TECHNICAL SPECIFICATION
WE MAIL Denmark

Document's version history

Date	Version	Amendment
01/11/2020	1.0	Document created

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2. Communication paths

PostNord Strålfors offers a uniform electronic interface for sharing data between different parties and systems. The production system is monitored 24 hours a day, all year long. The customer can choose from the following protocols and network standards, among others:

- MFT/sFTP
- API
- VPN

3. File submission

The normal submission time for a data file is before 06:00, the same working day as submission to distribution. If a file is received later than agreed, this may mean that the file will be processed the following day. The transfer must be completed before the agreed time, i.e. if the transfer begins at 05:59 and is completed at 06:12 there is a risk that the file will be processed the following day.

4. Back-up and logging

Files that arrive at PostNord Strålfors are backed up on receipt and saved on disk for 30 days. Receipt and message processing performed by PostNord Strålfors for the messages that pass through the service are logged continuously. Logs are saved in the system for one month, after which they are accessible via back-up for 6 months.

5. File formats

The We Mail service uses a structured file format. There must always be a defined file specification that describes the file's appearance and information content.

5.1. Structured format

PDF is our standard format, other format can be handled, but on different conditions.

(i) PDF (Standard)

The section entitled PDF describes how a PDF should be structured and the limitations on the layout to be compatible with PostNord Strålfors' production system. More information about the file format is available in the relevant chapter.

(ii) Limitations

Specification	Maximum number
Maximum file size	The maximum manageable file size depends on the input file format. Examples of limitations: XML=1 Gbyte, CSV=1 Gbyte Larger file sizes will require investigation, which means that agreement must be reached with PostNord Strålfors.
Maximum number of printed pages in a file	50,000 printed pages. A larger quantity will require investigation, which means that agreement is required.

6. Distribution methods

The following distribution methods by PostNord Danmark A/S can be selected for the service.

- We Mail Priority (Q- letter)
- We Mail Economy (B- letter)
- We Mail Foreign Letters

7. Customer integration

The customer will be implemented in our standard service for We Mail

To make dialog easier for both, is it necessary for the customer to have a designated contact person who if needed can be contacted regarding questions and tests.

Integration includes:

- Setting up communication sFTP

- Setting up communication for We mail client

- Setting up templates and rules for documents

- Setting up selected distribution options

- Testing the flow

- Putting the approved assignment into production

8. Testing the PDF file and presentation template

The customer provides a test file (PDF)representing the presentation templates that will be used in the mailing. When the customer's file has been mapped and the presentation template has been created, this is agreed with the customer and a PDF is sent to the customer for approval.

9. Other message channels

Print channel is the standard output channel. Other channels can be used by request and will result in extra costs. The following data must be available in the file so that messages can be distributed on other channels.

Minimum data for multichannel		
Channel/Data	Print	eBoks
Personal ID/customer/corporate ID no.		x
Name	x	
Street address	x	
Country code	x	
Postcode	x	
Town	x	

10. Barcode

PostNord Strålfors adds a Barcode to the file created from the TLE record. This means that the customer must remove any of their own OMR/Barcodes in the file. The Barcode generates small lines on the printed material.

These lines indicate how each sheet should be handled by the envelope insertion machine. The customer must also ensure that nothing is printed for 10 mm on the far left and in the main margin to leave room for the Barcode.

11. PDF

11.1. Technical specifications

In order for PostNord Strålfors to accept PDF files as an input format for the We Mail service; certain technical requirements must be met.

Data file name – values in fields 1-3 and optional 5 the same as in ZIP:

Field1 - customer name without spaces and local characters, capital letters

Field2 - batch ID

Field3 – timestamp (yyyymmddhhmmss)

Field4 – file number in batch, always 8 characters, with leading "0"

Field5 - distribution channel (optionally if customer has more than one and it is not defined in data input file on record level), we should have the dictionary with possible options.

Extension suitable do file format (capital letters)

Fields separate by sign "_"

Example:
Stralfors_1564821_20201116002256_00000001_ECONOMY.PDF
Stralfors_1564821_20201116002256_00000002_ECONOMY.PDF
Stralfors_1564821_20201116002256_00000003_ECONOMY.PDF

11.2. Metadata

Certain metadata (data about data) must be included in each PDF and on an exact x/y coordinate calculated from the upper left corner of the A4 sheet. When the file is processed, the metadata is removed from the PDF file and will not be included in the printed letter.

