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**Zahteve za povezovanje, dostop, sodelovanje in nadaljnji razvoj odprtih svetovnih omrežij in sistemov za poštne operaterje in na splošno zainteresirane strani v poštnem sektorju**

Requirements to connect, access, participate and further develop open global networks and systems, for postal operators and the wider postal sector players

Services Postaux - Exigences pour se connecter, accéder, participer et développer davantage les réseaux et systèmes mondiaux ouverts, pour les opérateurs postaux et les acteurs du secteur postal au sens large

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ICS

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Requirements to connect, access, participate and further  
develop open global networks and systems, for postal  
operators and the wider postal sector players

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This draft Technical Report is submitted to CEN members for Vote. It has been drawn up by the Technical Committee CEN/TC 331.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (FprCEN/TR 17535:2020) has been prepared by Technical Committee CEN/TC 331 "Postal Services", the secretariat of which is held by NEN.

This document is currently submitted to the Vote on TR.

This document shall give guidance on how to implement electronic advance data (EAD) for VAT, customs and the increased security requirements for commercial postal items, including economic operators.

The development has been funded by the European Commission in Project Team C (PTC, under CEN/TC331 WG2). This TR is in line with legislation and implementing acts adopted in December 2017 and published 29 December 2017, the so called "EU VAT Ecommerce Package" (OJ L 348 of 29.12.2017 – Council Directive [EU] 2017/2455; Council Regulation [EU] 2017/2454; Council Implementing Regulation [EU] 2017/2459).

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## Introduction

CEN has been requested by the European Commission in its standardization request M/548, to develop European standards/other deliverables or, where necessary, to revise existing standards. The goal is to be compliant to security and customs requirements for electronic advanced data and to promote interoperability of parcel-delivery operations. This way we contribute to promoting the creation of a Digital Single Market for the European Union.

This mandated work item (M/548) is closely related to the development of electronic advanced data (EAD) in postal operations compliant to security and customs requirements, as its aim is to develop technical and message specifications for the implementation of EAD, both, upstream of the postal value chain, integrated into the senders (deemed supplier's) applications, so that EAD can be sent prior to any physical border crossing for commercial postal items, and data receiving applications of customs / tax authorities at the country of destination. This work is closely related to the current EU VAT Ecommerce package, put into force in December 2017, and will be mandatory 1 January 2021.

The deliverable shall give guidance on how to apply EAD, so that transport Identification, transaction Identification and tax related identification numbers can be used, both in the closed environment of the designed postal operators (UPU Network) and non-designated private postal operators.

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## 1 Scope

The current and future infrastructure to satisfy the changing needs of citizens in the EU will grant access to wider postal stakeholders, including customers, postal suppliers, supply chain service providers, (i.e. customs, fiscal authorities collecting VAT and related duties, transport providers like airlines or rail road and other transport mode operators, non-profit organisations supporting supply chain traceability, etc.) non-designated economic postal operators (Courier-, Express-, and Parcel delivery operators) that use, or may wish to use products, services and solutions currently restricted to designated operators.

This document aims at the provision of a Single Digital Market in Europe is at the focus within CEN, in particular:

- maintaining the integrity and independence of the European and worldwide delivery network
- no unfair advantage to any group or individual player, and thereby providing a level playing field
- clear delineation of the responsibilities and roles of all entities involved
- transparent management, control and integration of the postal supply chain as legally described in EU legislation (EU Regulation 2018/644 on cross-border parcel delivery services)
- reciprocity of interconnection with other stakeholder networks, as applicable
- proper security mechanisms in place to ensure data protection and privacy

to provide the necessary implementation guidance of EAD for fiscal duties (VAT et al.), customs and transport security.

The current MoU between the UPU and CEN offers the foundation to convert UPU specifications only applicable to designated postal operators into open CEN specifications. The creation of a digital single market has significant implications on cross border commerce and related delivery of merchandise.

This document provides the necessary implementation guidance. It is based on be the technical report "Postal Services — Electronic advanced data (EAD) in postal operations compliant to security and customs requirements".

