

Sender Setup Tutorial

A quick guide into sender configuration on Doccle

Version: 2.1

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Distribution

<i>Name</i>	<i>Company</i>
Architects, Analysts and Developers	Customers of Doccle (Senders) or their ICT partners
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1. Introduction

1.1 Goal of this document

The purpose of this step-by-step guide is to guide a new Sender on Doccle during the onboarding project. This is done via a concrete case where we setup all the basic configuration and implementation that is needed for a typical end-to-end integration.

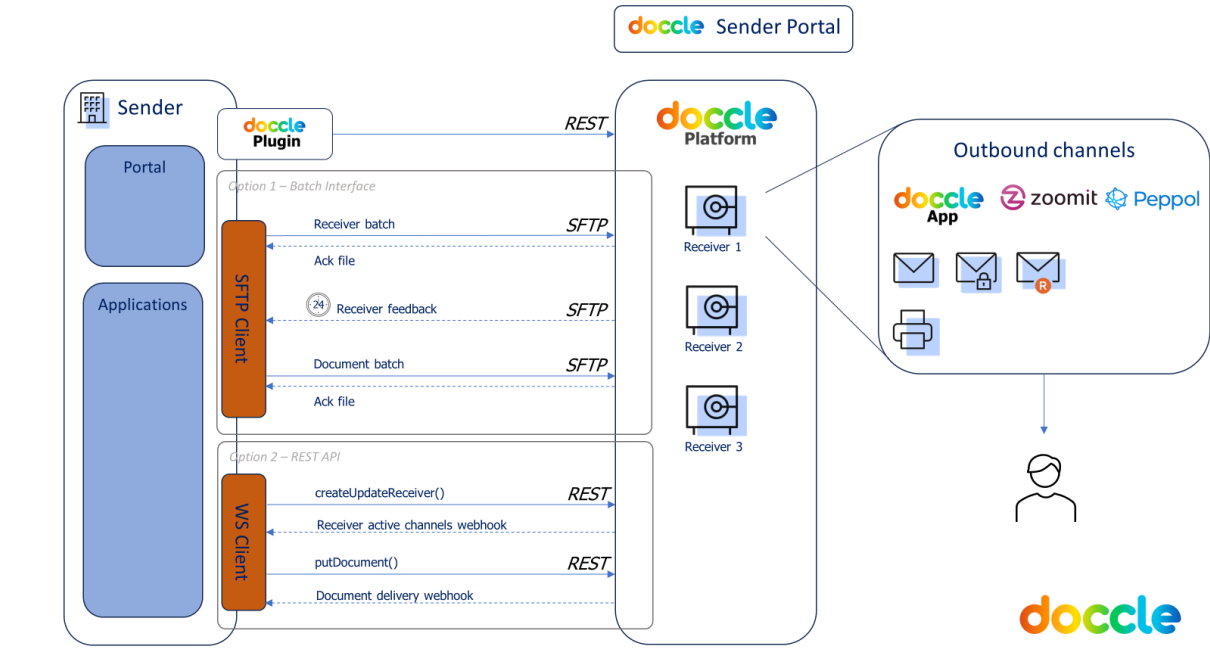
1.2 Audience

This document is meant for Architects, Analysts and Developers of the Sender's organization.

1.3 Out of scope

This step-to-step guide describes the most typical implementation for a sender on Doccle. For an overview and detailed information of all Doccle features, we refer to the Doccle User Guide for Senders instead.

2. General overview of the Doccle architecture



2.1 Functional overview

In the first step of your onboarding project, Doccle will create your Document Store on the test- and production environment. For you as a Sender, this is your archive where you store the documents that you distribute to persons and/or the ones that you want to keep for internal use.

Documents are kept in Receivers. These are document containers that you define based on the business relationship (e.g. your customers, members, employees,...). As a sender, you create these receivers with a unique ID in line with your existing systems (customer number, employee number, National Registry Number,...)

It's important to see the difference between a User and a Receiver. Doccle is a centralized administrative platform where users manage documents from multiple Senders. They achieve this by creating a Doccle user account once and then link this to multiple receivers. To establish that link, the Sender defines 2 access codes where the combination is unique per receiver. These access codes or "Tokens" are then distributed to the right persons via letters, paper salary slips or other documents or they are incorporated in Doccle Connect URLs that link a User to a Receiver without the need to enter the access codes manually.

After linking, the User gets access to all documents already present in the Receiver and will get a notification for each new document that will arrive.

Every day, Receivers that were linked to Users are reported back to the Sender. As linking to a Receiver is an explicit choice of the User to manage the documents in Doccle, this is in most cases the signal for the Sender to switch the distribution channel (e.g. stop printing).

2.2 Doccle Interfaces

2.2.1 Doccle SFTP Batch Interface

There are two options to integrate your systems with Doccle. The first is the Batch Interface where you connect to the Doccle SFTP Server in order to push or retrieve files.

Batch files are .7z or zip files that contain an XML with the metadata of the Receivers or Documents that need to be loaded into Doccle. In case of a Document Batch, they also contain the PDF files.

For each Batch files that is uploaded, two ACK files are generated:

- TRANSMISSION ACK: Doccle has received the Batch file and started processing it
- PROCESS ACK: Doccle has finished processing and the result is reported back to the Sender (Success or detailed error descriptions)

Each day around 20:00, two feedback files are generated:

- RECEIVER FEEDBACK: which receivers were linked to Users or unlinked from Users during the past 24h
- DOCUMENT FEEDBACK: reports actions that the User performed on a document (e.g. digital signature placed)

2.2.2 REST API

The second integration option is using the Doccle REST API where you call Doccle webservices to create receivers, store documents and get feedback on receiver linking events.

Both these options are functionally equivalent so the choice between Batch Interface or REST API is entirely up to you as a sender and will be defined by your architectural preference and current system technology stack.

*There are other webservices meant to offer the Sender the possibility to integrate his frontend systems with Doccle. A typical use case is to consult an archived document in Doccle. Using these webservices is **optional** and will not be discussed in this document. We refer to the Doccle **User Guide for Senders** if you want to learn more about these possibilities.*

2.2.3 Doccle Receiver Plugin

The Doccle Receiver Plugin is a standard javascript based component that the Sender can incorporate in its own Portal. It offers the access to the documents in a specified Receiver and includes search, navigation, visualization of documents, payments,... out of the box. By including it in the own Portal, the Sender can offer access to the documents to anyone that can access the Portal, **regardless whether they are Doccle Users or not.**

As the Receiver plugin is also an optional component, we will not discuss it in detail in this step-by-step guide and refer to the **Plugins User Guide** instead.

