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PREDES and RESDES message exchanges: overview and benefits



Document version: 2.0

2.1.2019

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28.1.2019

1 Introduction

This document starts by providing an overview of what the PREDES and RESDES messages are, from a business perspective.

It then describes the current situation regarding exchanges of these messages.

Lastly, it lists the benefits of PREDES/RESDES exchanges for all mail. These benefits can be summarized as follows:

- more efficient handling of irregularities;
- reduction of manual data entry, which means cost savings;
- quality improvement through measurements and data analysis.

The document also describes and emphasizes the added benefits of upgrading to the newest PREDES: PREDES version 2.1.

2 What is a dispatch?

Although most readers of this document are probably very familiar with mail dispatches, it is felt important to recall the key principles, as they relate to PREDES/RESDES exchanges.

A dispatch is the collection of receptacles of mail being forwarded from one office of exchange (OE) to another OE at a point in time. All of the receptacles of a postal dispatch share the same attributes. They all have the same:

- origin OE;
- destination OE;
- mail category ;
- mail class;
- mail sub-class;
- dispatch year;
- dispatch number.

The receptacles of a postal dispatch also all have the same *planned* transportation. That is to say that the objective is that all of the receptacles of a dispatch travel together and arrive at the same time. For this reason, the *planned* transportation is included on each of the receptacle labels.

Because of operational factors (weather, capacity, poor planning), actual transportation can differ from planned transportation.

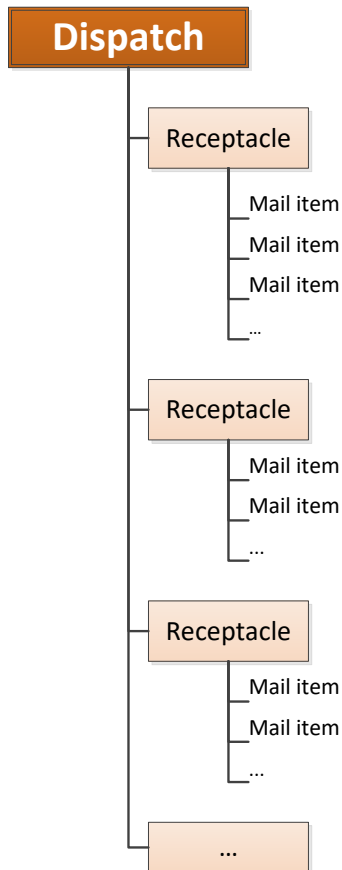
Each mail receptacle contains mail items. Typically, a receptacle is a bag or a tray. Each receptacle bears a label containing key information and, in particular, a barcode with a unique identifier of this receptacle.

Some mail items also have an identifier attached, usually for tracking purposes.

A dispatch can be represented as a structure with three levels:

- 1 The dispatch, having an identifier conforming to UPU standard S8.
- 2 The receptacles in the dispatch, having an identifier conforming to UPU standard S9.
- 3 The mail items in each receptacle; identified mail items have an identifier conforming to UPU standard S10.

A hierarchical view of a dispatch is provided in the diagram below:



A dispatch corresponds to one document, called the *dispatch bill*. In practice, this document is generated when the dispatch is closed: the document is inserted into the last receptacle of the dispatch just before it is closed. This practice allows for easy retrieval of documentation by the partner post. For letter mail, this document is the CN 31 or CN 32 letter bill. For parcel mail, it is the CP 87 parcel bill. For EMS, it is a dispatch manifest/summary.

The dispatch/parcel bill document provides the destination postal operator with summary information about the contents of the dispatch. The information provided has two purposes:

- 1 Operational: allows the destination postal operator to verify that mail is received properly (detection of missing receptacles or items, etc.).
- 2 Accounting: the dispatch bill is the basis for international mail accounting.

In fact, “dispatch” is an artificial concept created in order to limit paperwork: instead of having a document for each mail receptacle, there is one per dispatch: one per group of receptacles corresponding to the same type of mail and prepared together.

3 What is PREDES?

3.1 Overview

PREDES is the name of an EDI (electronic data interchange) message containing information on a mail dispatch.

PREDES stands for PREadvice-DESpatch.

A PREDES message is generated by the postal operator preparing the dispatch and is sent to the operator that receives the dispatch (i.e. the destination of the dispatch).

PREDES was initially designed for planning and tracking purposes.

3.2 PREDES versions

The first version of PREDES (v1.1) was developed in the 1990s. It provided the following information:

- dispatch information;
- planned transport information;
- receptacle information (for each receptacle in the dispatch).

