

## Central platform for exchange of postal accounting forms – business requirements

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### 1 Context

When mail items are sent abroad, at least two postal operators are involved: one in the sending country and one in the receiving country. However, only the sending Post receives payment from the customer, traditionally by means of postage stamps. A complex mechanism is in place so that the sending Post pays the receiving Post for its role in the delivery process, taking into account the type and weight of the mail item, the sorting process and many other factors. This accounting process entails the exchange of summary information, usually on a quarterly basis, and then accounting data, usually on an annual basis, with separate accounts for different product/mail flows. Furthermore, a number of special cases must also be taken into consideration, such as postal transit in the event of small volumes, whereby a third postal operator becomes involved in the accounting process.

International accounting between designated postal operators is regulated by the UPU, by means of several defined accounting forms corresponding to the various flows and steps in the accounting process. At present, each Post exchanges these forms bilaterally with each of their partner Posts, usually as PDF files sent via e-mail. In total, there are 192 UPU member countries and 215 associated designated postal operators. In theory, each Post can exchange accounting forms with all others.

**Note.** – as the UPU is opening up to wider postal sector players, accounts may also be exchanged with these entities in the future.

### 2 Overview

It is proposed that a web-based platform be implemented to facilitate the exchange of accounting documents among postal operators, as well as with wider postal sector players. This requirement does not in any way relate to the automation of accounting; the content of the accounting documents concerned is not relevant.

The solution will replace the current exchange of documents, which is performed mostly via e-mail. Postal operators will upload the accounting documents to the platform, indicating the partner operator. Thus, the accounting documents will be made available to the correct partner operator for download.

The main advantages of a central platform are as follows:

- Eliminates the need to obtain the e-mail addresses of partners and to keep track of changes thereto;
- Greater flexibility regarding the size of documents exchanged: the size of attachments sent via e-mail is limited (often to 5 MB) and can also vary depending on the partner. It is intended that the central platform will enable this limit to be increased;

- Improved security: only authorized persons will have access to the platform. Recently, several fraud attempts have been detected whereby false accounts were sent by e-mail with a request for payment. Such fraud attempts will be much more difficult via a secure central platform;
- Proof of receipt: e-mails can be lost, transmission issues can occur and sometimes e-mails sent are not received. When such issues arise with regard to e-mails containing accounting forms, the accounting process is affected, resulting in delays, discussions, etc. The central platform will provide the guarantee that a document posted on the platform is immediately available to the partner operator;
- Greater user-friendliness in dealing with exchanged documents, with centralized visibility per operator as to the status of each form, both for documents sent and received.

### 3 System requirements

#### 3.1 Overview

The web-based solution will be a platform for the exchange of accounting documents among designated postal operators. Its functionality and appearance must be similar to an e-mail management solution, but – unlike an e-mail platform – exchanges are to be conducted only with clearly defined partners, in a secure environment. Furthermore, the system should serve to monitor the status of documents exchanged.

#### 3.2 Posting an accounting document

When posting a document, the accountant enters the following information:

<i>Information</i>	<i>Explanation</i>	<i>Mandatory?</i>
Partner operator	Selection of the operator from a list	Yes
Document type	Selection from a list (official CN forms) or free text to allow for bilateral agreements and special cases	Yes
Time period	Selection from a list The time period is a month, quarter, half-year or year.	Yes
Attachment	At least one document must be attached. No restriction on document type, but a virus check should be performed as part of the upload process if possible.	Yes
Additional information	Free text	No

In the event of potential duplication, i.e. a document for the same period and for the same operator has already been posted, a confirmation popup should be displayed to assist users and prevent errors. However, the system should not prevent such postings, in order to provide for special situations such as supplementary accounts.

Once a document has been sent, the sender should have the option to mark it as cancelled.

#### 3.3 Posting multiple accounting documents

The solution must enable the sending of multiple documents, possibly to multiple partners, in one action. To this end, a file naming convention may be established, whereby users select the folder containing the files to be sent and the system picks the files matching the naming convention and sends them one by one, indicating which were uploaded correctly and which failed.

A typical usage scenario is to send CN 56 forms to numerous partners in one go. The forms are generated by the accounting solution and the resulting files are stored in a local folder, and should then be uploaded to the central platform and distributed in a single action.