11.3. File sorting information

Information must be written using the Arial font, size 8 points.

- Post code, format: NNNNN, x-pos: 2 mm y-pos: 2 mm (a space can also be included in the postcode, PostNord Strålfors will remove it). Foreign postcodes with alphanumerical characters must be padded with zeros.

- Country code, format: XX (ISO standard 3166), x-pos: 22 mm y-pos: 2 mm.

- First page trigger, format: "Page 1" (a one, to denote the first page in a letter), x-pos: 42 mm y-pos: 2 mm. The trigger must be included in any following pages.

11.4. Fonts

Fonts used in a PDF must be in TrueType format. All fonts that occur in the PDF files must be included in the test file for checking. PostNord Strålfors has a standard set of fonts. If other fonts are used, a customer-specific implementation of the PDF is required, in which the customer provides the font. Make sure you send the ENTIRE font.

When creating a PDF document, please bear in mind the following regarding fonts:

- Use embedded fonts in the document. If the PDF contains many different fonts, processing of the file may be resource-intensive at PostNord Strålfors, resulting in a longer processing time.

(iv) Tip:

If you look at the properties of the PDF files (File/Properties) the fonts in the document are listed under the Fonts tab.
If the fonts do not have precisely the same name as in Windows e.g. "TTE48620t00", the document will not have the intended appearance, even if it basically Arial. For the best results, use the original names of the fonts used.

11.5. Metadata in a separate file

An alternative to printing the metadata in the PDF is to send the metadata in a separate data file. The format of the separate file can be XML or another structured data format. The technology is also based on the PDFs to be printed being divided up so that each letter represents a PDF. The PDFs are then zipped together with the metadata file before being sent over to PostNord Strålfors.

The file names of the PDFs must be included in the metadata file so that the system can see which document belongs to which metadata.

Example of a metadata file:

```xml
<file>
    <filename>Faktura_1117576_to_1840.pdf</filename>
    <Kund_postnummer>517 92</Kund_postnummer>
    <Kund_landskod/>
</file>
<file>
    <filename>Faktura_1117577_to_1853.pdf</filename>
    <Kund_postnummer/>
    <Kund_landskod>DK</Kund_landskod>
</file>
<file>
    <filename>Faktura_1117578_to_1886.pdf</filename>
    <Kund_postnummer>517 91</Kund_postnummer>
    <Kund_landskod/>
</file>
<file>
    <filename>Faktura_1117579_to_1916.pdf</filename>
    <Kund_postnummer/>
    <Kund_landskod>FI</Kund_landskod>
</file>
<file>
    <filename>Faktura_1117580_to_1919.pdf</filename>
    <Kund_postnummer>517 91</Kund_postnummer>
    <Kund_landskod/>
</file>
```

11.6. Test file

There are many variations in PDF files and software for their production on the market. To avoid problems in the production flow, these must be sent to PostNord Strålfors as test files before commissioning.

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Without an approved test file, PostNord Strålfors cannot promise any implementation of the customer's PDF.

11.7. Layout

For PDFs as an input format for the We Mail service, the same margins must be complied with as for other input formats for the We Mail service. It is important that areas for Barcode (enveloping code) are left empty, that positions for the recipient and sender addresses are complied with, and that A4 portrait size is used in the PDF file layout

11.8. Size and structure of the PDF file

PDF is the most suitable input format for fairly small volumes. There is no exact maximum number. This must be tested on a case-by-case basis, although a rough guide would be a maximum of 60,000 pages per PDF file. The size of the PDF file in kb should also be minimized as far as possible so as not to affect the ability to process the files. If the files prove to be extremely large, PostNord Strålfors may need to have the files submitted earlier than would otherwise have been the case. Inserted images have a significant effect on the size (kb) of the file, therefore it is important to follow the recommendations in the "Images and logos" section. The standard procedure is for one PDF containing all letters to be submitted. The PDFs should ideally be saved in PDF version 1.3 or max. 1.4. Even though later PDF versions are supported, these are not optimized for print production, only for screen display.

