COLLECTING SOLUTION

SEPA Direct Debit REST Web service API

Implementation Guide

Document version 5.3

Contents

1. HISTORY OF THE DOCUMENT

Version	Author	Date	Comment
5.3	Lyra Collect	10/21/2021	Document overhaul.
5.2	Lyra Collect	6/2/2021	Initial version

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2. PRESENTATION

This document presents the SEPA Web Service that allows to:

- **Import the data of one or several SDD mandates** that already exist, i.e. the buyer has already signed a mandate on paper or in another format.

  Only if the UMR generation is handled by the WS

  Requires for the "Checkbox signature" option to be present in the shop.
- **View the details of a mandate** (debited account, debtor's last name).
- **Download the SDD mandate details** in PDF format.
- **Update** an SDD mandate.
- **Delete** an SDD mandate.

This Web Service was developed following the **REST** protocol.

In order to secure the exchange, this Web Service is encrypted following the **HTTPS** protocol.

2.1. Prerequisites

- Have a shop with an SDD (SEPA Direct Debit) contract.
- Have the "Checkbox" signature mode.

3. USING THE WEB SERVICE

Each request is composed of the following elements:

- a requested URL (or “endpoint”)
- a method
- headers
- the data (or “body”)

The endpoint

The endpoint (root-endpoint) of the API is: https://secure.lyra.com/sdd.

Several resources, each associated with a different path, are provided:

Action	Method	URI
Import an existing mandate	POST	/mandates
Import several existing mandates	POST	/multimandates
View mandate details	GET	/mandates/{id}
Download a mandate	GET	/mandates/{id}
Update a mandate	PUT	/mandates/{id}
Delete a mandate	DELETE	/mandates/{id}

Replace `{id}` by the identifier of the mandate that you would like to use.

The method

Each resource is accessible via a specific method. This method reflects the action that you would like to perform (see table below).

- `GET` This request is used for obtaining a resource via the server.
- `POST` This request is used for creating a new resource.
- `PUT` This request is used for updating a resource.
- `DELETE` This request is used for deleting a resource.

The headers

The HTTP headers are key-value pairs separated by “`:”` .

They are used for transmitting authentication details and information about the request contents.

The headers used in this API are described in the chapter titled *Authentication* on page 7.

The data (or “body”)

The data (also referred to as “body” or “message”) contains the information that you want to pass to the server. It is used only in the `POST` and `PUT` requests.

Both in requests and responses, the data is transmitted in JSON (Javascript Object Notation) format.

In this format, each property and value is enclosed in double quotes:

```
{
"property1": “value1",
"property2": “value2"
}
```

4. HTTP RESPONSE CODES

Response code	Description	Example
200	Action successfully completed	
400	Input data error	• **Locale** field populated in lowercase • **Locale** field not supported (e.g.: Russian) • Mandatory field missing • Invalid IBAN
404	ID error	• ID unknown • ID known but it is not an SDD payment method identifier (e.g.: ID of a visa card)
500	Failure	API server technical error

5. AUTHENTICATION

Identification is performed by means of an HTTP header.

The used method is **HTTP Basic Authentication**.

In each HTTP request, the header must contain information allowing the merchant to authenticate via the SEPA Web Service.

Description of HTTP headers:

Header	Description	Create a mandate	View mandate details	Download a mandate	Update a mandate
Accept	Determines the format of the content that will be returned by the server. REST architecture that allows to perform data exchange in JSON format	'Accept:application/json'	'Accept:application/json'	'Accept:application/octet-stream' ***Note:*** *In response to the http request, a binary response (pdf) is expected*	'Accept:application/json'
Authorizatio	Contains the user authentication token. It is composed of: • **Site_id**; Shop ID (target point of sales). • **Certificate**: Value of the **TEST** or **PRODUCTION** key. This information is encoded in **Base64**. **Note:** The **Site_id** and **Certificate** values are available in your Back Office. • **Site_id**: **Settings** > **Shop** > **Configuration** tab. • **Certificate**: **Settings** > **Shop** > **Keys** tab. The key value determines a test or production request.	Example of an authentication token encoded in Base64: "Basic MTIzNDU2Nzg6OTk5OTk5OTk5OTk5OQ==	Example of an authentication token encoded in Base64: "Basic MTIzNDU2Nzg6OTk5OTk5OTk5OTk5OQ==	Example of an authentication token encoded in Base64: "Basic MTIzNDU2Nzg6OTk5OTk5OTk5OTk5OQ==	Example of an authentication token encoded in Base64: "Basic MTIzNDU2Nzg6OTk5OTk5OTk5OTk5OQ==
Content-type	Determines the format of the content sent to the server.	'content-type:application/json'	'content-type:application/json'	'content-type:application/json'	'content-type:application/json'