3. Our case: Talentstars

We will go through the setup of the fictional company Talentstars.

Talentstars is an HR Company that wants to offer a better administrative service to their employees and also wants to reduce paper costs and wants to ensure that there are fewer requests for duplicate paychecks from employees. They decided to distribute five types of documents via Doccle:

- Salary Slips
- Document 280_10
- Employment certificates
- Vacation certificates
- Internal Documents

3.1 Prerequisites

We assume Talentstars has read the onboarding documentation of Doccle and that the Sender Registration Sheet was filled in and delivered to Doccle Onboarding. This sheet contained all the data regarding:

- Company info Talentstars
- Project contact persons
- Operational data (volumes, project schedule)
- Logo in .png format

Doccle has created the Sender “talentstars” on both the test- and production environment, granted access to the Admin Users and requested the public keys and fingerprints for the SFTP connection.

We pick up the story from here.

4. Step 1: Initial configuration via the Sender Portal

4.1 Prerequisites

After signing the contract and delivering the registration sheet, Doccle granted you access to the Sender Portal. You need to complete your account as described in **Doccle - Procedure Sender Admin Account Creation**. Please note that you will get separate accounts for the test environment (EACC) and production environment (PROD).

4.2 Log in into the Sender Portal

Navigate to the Sender Portal via these URL:

- EACC: <https://stg-portals.doccle.be/senderPortal/>
- PROD: <https://portals.doccle.be/senderPortal/>

Log in with your user that you received from Doccle. Note that the username is not your email address, it is formatted as [firstname.lastname@technicalsendername](#) where the “technical sender name” is the reference to your company’s archive on Doccle. This is always one word entirely in lowercase letters.

The password is the one you chose yourself during the activation of your user and the TOTP is the 6 digit numerical code that you get from Google Authenticator (two different codes for EACC and PROD)

Please login

Username	<input type="text" value="lieve.schoukens@talentstars"/>
Password	<input type="password" value="*****"/>
TOTP	<input type="text" value="totp"/>
	<input type="button" value="Login"/>

[Forgot my password](#) [Forgot my TOTP](#)

In this chapter, we will setup all required configuration under this menu item:

The screenshot shows the Doccle Sender Portal interface. The top navigation bar includes the Doccle logo and menu items: Sender Portal, Documents, Receivers, Mandates, Configuration, and User. The Configuration menu is expanded, showing a list of options: Contextual Links, Disclaimers, Doccle Connect Factory, Document Types, Localized Names, SFTP Configuration, Sender Brand, Sub Brands, and Token Template. The main content area displays a welcome message for the user 'lieve.schoukens@talentstars', stating their technical sender name is 'talentstars' and their default language is 'ENGLISH'. It also indicates the user is located at 'null null, null, null'.

4.3 Create the token template



You need to execute this step before trying to send Receiver Batch files or you will get this error in the Process ACK:

```
<error code="exc000">Invalid receiver data: Incorrect number of tokens included in tokenset (received 2 but expected 0)</error>
```

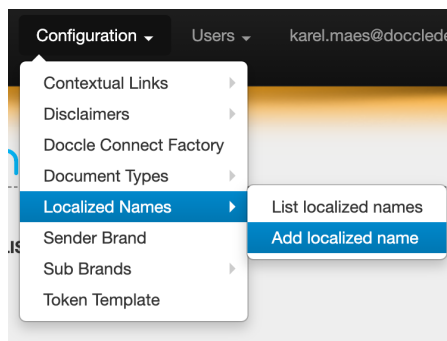
The tokenset defines the two accesscodes that are required to link a User to a Receiver. In this step, we create the tokentemplate and enter the translations. Doccle supports Dutch, French, German and English translations. If you don't fill in some of the languages, the User will see the default language that you chose.

For our case, we want that the employees of Talentstars enter their Registration number and a Doccle Code. The various invitation methods will be described in the last chapter of this document.

Token Template				
Default language	Dutch			
Token Definition 1				
Language	Dutch	Label	Rijksregisternummer	
Language	English	Label	National Number	
Language	French	Label	Numéro national	
Token Definition 2				
Language	Dutch	Label	Doccle Code	
Language	English	Label	Doccle Code	
Language	French	Label	Code Doccle	

4.4 Add localized names

A localized name defines how the name of the Sender will be shown to the User. You can define it in the four supported languages. If you don't specify a localized name, the technical sender name will be shown instead. In our case, this would mean "talentstars" would be in lowercase which is not what we want so we enter "Talentstars" as localized name in English and set this as the default as we don't need other translations for our company name.




4.5 Configure Sender Brand

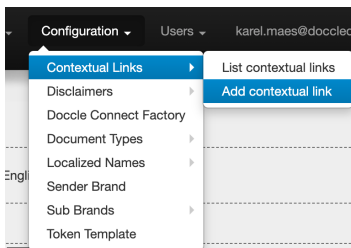
The Sender Brand defines the logo, background color and text color of the Sender. It's an important tool to reflect your company look & feel on Doccle.

The logo needs to be entered in various sizes. Note that they are all square dimensions (e.g. 30x30) so make sure that they don't get stretched and pay attention if they contain text that it remains readable.

Doccle prefers to host the logos for performance reasons. Send the logo in the various sizes to Doccle via email and you will get back the URLs that you can configure in this screen.

4.6 Add contextual links

Contextual links are hyperlinks in the form of text or images that appear on the left side of the document detail screen. You can define them on the Sender level or on a specific document type. In our case, we want to provide the info that our company Talentstars has won the award for best employer this year, so we add a contextual link on the general level.