The second version, PREDES v2.0, was developed around the year 2000. It added information at mail-item level, for identified items.

The latest version, PREDES v2.1, was developed from 2008 and achieved stabilization in 2013. Compared to v2.0, PREDES v2.1 adds accounting information.

The table below summarizes the information blocks in the different versions of PREDES:

<i>Information block</i>	<i>PREDES v1.1</i>	<i>PREDES v2.0</i>	<i>PREDES v2.1</i>
Dispatch	✓	✓	✓
Transport	✓	✓	✓
Receptacle	✓	✓	✓
Item		✓	✓
Accounting			✓

Important: all the information blocks listed in the table above are also present in the paper dispatch document known as the dispatch/parcel bill. Therefore, PREDES v2.1 provides all the information in the dispatch bill and can fully replace the paper document, meaning that it can be used in paperless exchanges of mail.

4 What is RESDES?

RESDES is an EDI message. RESDES stands for RESponse on a DESpatch.

A RESDES message is generated by the postal operator receiving mail receptacles, in response to a PREDES message. Sending RESDES confirms positive receipt of receptacles, with the possibility of indicating irregularities in these receptacles (such as a discrepancy between the weight announced and the weight received).

Through the receipt of RESDES, the postal operator that sent the mail gets feedback, and the following information in particular:

- confirmation that the mail reached the destination postal operator;
- date/time when it was processed at the destination office of exchange;
- additional information on possible irregularities.

Unlike PREDES, the RESDES message has not evolved much over the past 15 years: RESDES v1.1 was developed in the 1990s, and is still the version exchanged today.

RESDES information is at receptacle level only; it does not provide any information on individually identified items. RESDES may provide transport information, limited to the arrival transport segment at destination.

The table below summarizes the information blocks in RESDES:

<i>Information block</i>	<i>RESDES v1.1</i>
Dispatch	✓
Transport (arrival transport only)	✓
Receptacle	✓
Item	

Important: unlike PREDES, the RESDES message does not correspond to any paper document. The electronic feedback it provides to the sending Post does not have any paper equivalent.