The document is based on the semantic mapping description of information on the characteristics or attributes of Low Value Consignments (LVC) which parties in the digital commercial value chain across-borders are called upon to handle, compliant to the EU VAT Ecommerce Package as well as the UPU-WCO customs model. It gives guidance by defining the use of unique transport identifiers, unique transaction identifiers and the IOSS VAT Identification number.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TS 17073, *Postal services - Interfaces for cross border parcel*

ISO/IEC 15459-1, *Information technology — Automatic identification and data capture techniques — Unique identification — Part 1: Individual transport units identification and data capture*

ISO/IEC 15459-6, *Information technology — Automatic identification and data capture techniques — Unique identification — Part 6: Groupings*

M33, *ITMATT V1 – Electronic communication of item*

S8, *Postal dispatch identifier*

S9, *Postal receptacle identifier*

S10, *Identification of postal items – 13-character identifier*

S 26, *Licence plates for parcels*

S 31, *UPU issuing agency – Assignment of issuer codes*

S32, *Postal Consignments*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **Delivered at Place (DAP)**

incoterm, where the seller is responsible for arranging carriage and for delivering the goods and the buyer is responsible for import clearance and any applicable local taxes or import duties

Note 1 to entry: This rule can often be used to replace the Incoterms 2000 rule Delivered Duty Unpaid (DDU)

#### 3.2

##### **Delivery Duty Paid (DDP)**

incoterm where of the seller is responsible for arranging carriage and delivering the goods at the named place, cleared for import and all applicable taxes and duties paid

Note 1 to entry: This rule places the maximum obligation on the seller and is the only rule that requires the seller to take responsibility for import clearance and payment of taxes and/or import duty.

#### 3.3

##### **DESADV**

message specifying details for goods despatched or ready for despatch under agreed conditions

Note 1 to entry: DESADV stands for DESpatch ADVice message

#### 3.4

##### **document**

letter-post, parcel-post, express or courier item consisting of any piece of written, drawn, printed or digital information, excluding objects of merchandise

#### 3.5

##### **good**

letter-post, parcel-post, express or courier item consisting of any tangible and movable object other than money, including objects of merchandise, which does not fall under the definition of “document”



**3.6****ITMATT**

message used for the provision of electronic customs information (i.e. an electronic CN 22/23, the UPU customs declaration form) captured and transmitted by the origin UPU Designated Operator (DO) to the destination DO at the time of mailing or dispatch

Note 1 to entry: ITMATT stands for ITeM ATtribute

**3.7****Low Value Consignment**

consignment containing goods not exceeding a value of EUR 150,-, which benefit from a relieve from import duty

Note 1 to entry: See Articles 23 to 27 of Regulation (EC) 1186/2009 for further information.

Note 2 to entry: Shall be deemed to be declared for release for free circulation by their presentation to customs pursuant to Article 139 of the Union Customs Code provided that the data required are accepted by the customs authorities

**3.8****parcel**

postal item containing goods with or without commercial value, other than an item of correspondence, with a weight not exceeding 31,5 kg

**3.9****parcel delivery services**

services involving the clearance, sorting, transport and distribution of parcels

**3.10****postal item**

item addressed in the final form in which it is to be carried by a postal service provider

Note 1 to entry: In addition to items of correspondence, such items also include for instance books, catalogues, newspapers, periodicals and postal parcels containing merchandise with or without commercial value

**3.11****Super-Reduced Dataset (SRD)**

dataset allowing for a person to lodge a customs declaration for release for free circulation containing a new dataset in respect of goods which benefit from a relief from import duty

**3.12****UN/EDIFACT**

United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport comprise a set of internationally agreed standards, directories, and guidelines for the electronic interchange of structured data, between independent computerized information systems

**4 Process Overview for electronic advanced data****4.1 General**

Electronic Advanced Data (EAD) shall facilitate the exchange of mandatory content related data on the postal item critical for customs, fiscal duties and security. EAD shall be exchanged between all stakeholders involved. These stakeholders include the senders and their marketplaces, platforms including deemed suppliers, operators designated by their states to fulfil UPU obligations and