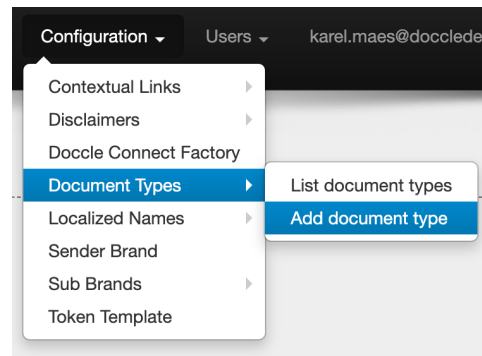
4.7 Define Document Types



You need to execute this step before trying to send Document Batch files or you will get this error in the Process ACK:

```
<documents><document end-integration="2019-07-22T09:53:54.965+02:00" status="Error" id="xxxxxx"><error code="DOC0002">Document [xxxxxxx] failed meta data validation: [Document type [xxxxx] does not exist, End retention date is required]</error></document>
```

In our case, Talentstar will send salary slips and other HR related documents to their employees. We want to make sure the employees can clearly see the difference between those so we will create separate document types for them.



- Name is the technical name of the Document Type. We will use this reference in the Document Index XML later on.
- Presentation type is a legacy feature that is no longer in use. You can pick any of the values.
- Retention period is the minimum duration that the document needs to be stored in Doccle. This is normally 7 years so 84 months.
- Paper setting and Allow changes are described in detail below
- We only defined the general Sender Brand and no subbrands so ignore this.



About Paper Settings

The above Paper setting method is no longer in use. A new method can be provided by the Doccle Onboarding team, fe if some of your employees do not want to receive their HR documents in a digital way.

Show Document Type

Name	Salary Slips	Paper setting	OFF
Presentation type	INFO	Allow changes	false
Retention period	84 months	Paper Setting Display	NORMAL
Default language	Dutch	Brand	

Contextual links on this document type

No contextual links were found

[Add new contextual link](#)

Localized names on this document type

Name	Language	Actions
Fiche de paie	French	
Salary Slip	English	
Loonbrief	Dutch	

[Add new localized name](#)

Paper setting disclaimers on this document type

No disclaimers were found

[Add new disclaimer](#)

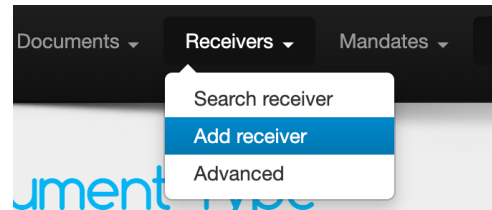
To finalize the document type, define the localized names (translations) and add contextual links. These will only appear for that specific document type. An example is to point to information about the Tax Form registration via TaxOnWeb. By putting that link on document type "280_10", it will not be visible on the other documents.

5. Step 2: Manual test via the Sender Portal

In order to test our configuration from step 1, we will do a manual test before we start automating via the Batch API.

5.1 Create a test Receiver

Select “Add receiver” from the “Receivers” menu and only fill in the field “External reference id” on the top. This is the Receiver ID that the Sender aligns with the existing systems (e.g. HR system). For Talentstars, the Personnel number will be used. For this manual test, we will put “TEST_RECEIVER_TALENTSTARS” so we can easily recognize it later on as a manual test.

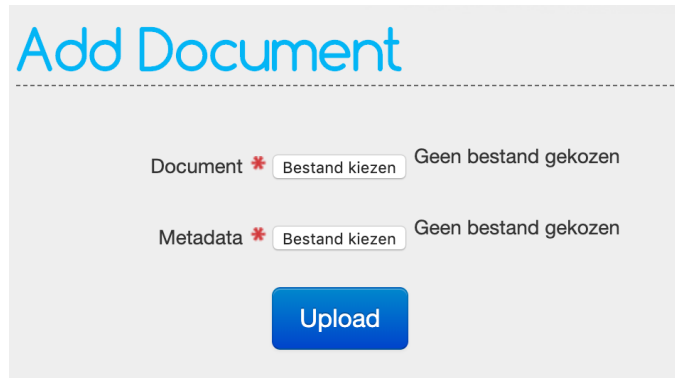
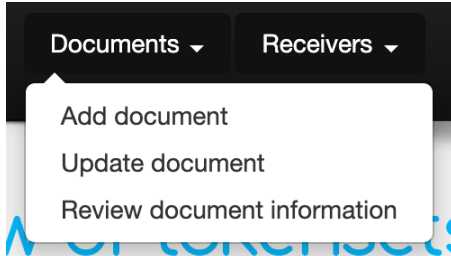


After creation, you will get to the detail screen of the receiver where we click on “Manage token sets for this receiver”. We enter a new token set with Start date in the past and end date far in the future. As dummy employee number and pincode, we use “987654321” and “1234”.

Show Receiver	
External reference id	TEST_RECEIVER_TALENTSTARS
Title	
First name	
Middle name	
Last name	
Gender	
Birth date	
Nationality	
National Registration Number	
IBAN	
Enterprise Name	
Enterprise Number	
Linked to end user	
Send unlinked receiver notifications	X (Manage unsubscription info) ⓘ
Large safe	X
Sent Messages	No emails were sent yet ⓘ
Token sets	Manage token sets for this receiver

Add tokenset for receiver TEST_RECEIVER_TALENTSTARS	
Start date*	<input type="text" value="01/01/2023"/>
End date*	<input type="text" value="01/01/2099"/>
<small>[fr] Numéro national [nl] Rijksregisternummer [en] National Number</small>	<input type="text" value="987654321"/>
<small>[nl] Doccle Code [en] Doccle Code [fr] Code Doccle</small>	<input type="text" value="1234"/>
<input type="button" value="Cancel"/>	<input type="button" value="Add token set"/>

5.2 Add a test document



Adding test documents via the Sender Portal can be done by manually uploading a pdf and an document metadata xml. It's a bit of work but it will prepare us for the automation of the Document Batch.

We will upload a dummy salary slip for this text. This is a simple document without user actions defined.