5 PREDES/RESDES exchanges

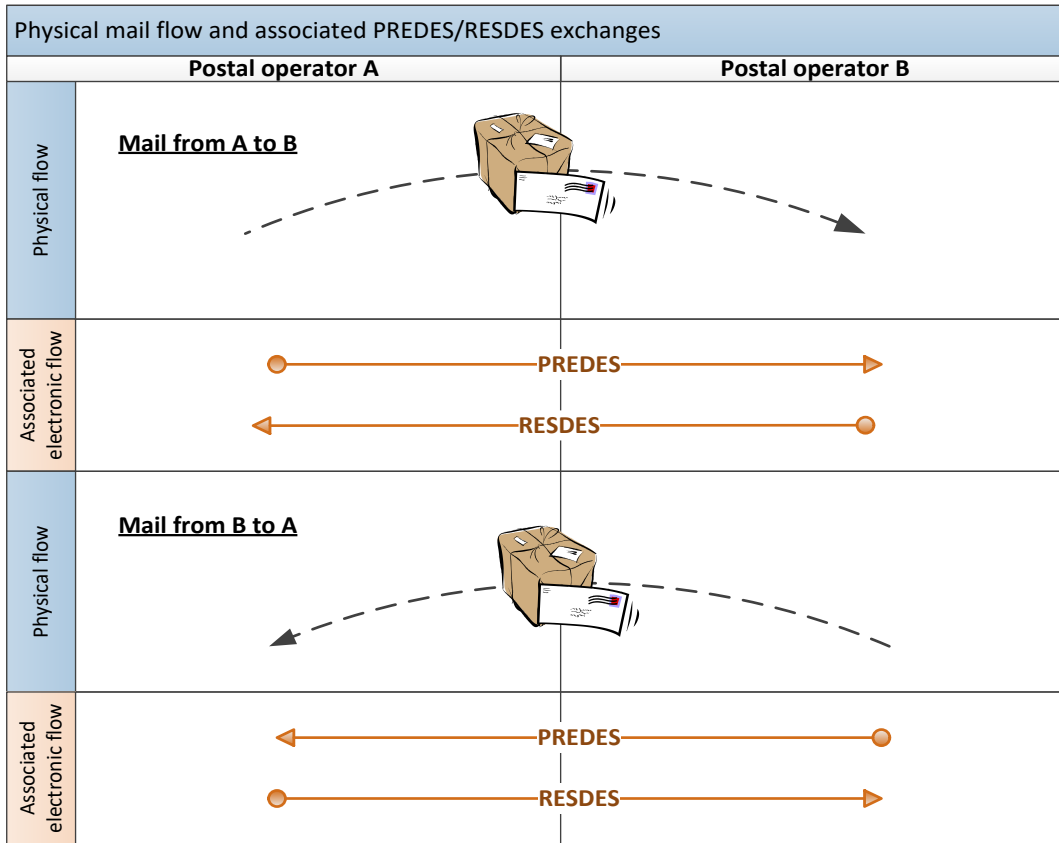
5.1 Description

A postal operator sending PREDES expects to receive RESDES in return.

RESDES is generated only in response to a PREDES: if a postal operator receives mail but does not receive PREDES for this mail, it does not generate RESDES.

Mail traffic between two postal operators is normally two-way, so a postal operator normally generates both PREDES and RESDES with each partner.

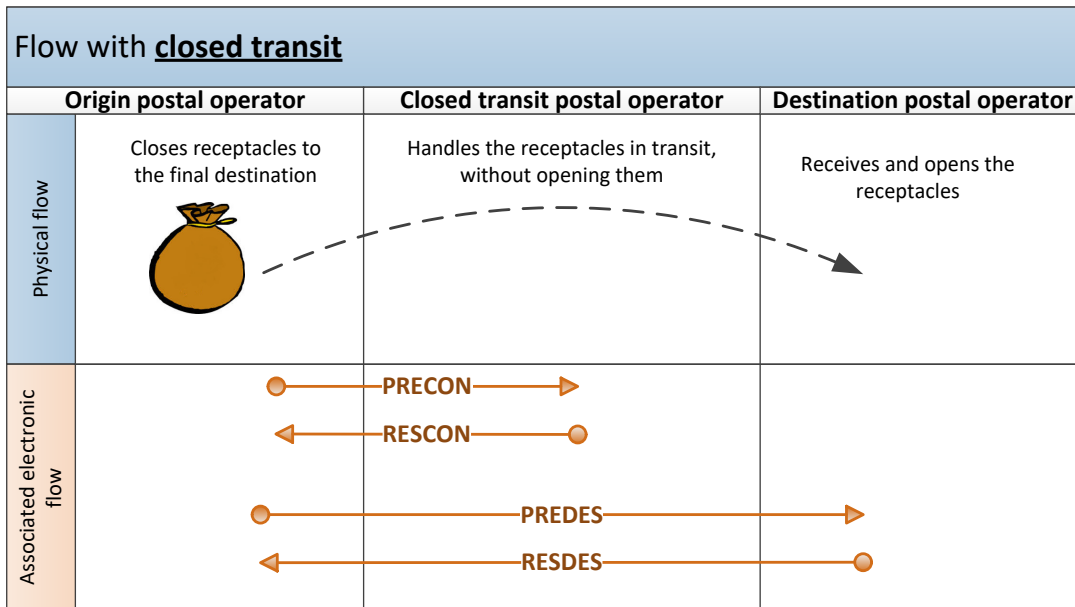
The diagram below illustrates the physical mail flow and associated PREDES/RESDES flow between two partners.



5.2 PREDES/REDES and closed transit

PREDES informs the final destination of a dispatch. If a dispatch is sent in closed transit, PREDES is not sent to the closed transit postal operators. Another EDI message covers this: PRECON (PRECON is a consignment pre-advice sent to the intermediate destination).

The physical and associated electronic flows are illustrated in the diagram below:



