



SLOVENSKI STANDARD
oSIST prEN 14534:2022
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Poštnе storitve - Kakovost storitev - Merjenje časa prenosa od sprejema do vročitve za masovno pošto

Postal services - Quality of service - Measurement of the transit time of end-to-end services for bulk mail

Postalische Dienstleistungen - Dienstqualität - Messung der Durchlaufzeit von Massensendungen von Ende zu Ende

Services postaux - Qualité de service - Mesure du délai d'acheminement des services de bout en bout pour le courrier en nombre

Ta slovenski standard je istoveten z: prEN 14534

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Postal services - Quality of service - Measurement of the transit time of end-to-end services for bulk mail

Services postaux - Qualité de service - Mesure du délai d'acheminement des services de bout en bout pour le courrier en nombre

Postalische Dienstleistungen - Dienstqualität - Messung der Durchlaufzeit von Massensendungen von Ende zu Ende

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

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 14534:2022) 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 CEN Enquiry.

This document will supersede EN 14534:2016.

Annex A to Annex G are normative.

Annex A to Annex C and Annex F are covering the measurement of a single bulk mail induction.

Annex D to Annex E and Annex G are covering additional requirements for the measurement of aggregated or continuous fields of study.

Annex H to Annex L are informative.

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Introduction

The European Commission emphasises the need to have common rules for the development of community postal services and the improvement of Quality-of-Service (QoS). The Commission has identified requirements for postal QoS-Measurement systems that include:

- independent end-to-end measurement capabilities;
- a focus on national and cross-border distribution service performance;
- a single, uniform and reliable system for monitoring distribution service performance within the Union.

The Commission has acknowledged that the different postal traditions and cultures in Europe would not allow for the establishment of one common unified European measurement system and that national systems should have sufficient freedom to reflect needs and peculiarities of national markets. On the other hand, they should fulfil a defined set of minimum requirements to satisfy the information interests if applicable of the Commission, the regulatory authorities, postal customers and postal operators themselves.

The objective of this document is to define a modular QoS measurement system in a competitive commercial context. The measurement is designed to estimate the end-to-end transit time quality of service given to the postal customer. The measurement can be set up domestically in each European country and cross-border between the European countries.

This document refers to a number of principles and minimum requirements to be applied for the measurement of the end-to-end transit time service-level of bulk-mail services. It is widely applicable for single-induction as well as continuous measurement applications. It provides recommendations on the comparability of different bulk mail transit-time QoS measurement results and their use as key performance indicators.

This bulk mail standard has been developed from the requirements of EN 13850, *Postal services – Quality of service - Measurement of the transit time of end-to-end services for single piece priority mail and first class mail*. Both European Standards consider methods using a representative end-to-end sample of all types of addressed mail appropriate for their coverage. For the measurement of bulk mail services a separate standard is required for the following reasons:

- **Senders:** Members of the public posting single items are replaced by businesses, small in number – posting large volumes of mail. Third party agents (consolidators, mailing houses, letter shops) may also act on behalf of posting customers.
- **Contracted Services:** Mail posted in bulk will often be mailed under a contract between the customer and the postal operator. Typically, bulk services require customers to standardize format and weight of their mailing, undertake a level of pre-sortation or to present mail in different ways according to the contract conditions.
- **Volumes of mailings:** Bulk mailings are large. They may contain thousands or millions of items.
- **Performance Measures:** On-time performance measures are expanded to provide different types of (i) *on*, (ii) *by* or (iii) *between* specific-dates performance depending on what is agreed with the postal customers or is specified for this service.
- **Discriminant Characteristics:** Test items have to match the characteristics of customer mailings. The range of characteristics relevant for the performance varies by type of mail service, and a wider set of potential characteristics should be considered. Greater flexibility is required to define for what part of the real mail logistics the results are representative for.

- **Production of Test Mail:** For the inclusion of test mail in the customers bulk mailings a variety of methods may be appropriate. They include database-seeding methods used in different stages of the customer's mail production process as well as methods to include pre-produced test items in the customer's bulk mailing between production and induction of the customers' real mail.
- **Dates of induction:** The rules and requirements for bulk mail induction are more complex and may be specific to the contract between customer and postal operator.