Table 1: Description of HTTP headers

Here are the steps for building a header:

1. Use the **Basic Authentication** method.
2. Specify the used method in the **Authorization** header: **Basic** followed by the Base64 representation of the **Site_id** and **Certificate** values separated by the “:” character.
3. Encode the obtained result in Base64.
4. Add the result to the chain in “Basic”.

Note:
Make sure to use a space character after Basic.

6. IMPORTING THE DATA OF AN EXISTING MANDATE

```
POST .../mandates
```

This Web Service allows to generate a UMR and, therefore, allow payments via our gateway.

It does not allow to update the UMR or the date when the mandate was last used.

Parameters

iban IBAN Debtor's bank account identifier	String Required
last_name Debtor's last name	String Required
first_name Debtor's first name	String Required
email Debtor's e-mail address	String Required
payment_type Type of mandate: • **RECURR**: The signed mandate applies to a series of direct debits • **ONEOFF**: The signed mandate applies to a single direct debit	String Required
locale Language of mandate generation. ISO 639-1 Alpha-2 code. E.g.: FR, DE, ES, IT, EN, PT, PL, NL, SV	String Required
bic BIC. International identifier of the debtor's bank	String Optional
title Debtor's title	String Optional
callback_url Callback URL called after the mandate import	String Optional
send_mails If the field is set to **True**, Lyra Collect will send the mandate registration e-mails to the buyer and to the merchant once a mandate is created or updated. Default value: **False**	Bool Optional
fetch_address Allows to indicate whether the **address** object is returned in the response. Default value: **false**	Bool Optional
address Debtor's address	*address* Recommended

Address object

Some banks check whether this information is present before accepting a direct debit request.

The address is required if the client has a bank account in the following departments, territories or countries: Switzerland, Monaco, San Marino, Mayotte, St. Pierre and Miquelon, Guernsey, Jersey, Isle of Man.

country Country code in compliance with the ISO 3166 alpha-2 standard. E.g.: FR	String Recommended
city Shipping city	String Optional
district Shipping district	String Optional
state Buyer’s state/region	String Optional
street Street name	String Optional
street_number Street number	String Optional
street2 Address line 2	String Optional
zip Buyer’s ZIP code	String Optional

Example

Request

```
POST https://secure.lyra.com/sdd/mandates
```

```
{
  "bic":"iban":"FR7630002005701234567890158",
  "title":"Mr",
  "last_name":"Durand",
  "first_name":"Michel",
  "email":"mrdurand@ymail.com",
  "payment_type":"RECURR",
  "locale":"FR",
  "address":{
   "street_number":"109",
   "street":"rue de l'Innovation",
   "street2":"Bat 1",
   "district":"Labège-Innopole",
   "zip":"31670",
   "city":"Labège",
   "country":"FR",
   "state":"Occitanie"
  },
  "fetch_address": true
}
```

Response:

```
{
  "identifier":"94aebef39d0349a09fb525a80a6e0d55",
  "rum":"94aebef39d0349a09fb525a80a6e0d55",
  "id":"12345678-94aebef39d0349a09fb525a80a6e0d55",
  "title":"Mr",
  "email":"mrdurand@ymail.com",
  "first_name":"Michel",
  "last_name":"Durand",
  "address":{
  "street_number":"109",
  "street":"rue de l'Innovation",
  "street2":"Bat 1",
  "district":"Labège-Innopole",
  "zip":"31670",
  "city":"Labège",
  "country":"France",
  "state":"Occitanie"
  },
  "site":"12345678",
  "created_at":1634047398000,
  "fetch_address":true
}
```

