

Interface Specification

FBS-14789

Cicero Digital Post specification

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1 Introduction

This document describes how Cicero LMS interacts with Digital Post for sending notifications to patrons.

Cicero supports sending Digital Post through NGDP (Danish Digital Post) and SvarUt (Norwegian Digital Post).

The target group for the document is system administrators at the library, or employees at the library who would like to understand the technical details of how Cicero LMS interacts with the services for sending digital post messages.

1.1 References

Reference	Document	Description
[Official documentation for NGDP]	https://digst.dk/it-loesninger/naeste-generation-digital-post/	External: Documentation for Digital Post
[NgDP technical documentation]	https://www.digitaliser.dk/resource/5765802	External: Technical integration specification for Digital Post
[SDD0003]	SSE/14789/SDD/0003 Cicero LMS - Solution Architecture.	Contains description of Cicero LMS communication with external systems, incl. handling of errors. Contact Systematic for the document.
[Configuration of NgDP]	https://cicerconnect.zendesk.com/hc/da/articles/4408829208849	Manual for configuring Cicero LMS for NgDP
[Official documentation for SvarUt]	https://developers.fiks.ks.no/tjenester/svarut/integrasjon/forsendelserest/servicev1/	External: Documentation for SvarUt

2 NGDP - Digital Post in Denmark

2.1.1 Configuring Cicero LMS to use NGDP

In the Cicero LMS configuration "Digital Post System", select "NGDP".

Follow [Configuration of NgDP] for further configuration details.

See also the [Official documentation for NGDP].

2.1.2 Sending a message

Cicero LMS uses the NgDP interface for sending digital post.

Digital Post messages using the following URL structure:

[DigitalPostUrl]/api/v1/memos/?memo-message-uuid=[MessageUID]

See more details in [NgDP technical documentation].

2.1.3 Parameters

The different parameters needed for Digital Post to work are described in this section.

Parameter	Description
sysId	The sysID is unique per municipality and works as an identifier for the sender.
apiKey	The API Key is a random string of text used by Digital Post to identify which system is calling their APIs. It is sent in the authorization header.
recipientAddress	The actual CPR or CVR number of the recipient. Part of the message.
messageId	A unique string identifier for requests sent to Digital Post. It is a combination of sysId and a timestamp.
senderCVR	CVR number used for MeMo sender field
senderLabel	Full name, as specified in CVR, of the sender of digital post. Used for MeMo sender field.

2.1.4 Responses and Error Handling

A response with HTTP code 201 is considered successful. If other response codes are received, Cicero will handle the response depending on the code returned:

- If the response indicates a temporary error in sending, Cicero LMS will retry sending a number of times until it gives up and places the message on an error queue for manual handling by the library employees.
- If the response indicates an error that is not temporary, e.g. an error in the request data, Cicero LMS will place the error directly on the error queue.

The error code will be extracted and appear in the error queue.

The error codes are described in [NgDP technical documentation], section 13.3 Error codes (note that the section number may not match the latest version of the document).

2.1.5 Exempt from Digital Post

If a user is exempt from Digital Post, DigitalPost will reply with a "recipient.is.exempt" error code, and the message is placed on an error queue for manual handling by the library employees.

3 SvarUt - Digital post in Norway

3.1.1 Configuring SvarUt

In the Cicero LMS configuration "Digital Post System", select "SvarUt".

The following values needs to be set in order for the integration with SvarUt to work:

Configuration Name	Description
SvarUt URL	URL used for SvarUt API
SvarUt username	Username used for SvarUt API
SvarUt password	Password used for SvarUt API

3.1.2 Sending data to SvarUt

When sending a digital post message through SvarUt, the request must contain two parts:

1. All data related to the message, e.g. the receiver, the sending system, the title etc., must be send as a JSON file. This JSON file also needs to contain the name of any additional files in the request, in order for those files to be read.
2. The actual message for the patron needs to be send as a PDF document and, as explained above, the name of this file needs to be found in the JSON data.

The following table summarizes the SvarUt endpoint properties and data:

Endpoint type	POST
BaseURL	/tjenester/api/forsendelse/v1/sendForsendelse
URL for test environment	https://test.svarut.ks.no/tjenester/api/forsendelse/v1/sendForsendelse
URL for prod environment	https://test.svarut.ks.no/tjenester/api/forsendelse/v1/sendForsendelse
Content-type	Multipart/form-data. <ul style="list-style-type: none"> - First part needs to be "name=forsendelse" with JSON - Parts with documents need to content-type application/octet-stream
Basic Authentication	The request to SvarUt must have basic authentication in the header.
Data model	The model for the JSON data of the request can be seen here: https://github.com/ks-no/svarut-rest-klient/tree/master/svarut-rest-klient/json .

The following shows an example of a request to SvarUt:

```
POST /tjenester/api/forsendelse/v1/sendForsendelse HTTP/1.1
Host: svarut.fiks.test.ks.no
Authorization: Basic QXVkdW5UZm92X3Bndm1lbnR1c2V5...
Content-Type: multipart/form-data; boundary=----WebkitFormBoundary7MA4YkKTRZu8gW
-----WebKitFormBoundary7MA4YkKTRZu8gW
Content-Disposition: form-data; name="forsendelse"
{
  "mottaker": {
    "postAdresse": {
      "navn": "Ole Olsen",
      "adresse1": "Gamleveien 1",
      "postnummer": "5258",
      "poststed": "Poststed"
    },
    "digitalAdresse": {
      "fodselsnummer": "12345678912"
    }
  },
  "eksponertfor": [],
  "avgivendesystem": "S002-SAK",
  "tittel": "Tittel for sak",
  "kunDigitalLevering": false,
  "kryptert": false,
  "utskriftskonfigurasjon": {
    "utskriftMedFarger": false,
    "tosidig": false
  },
  "krevNiva4Innlogging": false,
  "dokumenter": [
    {
      "filnavn": "sample.pdf",
      "mimeType": "application/pdf",
      "skalSigneres": false,
      "ekskluderFraUtskrift": false
    }
  ],
  "lanke": [],
  "svarPaForsendelseLink": false
}
-----WebKitFormBoundary7MA4YkKTRZu8gW
Content-Disposition: form-data; name="sample.pdf"; filename="sample.pdf"
Content-Type: application/pdf
-----WebKitFormBoundary7MA4YkKTRZu8gW--
```

3.1.3 Response from SvarUt

If a message is successfully received and processed by SvarUt, a 200 OK Http response status code will be returned. If other response codes are received, Cicero will handle the response depending on the code returned:

- If the response indicates a temporary error in sending, Cicero LMS will retry sending a number of times until it gives up and places the message on an error queue for manual handling by the library employees.
- If the response indicates an error that is not temporary, e.g. an error in the request data, Cicero LMS will place the error directly on the error queue. SvarUt does not always return an error code. Instead, there will always be an error message in the response and this error message will be extracted and appear in the error queue

An example of an error response from SvarUt can be seen below:

```
{
  "timestamp": 1674633953304,
  "status": 400,
  "error": "Bad Request",
  "errorId": "1b7b4bfb-1247-4edd-affc-204c14e6dcce",
  "path": "/tjenester/api/forsendelse/v1/sendForsendelse",
  "originalPath": null,
  "message": "Ugyldig innhold i forsendelse: Postnr må være kun tall og 4 siffer.",
  "errorCode": null,
  "errorJson": null
}
```


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