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1 Scope

This document specifies methods for measuring the end-to-end transit-time of *domestic* and *cross-border* bulk mail, collected, processed and delivered by postal service operators. It considers methods using representative end-to-end samples for all types of bulk-mail services with defined transit-time service-levels as offered to the postal customer. It specifies a set of minimum requirements for the design of a quality-of-service measurement system for bulk mail, involving the selection and distribution of test mail sent by business senders and received by selected panellists.

This document is applicable to the measurement of end-to-end *priority* and *non-priority* bulk-mail services. For the purpose of this standard, bulk mail services can include all types of addressed bulk mail including, but not limited to letter mail, direct mail, magazines and newspapers and encombrant-format mailings.

This document relates to the measurement of bulk-mail services offered to businesses that have pick-ups at their offices or give their mail to postal service operators. If a third-party agent acts for the postal operator, then the time the mail is handed over to the agent will form part of the measurement. Where a third-party agent acts for the sending customer, the measurement will be from the point when mail is handed over to the postal operator.

This document is of *modular structure*. It is designed to assess the service performance of postal operators for bulk mail services on the level of a single *bulk mailing* as defined by the postal customer or any aggregations thereof, including the performance of an individual customer / operator or the performance of a group of customers / operators or the performance at national level.

The standardized QoS measurement-method provides a uniform way for measuring the end-to-end transit time of postal items. Using a standardized measurement-method will ensure that the measurement will be done in an objective and equal way for all operators in accordance with the requirements of the current Postal Directive.

The end-to-end service measured may be provided by one operator or by a group of operators working either together in the same distribution chain or parallel in different distribution chains. The method for end-to-end measurement specified in this European Standard is not designed to provide results for the measurement of parts of the distribution chain.

This document does not include other service performance indicators than those related to end-to-end transit time. In particular, this standard does not measure whether the timings of collections meet customers' requirements.

The transit-time quality-of-service result will be expressed as percentage of mail delivered *by, on or between* expected dates. These dates can be defined absolute as calendar-days or relative to the date of induction. The transit time calculation rule will be in whole days.

This quality of service indicator does not measure the postal operator's overall performance in a way, which provides direct comparison of postal service operators. This document nevertheless provides minimum requirements for the comparability of end-to-end transit-time measurement results of specific bulk mailings.

This document is not applicable for the measurement of end-to-end transit-times of single-piece mail services and hybrid mail, which require different measurement systems and methodologies (see, for example, EN 13850, *Postal Services - Quality of Services - Measurement of the transit time of end-to-end services for single piece priority mail and first class mail*).

In certain circumstances, this standard allows a choice between alternatives to be made subject to the approval of the regulator. This approval is only necessary if the service is within the universal service obligation.

This document includes specifications for the quality control and auditing of the measurement system.

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.

EN 13850:2020, *Postal Services - Quality of Services - Measurement of the transit time of end-to-end services for single piece priority mail and first class mail*

ICC/ESOMAR, *International Code of Marketing and Social Research Practice (latest version)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13850:2020 and the following apply.

3.1

bulk mail

large volume of mail having similar mail and induction characteristics

Note 1 to entry: Bulk mail items are usually from the same weight group and share the same size or shape characteristics.

Note 2 to entry: Bulk mail items have usually a common sender and share the same point(s) of induction.

Note 3 to entry: Bulk mail senders often share the outward processing of bulk mail by pre-sorting or segregating the mail to enable the postal operator to by-pass the first sortation stages.

Note 4 to entry: Regarding the volume and/or requirements of the induction process, bulk mail does not qualify as single piece mail.

3.2

bulk mailing

bulk mail posted by a single postal customer at the same induction point(s)

Note 1 to entry: A bulk mailing is defined by the postal customer, usually being a business.

Note 2 to entry: A bulk mailing usually covers one induction date or, in some cases, a small number of consecutive days of operation.

Note 3 to entry: Large bulk mailings may be inducted at more than one postal operator, depending on the areas of destination.

