

SFTP Delivery API Guide Start

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Changelog

Date	Change
26.09.2023	Add new ReturnAddressType to request and result XML (Xsd schema)
20.03.2023	Update DMC example (24x24 symbols) and example address window
18.11.2022	Added clarifications concerning UTF-8 encoding of request and result XML.
30.03.2022	Note regarding capital ß added
09.03.2022	XML Scheme updated - change in several string lengths
16.11.2021	Update DMC examples
05.10.2021	Status text "Birthdate is missing" added in DeliveryResponse XML Scheme updated - birthdate is now optional
05.08.2021	Values added in DeliveryResponse
16.07.2021	Optional field Referenceld added
07.07.2021	Minor Changes
30.06.2021	Minor Changes
14.05.2021	Minor Changes
16.04.2021	Errorcodes added
02.03.2021	Created

20.03.2023

1. Overview

In order to start the Postident delivery process, it is necessary for you to create a Postident case. The case is created by an XML file which is transmitted via SFTP (SFTP is provided by Postident). The information relevant for the further process is subsequently transmitted by response XML, also via SFTP. The response file also contains the feedback, whether the case could be created successfully. You will also get a datamatrixcode which needs to be printed on the envelope. For further information see the documentation of the operational process.

2. SFTP

Prerequisite

To access the SFTP interface your IT system needs a system account with a user name and public key to access (specifications for the key: RSA public key with a length of at least 3072 bits in OpenSSH-Format).

Your account will be created by our DPAG service team. If you manage your users in our "Auskunftsportal", you can create the system account yourself. For each system account, you will also receive a data password with which you can decrypt the encrypted data after it has been retrieved.

Protocol

The Secure File Transfer Protocol (SFTP) is used.

The following cryptographic methods are supported by the server:

Block Encryption:

- aes256-ctr (recommended)
- aes128-ctr
- aes192-ctr

Key Exchange:

- diffie-hellman-group14-sha256 (recommended)
- diffie-hellman-group15-sha512
- diffie-hellman-group16-sha512
- diffie-hellman-group-exchange-sha256 (modulo size >= 2048 and <= 8192) (deprecated, support will be removed in Q3 / 2022)

Message Authentication Code:

- hmac-sha2-256
- hmac-sha2-512

HostKey Algorithmus:

- ed-25519 (recommended)
- rsa-sha2-512
- rsa-sha2-256
- ssh-rsa (deprecated, support will be removed in Q3 / 2022)
- ecdsa-sha2-nistp521 (deprecated, support will be removed in Q3 / 2022)

Host

```
postident-transfer.deutschepost.de (149.239.125.97) Port 22
```

Provided Data

Via SFTP you provide the list of cases you want to start. The file needs to be packed in an archive (ZIP), encrypted with the data password of the SFTP system account and made available in the SFTP drive. The encryption uses the so-called WinZip-AES encryption (based on AES256 CTR), which is supported by common zip software.

In response you will receive an archive (ZIP) with the list including several information and the datamatrixcode per case.

Folder

On the SFTP Server you must upload your files in the following folder structure. You must create the folders initially if they don't exist yet. You will get your BC_ID and BC_CONFIGURATION_IDS from the serviceteam.

/

```
<BC_ID>

<BC_CONFIGURATION_ID1>

  file10.zip

  file11.zip

<BC_CONFIGURATION_ID2>

  file21.zip

  file21.zip
```

ZIP-Archive-File

Name scheme

POSTIDENT_<USERNAME>_<BC_CONFIGURATION_ID>_<TIMESTAMP>_REQUEST.zip

POSTIDENT_<USERNAME>_<BC_CONFIGURATION_ID>_<TIMESTAMP>_RESPONSE.zip

Parametername	Description	Example
USERNAME	System user name for SFTP access	NUTZER.SFTP
BCCONFIGURATIONID	Your business customer configuration id	8342367814
TIMESTAMP	Timestamp of file creation YYYYMMDD_HH24MISS	20210321_135042

e.g. POSTIDENT_USER.SFTP_8342367814_20210301_135042_REQUEST.zip

The file name has to be unique.

Files in ZIP-archive

The following files need to be provided by you in the ZIP-archive

- **Request file** in XML format (same name as the ZIP-archive; UTF-8 encoded)

The following files are included in the ZIP-archive you receive as a response

- **Response file** in XML format (same name as the ZIP-archive; UTF-8 encoded)

Detailed information about the XML files is included in chapter 3. XML.

Frequency of file collection / provision

The request files are collected from the SFTP drive every five minutes by postident system.

Deletion of files on SFTP drive

The request and response files are automatically deleted after thirty days.

3. XML Files

Scheme



Content of data fields

Field length and mandatory / optional fields are defined in the xsd scheme.