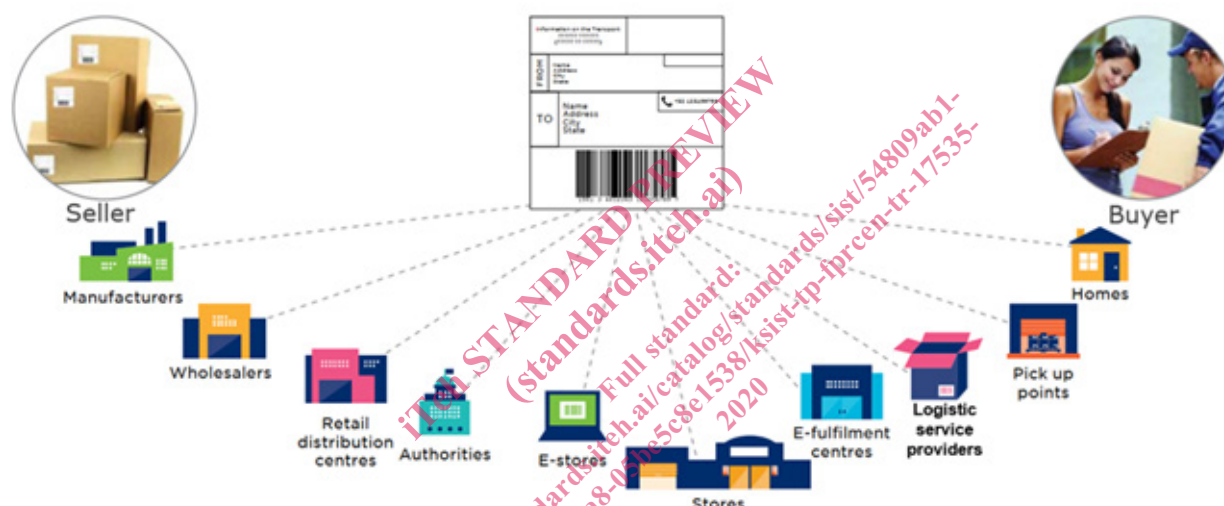
constitutional agreements, parcel delivery services and their agents within the supply chain, customs agents, customs and financial administrations and the addressee.

EAD shall provide all stakeholders with the level of data mandatory on parcel item level. This includes data to undertake risk assessment prior to the arrival of a parcel or prior to its loading in the conveyance chain from the sender to the final addressee.

EAD shall facilitate customs procedures associated with revenue collection, as items are fiscally assessed electronically for the collection of appropriate duties and taxes.

## 4.2 Stakeholders and Information Exchanges

The vision: Harmonized labels - created and attached by SHIPPER at origin - used by ALL stakeholders and information exchanges end-to-end. Based on this vision the technical specification CEN/TS 17073 describes the mandatory identification elements of a harmonized transport label in the global parcel supply chain.



**Figure 1 — Harmonized label used in all processes by all stakeholders**

All stakeholders may use Seller/Shipper assigned unambiguous Identification Keys based on open Global Data Standards. Clear links have been established among all these numbers. Information on goods, the content for each Transport Unit may be accessed using the unambiguous ID Keys provided in the Electronic Advance Data Exchanges.

**Table 1 — Seller/ shipper assigned unambiguous Identification Keys)**

Data-Element (Art 143a UCC DA compliant)	ID-Key	Comment
2/3 Unique Item Identifier	ISO 15459-1	SELLER assigned Transport Unit
2/4 COMMERCIAL reference number	ISO 15459-6	SELLER assigned Transaction ID
3/40 Additional Fiscal IDs	IOSS ID	Uniquely identifies SELLER

ISO/IEC 15459-1:2014 specifies a unique string of characters for the identification of individual transport units. The character string is intended to be represented in a bar code label or other automatic identification and data capture (AIDC) media attached to the entity to meet management needs.

