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Poštna storitve - Izjava o dostavi pisemske pošiljke

Postal Services - Statement of mailing submission

Postalische Dienstleistungen - Übertragung von Daten für Briefanlieferungen

Services postaux - Déclaration de dépôt du courrier

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Poštna storitve

Postal services

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Postal Services - Statement of mailing submission

Services postaux - Déclaration de dépôt du courrier

Postalische Dienstleistungen - Übertragung von Daten für
Briefanlieferungen

This Technical Specification (CEN/TS) was approved by CEN on 4 June 2011 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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CEN/TS 15523:2011 (E)**Foreword**

This document (CEN/TS 15523:2011) has been prepared by Technical Committee CEN/TC 331 "Postal Services", the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 15523:2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

NOTE This document has been prepared by experts coming from the Technical Committee CEN/TC 331 "Postal Services" and UPU, under the frame of the Memorandum of Understanding between UPU and CEN.

The UPU's contribution to the specification was made, by the UPU Standards Board¹⁾ and its subgroups, in accordance with the rules given in Part V of the "General information on UPU standards".

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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¹⁾ The UPU's Standards Board develops and maintains a growing number of standards to improve the exchange of postal-related information between posts, and promotes the compatibility of UPU and international postal initiatives. It works closely with posts, customers, suppliers and other partners, including various international organizations. The Standards Board ensures that coherent standards are developed in areas such as electronic data interchange (EDI), mail encoding, postal forms and meters. UPU standards are published in accordance with the rules given in Part VII of the General information on UPU standards, which can be freely downloaded from the UPU world-wide web site (www.upu.int).

Introduction

Widespread proliferation of electronic, internet-based data communications provides a cost-effective platform for integrating a global mail communication system. The essence of such integration is an automated exchange of computerised information between mailer's, postal and recipient's domains. Within each of these domains there is a wealth of information that has been or could be collected, computerised and subsequently communicated to other domains to enhance the overall mail system. This information is typically information *about* mail units and it allows for effective control and management of the entire mail distribution network.

Most commercial-purpose mail is created and finished with the help or under control of computer-driven equipment. Mail-descriptive computerised data is a by-product of the mail creation/finishing process and it has significant value for both postal operators and their agents and frequently for mail recipients. Specifically, when a plurality of mail items (designated as a *mailing submission*) are prepared for induction into a postal distribution network by a mailer, it is only natural that the mailing submission should be accompanied by an electronic document (or computer file) that is commonly referred to as a *statement of mailing submission*. The main goal of the statement of mailing submission (SMS) is to provide support information for mission-critical applications in the mail communication system, and specifically for applications in the postal domain. The most important applications in the postal domain come from operations (mail entry/induction, processing/sorting, transportation and delivery), postal marketing (maintenance of existing products and services, design of new postal products and services, customer relationship management and management of quality of service), and finance (revenue management including collection and protection of revenue).

The main purpose of the present technical specification is to define basic concepts associated with the statement of mailing submission (framed using methodology of an entity-relationship model), and then to define the content, message structure and protocol that can be used by mailers or their agents to communicate to posts information supporting major postal applications, and also to provide a detailed analysis of application-level security.

The following section describes information requirements supporting major postal processes.

Postal operations information requirements

Mail entry/induction process is a controlled acceptance process that is designed to enable transfer of typically medium or large size mailings (e.g. mailings containing more than several hundred mail items) from mailers or their agents to postal operators. *Mail entry* process involves verification of mail make-up (i.e. check of the information present on mail units for its postal process friendliness) and verification of payment. The process is based on comparison of information created or otherwise known to postal acceptance personnel against information supplied by mailer. Critical data elements supporting mailing submission entry are:

- Mailing submission composition such as number of mail units of various kind contained in the submission;
- Type and identities of mail units included into submission;
- Gross and net weight of mail units included into submission and gross and net weight of the submission itself;
- Worksharing information if mailing submission has been pre-sorted or contains mail pre-barcoded by mailer or its agents. This information includes geographic distribution (number and type of mail units for each postal code), postal codes assigned to and marked on each mail unit as well as information concerning quantity, location and markings for all non-qualified (or residual) entities;
- Payment information including accounting information and postage information for various categories of postal products included in the mailing and totals for each category;

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- Identity of the SMS associated with the mailing submission;
- Security information such as key certificates as described in the present specification (Annex D).