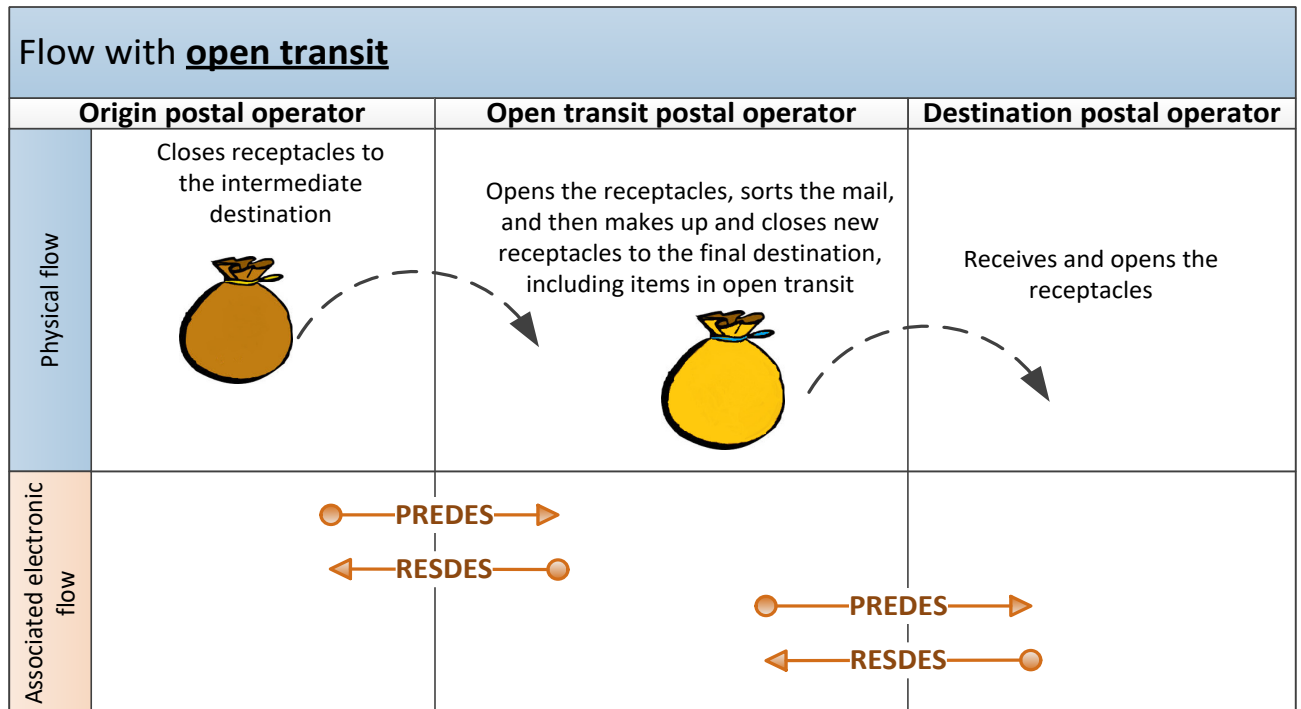
5.3 PREDES/RESDES and open transit

A postal operator may not make up dispatches to all world destinations. When mail traffic to a particular destination is very low, mail to this destination is inserted in a dispatch to another postal operator in open transit; this transit operator will then forward the mail to its final destination.

The final destination of mail items sent in open transit does not receive a PREDES from the origin of these mail items, since the origin prepares a dispatch that does not go to the final destination of these mail items.

However, the final destination normally receives a PREDES from the intermediate postal operator that re-dispatched the mail items in transit.

The physical and associated electronic flows are illustrated in the diagram below:



5.4 Current situation of PREDES/RESDES exchanges

Today, almost all postal operators have the technical capability of exchanging PREDES and RESDES.

The UPU publishes a table of all current postal EDI addresses: UPU code list 160, *Interchange network party addresses* (www.upu.int/uploads/tx_sbdownloader/160.txt).

The UPU also publishes a more detailed list indicating the exact usage of these EDI addresses: UPU reference list 160a, *Usage of interchange network party addresses* (www.upu.int/uploads/tx_sbdownloader/160a.xls).

These lists show the following information concerning PREDES and RESDES (as of 18 November 2013): 183 operators are capable of exchanging PREDES/RESDES

Only three operators have limitations and do not cover all mail classes for PREDES; all others are therefore technically capable of exchanging for all mail classes.

However, technical capability is a quite different matter from actual exchanges: each postal operator seldom activates all possible exchanges of PREDES/RESDES with its partners. Typically, exchanges may be activated for one mail class only, and/or with some partners but not all.

Reciprocity of EDI exchanges:

It is usual for two postal partners to activate PREDES and RESDES between each other together: each party activates the generation of PREDES for mail sent to the other, and the generation of RESDES for mail received from the other.

5.5 *PREDES/RESDES exchanges in UPU Regulations*

The UPU Regulations effective 1 April 2018 stipulate that the generation and exchange of both PREDES and RESDES messages are mandatory in all cases (articles 17-131.0bis and 17-216.2).

Where designated operators have agreed bilaterally or multilaterally not to send a paper letter bill, they are not required to send paper CN 33 lists for registered items or paper CN 16 lists for insured items, as PREDES version 2.1 messages provide similar information electronically (articles 17-121.0bis and 17-122.0bis).