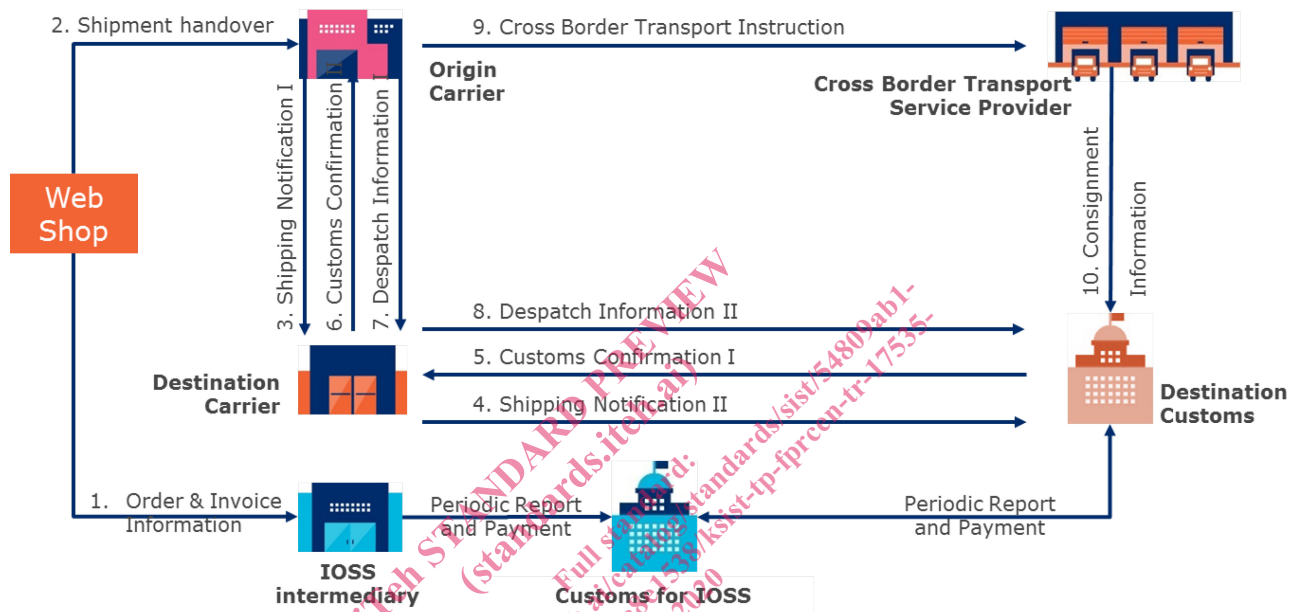
ISO/IEC 15459-6:2014 specifies a unique string of characters for the identification of groupings of products, product packages, transport units and items. The character string is intended to be represented

in a linear bar code symbol and two-dimensional symbol or other AIDC media attached to the entity to meet management needs and/or regulatory needs (e.g. customs clearance).

### 4.3 Semantic Process Overview (IOSS Scenario)

#### 4.3.1 General

The following diagram shows the semantic and syntax neutral process flow in the international parcel supply chain on the basis of an electronic flow of information. Each process step is numbered and will be described in detail below.



**Figure 2 — Stakeholders and Information Exchanges, including flowchart (IOSS)**

Below we will run through the business process in some detail and show how the three ID Keys mentioned in the table above (Table 1) enable access to the full set of detailed information regarding the Shipment and its contents to all authorized and relevant stakeholders.

In the below paragraphs (and in line with the diagram above) the document explains the process based on the use of the IOSS (Import One Stop Shop) facility enabled by the EU VAT ecommerce regulations package.

The sub-paragraph numbers correspond with the numbers in the diagram below.

E.g. 4.3.2 corresponds with the flow with number 1 in the diagram

The entire process starts when an online customer enters an order on the webshop.

#### 4.3.2 Order and invoice information

A Customer enters or logs into a webshop. The process described here works for both

- repeat Customers, who may have explicitly registered on the webshop and thus the webshop may have additional prior details for these customers (e.g. country where goods are to be shipped to);
- and occasional customers, who have not registered on the webshop and thus the webshop has no additional prior information for the customer.

The customer then starts to enter a new Order (also known as Sales Transaction in Customes/VAT context).

The webshop generates an ID for this sales transaction compliant with the ISO standard ISO 15459-6 (groupings of sales/product items).

In order to calculate the appropriate VAT, the webshop needs to know the delivery country for the sales transaction. In case the customer has registered on the webshop, the webshop may know the (default) destination country. Otherwise, the customer will need to specify the destination country.

The customer then adds sales order lines choosing specific goods/products. These goods may be identified with a globally unique ID Key (e.g. Global Trade Item Number or GTIN, formerly known as EAN or UPC).