### 3.4 Handling accounting documents sent/received

Users should be able to edit documents received, and visualize and download attachments. They should also be able to indicate whether the document is accepted or rejected, and pose questions to the sender. In all cases, free text information should be associated with the action.

Under this approach, there may be multiple exchanges back and forth between two partners with regard to a document.

The table below summarizes the various possible statuses of a document and the logic behind possible actions:

<i>Status number</i>	<i>New status (= action)</i>	<i>Operator that can assign this status</i>	<i>Allowed previous status(es)</i>
1	Sent	Sender	–
2	Amended	Sender	1 (sent), 6 (question raised), 7 (refusal raised)
3	Cancelled	Sender	All
4	Read	Recipient	1 (sent), 2 (amended)
5	Accepted	Recipient	1 (sent), 2 (amended)
6	Question raised	Recipient	1 (sent), 2 (amended)
7	Refusal raised	Recipient	1 (sent), 2 (amended)
8	Refusal accepted	Sender	7 (refusal raised)

### 3.5 Monitoring of exchanges

One of the primary functions of the system is that it should enable users to visualize the accounting documents sent and received. The solution should provide an overview of the current situation and allow users to perform actions on documents.

The corresponding screen(s) must be user-friendly to assist users in performing their work efficiently.

It is proposed that provision be made for two ways of monitoring the documents:

- View by accounting document;
- View by action.

Users should be able to select and amend the type of view at any time. The number of documents exchanged can be overwhelming, as there are many partners and document types involved. Accordingly, the system should offer the following features:

#### *i View by document*

There should be two completely separate displays, with documents sent on one side and documents received on the other. This display should provide an overview of the current situation by partner/type of form.

Users should be able to edit a document, so the document attributes should be displayed and it should be possible to view the attachments. The history of actions should also be displayed, and users should be able to perform new actions (the permitted actions depend on the current status of the document).

#### *ii View by action*

Each event relating to a form is called an “action”. Examples of typical actions include sending the form, accepting the form and raising a question about the form.

There may be multiple actions relating to a form.

As above, actions sent and actions received should be displayed separately. The “view by action” display can be helpful to check recent actions performed by partners, enabling users to act accordingly.

#### *iii Filtering*

Many postal operators organize their systems such that different accountants are responsible for different documents and/or partners. With this in mind, the system must allow users to create and apply filters by means of a list of partner operators and/or a list of forms. A filter is given a free name.

The proposed approach is that operator supervisors maintain the filters and assign them to their accountants (see user definitions below). Supervisors should also indicate whether or not an accountant can remove all filters. It should be possible to assign multiple filters to an accountant, whereby the latter can select one of the filters, or combine all of them, or remove all of them, if allowed.

Additional filters should be provided:

- Accounting year: only one accounting year should be visible at a time, so this filter is mandatory;
- Partner operator: drop-down list – the content of this list should be refreshed based on the main filter;
- View only documents not accepted (check box).

#### *iv Additional display features*

Documents/actions not read yet should be displayed differently (possibly in bold) and the left-hand column should indicate the number of such documents/actions.

It must be possible to amend the order of the list according to each column.

An example of the potential display is provided below (this is intended only to give an idea of the required features; the final display may be quite different):

Accounting year	2022						
Filter	Terminal dues, Arab region			Partner			
		only not accepted	<input type="checkbox"/>				
View:	partner	name	form	period	last action	by	status
Per document	AEA	Emirates Post	CN 56	Q1	12-07-22	AEA	accepted
documents sent (1)	AEA	Emirates Post	CN 56	Q2	08-10-22	AEA	accepted
documents received (5)	AEA	Emirates Post	CN 56	Q3	09-02-23	AEA	accepted
Per action	AEA	Emirates Post	CN 56	Q4	01-04-23	AEA	question raised
actions sent	OMA	Oman Post	CN 56	Q1	25-06-22	OMA	accepted
actions received (6)	OMA	Oman Post	CN 56	Q2	15-09-22	OMA	accepted
	OMA	Oman Post	CN 56	Q3	18-12-22	OMA	accepted
	OMA	Oman Post	CN 56	Q4	19-03-23	DKA	sent
	QAA	Qatar Post	CN 56	Q1	25-06-22	QAA	accepted
	QAA	Qatar Post	CN 56	Q2	15-09-22	QAA	accepted
	QAA	Qatar Post	CN 56	Q3	18-12-22	QAA	accepted
	QAA	Qatar Post	CN 56	Q4	04-04-23	DKA	amended
	SAA	Saudi Post	CN 56	Q1	25-06-22	SAA	accepted
	SAA	Saudi Post	CN 56	Q2	15-09-22	SAA	accepted
	SAA	Saudi Post	CN 56	Q3	18-12-22	SAA	accepted
	SAA	Saudi Post	CN 56	Q4	01-05-23	SAA	accepted