Mail processing information requirements support cost-effective mail sorting. In addition to the information identified above, the mail sort-supporting electronic information may include identities of all mail units included in the submission linked with their associated address information including postal codes.

Mail transportation information requirements support cost-effective transportation of mail units and aggregates between postal processing and delivery offices. Thus, in addition to the information identified in the previous sections, mail transportation-supporting information may include (if they are known during mail preparation process) identities and scheduling data for various transportation vehicles (trucks, railroad cars, aircrafts and boats) that will be used for transporting mailing submission.

Mail delivery process information requirements support cost-effective delivery of mail. In addition to the information described above mail delivery-supporting information may include number, identity and type of mail units that require special delivery or handling (e.g. proof of delivery or return receipt).

Postal marketing information requirements

Marketing information is mainly concerned with a detailed description of a mailer's use of various postal products and services offered by a postal operator. These may include:

- Number of first class mail items included in the submission;
- Number of second class mail items included in the submission;
- Number of special rate mail items (e.g. overweight or oversize);
- Number of mail items that require special delivery (e.g. registered, certified, time-specific delivery etc.);
- Number of items that require forwarding services or address correction;
- Preferred delivery instructions, redirection and address services (e.g. address hygiene).

Postal finance information requirements

Postal financial applications require an effective payment mechanism for the services by mailers or their agents. These include automatic generation of all required accounting and funds transfer data and its supporting documentation for billing and remittance processing. Finance information should include as a minimum data elements that allow to:

- Create, delete and update customer accounts (e.g. unique account IDs);
- Identify products and services used by the mailer together with their current tariffs;
- Identify mail attributes (e.g. item count, weight, volume) for specific postal products and services;
- Support payment for Business Reply and other recipient-paid services;
- Automate the receipt and processing of payments (e.g. by using Electronic Funds Transfer);
- Automate the processing of all legitimate refunds to mailers;
- All required management and control supporting reports.

Methodology

The methodology adopted for the organisation of SMS begins with a data structure describing all practical knowable information about mailing submission. This data structure containing all-inclusive information is a sort of a “super” file or “super” message. The specification describes how to collapse (or cluster) this super message into new data structures suitable for particular postal applications. This is done by eliminating the non-essential information depending on the informational needs and requirements of postal applications.

Selection (or adaptation) of data elements, their formats and communication protocols for various specific applications and environments for the SMS from the ones described in the present specification are left to postal operators and their customers. It was felt that no group of experts would have sufficiently detailed knowledge of a broad variety of existing and future postal applications and technical environments in order to accommodate even the most common ones. For this reason, it was decided that providing a definition of a super, all-inclusive and adaptable message and the methodology of collapsing it into application-specific messages (statements) would be the best choice. Similarly, timing considerations for various possible messages that could be exchanged between mailer and postal domains are outside of the scope of the present specification. Messages that are defined and described here can be arranged to be created by mailers and communicated to postal operators *before, during or after* the actual induction process takes place, depending on the value and the intended use of the communicated information. The specification leaves the choice of timing considerations to postal operators and their customers.

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CEN/TS 15523:2011 (E)**1 Scope**

This Technical Specification specifies a methodology that allows postal operators to define specific statements of mailing submission customised according to their environment and applications.

The document defines information requirements for existing generic postal information processing applications related to major postal functions, namely operations, finance and marketing by specifically identifying the information that could be collected within the mailer's domain and transmitted to the postal domain.

In addition, this document defines the organisation of data into messages by describing data content, format and communication protocol suitable for communication of data originating in the mailer's domain.

The specification also provides a detailed analysis and recommendations for implementing application-level security threats and countermeasures particularly relevant for postal revenue protection in controlled mail entry settings.

