



**regservices.ch**

by BX Swiss AG

# Deposit of Final Terms

## REST API Upload Specification

Classification: Public

Version: 1.0

Released: 01.06.2020





## Table of content

I.	Introduction .....	3
1.	Purpose and background .....	3
2.	Version table .....	3
II.	File transfer .....	3
1.	Manual upload .....	3
2.	Technical upload .....	5
2.1.	URL .....	5
2.2.	Authentication .....	5
2.3.	IP range restriction .....	5
2.4.	Format of the POST request .....	5
2.5.	Validation response .....	7
2.6.	Upload examples .....	8
III.	Operations .....	11
1.	Business Continuity Management .....	11
2.	Change management .....	11
3.	Operating hours & support .....	11
3.1.	Operational support .....	11
3.2.	Technical support .....	11



## I. Introduction

### 1. Purpose and background

This document describes the technical interface and the data required to deposit final terms with the Prospectus Review Office of BX Swiss pursuant to Art. 45 para. 3 FinSA (Financial Services Act).

It also outlines how final terms can alternatively be uploaded manually via the online application of BX Swiss.

### 2. Version table

Document version	Release date	Information
V0.1	20.12.2019	Initial pilot phase draft spec published by BX
V1.0	01.06.2020	Final version

## II. File transfer

### 1. Manual upload

Final terms can be deposited manually via web interface:

- Test: <http://prospectus-test.regservices.ch>
- Production: <http://prospectus.regservices.ch>

Once logged in, the upload can be done in two easy steps:

- a) Select the associated approved base prospectus:

### List of prospectuses (4)

You are part of group: Testgroup

Last Update	Case ID	Status	Instrument description	Issuer name	Ownership
15. Nov, 08:36	DP_79546_ME	Update Required	Prospectus with Individual Documents	Emittent AG	→
29. Oct, 09:58	DP_46945_ME	In Review	Base Prospectus II	Test Base Prospectus, Issuer II	→
29. Oct, 09:49	DS_92410_ME	Approved	Base Prospectus ZP74	Test Issuer Ltd.	→
28. Oct, 15:26	ES_95583_ME	Rejected	Test 20190928	Test Suisse SA	→



- b) Click on "Upload final terms", select the type of upload and then browse for the relevant PDF document(s):

← Go back

Approved

Case ID  
DS\_92410\_ME

Owner:  
Marc Enseleit (User)

Submitted Date:  
29. Oct, 09:49

Approval date:  
29. Oct, 09:52

UPLOAD FINAL TERMS

Type of upload:

File defaults: PDF, maximum 100MB

Upload file

Submit

You can then access a CSV-file with a summary of all uploaded final terms for the respective base prospectus.



## 2. Technical upload

### 2.1. URL

- a) Test: <https://t-imefarchiv.bxswiss.com:81/eis-connector/rest/fm-upload>
- b) Production: <https://p-imefarchiv.bxswiss.com:80/eis-connector/rest/fm-upload>

### 2.2. Authentication

To upload a document via REST API, Basic Authentication is used. BX Swiss will provide the login and password to the client.

### 2.3. IP range restriction

The client must inform BX Swiss about its IP range for which access is to be granted.

### 2.4. Format of the POST request

#### a) Request POST:

The upload of the document is made via a POST REST request.

```
curl --request POST
```

#### b) URL:

##### Test:

```
--url https://t-imefarchiv.bxswiss.com:81/eis-connector/rest/fm-upload
```

##### Production:

```
--url https://p-imefarchiv.bxswiss.com:80/eis-connector/rest/fm-upload
```

#### c) Authentication:

A Basic Authentication (login and password) must be used to be allowed to upload documents:

```
-u <login>:<password>
```

#### d) Type of Request: multipart/form-data

```
--header 'content-type: multipart/form-data'
```



e) JSON Body:

```
{
  "documents":
  [
    {
      "content": {
        "fileIdentifier": "file001",
        "fileName": "File_1.pdf",
        "contentType": "application/pdf"
      },
      "metadata":
      [
        { "name": "Id", "value": "0001" },
        { "name": "CaseId", "value": "Case_aaaa" },
        { "name": "ISIN", "value": "ISIN_abcd" },
        { "name": "Classification", "value": "INFNE" }
      ]
    }
  ]
}
```

(a) **content:**

- **fileIdentifier:** identifier of the file (will be used to identify the file to upload), NOT the file name, but file name can be used to simplify
- **fileName:** name of the file which will be given in the application
- **contentType:** corresponds to the MIME types, following are the most common:

Name	File ext.	MIME Type
Adobe Portable Document Format	.pdf	application/pdf
Microsoft Excel	.xls	application/vnd.ms-excel
Microsoft Word	.doc	application/msword
Bitmap Image File	.bmp	image/bmp
JPEG Image	.jpeg, .jpg	image/jpeg
Portable Network Graphics (PNG)	.png	image/png
Tagged Image File Format	.tiff	image/tiff

(b) **metadata:**

- **Id:** Id of the client, defined by BX Swiss together with the password
- **CaseId:** CaseId of the base prospectus to which the documents relate, this information is sent to the client's legal department when they submit the base prospectus
- **ISIN:** ISIN number of the instrument to be provided by the client
- **Classification:**

Classification	Description
INFNE	New
INFIN	Increase (increase of an issue, mostly relevant for bonds)
INFRP	Replacement (wrong final terms data)



INFCB	Correction of meta data – reference to incorrect base prospectus
INFCP	Correction of meta data – wrong PDF document
INFCO	Continuation of a public offer under new base prospectus

f) File: physical file to be uploaded:

```
--form <fileIdentifier>.data=@<name of the physical file
```

Remarks:

- The <fileIdentifier> provided in the content and the <fileIdentifier>.data are the same.
- Several files can be sent with one request, see examples below.