7. IMPORTING DATA FROM EXISTING MANDATES ACROSS MULTIPLE STORES

```
POST .../multimandates
```

It is possible to import data from several mandates across several stores of different companies (different ICS) in one go, provided that you have:

- the same debtor
- the same IBAN

The response will contain:

- a mandate per shop
- a JSON object per shop

Parameters

sites ID of the shop(s). E.g.: ["11111111", "22222222"]	Array Required
iban IBAN. Debtor's bank account identifier.	String Required
last_name Debtor's last name.	String Required
first_name Debtor's first name.	String Required
email Debtor's e-mail address.	String Required
payment_type Type of mandate: • **RECURR**: The signed mandate applies to a series of direct debits. • **ONEOFF**: The signed mandate applies to a single direct debit.	String Required
locale Language of mandate generation. ISO 639-1 Alpha-2 code. E.g.: FR, DE, ES, IT, EN, PT, PL, NL, SV	String Required
bic BIC. International identifier of the debtor's bank.	String Optional
title Debtor's title	String Optional
callback_url Callback URL called after the mandate is imported	String Optional
send_mails If the field is set to **True**, Lyra Collect will send the mandate registration e-mails to the buyer and to the merchant once a mandate is created or updated. Default value: **False**	Bool Optional
fetch_address Allows to indicate whether the **address** object is returned in the response. Default value: **false**.	Bool Optional
address Debtor address	*address* Recommended

Address object

Some banks check whether this information is present before accepting a direct debit request.

The address is required if the client has a bank account in the following departments, territories or countries: Switzerland, Monaco, San Marino, Mayotte, St. Pierre and Miquelon, Guernsey, Jersey, Isle of Man.

country Country code in compliance with the ISO 3166 alpha-2 standard. E.g.: FR	String Recommended
city Shipping city	String Optional
district Shipping district	String Optional
state Buyer’s state/region	String Optional
street Street name	String Optional
street_number Street number	String Optional
street2 Address line 2	String Optional
zip Buyer’s ZIP code	String Optional

Example

Request

```
POST https://secure.lyra.com/sdd/multimandates
```

```
{
  "iban":"FR7630002005701234567890158",
  "title":"Mr",
  "last_name":"Durand",
  "first_name":"Michel",
  "email":"mrdurand@ymail.com",
  "payment_type":"RECURR",
  "locale":"FR",
  "address":{
   "street_number":"109",
   "street":"rue de l'Innovation",
   "street2":"Bat 1",
   "district":"Labège-Innopole",
   "zip":"31670",
   "city":"Labège",
   "country":"FR",
   "state":"Occitanie"
  },
  "fetch_address":false,
  "sites":["11111111","22222222","33333333"]
}
```

Response

```
[
  {
 "bic":"CRLYFRPP",
 "iban":"FR7630002005701234567890158",
 "title":"Mr",
 "email":"mrdurand@ymail.com",
 "locale":"FR",
 "identifier":"85d3fc75f08349dbabad6a0654cf61fb",
 "rum":"85d3fc75f08349dbabad6a0654cf61fb",
 "id":"11111111-85d3fc75f08349dbabad6a0654cf61fb",
 "site":"11111111",
 "first_name":"Michel",
 "last_name":"Durand",
 "payment_type":"RECURR",
 "callback_url":null,
 "created_at":1409136103000,
 "updated_at":null,
 "fetch_address":"false"
  },
  {
 "bic":"CRLYFRPP",
 "iban":"FR7630002005701234567890158",
 "title":"Mr",
 "email":"mrdurand@ymail.com",
 "locale":"FR",
 "identifier":"f455bbd2009d431b923b7c759f6cd3a6",
 "rum":"f455bbd2009d431b923b7c759f6cd3a6",
 "id":"22222222-f455bbd2009d431b923b7c759f6cd3a6",
 "site":"22222222",
 "first_name":"Michel",
 "last_name":"Durand",
 "payment_type":"RECURR",
 "callback_url":null,
 "created_at":1409136105000,
 "updated_at":null,
 "fetch_address":"false"
  },
  {
 "bic":"CRLYFRPP",
 "iban":"FR7630002005701234567890158",
 "title":"Mr",
 "email":"mrdurand@ymail.com",
 "locale":"FR",
 "identifier":"c57468616cf848ddb9bbdf39f31e0326",
 "rum":"c57468616cf848ddb9bbdf39f31e0326",
 "id":"33333333-c57468616cf848ddb9bbdf39f31e0326",
 "site":"33333333",
 "first_name":"Michel",
 "last_name":"Durand",
 "payment_type":"RECURR",
 "callback_url":null,
 "created_at":1409136108000,
 "updated_at":null,
 "fetch_address":"false"
  }
]
```

