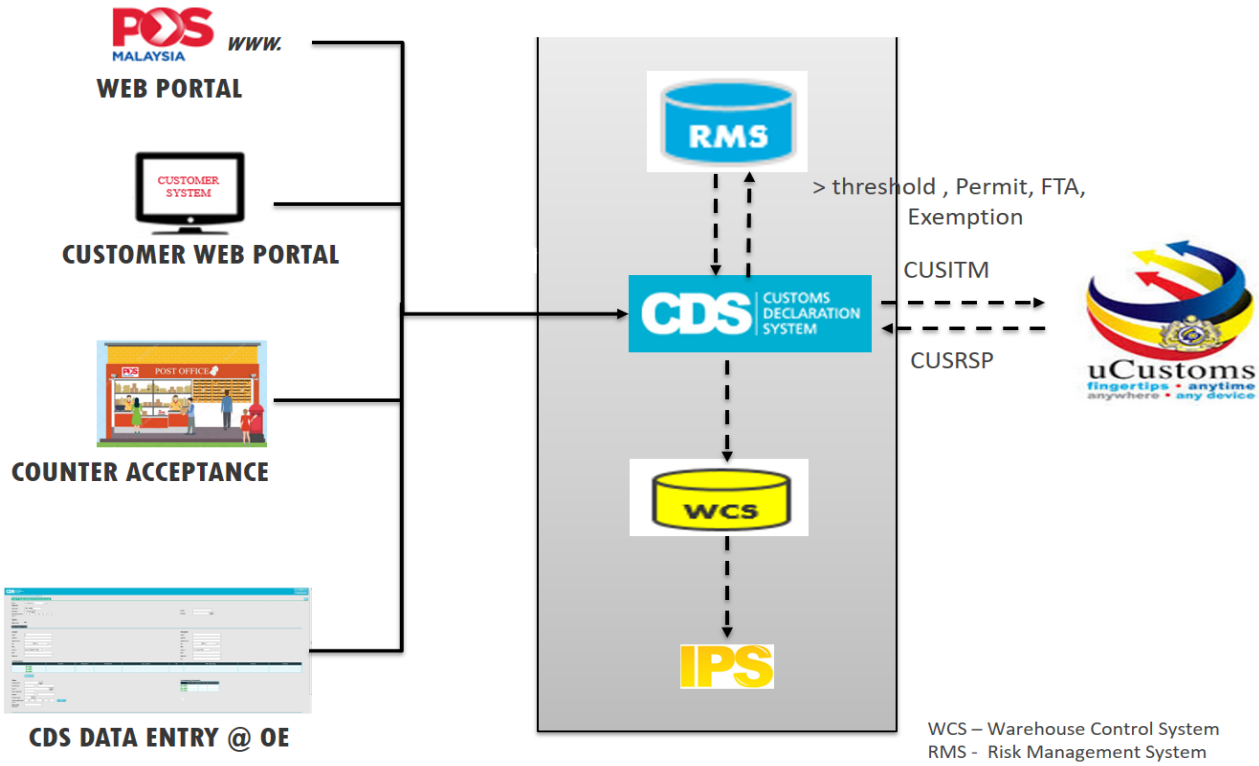
Canada Post has also adopted procedures for data capture for retail customers (consumers) through a mobile application and an electronic form. Data collection for contract business customers is done through Canada Post shipping systems and third-party shipping systems. It should be noted that UPU member countries are encouraging senders to send data over the Internet. For example, Brazil offers discounts to senders who self-declare online (if data is declared in advance, the sender can get a discount on the final price), has created a mobile application for self-declaration, and enables senders to print labels in advance. The following graphic details the workflows in use by Correios (Brazil) to capture the data at the source, exchange it with Customs and generate ITMATT files to destination DOs.



Other DOs, like Georgian Post, have adopted a funnelling approach for the data capture process, using XML (eXtensible Markup Language) files to import the data into the UPU IPS and CDS systems.



In the case of POS Malaysia, declaration data is channelled directly into the UPU CDS from various sources. Once in CDS, the data is shared with Customs using the WCO–UPU messaging standard CUSITM–CUSRSP.



c Minimizing the use of manual customs forms

Canada Post and Correos (Spain) initially followed a similar approach by combining the CN 22 and CN 23 forms into one single worksheet. The procedure when dealing with one single worksheet is as follows: the S10 barcode is no longer affixed to the hard copy customs form; it is printed at retail. The main intention of consolidating these forms into one is to facilitate the electronic data capture process, as one of the main challenges in producing the electronic data is interpreting the handwritten declaration of the sender of the international postal item.