Finally, this document provides several examples of concrete statements of mailing submissions and an example of a secure communication protocol recommended for transmission of such statements.

NOTE The SMS describes letter mail or flats that are submitted for distribution and would not deal explicitly with content of letters or flats whether it concerns customs or any other party that could in principle be interested in knowing the content of these mail units.

2 Normative references

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The following referenced documents are indispensable for the application of this document. For dated references, or references to a version number, only the edition cited applies. For undated references and where there is no reference to a version number, the latest edition of the referenced document (including any amendments) applies.

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EN 14615:2005, *Postal services – Digital postage marks – Applications, security and design*

ISO 10126-2:1991, *Banking – Procedures for message encipherment (wholesale) – Part 2: DEA algorithm*

ISO/IEC 9798-3:1998, *Information technology – Security techniques – Entity authentication – Part 3: Mechanisms using digital signature techniques*

ISO/IEC 15418, *Information technology – Automatic identification and data capture techniques – GS1 Application Identifiers and ASC MH10 Data Identifiers and maintenance*

ISO/IEC 15434, *Information technology – Automatic identification and data capture techniques – Syntax for high-capacity ADC media*

ISO/IEC 15459-1, *Information technology – Unique identifiers – Part 1: Unique identifiers for transport units*

3 Terms and definitions

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

3.1

address list selection

process of selecting a mailing address for the intended recipient of the message

3.2

agent

entity involved in any part of the provision of postal services in respect of a mail unit

3.3

agent attribute

characteristic of the agent which is or can be represented by a data value

3.4

communication domain

set of parties, agents, and processes that together play a specific functional role (such as sender, channel or recipient) in a mail communication system

3.5

consolidator

party that is responsible for assembling mail units from a given creator together with mail units from other creators

3.6

containerisation

process of assembling together and putting mail units into receptacles for transportation

3.7

controlled acceptance/entry mail (CAM/CEM)

mail unit or mail aggregate that is examined by postal personnel before being accepted for processing for the purpose of compliance with postal regulations concerning proper payment (accounting) and mail make up

3.8

mail creator

party that is responsible for production (creation) of a mail item, a mail unit or an aggregate

3.9

electronic sortation

process of sorting a list of mailing addresses into groups having common characteristics (such as identical postal codes)

3.10

electronically exchanged message

EEM

electronic message sent or received by a mailer or postal operator during the process of mail creation, preparation, submission, acceptance, processing and delivery

3.11

expectation

set of mail unit attribute name-value pairs predicted, derived or assumed for a given date or a date range

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finishing**

process of direct printing of information on (or applying labels containing information to) assembled mail units, said information concerning payment evidence and endorsements required for the entry of finished mail units into the postal distribution network

**3.13
insertion**

process of folding printed message(s), assembling the content (that includes the message and optional additional enclosures) and inserting the entire content into a mailing envelope

**3.14
list preparation (address cleansing)**

process of comparing between mailing (postal) addresses in the selected address list and a standardised list containing corrected and up-to-date postal addresses for the purpose of finding and correcting erroneous entries in the selected list

**3.15
mail unit**

mail item or collection of mail items which are constrained to form a physical unit

**3.16
mail unit attribute**

characteristic of a mail unit which is or can be represented by a data value

**3.17
mail induction/entry**

process whereby mail units are handed over to a postal operator and which results in either the postal operator taking responsibility for the mail units concerned or rejecting all or some of the mail units presented for hand over

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**3.18
mail item
item****mailpiece
postal item**

indivisible mailable entity in respect of which a mail service contractor accepts an obligation to provide postal services

**3.19
mail receptacle**

physical device which may be used to contain or carry mail so as to assist in its handling, transportation, storage or delivery as a unit

EXAMPLE Mailbags, trays, recipient mailbox, wheeled containers (roller cages), pallet and pallet-based containers and airfreight containers (ULDs).

