SLOVENSKI STANDARD
SIST-TS CEN/TS 17457:2020

01-september-2020

Poštne storitve - Digitalni, lahko spletno povezani sistemi za odpiranje in zapiranje paketnih nabiralnikov za domačo rabo, do katerih imajo stranke in izvajalci dostave in pobiranja prost dostop

Postal services - Digital, optional online connected, opening and closing systems for parcel receptacles for home use with free access for the delivery and collection operators and consumers

Postalische Dienstleistungen - Digitale, optional online verbundene Öffnungs- und Schließsysteme für Paketübergabeeinheiten mit freiem Zugang für Zustell- und Abholdienstleister und Kunden

Services postaux - Systèmes d'ouverture et de fermeture, électroniques, optionnellement connectés, pour compartiments à colis, pour utilisation à domicile, avec accès libre pour les opérateurs de distribution et de retrait et les consommateurs

Ta slovenski standard je istoveten z: **CEN/TS 17457:2020**

ICS:

03.240	Poštne storitve	Postal services
35.240.69	Uporabniške rešitve IT pri poštnih storitvah	IT applications in postal services

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TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 17457

May 2020

ICS 03.240; 35.240.69

English Version

Postal services - Digital, optional online connected, opening and closing systems for parcel receptacles for home use with free access for the delivery and collection operators and consumers

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This Technical Specification (CEN/TS) was approved by CEN on 28 March 2020 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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CEN/TS 17457:2020 (E)

Contents

Page

iTeh STANDARD PREVIEW
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CEN/TS 17457:2020 (E)

European foreword

This document (CEN/TS 17457:2020) 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 shall not be held responsible for identifying any or all such patent rights.

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

According to the CEN/CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document focuses on the authentication of a delivery agent attempting to deliver a parcel into a receptacle or parcel box system. Today, without a uniform system, the interoperability between manufacturers and delivery operators is complex, as shown in Figure 1. The goal of this document is to improve this situation as shown in Figure 2. Ideally, for a group of manufacturers who want to operate with a group of delivery operators, it is advantageous to use a common system. This document specifies the parameters to use to direct opening system solutions.