The layout of the worksheet allows for ease of entering customs declaration information by the customer. Customers no longer have to choose the form to be used. System checks ensure that the data entered meets data quality specifications. In the long term, the goal would be to obtain all data electronically at the source, by replacing all paper forms with their digital front-end equivalents, transforming the process of filling in a form into that of printing and signing a label.

d Challenges/steps for continuous improvement

Correos (Spain) faced the following challenges:

– Description of contents provided to the customer in order to fill out the declaration is not fully understood and needs to be improved. The problem was partly addressed by offering a closed list of possible descriptions for social/C2C customers.

– HS tariff number and country of origin of goods are generally not provided by business customers. Awareness campaigns have been conducted to address this issue.

– The text is sometimes duplicated: for example, the name of the same street is written in different formats.

– Information using special characters cannot always be captured.

Canada Post is taking a sequence of steps for continuous improvement, as outlined below:

– Continuously working to improve the quality of outbound data through increased scrutiny of formats and field validations at data entry.

– Following up on commercial customers with repetitive errors.

– Continuously encouraging customers (through advertisements, incentives, etc.) to use tools that electronically generate data instead of entering data at a retail outlet.

– Investigating impacts to expand data capture to registered and small packets.

– Using UPU and International Post Corporation tools along with destination operator feedback to identify issues.

– Monitoring volumes to identify declines or file failures quickly.

Annex 1

Definitions

a Institutions and instruments

Universal Postal Union (UPU): specialized agency of the United Nations, formed in 1874, whose aim is to secure the organization and improvement of postal services and to promote the development of international collaboration in this sphere. With 192 member countries, the UPU sets the rules for international postal service. It also fills an advisory, mediating and liaison role, and provides technical assistance where needed.

World Customs Organization (WCO): an independent intergovernmental organization whose mission is to enhance the effectiveness and efficiency of Customs administrations. With 186 members, the WCO develops international standards, fosters cooperation and builds capacity to facilitate legitimate trade with a view to securing fair revenue collection and protecting society. It provides Customs administrations with leadership, guidance and support.

Authorized Economic Operator (AEO): an AEO is a party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national Customs administration as complying with WCO or equivalent supply chain security standards. AEOs may include manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses, distributors and freight forwarders.

Customs, Customs administration, Customs authority or Customs authorities: the government service that is responsible for the administration of Customs laws and the collection of duties and taxes, and that also has responsibility for the application of other laws and regulations relating to the importation, exportation, movement or storage of goods.

Customs law: the statutory and regulatory provisions relating to the importation, exportation, movement or storage of goods, the administration and enforcement of which are specifically charged to the Customs, and any regulations made by the Customs under their statutory powers.

Designated operator (DO): a term often used when referring to the postal operator. A DO is any governmental or non-governmental entity officially designated by the member country to operate postal services and to fulfil the related obligations arising from the Acts of the UPU on its territory.

Memorandum of understanding (MoU): a formal agreement that outlines the framework for cooperation between a DO and a Customs administration. This would be a key requirement for the exchange of electronic advance data.

Mutual recognition arrangement/agreement (MRA): bilateral/plurilateral or regional understandings between Customs administrations which provide a framework to extend AEO benefits across borders in the jurisdiction of the partner country/countries/Customs or economic unions.

Parties: a country's DO and Customs administration that have entered into an MoU or other arrangement.

Regulations to the UPU Convention: the detailed provisions of the Universal Postal Convention, as revised by the Universal Postal Congress and the UPU Postal Operations Council, applicable to letter post and parcel post.

Revised Kyoto Convention (RKC): the International Convention on the simplification and harmonization of Customs procedures (as amended), adopted by the Customs Cooperation Council in 1999. The definitions below have been taken from chapter 1 of the RKC:

– "Standard": a provision the implementation of which is recognized as necessary for the achievement of harmonization and simplification of customs procedures and practices.

– "Recommended practice": a provision in a Specific Annex which is recognized as constituting progress towards the harmonization and simplification of customs procedures and practices, the widest possible application of which is considered to be desirable.

– “General Annex”: the set of provisions applicable to all the Customs procedures and practices referred to in the convention.

– “Specific Annex”: a set of provisions applicable to one or more Customs procedures and practices referred to in the convention.

– “Guidelines”: a set of explanations of the provisions of the General Annex, Specific Annexes and Chapters therein which indicate some of the possible courses of action to be followed in applying the Standards, Transitional Standards and Recommended Practices, and in particular describing best practices and recommending examples of greater facilities.