### 3.6 Security

The solution must be fully secure, whereby only registered users can access the solution (login and password).

A user must always be associated with a predefined postal operator.

There should be three types of user:

- Accountants: can perform all actions relating to the exchange of documents in the system;
- Operator supervisors: same rights as accountants, plus management of the postal operator's user accounts. There may be several supervisors within a postal operator. Operator supervisors can change the rights of other users, e.g. to make another user a supervisor;
- UPU central administrators: have all the rights of operator supervisors, and also oversee security and manage operator supervisors.

A user cannot request a new account. Instead, users must be created by supervisors. Once a user has been created, he/she receives an e-mail to set an access password. After this step, the user can access the solution.

Users must be able to reset their password (including if they forget their password) via a mechanism that sends an e-mail to a predefined e-mail address.

In order to ensure a high level of security, it is proposed that Gmail and other "public" e-mail addresses should not be permitted. Instead, e-mail addresses must be associated with postal operators. In the event that a postal operator does not have an e-mail server, UPU .POST e-mail addresses can be used.

Operator supervisors and UPU central administrators can block and delete users. Operator supervisors can only delete users from their own organization, whereas UPU central administrators can delete any user.

All actions performed in the system should be tracked and recorded in the system for security purposes.

### 3.7 *Additional requirements*

#### 3.7.1 *Technical interface to facilitate sending documents*

Some operators may have an IT solution in place to automate the generation and sending of accounting documents to partners via e-mail.

A solution must therefore be provided to enable such solutions to be interfaced with the new central system, in order to avoid manual entry in the central solution.

#### 3.7.2 *Accounting documents generated by the UPU*

For a certain accounting flow, the UPU International Bureau generates accounting forms on behalf of postal operators and distributes these forms to all operators. The central solution must allow this. This may be covered by the previous requirement (3.7.1 – Technical interface to facilitate sending documents).

Documents distributed by the UPU should be displayed like those sent by each operator, but they must be differentiated in some way so as to indicate that they were sent by the UPU on behalf of the operator.

#### 3.7.3 *Data deletion*

It is proposed that all data be kept for 10 years. Therefore, by the end of 2033, assuming that the system is implemented before the end of 2024, the system will contain all data from 2024 to 2033.

At the end of each year, any data that is more than 10 years old should be removed from the central platform, by pair of partners, provided that there are no actions pending in relation to any documents (e.g. question raised or refusal raised).

Therefore, at in the end of 2034, the data from 2024 would be deleted, with the exception of any pairs of partners with pending accounting documents.

#### 3.7.4 *Languages*

The solution must be provided in English and French. Each user should be able to select their preferred language and the system should retain their preference.

## **3 Sizing/system requirements**

It is proposed that the maximum size of a posted file be limited to 50 MB per file.

Data size estimates:

- Each operator sends accounting documents to an average of 50 partners;
- The average size of each accounting document is 3 MB;
- An operator sends an average of 10 accounting documents per partner and year;
- There are 215 designated operators.

The total estimated volume of data per year for accounting documents is approximately 300 GB.

In order to keep 10 years of files online, the total data volume is approximately 3 TB. (It is estimated that many/most operators will want to use the platform as their accounting data repository and may not download all documents.)

There will be at least two transactions per document (i.e. sent, accepted). An average of 2.1 transactions per document is estimated, resulting in an estimated annual total of 210,000 transactions within the system (approximately 1,000 per operator).