

English Version

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.

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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.

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;

- 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.

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

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.

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*