MANUFACTURER SYSTEMS

M1   M2   M3

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D1   D2   D3

DELIVERY SYSTEMS

Figure 1 — Interoperability diagram without this document

MANUFACTURER SYSTEMS   MANUFACTURER SYSTEMS

M1   M2   M3   M4   M5   M…

OPENING & CLOSING SYSTEM 1   OPENING & CLOSING SYSTEM 2

D1   D2   D3   D4   D5   D…

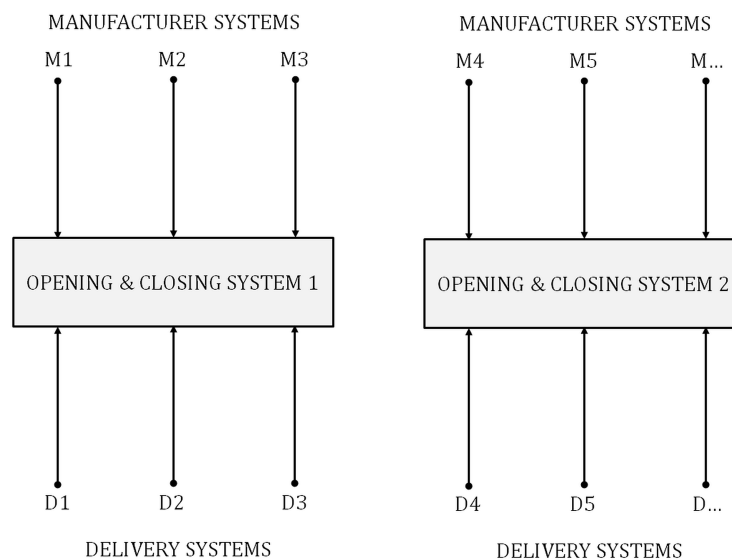DELIVERY SYSTEMS   DELIVERY SYSTEMS

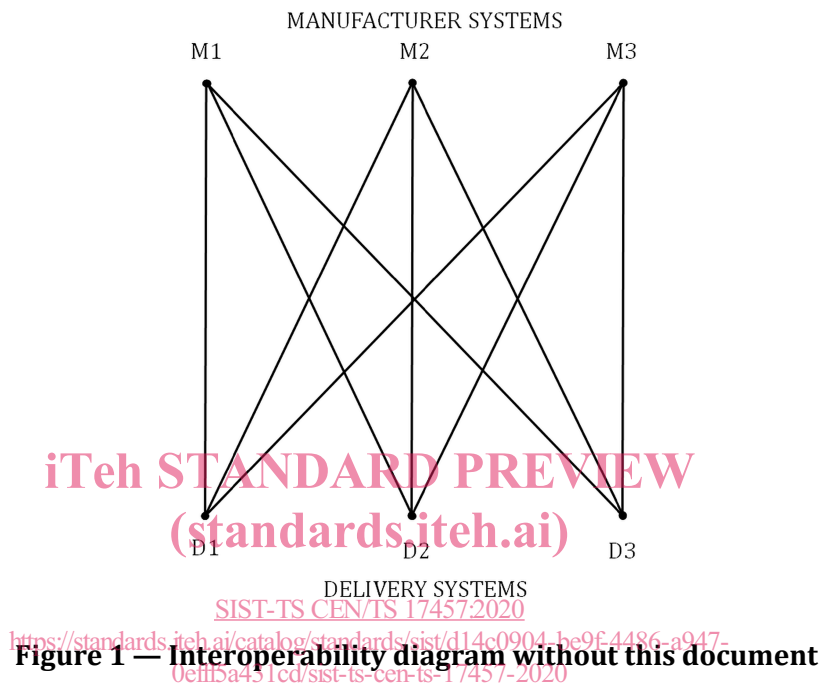**Figure 2 — Interoperability diagram according to this document**

CEN/TS 17457:2020 (E)

The opening system is a service provider based on an intermediary between the delivery organization and the recipient, following Figure 3. The trust service can be a manufacturer or a manufacturer with a third party.
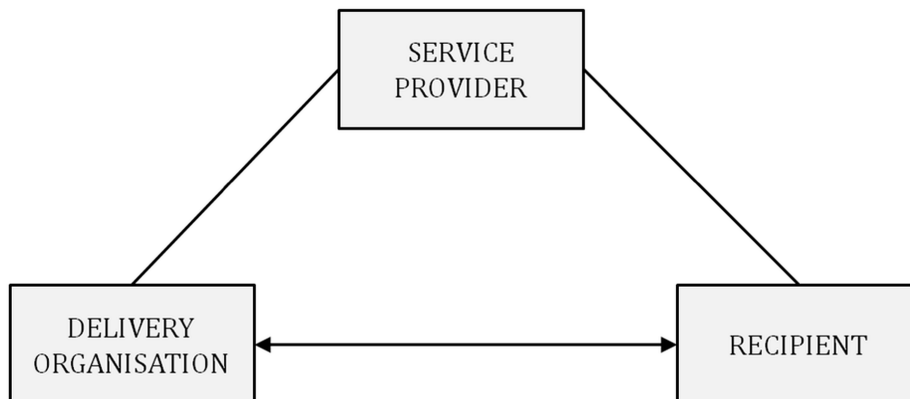

Figure 3 — Service provider organization

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1 Scope

The objective of this document is to define the framework for secure, trustworthy and user-friendly opening systems for parcel boxes for home use. Particular attention is given to facilitating secure electronic authentication of the delivery operator. This document exists considering the Standardization request M/548 from the European Commission and it aims to solve the lack of operability between parcel box manufacturers and delivery operators.

Therefore, this document describes the minimal requirements of a digital, optional online connected, opening and closing system for parcel boxes and prerequisites to create favourable conditions of interoperability between all market participants.

This document is designed to fit with solutions already on the market and define the good practices and pathway for future systems. It adopts an approach which is open to innovation. It is expected to be possible to achieve the necessary requirements through different technologies.

The systems of opening rights are intended to open parcel boxes as defined in CEN/TS 16819. However, the specification is extended to other receptacle solutions, in the frame of the home use (e.g. garage door, bags, etc.), when these receptacle solutions are compliant with the requirements of CEN/TS 16819 when the case allows.

2 Normative references

There are no normative references in this document.

