HTTP POST upload service for b2b DOI registration in mEDRA and in Crossref

Date 19 April 2024
Author mEDRA
Status Version 1.0
# Table of Contents

1. **Introduction** ........................................................................................................................................... 3

2. **mEDRA Customers** ................................................................................................................................. 4
   - Endpoint ..................................................................................................................................................... 4
     - Authentication ....................................................................................................................................... 4
     - Authorization ......................................................................................................................................... 4
     - HTTP method ......................................................................................................................................... 4
     - Content-Type ......................................................................................................................................... 4
     - HTTP Response .................................................................................................................................. 5

3. **mEDRA-Crossref sponsored members** ..................................................................................................... 6
   - Endpoint ................................................................................................................................................... 6
     - Authentication ....................................................................................................................................... 6
     - Authorization ......................................................................................................................................... 6
     - HTTP method ......................................................................................................................................... 6
     - Content-Type ......................................................................................................................................... 6
     - HTTP Response .................................................................................................................................. 7
1. **Introduction**

mEDRA makes available the following tools for the DOI registration via HTTP POST request in a B2B environment:

- mEDRA customers: mEDRA HTTP upload service to register and update DOIs in mEDRA (please see 2)
- mEDRA Crossref sponsored members: mEDRA - Crossref HTTP upload service to register and update DOIs and deposit them in Crossref (please see 3.)
2. **mEDRA Customers**

A B2B client can submit a DOI Registration Message in mEDRA system by sending an HTTP POST Request to mEDRA HTTP upload endpoint with the ONIX for DOI Registration Message XML document in the body of the request.

The max size of the xml document in the request body is 20Mb.

The xml document in the request body must be valid according to mEDRA ONIX for DOI registration schema.

**Endpoint**
- mEDRA HTTP upload service endpoint in production environment is: [https://www.medra.org/servlet/ws/upload](https://www.medra.org/servlet/ws/upload)
- mEDRA HTTP upload service endpoint in testing environment is: [https://www-medra-dev.medra.org/servlet/ws/upload](https://www-medra-dev.medra.org/servlet/ws/upload)

**Authentication**
The HTTP upload service to register in mEDRA is accessible upon basic authentication.
The credentials are the same used to access mEDRA reserved area and systems.
Any failure in authentication, such as wrong user or password, will generate a HTTP Status 401 – Unauthorized

**Authorization**
The HTTP upload service to register in mEDRA can be accessed by any authenticated user.
However, the same authorization rules of mEDRA system apply to DOI registrations via HTTP upload service, namely:
- user is authorized to register DOIs and their metadata only for their(s) prefix(es).
- user must have an unexpired contract to create new DOIs.

**HTTP method**
The HTTP method allowed is POST
Other methods will generate a HTTP Status 405 – Method Not Allowed

**Content-Type**
The accepted mime-type is application/xml
Other mime-type will generate a HTTP Status 415 – Unsupported Media Type
HTTP Response

If the upload does not contain any error, a HTTP status 200 response is returned.

On the contrary if the upload fails, a different HTTP status + a custom header field called mEDRAErrorCode is returned with one of the following values:

<table>
<thead>
<tr>
<th>mEDRAErrorCode</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>notValidXmlReq</td>
<td>400</td>
<td>Error in the xml. Occurs when the xml is not well formed or is not valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>against ONIX for DOI 2.0 schema or the body is empty. To check and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>correct errors use:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="https://www.medra.org/servlet/view-xml-validate">https://www.medra.org/servlet/view-xml-validate</a></td>
</tr>
<tr>
<td>isNotSchematronValid</td>
<td>400</td>
<td>Schematron errors. Occurs when the ONIX for DOI record does not respect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the additional constraints (errors) for mEDRA submission. To check and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>correct errors use:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="https://www.medra.org/servlet/view-xml-validate">https://www.medra.org/servlet/view-xml-validate</a></td>
</tr>
<tr>
<td>badUploadReq</td>
<td>411</td>
<td>Upload size is unknown. Occurs when the HTTP header Content-Length is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>missing</td>
</tr>
<tr>
<td>badUploadReq</td>
<td>413</td>
<td>Upload is oversize. Occurs when the xml exceeds 20Mb</td>
</tr>
<tr>
<td>internalError</td>
<td>500</td>
<td>mEDRA database error, system error, reading file error.</td>
</tr>
</tbody>
</table>
3. mEDRA-Crossref sponsored members

