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Specifications for regulatory data access of intelligent mail & parcel locker and intelligent self-express service machine

智能信包箱和智能快件箱监管数据接入规范

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### **Foreword**

This document was drafted in accordance with the provisions of GB/T 1.1-2020 "Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents".

Please note that some contents of this document may involve patents. The issuing agency of this document does not assume the responsibility for identifying patents.

This document was proposed by the State Post Bureau.

This document shall be under the jurisdiction of the National Postal Industry Standardization Technical Committee (SAC/TC 462).

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# Specifications for regulatory data access of intelligent mail & parcel locker and intelligent self-express service machine

## 1 Scope

This document specifies the access type, access process, communication protocol, information message, data control, data access frequency and other contents of the regulatory data access of intelligent mail & parcel locker and intelligent self-express service machine.

This document applies to the regulatory data access of intelligent mail & parcel locker and intelligent self-express service machine.

### 2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in the text. Among them, for dated references, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies to this document.

GB/T 10757 Terminology of postal industry

GB/T 24295 Intelligent mail & parcel locker

GB/T 27917.1 Express service - Part 1: Basic terminology

YZ/T 0132-2013 Postal industry organization coding rules

YZ/T 0133-2013 Intelligent self-express service machine

YZ/T 0143-2015 Basic data elements for express item

#### 3 Terms and definitions

The terms and definitions defined in GB/T 10757, GB/T 24295, GB/T 27917.1, YZ/T 0133, as well as the following terms and definitions, apply to this document.

3.1

Intelligent mail & parcel locker

An intelligent service terminal for users to receive mail and express item, which is controlled and managed by information technology and operated by password verification, electronic verification, biometrics and other identity recognition methods.

[Source: GB/T 24295, 3.1]

3.2

### Intelligent self-express service machine

A self-service device set up in public places for delivery companies to deliver and users to post and pick up express item.

[Source: YZ/T 0133-2013, 3.1, modified]

3.3

#### Mail

A general term for letters, parcels, remittance notices, newspapers and other printed materials delivered by postal companies.

[Source: GB/T 10757-2011, 5.1.1]

3.4

#### **Express item**

A general term for letters, parcels, printed materials, etc. delivered by express service organizations in accordance with the law.

[Source: GB/T 27917.1-2011, 2.3]

3.5

#### Receiver

The individual or unit designated as the receiver in the mail or express address.

[Source: GB/T 10757-2011, 3.4]

3.6

#### Sender

The individual or unit that sends the mail or express item.

[Source: GB/T 10757-2011, 3.3]

the data reception result in real time;

b) The intelligent self-express service machine operation organization information system sends the delivery information, Takeaway information, take back information, waybill information, collection information and other operation data to the postal administrative authority information system in real time; it sends the deliver staff information, device information, video information and other data to the postal administrative authority information system on demand; the postal administrative authority information system returns the data reception result in real time.

## 7 Communication protocol

## 7.1 Transmission protocol

The message transmission between the information system of the operation organization of the intelligent mail & parcel locker and intelligent self-express service machine and the information system of the postal administrative authority shall adopt the HTTP protocol; the data shall be sent in the POST mode. For messages involving security information, the HTTPS protocol shall be used.

## 7.2 Message format

The message for regulatory data access of the intelligent mail & parcel locker and intelligent self-express service machine shall adopt the JSON format.

# 8 Information message

# 8.1 Message type

The message types for regulatory data access of the intelligent mail & parcel locker and intelligent self-express service machine are shown in Table 3 and Table 4.

transmitted the previous day will be retransmitted the next day. The specific retransmission time shall be agreed upon by the intelligent mail & parcel locker and intelligent self-express service machine operation organization and the postal administrative authority, which can be 4:00 a.m. the next day.

#### 9 Data control

## 9.1 Data compatibility requirements

In order to ensure the compatibility of information encoding between the intelligent mail & parcel locker and intelligent self-express service machine information system and the postal administrative authority information system, the encoding format of HTTPS and POST of the data sender shall be consistent with the encoding method of the data receiver.

## 9.2 Encryption method

Access messages shall be encrypted using DES or 3DES to avoid tampering and leakage of intelligent mail & parcel locker and intelligent self-express service machine regulatory data.

## 9.3 Data integrity

Intelligent mail & parcel locker and intelligent self-express service machine regulatory data access shall use digital signature technology for data integrity control; add necessary verification codes to ensure the consistency of the message sent by the transaction initiator and the message received by the receiver.

# 9.4 Data network transmission security

The transmission network for sending messages shall carry out necessary security access control and adopt data encryption transmission methods, such as soft encryption of message data, adding necessary network protocol filtering and transmission port filtering at both ends, adding necessary firewalls at both ends, installing anti-virus software, performing regular anti-virus.

# 10 Data access frequency

The access frequency of regulatory data for intelligent mail & parcel locker and intelligent self-express service machine shall comply with the requirements of Table 23 and Table 24.

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