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:

— ISO Online browsing platform: available at https://www.iso.org/obp/ui

— IEC Electropedia: available at http://www.electropedia.org/

3.1
parcel box
receptacle intended to receive parcel delivered by a delivery operator

[SOURCE: CEN/TS 16819:2015, definition 3.1]

3.2
parcel
postal item containing goods with or without commercial value, other than an item of correspondence, with a weight not exceeding 31,5 kg

[SOURCE: Regulation (EU) 2018/644 on cross-border parcel delivery services]

3.3
opening right
right required to a parcel operator to access a parcel box

CEN/TS 17457:2020 (E)

3.4
market participant
direct or indirect party, physical or moral, conducting a transaction with a parcel box

Note 1 to entry: This includes recipient, owner of the box or system and service provider.

3.5
delivery operator
organization which is responsible to deliver or collect a parcel in a parcel box

Note 1 to entry: This includes postal operator, e-retailers, local store or services.

3.6
delivery agent
person from a delivery operator attempting to deliver a parcel in a parcel box

3.7
manufacturer
company that produces or distributes the product, as identified by the marking on the product for example according to EC directives

EXAMPLE   Directive 2001/95/EC.

3.8
service provider
organisation which manages and supports:

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a)   the creation, verification and distribution of opening rights; or

b)   the creation, verification and distribution of electronic certificates

3.9
delivery system
system setup and use by a delivery operator to deliver or collect a parcel

EXAMPLE   This can include a hand-held device and back-end system.

3.10
free access
accessibility/usability for all service providers and consumers

4 Classification, designation and coding

4.1 Connectivity

3 types of connectivity are possible:

a)   Permanent internet connection could be required;

b)   Temporary internet connection could be required;

c)   No internet connection required.

4.2 System type

Type 1: Query from recipient to manufacturer

Type 2: Query from delivery operator to manufacturer

Type 3: Query from delivery operator to manufacturer using a third party

Type 4: Query from delivery operator to third party

5   Requirements

5.1 General requirements

The opening or closing of a receptacle or parcel box system can be done by a physical interaction or remotely. The opening right can be obtained by providing input data that are described in 5.2. The request will differ depending on the solution adopted in a group of market participants.

Figure 4 shows the necessary delivery steps.

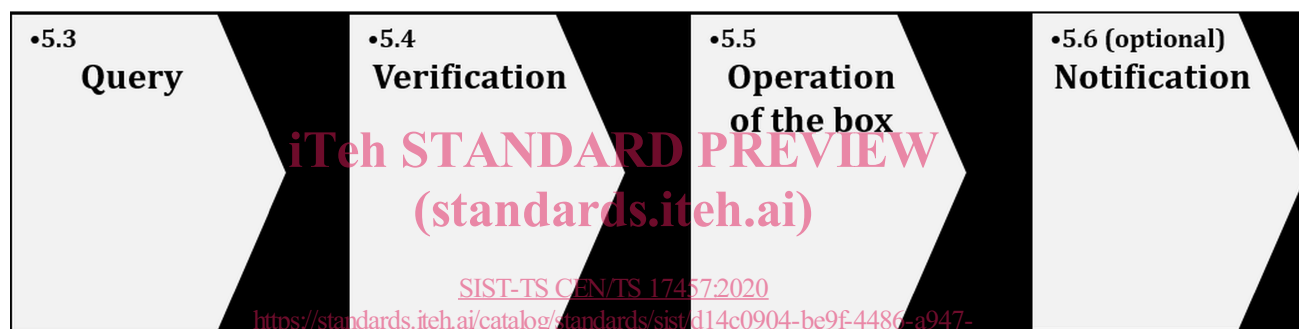Requirements of delivery steps are described respectively from 5.3 to 5.6.

Figure 4 — Sequence diagram

5.2 Input data

5.2.1 General requirements

The opening system can use the following input data. This information is required for the query of opening rights by the delivery agent. The data can be collected directly on the system (e.g. by reading a unique identification number on the parcel box or scanning the parcel number identification) or indirectly through a service provider.

5.2.2 Postal address

The parcel receptacle or box system is identified by the postal address of the place where the box is installed. This information is also carried over with the parcel to be delivered.

The name of the recipient shall be indicated directly on the box or accessible during the delivery process.

The format of the address shall be conformed to the standard of the country where the box is installed (in general EN ISO 19160-4:2017 can be used as a reference for postal addressing).

5.2.3 System identification number

If it is required by the process type, the identification of the parcel box is carried over a system identification number according to the manufacturer specifications. The system identification number is described in Annex A. Requirements regarding the marking are described in Clause 7.

E.g. identification according to ISO/IEC 15459-5:2014.