Note 4 to entry: Large bulk mailings may be inducted at two or three induction points, depending on the areas of destination.

3.3

bulk mail campaign

finite set of bulk mailings following a defined pattern

Note 1 to entry: A bulk mail campaign is defined by the postal customer, usually being a business.

Note 2 to entry: A bulk mail campaign may comprise bulk mailings with different types of bulk mail.

Note 3 to entry: A bulk mail campaign may consist of cycles or waves in time of bulk mailings of similar nature.

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3.4

(bulk mail) sender

organization sending bulk mail, usually being a business

Note 1 to entry: The bulk mail sender can be the postal customer or his agent.

Note 2 to entry: The postal customer or the customer's agent can be a consolidator or a mailing house / letter shop

3.5

business panellist

panellist with an address other than a household address such as a company or an organisation

3.6

continuous measurement

measurement with mail allocated to all months of the year, and within the months to all weekdays of operation of the postal operator ('strictly continuous measurement')

Note 1 to entry: A measurement is also continuous in the context of this standard if bulk mailings are measured regularly with the same methodology for at least a calendar year ('continuous measurement').

Note 2 to entry: Relevant weekdays of operation are all possible weekdays of posting in accordance with the field of study and the chosen transit-time calculation rule (see Annex B)

3.7

dimension

mail characteristic with at least two modes, used to form subgroups of mail flows whose quality of service is to be compared

3.8

fixed date of induction

contracted date, on which mail items that have been collected and put on hold, are to be distributed from their point of storage

Note 1 to entry: Contracted fixed dates of induction are to be accompanied by a last date of collection and a last collection time.

3.9

induction

takeover of the responsibility concerning a postal item and its distribution by a postal service provider

Note 1 to entry: 'Induction' is equivalent to 'Posting' when the posting is done before the last collection time.

3.10

induction point

physical location at which postal items are placed into the collection / acceptance system that is under the responsibility of the induction postal operator

3.11

last collection time

advertised last time for collection or contracted latest time for collection

Note 1 to entry: The last collection time is often also called *last acceptance time* for which the postal operator states the transit-time target.

Note 2 to entry: This is often not equal to the actual collection time, because from the postal work-organization point of view, the collection usually happens some time later than the advertised last collection time (e.g. the collection routing timetable can only be defined with some tolerance).

3.12**last date of collection**

contracted latest date for posting / collection for bulk mailings with a fixed date of induction

3.13**split induction**

bulk mailing with more than one induction date

Note 1 to entry: It may be possible to assign to each delivery destination of a split induction exactly one induction date.

4 Symbols and abbreviations

CMS	Continuous Measurement System
CMW	Calculated Mode Weights
df	Design factor
DMC	Discriminant Mail Characteristic
EC	European Commission
ESS	Effective Sample Size
EtE	End-to-End
IFW	Individual Final Weight
IRV	Intra-Relation Variation
IT	Information Technology
J	Date of induction
LDC	Last Date of Collection
MSS	Minimum Sample Size
P	Date of Posting
QoS	Quality of Service
RMW	Real mail Mode-Weights
RMS	Real Mail Studies
RSW	Real mail Strata-Weights
RtT	Relation-to-Total Variation
SCMS	Strictly Continuous Measurement System
SIP	Single Induction Point
SRS	Simple Random Sample
StrRS	Stratified Random Sample
StrEtE	Stratified End-to-End Sample
SWB	Standard Weighting Basis
USO	Universal Service Obligation
WB	Weighting Basis

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5 Transit time as a Quality-of-Service indicator

5.1 General

The bulk mail *transit-time Quality-of-Service (QoS)* is usually to be expressed as the percentage of mail distributed within the end-to-end transit-time target. All performance indicators shall refer to the *on-time performance*, i.e. either the bulk mail end-to-end transit time or the percentage of mail delivered (i) by, (ii) on or (iii) between expected dates. These dates shall be defined absolute as calendar-days or relative to the date of induction ($J + n$).