Structure of DeliveryHeader

Elements	Description
<ul style="list-style-type: none"> • NumberOfDatasets (Type Int) 	Number of data records that were included in the request.
<ul style="list-style-type: none"> • ResponseStatus <ul style="list-style-type: none"> ◦ BatchStatusCode (Type String) ◦ BatchStatusText (Type String) 	The response status when the data has been processed. Status code - status text: success - All data records of the delivery have been processed successfully error - Errors in individual data records in the delivery declined - XML not well-formed / Schema validation failed, delivery refused / Delivery cannot be decrypted / File name syntax is incorrect

Structure of DeliveryBody

Elements	Description
<ul style="list-style-type: none"> • DeliveryDatasetList 	List of datasets for which a case is created in the Postident system

Structure of DeliveryDataset

Elements	Description
<ul style="list-style-type: none"> • DatasetNumber 	Consecutive number in the data records list. Allows sorting for request and response processing.
<ul style="list-style-type: none"> • DeliveryRequest 	Request object, that contains information about the private customer.
<ul style="list-style-type: none"> • DeliveryResponse 	Response object, that contains information about the case (caseID, datamatrixcode etc.) and status codes for several steps of the case

Structure of DeliveryRequest

Elements	Description
<ul style="list-style-type: none"> • IdentityData <ul style="list-style-type: none"> ◦ Firstname (Type String, 0-150 Character) ◦ Lastname (Type String, 0-150 Character) ◦ Birthdate (Type String, 0-10 Character) ◦ Address <ul style="list-style-type: none"> ▪ StreetAddress (Type String, 0-150 Character) ▪ Hausenumber (Type String, 0-10 Character) ▪ Appendix (Type String, 0-150 Character) ▪ Postalcode (Type String, 0-11 Character) ▪ City (Type String, 0-150 Character) ▪ Country (Type String, 3 Character) 	<p>Data of the recipient.</p> <p>Only "DEU" is allowed for country.</p> <p>Firstname and lastname will be truncated after 35 characters before storing in database.</p> <p>City will be truncated after 50 characters before storing in database.</p> <p>The letter capital ß will be rejected in LabelGeneration.</p>
<ul style="list-style-type: none"> • CustomData <ul style="list-style-type: none"> ◦ Custom1 (Type String, 0-100 Character) 	<p>Custom field that can be used for passing your own ids or references.</p> <p>This data is included in the result data of the case.</p> <p>You must ensure that you do not pass any personal data, as this data will be retained for documentation purposes after the case data is deleted.</p>
<ul style="list-style-type: none"> • ProcessData <ul style="list-style-type: none"> ◦ Referenceld (Type String, 0-14 Character) ◦ WebhookUrl (Type String, 0-500 Character) 	<ul style="list-style-type: none"> • Referenceld can be used for passing your own id that needs to be printed on your invoice. • The WebhookUrl contains the endpoint to which a webhook is sent when a certain status is achieved.
<ul style="list-style-type: none"> • ReturnAddress <ul style="list-style-type: none"> ◦ Name1 (Type String, 0-100 Character) ◦ Name2 (Type String, 0-100 Character) ◦ StreetAddress (Type String, 0-150 Character) ◦ HouseNumber (Type String, 0-10 Character) ◦ Postalcode (Type String, 0-11 Character) ◦ City (Type String, 0-150 Character) ◦ Country (Type String, 3 Character) 	<p>Optional, to be included, if the provision of the return address by the business customer is configured. If configured and not provided an error will be returned with the xml result.</p> <p>Only "DEU" is allowed for country.</p>

Structure of DeliveryResponse

Elements	Description
<ul style="list-style-type: none"> • StatusCode (Type String) • StatusText (Type String) 	<ul style="list-style-type: none"> • Status code at the level of a dataset • Descriptive status text for the status code <p>status code - status text:</p> <ul style="list-style-type: none"> ▪ success - The data record was processed without errors ▪ error - There were errors in at least one processing step
<ul style="list-style-type: none"> • Caseld 	<p>Unique ID in postident system for the delivery dataset.</p>
<ul style="list-style-type: none"> • LabelGeneration <ul style="list-style-type: none"> ◦ StatusCode (Type String) ◦ StatusText (Type String) ◦ StatusMessages <ul style="list-style-type: none"> ▪ StatusMessage (Type String) 	<p>Information on creating a label for a case.</p> <p>Is filled with both positive and negative creation of the label.</p> <p>status code - status text:</p> <ul style="list-style-type: none"> • success - Label created successfully • error - Internal error when accessing the label generation interface / Validation of the recipient address failed / Hard validation error occurred / Birthdate is missing <p>There can be further text with detailed information in the element "statusMessages".</p>
<ul style="list-style-type: none"> • DmcGeneration <ul style="list-style-type: none"> ◦ StatusCode (Type String) ◦ StatusText (Type String) ◦ PackagingJobId (Type PackagingJobIdType) ◦ DocumentId (Type String) ◦ PageNumber (Type String) ◦ Dmc (Type String) 	<p>Information on creating a data matrix code for a case.</p> <p>Is filled with both positive and negative creation of the DMC.</p> <p>Information regarding the process of creating the DMC, the DMC itself and the metadata.</p> <p>DMC is provided as base64.</p> <p>status code - status text:</p> <ul style="list-style-type: none"> • success - Data matrix code created successfully • error - Error generation of data matrix code / DocumentId not set