Universal Postal Convention (UPU Convention): the international instrument containing the rules applicable throughout the international postal service, agreed by the member countries of the UPU.

b Postal products

EMS: optional supplementary postal express service for documents and goods, whenever possible the quickest postal service by physical means. This service is provided for in the Universal Postal Convention and Regulations and may be provided on the basis of the EMS Standard Multilateral Agreement or by bilateral agreement in relations between DOs which have agreed to provide this service.

Letter-post item: item described in and conveyed under the conditions of the Universal Postal Convention and Regulations.

Parcel-post item: item described in and conveyed under the conditions of the Universal Postal Convention and Regulations.

Postal item: generic term referring to anything dispatched by the Post’s services (letter post, parcel post, etc.).

Small packet: item conveyed under the conditions of the Universal Postal Convention and Regulations.

c Customs processes

Customs clearance: the accomplishment of the customs formalities necessary to allow goods to enter home use, to be exported, or to be placed under another customs procedure.

Customs control: measures applied by Customs to ensure compliance with Customs law.

Customs duties: Duties laid down in the Customs tariff to which goods are liable on entering or leaving the Customs territory.

Customs formalities in respect of postal items: all the operations to be carried out by the interested party and Customs in respect of postal traffic.

Risk management: the systematic application of management procedures and practices which provide Customs with the necessary information to address movements or consignments that present a risk.

Primary inspection: presentation of items to Customs by DOs, or the making of postal items available for customs inspection.

Secondary inspection: the inspection carried out by Customs with regard to the postal items presented by the DO for examination.

d Customs forms and electronic data interchange

Advance cargo information (ACI): data sets of information to identify high-risk cargo prior to loading and/or arrival by Customs administrations.

CARDIT: a message sent by a designated operator to an airline to pre-advise of mail and indicate on which flight the air carrier should put the mail. CARDIT includes security status information and pre-consignment information.

CN 22/23: the special UPU–WCO customs declaration forms for postal items as described in the Acts of the Universal Postal Union currently in force.

– CN 22: customs declaration affixed to letter-post items whose contents are less than 300 SDR in value as described in the UPU Regulations.

– CN 23: customs declaration affixed to parcel-post items and those letter-post items whose contents exceed 300 SDR in value as described in the UPU Regulations.

CP 72: a manifold set which contains several plies of the CN 23 customs declaration.

CUSITM: the CUStoms ITeM pre-advice message to Customs. CUSITM messages are sent from a DO receiving an item to the local Customs administration, providing it with pre-advice regarding the item, including item sender, addressee, contents, postage paid and declared value. It is the electronic equivalent of the CN 22/23 forms. The CUSITM information allows the Customs administration to decide whether the item must be held for security or other risk inspection and/or for assessment of duties and taxes.

CUSRSP: the CUStoms ReSPonse message. CUSRSP messages are sent from a Customs administration to a DO in response to a CUSITM pre-advice message, advising the DO on whether an item can be released for onward processing or whether it must be retained at the office of exchange for security or other risk inspection and/or for assessment of duties and taxes. The message may also indicate the duties/taxes to be paid.

Customs Declaration System (CDS): a system developed by the UPU Postal Technology Centre that links postal and customs operations. It is available for use by both DOs and Customs administrations.

Electronic advance data (EAD): the pre-arrival (or pre-loading) customs declaration information typically contained in the customs form, as well as the name and address of the sender and addressee if not already included on the customs form. It is also the base information contained in the ITMATT and CUSITM electronic data interchange (EDI) messages. This term is used interchangeably with the term electronic customs data in this document.

Electronic data interchange (EDI): a generic term that covers the electronic exchange of data, usually between different parties.

ITMATT: the ITeM ATTribute is a UPU messaging standard used for provision of electronic customs information (i.e. an electronic CN 22/23) captured and transmitted by the origin DO to the destination DO at the time of mailing or dispatch.

Personal data: any information relating to an identified natural person or a person who may be identified by means reasonably likely to be used, including the name of the sender and addressee.

Pre-loading advance cargo information (PLACI): an additional layer of a multi-layered approach to aviation security. PLACI is the term used to describe a specific 7+1 data set, as defined in the WCO SAFE Framework of Standards, which is drawn from consignment data and provided to regulators by freight forwarders, air carriers, postal operators, integrators, regulated agents, or other entities as soon as possible prior to loading of cargo on an aircraft at the last point of departure.

System: the telematics system used to create, send, receive, or handle data messages.