With the "Document" file picker, just select the PDF from your computer. For the Metadata, the XML for our example looks like this:

```
<?xml version="1.0" encoding="utf-8" standalone="yes"?>
<ns1:document xmlns:ns1="http://www.atosworldline.com/archivingPortal/documents">
  <ns1:id>TEST_SALARYSLIP_TALENTSTARS</ns1:id>
  <ns1:receiver>
    <ns1:receiver-id>TEST_RECEIVER_TALENTSTARS</ns1:receiver-id>
  </ns1:receiver>
  <ns1:action>Store</ns1:action>
  <ns1:sender-document-type>Salary Slips</ns1:sender-document-type>
  <ns1:creation-datettime>2024-01-01T00:00:00.000+01:00</ns1:creation-datettime>
  <ns1:classification-level>Confidential</ns1:classification-level>
  <ns1:publish-datettime>2024-01-01T00:00:00.000+01:00</ns1:publish-datettime>
  <ns1:document-display>
    <ns1:name>
      <ns1:entry lang="en" defaultLang="true">Manual Test Salary Slip</ns1:entry>
    </ns1:name>
  </ns1:document-display>
  <ns1:document-file>
    <ns1:reference>SalarySlip.pdf</ns1:reference>
    <ns1:format mime-type='application/pdf' attribute='A-1b' />
  </ns1:document-file>
</ns1:document>
```

A word of explanation on all the data fields in this example XML:

FIELD	DESCRIPTION
id	The document ID is the unique identifier of this document and is defined by the Sender. E.g. personnel number + date
receiver-id	The external reference id of the receiver in which the document need to be stored. E.g. personnel number
Action (optional)	For a new document or an update of an existing document, the action is “Store”
Sender-document-type	The document type that was defined in the Sender Portal. In this example, we add a salary slip that we named Salary Slips in the Sender Portal.
creation-datetime (optional)	Datetime of when the document was created by the Sender. Not visible to Users.
classification-level	Public: User will get an email with a direct link to the document. Most user friendly way. Confidential: User needs to login with at least username and password to access the document, mostly used for salary slips. Highly confidential: User needs to login with itsme or eID
publish-datetime (optional)	Datetime when the document should be made available for the User. Can be in the past in case of historical uploads or in the future. The document will only be visible and the notification email is only sent on that moment. Note that notifications will not be sent if the publish date is more than 60 days in the past and that the document will arrive directly in the Archive of the User (not visible on the Home screen)
name	Title of the document in different languages as it appears to the User. E.g. “Salary Slip January 2024”
reference	Name of the PDF file
format	Mime-type is always “application/pdf” for documents for endusers. Attribute is optional info on the PDF type, e.g. “A-1b”

When the metadata file is correct and all the configuration above was performed, you will get a positive feedback:

Review document information

Sender [doccledemo] successfully uploaded document [safe://TEST_RECEIVER_ELEKTRA@doccledemo/TEST_USAGE_REPORT_ELEKTRA_2].

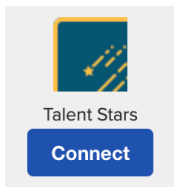
5.3 Link a test User

Now, in order to test all the configuration we performed from an enduser perspective, we will first create a new User on the Doccle test system.



Maybe you’re already using Doccle with a personal account to manage documents from other organizations. Note that you cannot use this account for this test as we’re currently working on the test system (EACC) instead of production (PROD).

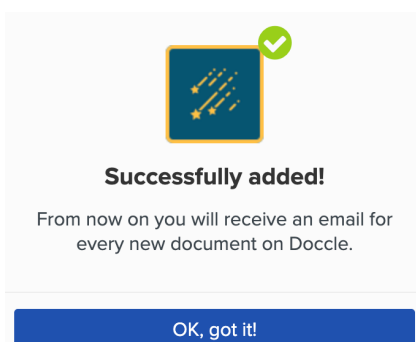
1. Navigate to <https://stg-secure.doccle.be/doccle-euui/register/index?lang=en> and fill in the registration form.
2. After registration, you immediately get to the page showing all the available senders. In our case, we select "Talentstars" from the list:



3. Select "Enter codes" and fill in the tokens we define on our test-receiver (987654321 and 1234)

Add Talent Stars to Doccle
Enter your personal codes below to access your documents.
[Where do I find these codes?](#)
National Number
987654321
Doccle Code
1234
Add to Doccle

After successful linking of the test user with the receiver, we'll find the document we uploaded on the Home screen and in the Archive view.



1 new document



Manual Test Salary Slip ...
07/09/2024

Manual Test Salary Slip
September 7, 2024

Archive Handle later open/print document in new window

Categories New Talent Stars

Name - SAMPLE EMPLOYEE		Employee ID	Location	Pay Period	THROUGH 01/01/2000	
		0000000000	XX XXXXX	Day Date	Check No. 1234567	
				Marital Status	Exemptions	Brussels Tax County
				MARRIED	01 01	BALT COUNTY
				LEAVE BAL IN HOURS AS OF		
				TYPE	Accr/Adv	Used Balance
EARNINGS	Rate	Hour	This Pay	Year to Date		
REGULAR PAY	58.34		3,373.81			
SICK PAY	5.25		843.45			
RF	65.00		174.98			
TOTAL EARNINGS				4,392.24		
TAXABLE WAGE:				3,832.25	*Compensable non-duty work day. (See below)	
FICA TAXABLE WAGE:				4,175.09		
TAXES AND DEDUCTIONS				511.62	8,071.67	
FEDERAL TAX				70.00	1,330.00	
ADDITIONAL FEDERAL TAX				302.15	4,718.58	
MARYLAND STATE INCOME TAX				5.00	95.00	
SOCIAL SECURITY TAX				258.89	4,084.34	



Please note that the publish date of the document defines whether it will be visible on the Home screen or only in the Archive view. Documents older than 60 days are automatically removed from the Home screen. Also note that the Home screen is just a filter on the Archive that shows the most relevant documents that still require your attention. You can always find all documents in the Archive.



6. Step 3 – Option 1: Automate Batch Interface

6.1 Prerequisites

We assume you went through the steps to establish the SFTP connection to the Doccle SFTP. In short that means you generated an SSH key pair with these characteristics:

- Type = SSH-2 RSA
- Length = 2048 bits
- Format = openssl

You installed the private key on your SFTP client and entered the public key in the Doccle Sender portal (Configuration -> SFTP Configuration via the top menu). You can connect now to the SFTP servers:

- sftp://acc-sftp.doccle.be:22/ (ACC)
- sftp://sftp.doccle.be:22/ (PROD)

Your username is the technical sender name on Doccle in UPPERCASE. E.g. for our case study, the username would be "TALENTSTARS".

6.2 Introduction into Batch Processing

A batch is a .7z (or .zip) file containing:

- An **index file**: an .XML file that defines the batch and batch type and that describes the elements in the batch (the receivers or documents for integration).
- The **PDF files** referenced by the index file (for document batches only).
- OPTIONAL: A **SHA-256 hash** file OR a **.sig** file created with XMLDSIG which is the digital signature of the batch file.