PDF documents that use the following functions cannot be processed by the service:

- Encrypted files, or files requiring a certificate
- Password protected files
- PDF Form
- Linearized (Optimized file for quick web viewing)
- Embedded font that no longer has its ordinary font name
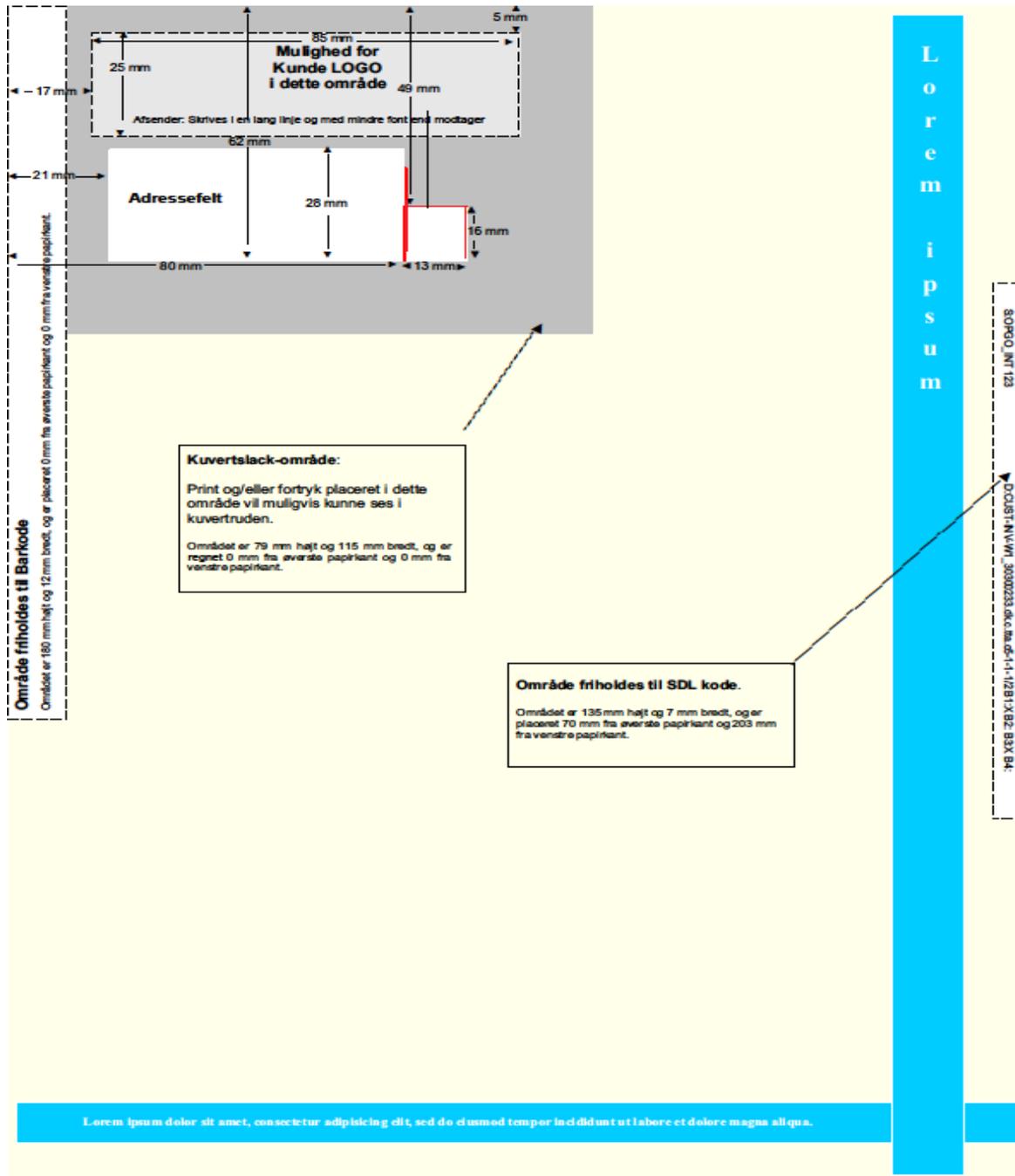
- The outer window corresponds to the surface of the print that may be visible through the window space on the envelope. Sensitive information such as account number, invoice number etc. should not be placed here.
- The sender box (dotted line) corresponds to the size of the window on the envelope.

- The inner window corresponds to what is always visible through the window of the envelope.

- The SRM code is used to ensure that the letter is produced correctly.

- In addition, there must be a margin of 12 mm at the top and the left edge of the paper that PostNord Strålfors must have for their mailing codes.