Request

File name of request

POSTIDENT_<USERNAME>_<BC_CONFIGURATION_ID>_<TIMESTAMP>_REQUEST.zip (same name as the XML file)

Encryption of the batch files

Request and response files are encrypted using the data password of the SCR user to be configured using AES256.

If the request file is completely rejected (batchStatusCode error) you need to provide a new file with different name (new timestamp).

Example request:

```
<?xml version="1.0" encoding="UTF-8"?>
<PostidentDeliveryBatch xmlns="urn:www-deutschepost-de:Postident/Delivery/1.0">
  <DeliveryHeader>
    <NumberOfDatasets>1</NumberOfDatasets>
  </DeliveryHeader>
  <DeliveryBody>
    <DeliveryDatasetList>
      <DeliveryDataset>
        <DatasetNumber>1</DatasetNumber>
        <DeliveryRequest>
          <IdentityData>
            <Firstname>Erika</Firstname>
            <Lastname>Mustermann</Lastname>
            <Birthdate>1964-08-12</Birthdate>
            <Address>
              <StreetAddress>Heidestrasse</StreetAddress>
              <HouseNumber>16a</HouseNumber>
              <Appendix>Hinterhaus</Appendix>
              <Postalcode>51147</Postalcode>
              <City>Köln</City>
              <Country>DEU</Country>
            </Address>
          </IdentityData>
          <CustomData>
            <Custom1>Eigene Referenz</Custom1>
          </CustomData>
          <ProcessData>
            <ReferenceId>12345</ReferenceId>
            <WebhookUrl>https://testurl.de/webhook</WebhookUrl>
          </ProcessData>
          <ReturnAddress>
            <Name1>Geschäftskunde 1</Name1>
            <StreetAddress>Charles-de-Gaulle-Straße<
/StreetAddress>
              <HouseNumber>20</HouseNumber>
              <Postalcode>53113</Postalcode>
              <City>Bonn</City>
              <Country>DEU</Country>
            </ReturnAddress>
          </DeliveryRequest>
        </DeliveryDataset>
      </DeliveryDatasetList>
    </DeliveryBody>
  </PostidentDeliveryBatch>
```

Response

File name of response

POSTIDENT_<USERNAME>_<BCCONFIGURATIONID>_<TIMESTAMP>_RESPONSE.zip (same name as the XML file)

Example response OK:

Response data - without errors

```
<?xml version="1.0" encoding="UTF-8"?>
<PostidentDeliveryBatch xmlns="urn:www-deutschepost-de:Postident/Delivery/1.0">
  <DeliveryHeader>
    <NumberOfDatasets>1</NumberOfDatasets>
    <ResponseStatus>
      <BatchStatusCode>success</BatchStatusCode>
      <BatchStatusText>Datamatrixcode created successfully</BatchStatusText>
    </ResponseStatus>
  </DeliveryHeader>
  <DeliveryBody>
    <DeliveryDatasetList>
      <DeliveryDataset>
        <DatasetNumber>1</DatasetNumber>
        <DeliveryRequest>
          <IdentityData>
            <Firstname>Erika</Firstname>
            <Lastname>Mustermann</Lastname>
            <Birthdate>1964-08-12</Birthdate>
            <Address>
              <StreetAddress>Heidestrasse</StreetAddress>
              <HouseNumber>16a</HouseNumber>
              <Appendix>Hinterhaus</Appendix>
              <Postalcode>51147</Postalcode>
              <City>Köln</City>
              <Country>DEU</Country>
            </Address>
          </IdentityData>
          <CustomData>
            <Custom1>Eigene Referenz</Custom1>
          </CustomData>
          <ProcessData>
            <ReferenceId>12345</ReferenceId>
            <WebhookUrl>https://testurl.de/webhook</WebhookUrl>
          </ProcessData>
          <ReturnAddress>
            <Name1>Geschäftskunde 1</Name1>
            <StreetAddress>Charles-de-Gaulle-Straße<
/StreetAddress>
              <HouseNumber>20</HouseNumber>
              <Postalcode>53113</Postalcode>
              <City>Bonn</City>
              <Country>DEU</Country>
            </ReturnAddress>
          </DeliveryRequest>
          <DeliveryResponse>
            <StatusCode>success</StatusCode>
            <StatusText>The data record was processed without errors<
/StatusText>
              <CaseId>ABCD1234ABCD</CaseId>
              <LabelGeneration>
                <StatusCode>success</StatusCode>
                <StatusText>Label erfolgreich erstellt</StatusText>
              </LabelGeneration>
              <DmcGeneration>
                <StatusCode>success</StatusCode>
                <StatusText>Datamatrixcode erfolgreich erstellt<
/StatusText>
                <PackagingJobId>99000001</PackagingJobId>
                <DocumentId>000001</DocumentId>
                <PageNumber>01</PageNumber>
                <Dmc>iVBORw0KGgoAAAANSUHEUgAAAjKAAADICAIAAAB07NS
/AAAY20lEQVR4Xu2de3RU1fXHyZNAQAQSCRTQiAuKBiKkTSkUu3gsCsgqUKE8xGhkQV1AIqmCLgryKHFVFRB0FcLCANoq5VXxUbaV
```