The SHA-256 hash file contains the digest of the index XML file to guarantee the integrity of the batch file. In case a stronger proof of authenticity is required, you can replace that file with the .sig signature file. Both of these methods are optional and the SFTP connection itself already guarantees sufficient security so we won't use these in our examples.

Batch files are put by the Sender in the /DOCACLE/IN/DOC folder. From there, they are picked up (and removed) automatically by Doccle after which 2 ACK files are generated in folder /DOCACLE/OUT/ACK

- Transmission ACK when the batch file was retrieved, and processing starts at Doccle
- Process ACK when the processing is done, success and errors are reported for each element in the batch

6.3 Receiver Batch

The Sender Portal allowed us to enter a test receiver manually but now it's time to automate this process. We need to create a receiver for all the existing employees and for every new employee that signs up for Talentstars' HR documents. This means the receiver batch is triggered:

- For a one-off bulk upload for all existing employees during the Doccle project phase

- Regularly during the operational phase to load receivers for the new employees. This can be done directly when an employee is created in the Sender's HR system or e.g. just before a new salary slip run.

As a simple example, we create a receiver batch file with just one new employee "John Doe" with personnel number "987654322". The index XML file looks like this:

```
<?xml version='1.0' encoding='UTF-8' standalone='yes'?>
<batch xmlns='http://www.atosworldline.com/archivingPortal/receivers'
xmlns:bi='http://www.atosworldline.com/archivingPortal/batchInfo'>
  <batch-info id='20190411T153023' isTest='false'>
    <bi:sender-identifier>talentstars</bi:sender-identifier>
    <bi:nb-elements>1</bi:nb-elements>
    <bi:batch-integration-mode>PARTIAL</bi:batch-integration-mode>
    <bi:creation-datetime>2019-04-11T15:30:23.000+01:00</bi:creation-datetime>
  </batch-info>
  <receivers>
    <receiver>
      <id>987654322</id>
      <labels>
        <label-default>John Doe</label-default>
      </labels>
      <personal-information>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <iban>BE9999999999999999</iban>
        <nationalRegistrationNumber>75042012346</nationalRegistrationNumber>
      </personal-information>
      <contact-details>
        <mobileNumber>0495123456</mobileNumber>
        <email>john.doe@gmail.com</email>
        <languageISO>en</languageISO>
      </contact-details>
      <tokenSets>
        <tokenSet startDate='2019-01-01T00:00:00'>
          <token>
            <tokenvalue>987654322</tokenvalue>
          </token>
          <token>
            <tokenvalue>9456</tokenvalue>
          </token>
        </tokenSet>
      </tokenSets>
    </receiver>
  </receivers>
</batch>
```

Note that the index XML files always start with a batch-info element that contains following fields.

FIELD	DESCRIPTION
batch-info	id = unique identifier of the batch as chosen by the Sender. Note that this identifier should be different for each batch , even when it's just a retry after reported errors in the ACK files. If you use the same id twice, the second batch will simply be ignored without any feedback from Doccle. Good practice is to introduce a timestamp in the id for traceability. isTest = is only set to "true" in case you want to perform a dry-run of a batch without persisting the result. So even on the test environment, you will likely set this always to "false".
sender-identifier	Technical Sender name so "talentstars" in our case study. Always lowercase.
nb-elements	The amount of receivers or documents that are defined in the batch file. In our example, we simply create one single receiver so this is set to 1
batch-integration-mode	Always PARTIAL as TOTAL is deprecated. This means all correct elements will be persisted, even if the batch contained some incorrect elements.
creation-datetime	Time of creation of the batch file for logging purposes.

This batch info element is then followed by the receiver specific fields.

FIELD	DESCRIPTION
receiver	One receiver that you want to create or update. Note that you can enter new and existing receivers in the same batch as the syntax remains the same for both actions ("Store" in both cases)
id	External reference id (receiver id) so the employees personnel number in our case.
labels	Recognizable name which is shown in the connection proposal in Doccle to the User. Can be localized in different languages but is in most cases the name of the person receiving the documents. In our case, this is "John Doe".
firstName (optional)	First name in case the receiver represents a natural person.
lastName (optional)	Last name in case the receiver represents a natural person.
Iban (optional)	Bank account number of the receiver if known. Used for connection proposals. See further.
nationalRegistrationNumber (optional)	National Registry Number of the receiver if known. Used for connection proposals. See further.
mobileNumber (optional)	Mobile phone number of the receiver if known. Used for connection proposals. See further.
Email (optional)	Email address if known. This will be used for sending the Doccle Connect email invitation and connection proposals. See further.
LanguageISO (optional)	Language for the Doccle Connect email invitation. See further.
tokenSets	The pair of accesscodes. It's best practice to use only 1 tokenset with a startdate in the past and no enddate in order to avoid a renewal process that could confuse Users.



Please follow the next steps very carefully and have attention to the naming conventions. Your batch files will go into error in case the names are not correct.

Naming convention for receiver index XML files is as following:

technicalSendername_batchID.xml

So in our example, the filename will be talentstars_20190411T153023.xml

This index XML needs to be stored in a compressed archive with naming convention

receivers_technicalSendername_batchID.7z (or.zip)

In our example, the filename will be receivers_talentstars_20190411T153023.7z

After we uploaded the batch file in the /DOCCL/IN/DOC folder, it's picked up and deleted automatically from the SFTP server.

The first acknowledgement file that we receive in the /DOCCL/OUT/ACK folder is the TRANSMISSION ACK with filename transmission_receivers_talentstars_20190411T153023.xml that contains:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?><transmission><transmission-info><file-name>receivers_talentstars_20190411T153023.7z</file-name><file-size>675</file-size><hash-digest-algorithm="SHA256">51e6ced8b27481128e039dcddcbff0a66ac051e1e1a536165f389016c5092367</hash><reception-date>2019-04-11T15:31:00.996+01:00</reception-date></transmission-info></transmission>
```

The second acknowledgement file in the /DOCCL/OUT/ACK folder is the PROCESS ACK which becomes available after processing. Please note that Doccle is a shared system so the processing speeds depends on the activity of all senders. The PROCESS ACK has filename ack_receivers_talentstars_20190411T153023.xml and contains:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?><ack xmlns="http://www.atosworldline.com/archivingPortal/ackInfo"><ack-info batch-id="20190411T153023"><global-status>Success</global-status><nb-elements>1</nb-elements><integration-start-datetime>2019-04-11T15:35:22.000+01:00</integration-start-datetime><integration-end-datetime>2019-04-11T15:35:23.067+01:00</integration-end-datetime></ack-info><receivers><receiver id="987654322" status="Success" end-integration="2019-04-11T15:35:22.987+01:00"/></receivers></ack>
```

6.4 Receiver Feedback Flow

As described in the Doccle architecture paragraph, the Receiver Feedback is an important message that reports that a receiver has been linked to a User (or unlinked from). In our case study of Talentstars, an employee receives paper salary slips until he links to his receiver of Talentstars in Doccle.