Note

If an error occurs during a mandate import, then all mandates will show an error.

8. VIEWING MANDATE DETAILS

```
GET .../mandates/{id}
```

To view mandate data, simply perform a GET on the mandate resource, specifying the identifier of the mandate to be viewed.

Example

Request

```
GET https://secure.lyra.com/sdd/mandates/12345678-94aebef39d0349a09fb525a80a6e0d55
```

Response

```
{
  "title":"Mr",
  "first_name":"Michel",
  "last_name":"Durand",
  "email":"mrdurand@ymail.com",
  "created_at":1634047398000,
  "identifier":"94aebef39d0349a09fb525a80a6e0d55",
  "rum":"94aebef39d0349a09fb525a80a6e0d55",
  "id":"12345678-94aebef39d0349a09fb525a80a6e0d55",
  "site":"12345678",
  "fetch_address":false
}
```

9. DOWNLOADING A MANDATE IN PDF FORMAT

```
GET .../mandates/{id}
```

To download a mandate in PDF format, perform a GET on the mandate resource, specifying the identifier of the desired mandate.

Make sure to set the “Accept” HTTP header to “application/octet-stream” in your query.

Example

Request

```
GET https://secure.lyra.com/sdd/mandates/12345678-94aebef39d0349a09fb525a80a6e0d55
```

10. UPDATING A MANDATE

```
PUT .../mandates/{id}
```

The fields that can be subject to change are:

- e-mail
- iban

Note:

Even if the mandate update does not concern these two fields, they must be present in the request.

Parameters

iban IBAN. Debtor’s bank account identifier.	String Required
email Debtor’s e-mail address.	String Required

Example

Request

```
PUT https://secure.lyra.com/sdd/mandates/12345678-94aebef39d0349a09fb525a80a6e0d55
```

```
{
  "iban":"FR7617515900001234567890135",
  "email":"mrdurand@ymail.com"
}
```

Response

```
{
  "title": "Mr",
  "first_name": "Michel",
  "last_name": "Durand",
  "email": "mrdurand@ymail.com",
  "created_at": 1634047398000,
  "updated_at": 1634799227000,
  "identifier": "94aebef39d0349a09fb525a80a6e0d55",
  "rum": "94aebef39d0349a09fb525a80a6e0d55",
  "id": "12345678-94aebef39d0349a09fb525a80a6e0d55",
  "site": "12345678",
  "fetch_address": false
}
```

11. DELETING A MANDATE

```
DELETE .../mandates/{id}
```

Merchants who use the payment gateway only for signing their SEPA mandates should be able to delete the mandates after three years of inactivity.

To delete a mandate, simply perform a DELETE on the mandate resource, specifying the identifier of the mandate to be deleted.

Example

Request

```
DELETE https://secure.lyra.com/sdd/mandates/12345678-94aebef39d0349a09fb525a80a6e0d55
```

Response

```
{
  "title": "Mr",
  "first_name": "Michel",
  "last_name": "Durand",
  "email": "mrdurand@ymail.com",
  "address": {
   "street_number": "109",
   "street": "rue de l'Innovation",
   "district": "Labège-Innopole",
   "zip": "31670",
   "city": "Labège",
   "country": "FR",
   "state": "Occitanie"
    },
  "created_at": 1634732659000,
  "updated_at": 1634799227000,
  "identifier": "94aebef39d0349a09fb525a80a6e0d55",
  "rum": "94aebef39d0349a09fb525a80a6e0d55",
  "id": "12345678-94aebef39d0349a09fb525a80a6e0d55",
  "site": "12345678",
  "fetch_address": true
}
```