## 2.5. Validation response

The response contains either a confirmation of the processing success or an error. The processing is done based on a "all-or-nothing" principle per uploaded file. If there are any errors in the file, the whole file will be rejected. The error array will stop at the first error.

Response is provided in JSON format. Examples of the response file format are presented below.

a) Success response

```
{
  "documents": [
    {
      "fileName": "Test.pdf",
      "classification": "INFNE",
      "status": "ok"
    },
    {
      "fileName": "Image.png",
      "classification": "INFIN",
      "status": "ok"
    }
  ],
  "uploadedDate": "2019-12-04 17:21:20"
}
```

b) Responses in case of errors

```
{
  "message": ".....",
  "timestamp": "2019-12-04 17:28:39"
}
```

Error number	Error	Description
--------------	-------	-------------



ERR001	Classification <classification> not defined. Please contact BX Swiss	The document type is not defined. Only the types as per above classifications table are accepted.
ERR002	Classification <classification> not correctly defined. Please contact BX Swiss	Error in the mapping file.
ERR003	Issuer ID : <issuer id> does not exist. Please contact BX Swiss	The issuer's archive folder does not exist. It first needs to be created by BX Swiss.
ERR004	Caseld <Case id> for <issuer id> is not created. Please contact BX Swiss	No base prospectus has been approved by BX Swiss with that particular case id.
ERR005	contentType <file Type> (MIME TYPE) not defined.	The content is not well defined. See content type table.

c) Other errors (500)

BX Swiss archive application not started:

```
{
  "message": "getAuthToken() failed.",
  "timestamp": "2019-12-04 17:33:59"
}
```

Most of the errors are self-explaining. In case of issues please contact BX Swiss.

2.6. Upload examples

a) Single file

```
curl -k --request POST \
--url https://t-imtarchiv.bxswiss.com:81/eis-connector/rest/fm-upload \
-u <login>:<password> \
--header 'content-type: multipart/form-data' \
--form 'file.meta={ "documents":
  [ {
    "content":{
      "fileIdentifier":"file001",
      "fileName": "Test.pdf",
      "contentType": "application/pdf"
    },
    "metadata": [
      {"name": "Id", "value": "1234"},
      {"name": "CaseId", "value": "Case_1234"},
```





```
    {"name": "ISIN", "value": "ISIN_1234"},  
    {"name": "Classification", "value": "INFNE"}  
  ]  
}]  
}' \  
  
--form file001.data=@Test.pdf
```

b) Several files

```
curl -k --request POST \  
--url https://t-imtfarchiv.bxswiss.com:81/eis-connector/rest/fm-upload \  
-u <login>:<password> \  
--header 'content-type: multipart/form-data' \  
--form 'file.meta={ "documents":  
  [{  
    "content":{  
      "fileIdentifier":"file001",  
      "fileName": "Test.pdf",  
      "contentType": "application/pdf"  
    },  
    "metadata": [  
      {"name": "Id", "value": "1234"},  
      {"name": "CaseId", "value": "Case_1234"},  
      {"name": "ISIN", "value": "ISIN_1234"},  
      {"name": "Classification", "value": "INFNE"}  
    ]  
  }]  
}' \  
  
--form file001.data=@Test1.pdf  
  
curl --request POST \  
--url https://t-imtfarchiv.bxswiss.com:81/eis-connector/rest/fm-upload \  
-u <login>:<password> \  
--header 'content-type: multipart/form-data \  
--form 'file.meta={  
"documents":  
[
```



```
{
  "content":{
    "fileIdentifier":"file001",
    "fileName": "Test.pdf",
    "contentType": "application/pdf"
  },
  "metadata":
  [
    {"name": "Id", "value": "1234"},
    {"name": "CaseId", "value": "Case_1111"},
    {"name": "ISIN", "value": "ISIN_1234"},
    {"name": "Classification", "value": "INFNE"}
  ]
},
{
  "content":{
    "fileIdentifier":"file002",
    "fileName": "Image.png",
    "contentType": "image/png"
  },
  "metadata":
  [
    {"name": "Id", "value": "1234"},
    {"name": "CaseId", "value": "Case_2222"},
    {"name": "ISIN", "value": "ISIN_ABCD"},
    {"name": "Classification", "value": "INFIN"}
  ]
}
]
}\
--form file001.data=@Test.pdf \
--form file002.data=@Img.png
```



### III. Operations

#### 1. Business continuity management

- data storage in two datacenters
- switch from one datacenter to the other if required
- no need to change the URL

In case of technical issues on BX Swiss side, BX informs via its webpage [www.regservices.ch](http://www.regservices.ch).

#### 2. Change management

BX will provide information of changes in advance as follows:

- Changes that require action on clients' side will be announced 4 months in advance. Testing phase two month before go-live.
- Technical changes that require no action on clients' side will be announced at latest 1 week in advance. No testing needed.

Deployment window is on Tuesday and Thursday 20:00 - 22:00. Communication happens via e-mail to our distribution list (please provide us with all relevant e-mail addresses).

Change requests can be raised via e-mail to [office@regservices.ch](mailto:office@regservices.ch).

#### 3. Operating hours & support

There is no limitation imposed on the time when the files can be uploaded. BX provides the service on a 24/7 basis. Support is available Monday-Friday 08:00 -17:45. In case of issues please send an e-mail to [office@regservices.ch](mailto:office@regservices.ch).

Support contacts are the same for the production and test system.

##### 3.1. Operational support

- Email: [office@regservices.ch](mailto:office@regservices.ch)
- Phone: +41 31 329 40 55

##### 3.2. Technical support

- Email: [office@regservices.ch](mailto:office@regservices.ch)