If deviations are made from this template, it must be tested to ensure the correct placing and quality.

12. Images and logos

All images and logos that occur in the PDF files must be included in the test file (see Test file) for PostNord Strålfors to guarantee the printout quality.

The image resolution should be 300 dpi and in .bmp, .tif, .gif or .jpg format. To ensure optimum black and white printout quality, 1-bit indexed Black and White images should be used with a maximum resolution of 300 dpi. This means that the image is in black and white, without shading or grayscale.

Place the image in the desired position and make sure that it is saved with the document, not linked in. There is a "reserved" space for the logo to the left of the sender's address. If it is placed there, it will be seen in the envelope window. For the best results, use a black and white logo (not grayscale) for letters to be printed in black and white and a color logo for letters to be printed in color.

- Do not write the text in white on a black background if the letter is to be printed in black and white.
- Images are printed on the sheet in the order in which they have been added to the PDF. This means that if images have been added one after the other and one of them is "on top of" another one, they will be printed out after each other in the order in which they were added.
- Images must not be transparent (applies to both entire images and parts of images).
- Avoid placing images on top of each other.
- Do not add text to the images

PDF documents that use the following functions for color and images cannot be processed by the service:

- CIE-based color spaces
- Special color spaces
- Overprint control (printing several different colors to produce one color)
- Antialias (blurs the edges of images)
- Patterns
- Transformations

Text that must be interpreted from right to left, e.g. Arabic and Hebrew, does not work. Create an image of the text and include that instead.

13. Paper and envelope

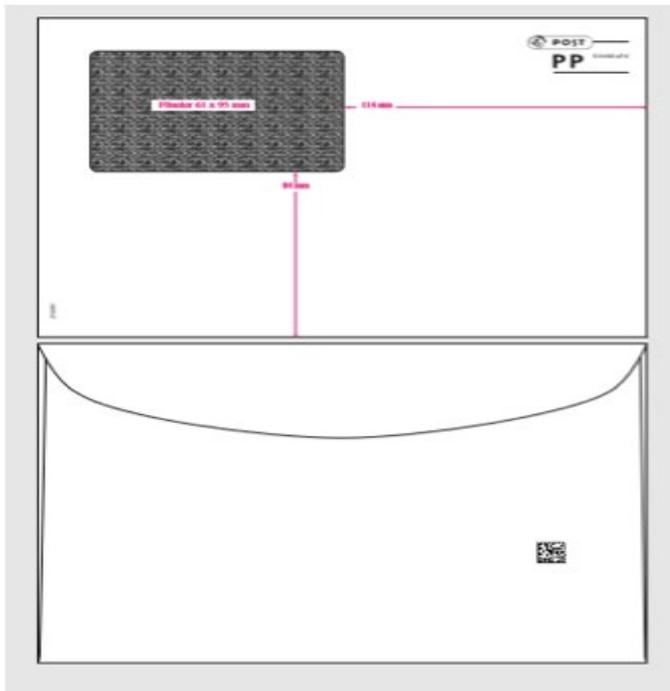There is one standard paper and one standard envelope for We Mail. Standard paper: A4, 90 gsm, grams white, non-punched.

Standard C5, white envelope with window.

14. Envelope layout

14.1. Sender or return address

It is important for both the return address and the sender's address to be visible on consignments for the We Mail service in the window.

Example:

15. Print production

PostNord Strålfors checks that the file complies with the agreed structure.

The documents are then divided according to size, with documents containing up to 7 sheets being inserted in C5 envelopes. Print production takes place at a resolution of up to 600 dpi.

PostNord Strålfors is responsible for adding the insertion mark to the print ready PDF file.

16. Confidentiality

All information transferred in data files to PostNord Strålfors is treated as confidential. Only authorized personnel have access to the premises where the physical letters are produced. All concerned are bound by confidentiality agreements.

17. Color

PostNord Strålfors always prints in color using Business Color, which is produced on high-speed printers.

The appendix entitled Instructions Color describes which resources are required to enable color production. The document is updated on an ongoing basis. The latest version can be downloaded as a PDF from PostNord Strålfors' website at: www.stralfors.dk/vilkaar

18. Contact channels

Customer comments and complaints should be sent to your Account Manager at PostNord Strålfors.

Questions or incidents can be addressed to our Customer Support on:

Phone: +45 33 86 86 86

Email: Customer.Service@Stralfors.dk