NOTE Receptacles may contain mail which is housed in other (lower level) receptacles. For example, a roller cage may contain trays and/or bags of mail as well as individual (loose loaded) mail items and bundles. Some types of postal receptacle (e.g. roller cages and ULDs) have a residual value; others need not (e.g. disposable trays).

**3.20
mail receptacle attribute**

characteristic of a mail receptacle which is or can be represented by a data value

**3.21
mail aggregate
aggregate**

set of mail units that satisfy specific criteria defined in the context of a particular application

3.22**aggregate attribute**

characteristic of an aggregate which is or can be represented by a data value

3.23**aggregate catalogue**

collection of attribute names for mail units included in an aggregate

3.24**mailing submission**

mail aggregate which has a unique identification and is presented or handed over for processing, by a postal operator, as part of a single induction unit

3.25**message preparation**

process of preparing data that is designed to be sent as a message (content of a mail item) to the intended recipient

3.26**observation**

set of mail unit attribute name-value pairs captured at a given date

3.27**observation attribute**

set of name-value pairs related to or characterising the observation process

3.28**originator**

party that controls a mail unit's content (i.e. the message to the recipient) and the mail unit's destination address and has the overall legal control and responsibility for the mail unit

3.29**party**

legal entity involved in a mail communication process

3.30**party attribute**

characteristic of the party which is or can be represented by a data value

3.31**payer**

party responsible for payment of postal/carrier charges for services rendered by mail services contractor in respect of a mail unit

3.32**physical sortation**

process of sorting mail units into groups having common characteristics (such as identical postal codes)

3.33**postal product/service**

agreed-upon set of rules operating on the values of mail unit attributes governing both actions to be taken on the mail unit and communication of observations to all authorised parties

3.34**postal product/service attribute**

characteristic of a postal product which is or can be represented by a data value

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CEN/TS 15523:2011 (E)**3.35****post/carrier domain**

domain of the mail unit collection, acceptance, processing, transportation and delivery that includes all parties, agents, processes and their relationships that are involved in these activities

3.36**process in the mailer domain**

series of sequential functional activities (or sub-processes) within the mailer domain resulting in finished mail units and aggregates being ready for entry into a postal/carrier distribution network

3.37**process in the postal domain**

series of sequential functional activities (or sub-processes) within the postal domain including collection, facility entry, acceptance, processing (culling, facing, sorting), containerisation and transportation resulting in a mail unit being delivered to a recipient, discarded or returned to the mail originator (or a party authorised by the mail originator)

3.38**recipient domain**

domain of the mail unit receipt and after receipt processing including activities when the mail unit has been received by a party or an agent other than the party specifically indicated by the sender as a recipient. It includes all parties, agents, processes and their relationships that are involved in these activities

3.39**sender/mailer domain**

domain of the mail unit creation, finishing and submission for delivery that includes all parties, agents, processes and their relationships that are involved in these activities

3.40**statement of aggregate**

collection of attribute name-value pairs for an aggregate assembled for the purpose of a specific application in the context of which the mail units comprising the aggregate form a logical unit

3.41**statement of mailing submission**

collection of attribute name-value pairs which specifies a mailing submission and its content

3.42**submission group**

aggregate consisting of a collection of mailing submissions that share an explicitly specified common attribute or attributes

3.43**submitter**

party responsible for submitting (inducting) a mail unit or an aggregate into postal/carrier distribution network

4 Symbols and Abbreviations

CAM	controlled acceptance mail
CEM	controlled entry mail
DPM	digital postage mark
EEM	electronically exchanged message
ID	(identifier for) identity

MU	mail unit
MS	mailing submission
MS-ID	mailing submission identifier
PSD	postal security device.

NOTE Throughout this document, the following notation is used: entity.attribute. For example, the mail unit identifier is designated as "mailunit.ID".

5 General Concepts

This clause provides a detailed explanation for the basic concepts defined in the previous clause and the motivation behind introducing these concepts and their definitions.

This clause provides the background, motivation and an explanation for all concepts and objects defined in Clause 3.

General concepts are described referring to a mail communication system diagram presented in Figure 1.