The Receiver Feedback file is generated on a daily basis at around 20:00 CET and is published in the /DOCCL/OUT/DOC folder. It mentions all the receivers where the linking status changed during the past 24h and looks like this:

```
<?xml version='1.0' encoding='UTF-8'?><batch xmlns="http://www.atosworldline.com/archivingPortal/ReceiverFeedback" xmlns:batch="http://www.atosworldline.com/archivingPortal/batchInfo" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance"><batch-info id="rcvfb_talentstars_20190412"><batch:sender-identifier>talentstars</batch:sender-
```

```

identifier><batch:nb-elements>1</batch:nb-elements><batch:creation-datetime>2019-04-
12T19:55:03</batch:creation-datetime></batch-info><receivers><receiver
id="987654322"><linkedtoEU>true</linkedtoEU><documenttype name="Salary
Slips"><papersetting>OFF</papersetting></documenttype><documenttype name="Salary
Slips"><papersetting>OFF</papersetting></documenttype><sharing>>false</sharing></receiver></rec
eivers></batch>

```

The important tag in this xml is the <linkedtoEU> which stands for “Linked to End User”. This tells us that a Doccle Users linked to receiver “987654322” during the last day. From a business point of view, it tells us that our employee explicitly chose to use Doccle as his preferred document distribution channel so we can stop printing and sending paper salary slips.

We ignore the tags about the paper settings as we didn’t configure that option. The <sharing> tag is a placeholder that will be used in the future in case a Doccle User wants to share personal data with a Sender. As this function is not yet active, we ignore it for now.

6.5 Document Batch

Since we already constructed a Document XML file for the manual test, converting it into a batch file is not a lot of work. An example for salary slip with document id= “2024/0458215” for employee “987654322” would result in this Document index xml:

```

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>
<ns1:batch xmlns:ns1='http://www.atosworldline.com/archivingPortal/documents'
xmlns:bi='http://www.atosworldline.com/archivingPortal/batchInfo'>
  <ns1:batch-info id='20190411T161518' isTest='false'>
    <bi:sender-identifier>talentstars</bi:sender-identifier>
    <bi:nb-elements>1</bi:nb-elements>
    <bi:batch-integration-mode>PARTIAL</bi:batch-integration-mode>
    <bi:creation-datetime>2019-04-11T16:15:18.000+01:00</bi:creation-datetime>
  </ns1:batch-info>
  <ns1:documents>
    <ns1:document>
      <ns1:id>2019/0458215</ns1:id>
      <ns1:receiver>
        <ns1:receiver-id>987654322</ns1:receiver-id>
      </ns1:receiver>
      <ns1:action>Store</ns1:action>
      <ns1:sender-document-type>Salary Slips</ns1:sender-document-type>
      <ns1:creation-datetime>2019-04-11T16:15:18.000+01:00</ns1:creation-datetime>
      <ns1:classification-level>Confidential</ns1:classification-level>
      <ns1:publish-datetime>2019-04-11T00:00:00.000+01:00</ns1:publish-datetime>
      <ns1:document-display>
        <ns1:name>
          <ns1:entry lang="en" defaultLang="true">Your salary slip for January
2024</ns1:entry>
        </ns1:name>
      </ns1:document-display>
      <ns1:document-file>
        <ns1:reference>SalarySlip.pdf</ns1:reference>
        <ns1:format mime-type='application/pdf' attribute='A-1b' />
      </ns1:document-file>
    </ns1:document>
  </ns1:documents>
</ns1:batch>

```

The construction of the .7z file is the same as for the Receiver Batch file except that we now also include the PDF file(s). Also the ACK files are in line with the above so we will not discuss them in detail anymore. The

entire set of example files of this tutorial are delivered by Doccle together with this document or can be obtained by sending an email to operations@doccle.be

7. Step 3 – Option 2: Automate via REST API

7.1 Authentication

In order to use the sender webservices, sender application user credentials need to be provided with basic authentication.

In the sender portal, you can click on ‘Users’ in the menu and then select the ‘Add sender application user’ submenu. Here you can fill in a username and a password for the new sender application user.

Sender Application User

Creation of a sender application user for accessing Doccle exposed web services

Sender application user * @talentstars

Password * ⓘ

Verify password * ⓘ

When you call a webservice of Doccle, you then add this in the headers:

Authorization: Basic <base64 encoded username:password>

Example: If username = “webservicestalentstars” and password = “1234”, you first base64 encode “webservicestalentstars:1234” which is “d2Vic2VydmVmljZXRAdGFsZW50c3RhcncM6MTIzNA==”. The resulting header would then become:

Authorization: Basic d2Vic2VydmVmljZXRAdGFsZW50c3RhcncM6MTIzNA==

7.2 CreateUpdateReceiver

7.2.1 Description

This webservice creates a new receiver or updates an existing one in Doccle.

7.2.2 Syntax

PUT https://(stg-)webservice.doccle.be/mci-rest-app/rest/mci/external/senders/{senderName}/receivers/{receiverID}

HEADER	
Accept	application/xml
Authorization	Basic <base64 encoded username:password>

PARAMETERS	
senderName	Technical sender name in lowercase
receiverID	Receiver ID chosen by the sender

The body is an XML which is in line with the one used for the Batch Interface. See above for a description of the fields. The difference now is that this webservice creates or updates only 1 receiver at the time so there is no batch element.