A B2B client can submit a DOI Registration Message for deposit in Crossref by sending an HTTP POST Request to mEDRA-Crossref HTTP upload endpoint with the ONIX for DOI Registration Message XML document in the body of the request.

The max size of the xml document in the request body is 20Mb.

The xml document in the request body must be valid according to mEDRA ONIX for DOI 2.0 registration schema.

Endpoint

- mEDRA HTTP upload service endpoint in production environment is:
  
  https://www.medra.org/servlet/ws/CRupload

- mEDRA HTTP upload service endpoint in testing environment is:
  
  https://www-medra-dev.medra.org/servlet/ws/CRupload

Authentication

The HTTP upload service to register and deposit in Crossref is accessible upon basic authentication.

The credentials are the same used to access mEDRA reserved area and systems.

Any failure in authentication, such as wrong user or password, will generate a HTTP Status 401 – Unauthorized.

Authorization

The HTTP upload service to register in mEDRA and Crossref can be accessed only by authenticated user enabled to Crossref.

Moreover, the same authorization rules of mEDRA system apply to DOI registrations via HTTP upload service, namely:

- user is authorized to register DOIs and their metadata only for their(s) prefix(es).
- user must have a unexpired contract to create new DOIs.

HTTP method

The HTTP method allowed is POST

Other methods will generate a HTTP Status 405 – Method Not Allowed

Content-Type

The accepted mime-type is application/xml

Other mime-type will generate a HTTP Status 415 – Unsupported Media Type
HTTP Response

If the upload does not contain any error, a HTTP status 200 response is returned.

On the contrary if the upload fails, a different HTTP status + a custom header field called mEDRAErrorCode is returned with one of the following values:

<table>
<thead>
<tr>
<th>mEDRAErrorCode</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>notValidXmlReq</td>
<td>400</td>
<td>Error in the xml. Occurs when the xml is not well formed or is not valid against ONIX for DOI 2.0 schema or the body is empty. To correct errors use: <a href="https://www.medra.org/servlet/view-xml-validate">https://www.medra.org/servlet/view-xml-validate</a></td>
</tr>
<tr>
<td>missingHttpPostCallbackInfo</td>
<td>400</td>
<td>Missing HTTP callback info. Occurs when in the Header of the ONIX for DOI message the user sets &lt;NotificationResponse&gt;=02 (HTTP callback) but we haven’t recorded their callback service endpoint</td>
</tr>
<tr>
<td>isNotSchematronValid</td>
<td>400</td>
<td>Schematron errors. Occurs when the ONIX for DOI record does not respect the additional constraints (errors) for mEDRA and Crossref submission published at: <a href="https://www.medra.org/en/crossrefErrorList.htm">https://www.medra.org/en/crossrefErrorList.htm</a> To correct errors use: <a href="https://www.medra.org/servlet/view-xml-validate">https://www.medra.org/servlet/view-xml-validate</a></td>
</tr>
<tr>
<td>isNotCREnabled</td>
<td>403</td>
<td>User not enabled to send to Crossref</td>
</tr>
<tr>
<td>badUploadReq</td>
<td>411</td>
<td>Upload size is unknown. Occurs when the HTTP header Content-Length is missing</td>
</tr>
<tr>
<td>badUploadReq</td>
<td>413</td>
<td>Upload is oversize. Occurs when the xml exceeds 20Mb</td>
</tr>
<tr>
<td>internalError</td>
<td>500</td>
<td>mEDRA database error, system error, reading file error.</td>
</tr>
</tbody>
</table>