The measurement process involves the selection and distribution of test items sent by selected businesses and received by selected panellists. The sample design gives the specifications for the businesses sender, receiver panellists and items to be representative of the chosen design basis. The *design basis* is the most appropriate structural information available to characterize all real mail distributed in the field of study.

The sample design shall be representative of the chosen design basis. The design basis shall be selected according to its ability to characterize all real mail distributed in the field of study. If the field of study is composed of several study domains, it is the QoS measurement for the overall field, which shall comply with the requirements of this European standard.

The system for measuring the distribution of the end-to-end transit time of bulk mail items shall be robust and shall give a statistical measurement at a defined level of accuracy. The measurement methodology shall be objective and shall be auditable.

5.2 Transit time calculation

5.2.1 Measurement unit

The transit time of a postal item shall be measured in units of days and expressed as ($J + n$) days with J being the date of induction. The method for establishing the date of induction shall be agreed between the organization commissioning the measurement system and the independent performance monitoring organization. For measurement purposes, the date of induction J is when the postal operator takes responsibility for starting the distribution process of the posted mail in accordance with a QoS target. The handover to the postal operator may be made by the business sender or an agent acting on behalf of the business sender.

5.2.2 Establishing the date of induction

It is the responsibility of the independent performance-monitoring organization to put in place an inclusion method, which provides for consistent, accurate dates and times of posting. The method(s) used to obtain accurate dates and times of posting shall be agreed between the sending bulk-mail customer and the independent performance-monitoring organization before a method of inclusion is implemented.

The agreed inclusion method(s) shall facilitate the identification of the date of induction based on:

- the date and time of posting; and
- the last collection date and time;

for each individual test item in the sample, keeping in mind the postal logistics of the service provider.

For most bulk mailings, *one* date of induction will suffice for all items that are posted. In some cases, however, a posting may be spread over two or more days (*multi-day induction*) and knowledge of where each item is within the bulk mailing will be key to determining accurate dates of induction. In a measurement of a multi-day induction different times or even dates of posting might be applied to the same delivery destinations (*split induction*). The information needed for handling split-inductions is often more complex and systems feasible for verification, if they exist at all, more extensive than in the one-day induction case.

One way of overcoming some of these problems is to adapt the inclusion method to the type of mailing in question (see 6.6). Different inclusion methods may help the sending customer to provide accurate date(s) and time(s) of posting.

Depending on the contract between business sender and postal operator, the date of induction for each mail item is – alternatively – the date of the:

- (i) *Actual collection* from the sender's or agent's premises;
- (ii) *Contracted collection* from the sender's or agent's premises, provided the contracted bulk mailing is ready for handover on the contracted date;
- (iii) *Advertised collection* time after posting by the sender at a postal induction point;
- (iv) *Final collection* or posting in a series of collections / postings to cover a delivery destination;
- (v) Contracted fixed start of the distribution process after the mail items have been collected / posted, put on hold and stored for a time at a defined location in the postal network (*interim storage*)

under the condition that the posting takes place before the agreed last collection date and time. For items with a time of posting later than the last collection time, the date of induction is set to the next valid date of induction for this type of mail (for details see B.2).

It is essential that a common understanding of the determination of the date of induction is reached between all concerned parties before the start of the measurement. This shall be documented.

The following steps shall be undertaken to minimize the recording errors for date and time of posting:

- The date and time of posting shall be provided to the independent performance monitoring organization by the sending bulk-mail customer or the sending customer's agent, e.g. a mailing house. This information may be provided electronically, by manual observation or by written documentation.
- Where practicable, the actual production of all test items shall be verifiable, in cases where address seeding by the customer or his agent (see also 6.6.4) is the preferred mode of test mail production and placement.
- Where practicable, the date and time of posting shall be verifiable using information from the postal operator.
- In multi-day bulk mailings, the business sender and the independent performance measuring organization shall agree on a method to verify the exact date and time of posting of the relevant mailing(s) to all delivery destinations.

NOTE 1 This may be done, for example, by using existing electronic or logistic information or by deploying personnel of the performance-monitoring organization.

Delivery destinations should be derived from the organizational structure of the postal operator or any other structure, which determines the sorting, packing and routing order of the mailing.