Example:

```
<?xml version="1.0" encoding="UTF8" standalone="yes"?>
<createUpdateReceiver xmlns="http://www.atosworldline.com/archivingPortal/rest"
xmlns:ns1="http://www.atosworldline.com/archivingPortal/receiver">
  <receiver>
    <ns1:id>987654322</ns1:id>
    <ns1:labels>
      <ns1:label-default>John Doe</ns1:label-default>
    </ns1:labels>
    <ns1:personal-information>
      <ns1:firstName>John</ns1:firstName>
      <ns1:lastName>Doe</ns1:lastName>
      <ns1:iban>BE999999999999999</ns1:iban>
      <ns1:nationalRegistrationNumber>75042012346</ns1:nationalRegistrationNumber>
    </ns1:personal-information>
    <ns1:contact-details>
      <ns1:mobileNumber>0495123456</ns1:mobileNumber>
      <ns1:email>john.doe@gmail.com</ns1:email>
      <ns1:languageISO>en</ns1:languageISO>
    </ns1:contact-details>
    <ns1:tokenSets>
      <ns1:tokenSet startDate='2019-01-01T00:00:00'>
        <ns1:token>
          <ns1:tokenvalue>987654322</ns1:tokenvalue>
        </ns1:token>
        <ns1:token>
          <ns1:tokenvalue>9456</ns1:tokenvalue>
        </ns1:token>
      </ns1:tokenSet>
    </ns1:tokenSets>
  </receiver>
</createUpdateReceiver>
```

7.3 PutDocument

7.3.1 Description

This webservice uploads a new document in a receiver.

7.3.2 Syntax

```
POST /mci-rest-app/rest/mci/external/
senders/{senderName}/receivers/{receiverID}/documents/{documentID}
```

HEADER	
Accept	application/xml
Authorization	Basic <base64 encoded username:password>

PARAMETERS	
senderName	Technical sender name in lowercase
receiverID	Receiver ID chosen by the sender
documentID	Document ID chosen by the sender

The body is an XML which is in line with the one used for the Batch Interface. See above for a description of the fields. The difference now is that this webservice creates stores only 1 document and that the base64 encoded PDF needs to be included in the PDF

Example:

```
<?xml version="1.0" encoding="UTF8" standalone="yes"?>
<putDocument xmlns= xmlns="http://www.atosworldline.com/archivingPortal/rest"
xlmns:ns1="http://www.atosworldline.com/archivingPortal/documents">
  <document>
    <ns1:id>2024/0458215</ns1:id>
    <ns1:receiver>
      <ns1:receiver-id>987654322</ns1:receiver-id>
    </ns1:receiver>
    <ns1:action>Store</ns1:action>
    <ns1:sender-document-type>Salary Slips</ns1:sender-document-type>
    <ns1:creation-datetime>2019-04-11T16:15:18.000+01:00</ns1:creation-datetime>
    <ns1:classification-level>Confidential</ns1:classification-level>
    <ns1:publish-datetime>2019-04-11T00:00:00.000+01:00</ns1:publish-datetime>
    <ns1:document-display>
      <ns1:name>
        <ns1:entry lang="en" defaultLang="true">Your Salary Slip for January
2024</ns1:entry>
      </ns1:name>
    </ns1:document-display>
    <ns1:document-file>
      <ns1:reference>SalarySlip.pdf</ns1:reference>
      <ns1:format mime-type='application/pdf' attribute='A-1b' />
    </ns1:document-file>
  </document>
  <newDocumentVersion>ZHN2ZnNZkdY...(put here the base64 encoded PDF)</newDocumentVersion>
</putDocument>
```

7.4 Receiver linked/unlinked webhook

When an enduser is linked to or unlinked from a receiver, Doccle can send a message to a URL of an exposed webservice of the sender.

In order to configure this, provide the URL to Doccle. You will also get a certificate from Doccle that you will need to add to your trust store to guarantee that only Doccle is allowed to post messages to your service.

The message is a JSON with this structure:

```
{
  "eventType": "RECEIVER_LINK_UNLINK",
  "senderName": "string",
  "receiverExternalReferenceId": "UA00000001",
  "linked": true
}
```

FIELD	DESCRIPTION
eventType	Always "RECEIVER_LINK_UNLINK"
senderName	Technical sender name in lowercase
receiverExternalReferenceId	Receiver ID chosen by the sender
linked	True when the receiver gets linked, false for unlinking

8. Setup connection methods for linking

Now that the configuration is done and we successfully integrated with the Batch API, it's time to invite our employees to start receiving and managing their HR documents via Doccle.

Marketing and communications material that can assist you, as a Sender, in convincing people of the added value and ease of use of the Doccle platform can be found on <https://doccle.be/en/business/toolkit/>

The last important thing is to offer the most user-friendly methods for Users to connect to their Receiver. We will implement a range of possibilities to achieve the best possible result.

8.1 Doccle Connect

The Doccle Connect is a URL that holds 3 variables:

- Technical sendername ("talentstars" in our case)
- Token 1 base64 encoded
- Token 2 base64 encoded



In our example for employee John Doe with personnel number "987654322" and pincode "9456", the url for the test environment (EACC) would become

<https://stg-secure.doccle.be/doccle-euui/direct/connect?senderName=talentstars&t1=OTg3NjU0Mzly&t2=OTQ1Ng==>

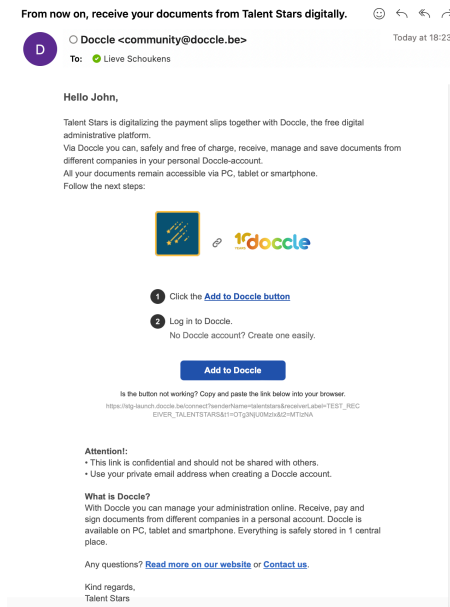
For production (PROD), this would be

<https://secure.doccle.be/doccle-euui/direct/connect?senderName=talentstars&t1=OTg3NjU0Mzly&t2=OTQ1Ng==>

When the employee clicks the Doccle Connect link, he's navigated to the Doccle login screen. In case he already has a user, he simply logs in and becomes connected to his receiver of Talentstars. In case he isn't a Doccle user yet, he fills in the registration form first.