The webshop shows the customer the price of the goods. The webshop also calculates the appropriate VAT for the goods on the sales transaction line.

The customer can now check and confirm and accepts the total price (including VAT) for this sales line item.

This process of adding sales line items continues until the customer has entered sales transaction lines for all goods desired.

The process then moves into the check-out process. The customer may select one of several different delivery options. Each of them may be chargeable and the charge may be different for each of those.

Once the customer has chosen the delivery option, the webshop can calculate the total value of the sales transaction.

The customer reviews and accepts the total amount due for the sales transaction. Once the sales transaction is confirmed, the total sales transaction value is final. The webshop can now decide whether this sales transaction is subject to the EU VAT ecommerce regulations package and its Import Scheme for Low Value Consignments. In case sales transaction value is less than EUR 150, the sales transaction is subject to the regulation.

The webshop has all the required sales transaction information that they would need to provide under the regulations for the IOSS. The webshop now provides sales information to IOSS intermediary in the EU (the webshop may have established itself for the IOSS in the EU or they may have contracted with a third party for the purpose).

The set of data provide to the IOSS at this stage includes:

- the ID Key for the sales transaction compliant with ISO 15459-6 (e.g. Global Shipment Identification Number or GSIN);
- the IOSS number he was assigned by the European Union when registering for the IOSS facility.

The webshop (arranges to) prepares the sales transaction for shipping/transportation to the customer. The webshop sales order system releases instructions to the warehouse that the goods are to be shipped from.

The warehouse will -as a minimum- receive the following data:

- the sales transaction reference compliant to ISO 15459-6 (e.g. GSIN);
- ID keys for the Goods to be shipped (e.g. GTIN).

The warehouse then picks Goods using the Goods ID Keys provided by the webshop.

Each of these goods items are placed into a transport unit that is identified with an ID key compliant with ISO 15459-1 (e.g. SSCC). The warehouse records which goods items they placed into which transport unit.

Each transport unit is clearly marked with the transport unit ID assigned (e.g. using a label compliant with CEN/TS 17073).

In this process the warehouse establishes links across the following Identification keys:

- the transport unit ID and its goods contents. One transport unit may contain multiple different goods items (GTIN);
- transport Unit ID and sales transaction ID (e.g. GSIN). One sales transaction (when shipped) may consist of multiple transport units or just one transport unit, depending considerations related to transportation optimization;
- links the sales transaction ID to the IOSS number for the webshop (and thus also to the transport units just created for this sales transaction ID.

The warehouse shares this information with the webshop. The webshop then shares this information with his IOSS intermediary in the European Union.

The IOSS has FULL details regarding the sales transaction and the related transportation information.

All of that linked together via ID Keys for Sales Transaction (ISO 15459-6), Transport Unit (ISO 15459-1) and the IOSS number for the webshop.

#### 4.3.3 Shipment handover to origin carrier

The shipment created based on the sales transaction is ready for transportation.

The webshop (or the warehouse depending on arrangements) sends the transport instruction to the origin carrier.

The transport instruction will consist of the following data:

- the sales transaction ID compliant with ISO 15459-6 (e.g. GSIN);
- the ID key for each transport unit compliant with ISO 15459-1 (e.g. SSCC, UPU S26 compliant), or UPU S10 compliant.

NOTE: The transport instruction preferable would include goods item related data (e.g. handling related such as fragile or hazardous) or the goods ID key (e.g. GTIN), which would enable access to such related data as and when needed (on-demand / pull approaches).

#### 4.3.4 Shipping notification I

Based on the transport instruction, the origin carrier collects / receives shipment from the warehouse (in the context of transportation the warehouse is regarded as the shipper).

In principle, the origin carrier uses the transport unit IDs assigned by the warehouse/shipper for his own handling and management of these transport units. In practice, several carriers (at any stage of the transport network) are not yet able to do so; but many others can already do so.

Carriers that cannot operate based solely on an ISO 15459-1 compliant ID assigned by the shipper, may assign an additional transport unit ID (e.g. UPU S10 in case the transport units are carried within international postal networks or any other proprietary transport ID in case the transport units are carried with other international networks).

To be able to use these additional ID keys they generally affix an additional label to the transport unit/s. The document refers to such a label as a “carrier-specific label”.