6 **Benefits of exchanging PREDES and RESDES**

This section lists the benefits that can be gained by exchanging PREDES and RESDES. It must be noted that exchanging these messages does not directly provide all the benefits listed; it is also necessary to perform other developments in IT systems in order to fully benefit from the message exchanges.

Obviously, these benefits apply only partially when PREDES and RESDES are not exchanged with all partners or are not exchanged for all types of mail.

6.1 *Benefits per message and direction*

6.1.1 Benefits of receiving PREDES

Assist with mail receipt and help notice any irregularities: possibility of automated checks of mail received and alerts in case of irregularities, such as alerts when items scanned do not match PREDES contents.

Reduce the amount of data entry and increase data quality: the dispatch/parcel bill serves as the basis for accounting of international mail, with the bill contents normally captured into an accounting system; when PREDES is received, this capture can be assisted and the associated risk of manual errors is therefore reduced.

Reduce the need for verification notes and associated efforts and costs: if the dispatch bill or an associated document is missing, it is possible to rely on the PREDES instead of raising a verification note.

Planning: with all PREDES received, it is possible to get an overview of expected volumes a few hours in advance and plan the next working shift accordingly.

6.1.2 Benefits of receiving RESDES

Quality check: the receipt of RESDES makes it possible to verify whether the mail arrived as planned, and take further action if required.

Tracking: RESDES provides a sort of proof of delivery at receptacle level and has no paper equivalent; a RESDES, or the absence thereof, can be very useful in case of loss, damage, etc.

6.1.3 Benefits of sending PREDES

Ensure optimal end-to-end handling of "my" mail: PREDES assists at destination and is the condition for receiving RESDES in response.

6.1.4 Benefits of sending RESDES

Positive acknowledgment of mail received.

May be used to report irregularities and therefore reduce the need for verification notes.

6.2 Additional benefits of exchanging PREDES v2.1

Sending PREDES v2.1: in the future, sending PREDES v2.1 may replace the paper dispatch/parcel bill and associated lists (special lists, bill of missent/à découvert items), to facilitate outbound operations and avoid paperwork at both origin and destination.

Receiving PREDES v2.1: fully automatic data transfer to accounting (since PREDES v2.1 contains all data needed for accounting) → no data entry, improved data quality.

6.3 Overall benefits – role of central data warehouses

CAPE and QCS (Quality Control System) are two central data warehouses fed by EDI exchanges on EDI networks that provide reports and search functions related to PREDES and RESDES messages.

They help operators to benefit from EDI exchanges: with the reports they provide, they can assist with data and quality checks, performance comparisons, etc.

Here are the main overall benefits of PREDES/RESDES exchanges that can be gained through central data warehouses:

- Monitor transport plan and overall time plan, as a tool to spot unnecessary delays or issues (such as fractioned dispatches, i.e. receptacles of the same dispatch reaching destination on different days/flights), and optimize times.
- Perform deep data analysis, by combining PREDES/RESDES data with CARDIT/RESBIT and PRECON/RESCON data, to spot irregularities in the transport leg of the supply chain and fix them.
- Volume analysis, trends, etc.
- Assist customer service teams, for example in performing initial analysis on delayed/missing receptacles.

6.4 Summary of benefits

The table below summarizes the benefits of exchanging PREDES/RESDES:

	<i>Message sending</i>	<i>Message receipt</i>
PREDES	Ensure optimal handling of “my” mail	<ul style="list-style-type: none"> – Assist in case of irregularities – Reduce manual data entry and associated costs – Assist with team planning
RESDES	<ul style="list-style-type: none"> – Positive acknowledgment – Assist in case of irregularities 	<ul style="list-style-type: none"> – Quality checks – Tracking
Additional benefits PREDES v2.1	Possibility of going paper free	No manual data entry
Overall benefits via reporting (CAPE, QCS)	<ul style="list-style-type: none"> – Monitor transport and optimize – Volume analysis and trends – Assist customer service teams – Etc. 	

7 Recommendations

Based on all the information above, in order for operators to benefit fully from exchanging PREDES and RESDES, the following recommendations are made:

- Activate the generation of PREDES to all possible partners, for all types of mail (technically, this is normally done with the assistance of the EDI network provider).
- Similarly, activate the generation of RESDES to all possible partners, for all types of mail.
- Provide actual arrival transport information in RESDES.
- Upgrade to PREDES v2.1.
- Regularly connect to CAPE or QCS, run reports associated with PREDES and RESDES, check quality and use the results to optimize the process.