8.1.1 Doccle Connect via email

The best way to distribute the Doccle Connect link is by including it in an email invitation from the Sender. This is a very activating method as the employee gets the invitation in his mailbox and can link with a simple click of the button.



Doccle can automatically send the Doccle Connect invitation emails when the receiver contains the email address in the contact details (see above example). As a precaution to avoid that emails are sent from the test environment by accident, Doccle needs to enable this feature for you. You can simply send an email to operations@doccle.be to request this (please specify for which technical sender name and ACC or PROD).

After the feature is enabled, Doccle will send out a Doccle Connect email when

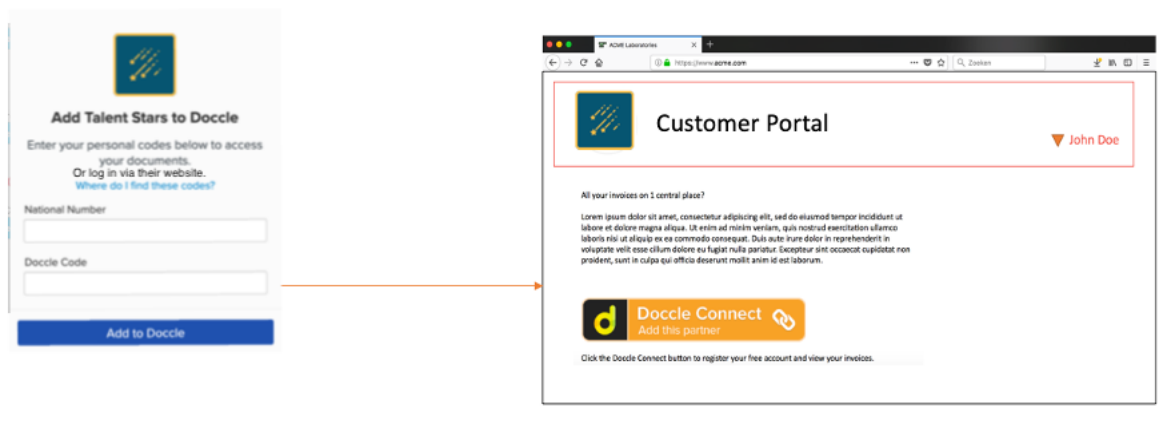
- A receiver is created with an included email address
- A receiver is updated with a new email address or language
- On request, you can ask Doccle to send a campaign to a set of receivers. For this, you can deliver a .csv file with this format
 - No title row
 - Column sequence:
 - Column 1: technical sender name
 - Column 2: receiver external reference id
 - The values are never quoted
 - The column separator must be comma
 - Maximum 10.000 lines per csv. In case you have more than 10.000 receivers, you need to create multiple csv files with max 10.000 lines each.
 - Filename: DoccleConnectMail_[technicalSenderName]_[date]_[file sequence number].csv
 - technicalSenderName: the technical sender name in lower case
 - date: the date you deliver the data to Doccle. Format: YYYYMMDD
 - File sequence number: always 3 digits. The first file has sequence number 001.

- The filename must be unique
- Example: DoccleConnectMail_talentstars_20200827_001.csv

8.1.2 Doccle Connect Factory

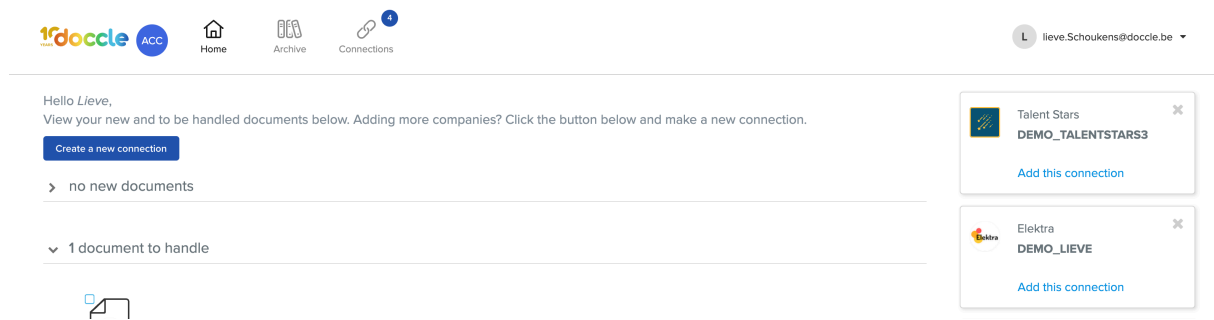
If the Sender has a Portal where the user needs to authenticate, it also good practice to create a page where Doccle is introduced and that includes the Doccle Connect button for the authenticated user. This is a so called Doccle Connect Factory. Via the Sender Portal, this URL can be entered via Configuration -> Doccle Connect Factory which results in the extra connection method “Add via Talentstars”. The connection flow for a User then becomes:

- Go to the list of companies in Doccle and select “Talentstars”
- Click “Add via Talentstars”
- The User is redirected to the Portal (employee zone) of Talentstars and logs in
- The User drops on the page about Doccle and clicks Doccle Connect
- The User is redirected back to Doccle and gets a confirmation that he’s now linked to his receiver from Talentstars (as the session will still be active, he doesn’t need to login again at Doccle).



8.2 Invitations in Doccle

In order to target existing Doccle Users as much as possible, we will add direct connection proposals in Doccle. Goal is to show a direct invitation, only for employees of Talentstars. When the user accepts it, the user is linked to his personal Talentstars receiver, without the need to enter tokens.



In order to have these available, we need to identify the Talentstars employees in the Doccle User population. This is achieved by matching the Doccle user data on the receiver data (IBAN number, email, mobile phone number or National Registry number) from the employees as described in the examples above.

8.3 Tokens printed on paper

For some of our Talentstars employees, we don't have contact details except for their postal address. The only way to reach these employees is to include the tokens on the paper salary slip, so they can navigate to the connections screen and enter the tokens manually.

9. Appendix A: Additional actions

Next to receiving and archiving via Doccle, additional possible features can be defined on a document by adding actions in the Document Index XML. Currently, the following actions are possible:

- **Signing** – User can place a qualified legal signature on the document via eID or itsme
- **Read Confirmation** – lightweight “Read & Accepted” approval of the document by clicking a button
- **Mandate Action** – User can easily approve a SEPA direct debit mandate for future payments
- **Payment** – User can pay the document (invoice) directly via Doccle