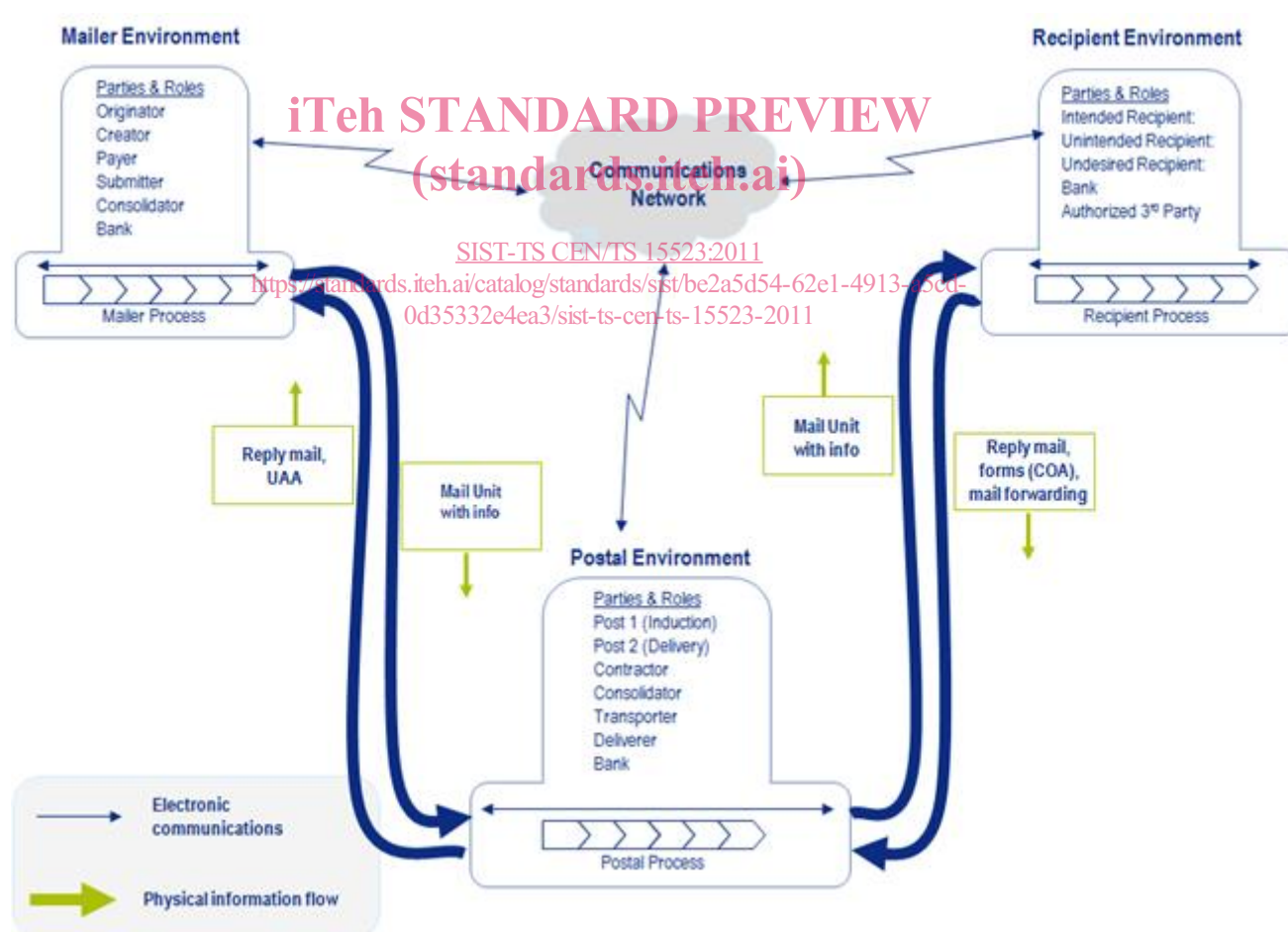


Figure 1 – Mail communication system diagram