Example response with errors during processing

Response objekt - error single dataset

```

<?xml version="1.0" encoding="UTF-8"?>
<PostidentDeliveryBatch xmlns="urn:www-deutschepost-de:Postident/Delivery/1.0">
  <DeliveryHeader>
    <NumberOfDatasets>1</NumberOfDatasets>
    <ResponseStatus>
      <BatchStatusCode>error</BatchStatusCode>
      <BatchStatusText>Error generation of data matrix code</BatchStatusText>
    </ResponseStatus>
  </DeliveryHeader>
  <DeliveryBody>
    <DeliveryDatasetList>
      <DeliveryDataset>
        <DatasetNumber>1</DatasetNumber>
        <DeliveryRequest>
          <IdentityData>
            <Firstname>Erika</Firstname>
            <Lastname>Mustermann</Lastname>
            <Birthdate>1964-08-12</Birthdate>
            <Address>
              <StreetAddress>Heidestrasse<
/StreetAddress>
              <HouseNumber>16a</HouseNumber>
              <Appendix>Hinterhaus</Appendix>
              <Postalcode>51147</Postalcode>
              <City>Köln</City>
              <Country>DEU</Country>
            </Address>
          </IdentityData>
          <CustomData>
            <Custom1>Eigene Referenz</Custom1>
          </CustomData>
          <ProcessData>
            <ReferenceId>12345</ReferenceId>
            <WebhookUrl>https://testurl.de/webhook<
/WebhookUrl>
          </ProcessData>
          <ReturnAddress>
            <Name1>Geschäftskunde 1</Name1>
            <StreetAddress>Charles-de-Gaulle-Straße<
/StreetAddress>
            <HouseNumber>20</HouseNumber>
            <Postalcode>53113</Postalcode>
            <City>Bonn</City>
            <Country>DEU</Country>
          </ReturnAddress>
        </DeliveryRequest>
      <DeliveryResponse>
        <StatusCode>error</StatusCode>
        <StatusText>There were errors in at least one processing
step</StatusText>
        <CaseId>ABCD1234ABCD</CaseId>
        <LabelGeneration>
          <StatusCode>error</StatusCode>
          <StatusText>Hard validation error occured.<
/StatusText>
          <StatusMessages>
            <StatusMessage>In der Sendung trat
mindestens ein harter Fehler auf.</StatusMessage>
            <StatusMessage>Die angegebene Straße kann
nicht gefunden werden.</StatusMessage>
          </StatusMessages>
        </LabelGeneration>
      </DeliveryResponse>
    </DeliveryDataset>
  </DeliveryDatasetList>
</DeliveryBody>
</PostidentDeliveryBatch>

```

Example response with error in scheme

```

Response objekt - error in scheme

<?xml version="1.0" encoding="UTF-8"?>
<PostidentDeliveryBatch xmlns="urn:www-deutschepost-de:Postident/Delivery/1.0">
  <DeliveryHeader>
    <ResponseStatus>
      <BatchStatusCode>declined</BatchStatusCode>
      <BatchStatusText>Schema validation failed, delivery refused<
/BatchStatusText>
    </ResponseStatus>
  </DeliveryHeader>
</PostidentDeliveryBatch>

```

4. Datamatrix Code

The Datamatrix code is provided as PNG (base64 coded). The PNG consists of the datamatrixcode and a sequence of numbers positioned vertically.

Example:



The datamatrix code with vertical number needs to be printed in the address window of your envelope.

Example:

