

Nettskjema API

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Authentication

The API supports two ways of authentication. One as a regular user through the web interface, and one through authentication tokens.

User authentication

Entities who authenticate through the web interface with a username and password will be granted access to all resources. There is no restrictions on the type of operations done on a resource.

User authentication gives wide access rights to resources owned by an entity, and should only be used through the web interface. Scripts or 3rd party applications interacting with the API should use tokens for authentication.

Token authentication

- TODO: Add curl request * Authorization: Bearer TOKEN

Tokens are generated through the web interface of Nettskjema. To create a token, a regular user must first create a specific API user. API users are treated the same way as other users in Nettskjema, with the only exception that they can not authenticate directly with Nettskjema. API users must be owned by a person or group in Nettskjema.

API users can be created on <https://nettskjema.uio.no/user/api/index.html>

When an API user have been created, one or more tokens can be generated for the API user. Tokens are valid for 365 days after creation, and must have a list of whitelisted IP addresses or subnets which is allowed to access the API. Subnets for the UiO network is set as default. Additionally, a token must have one or more claims, describing which operations the token is allowed to do on a resource.

GET /token/expire-date

```
$ curl 'https://nettskjema.no/api/v2/users/admin/tokens/expire-date' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

The response fields

Path	Type	Description
+expireDate+	+String+	The expire date of the token

Claims

The current list of valid claims can be fetched from the following endpoint:

- TODO: Add endpoint *

Forms

Forms are available under the /forms endpoint

GET /forms/{id}

Get metadata for a Form

```
$ curl 'https://nettskjema.no/api/v2/forms/5333178' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

Path parameters

Table 1. /api/v2/forms/{id}

Parameter	Description
+id+	The ID of the form

The response fields

Path	Type	Description
+formId+	+Number+	The ID of the form
+title+	+String+	The form title
+titleShort+	+String+	Short form title
+respondentGroup+	+String+	The type of respondent allowed to post a submission. Values [ALL, FEIDE, INVITED]
+deliveryDestination+	+String+	Where submissions are persisted after delivery. Values [DATABASE, DATABASE_ENCRYPTED, TSD, TSD_API, EMAIL_ONLY]
+formType+	+String+	The form type
+createdDate+	+String+	When the form was created
+modifiedDate+	+String+	When the form was last modified
+openFrom+	+String+	When the form should be open for submissions
+openTo+	+String+	When the form closes for submissions

Path	Type	Description
+languageCode+	+String+	The language code used for localization
+editorsContactEmail+	+String+	The contact e-mail of the editor
+editorsContactUrl+	+String+	The contact URL of the editor
+collectsPersonalData+	+Boolean+	If the form collects personal data
+retainRespondentAccessAfterDelivery+	+Boolean+	
+scoreResultDisplayType+	+String+	If a score should be displayed, requires FormType.MULTIPLE_CHOICE
+sensitivePersonalDataCollected+	+Boolean+	If sensitive personal data is collected through the form
+codebookActivated+	+Boolean+	If the codebook is activated
+clientPostponable+	+Boolean+	If clientPostponable is activated
+newDesignEnabledSetting+	+String+	
+theme+	+String+	The theme used by the form
+personalDataPurposeTypes+	+Array+	Array of personalDataPurposeTypes
+editors+	+Array+	Array of editors

GET /forms/users/{id}

Get metadata for the forms a user can administrate

```
$ curl 'https://nettskjema.no/api/v2/forms/users/1697197' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

Path parameters

Table 2. /api/v2/forms/users/{userId}

Parameter	Description
+userId+	The ID of the user

The response fields

Path	Type	Description

Path	Type	Description
+[] .formId+	+Number+	The ID of the form
+[] .title+	+String+	The form title
+[] .titleShort+	+String+	Short form title
+[] .respondentGroup+	+String+	The type of respondent allowed to post a submission. Values [ALL, FEIDE, INVITED]
+[] .deliveryDestination+	+String+	Where submissions are persisted after delivery. Values [DATABASE, DATABASE_ENCRYPTED, TSD, TSD_API, EMAIL_ONLY]
+[] .formType+	+String+	The form type
+[] .createdDate+	+String+	When the form was created
+[] .modifiedDate+	+String+	When the form was last modified
+[] .openFrom+	+String+	When the form should be open for submissions
+[] .openTo+	+String+	When the form closes for submissions
+[] .languageCode+	+String+	The language code used for localization
+[] .editorsContactEmail+	+String+	The contact e-mail of the editor
+[] .editorsContactUrl+	+String+	The contact URL of the editor
+[] .collectsPersonalData+	+Boolean+	If the form collects personal data
+ [] .retainRespondentAccessAfterDelivery+	+Boolean+	
+[] .scoreResultDisplayType+	+String+	If a score should be displayed, requires FormType.MULTIPLE_CHOICE
+[] .sensitivePersonalDataCollected+	+Boolean+	If sensitive personal data is collected through the form
+[] .codebookActivated+	+Boolean+	If the codebook is activated
+[] .clientPostponable+	+Boolean+	If clientPostponable is activated

Path	Type	Description
+[] .newDesignEnabledSetting+	+String+	
+[] .theme+	+String+	The theme used by the form
+[] .personalDataPurposeTypes+	+Array+	Array of personalDataPurposeTypes
+[] .editors+	+Array+	Array of editors

POST /forms

Create a new form

BASH

```
$ curl 'https://nettskjema.no/api/v2/forms/' -i -X POST \
  -H 'Authorization: Bearer TOKEN' \
  -H 'Content-Type: application/json; charset=UTF-8' \
  -d '{
    "languageCode" : "nb",
    "title" : "FormsApiControllerTestCase",
    "deliveryDestination" : "DATABASE",
    "formType" : "DEFAULT",
    "respondentGroup" : "ALL",
    "editorsContactEmail" : "uio.test@test.uio.no",
    "collectsPersonalData" : true,
    "retainRespondentAccessAfterDelivery" : false,
    "clientPostponable" : false,
    "personalDataPurposeTypes" : [ "RESEARCH" ],
    "sensitivePersonalDataCollected" : false,
    "codebookActivated" : false,
    "elements" : [ {
      "elementType" : "HEADING",
      "title" : "TITLE"
    }, {
      "elementType" : "PAGE_BREAK"
    }, {
      "elementType" : "QUESTION",
      "questions" : [ {
        "description" : "QUESTION DESCRIPTION",
        "sendAdditionalRecipientEmail" : false
      } ]
    } ],
    "newDesignEnabledSetting" : "ALWAYS"
  }'
```

Request parameters

Table 3. Fields for form creation

Path	Type	Description	Constraints
title	String	The form title	[Must not be blank]
formType	String	The type of form	Legal values are [DEFAULT, SIGN_UP, MULTIPLE_CHOICE]

Path	Type	Description	Constraints
languageCode	String	The language of the form	Optional
respondentGroup	String	The respondent group of the form	[Must not be null] Legal values are [ALL, FEIDE, INVITED]
deliveryDestination	String	Where submissions are persisted after delivery	Optional. Legal values are [DATABASE, DATABASE_ENCRYPTED, TSD, TSD_API, EMAIL_ONLY]
editorsContactEmail	String	The contact email of the editor	[Must be a well-formed email address]
collectsPersonalData	Boolean	If the form collects personal data	Optional, defaults to false
retainRespondentAccessAfterDelivery	Boolean		Optional, defaults to false
sensitivePersonalDataCollected	Boolean	If sensitive personal data is collected through the form	Optional, defaults to false
codebookActivated	Boolean	If the codebook is activated	Optional, defaults to false
clientPostponable	Boolean	If clientPostponable is activated	Optional, defaults to false
newDesignEnabledSetting	String	If the form should use new or old design for answering	Optional. Legal values are [ALWAYS, NEVER, OPTIONAL]
personalDataPurposeTypes	Array	Array of personalDataPurposeTypes	Optional, defaults to an empty list
elements	Array	Array of elements. Used to create the structure of the form	Optional, defaults to an empty list

Forms created by an API user is only owned by the API user by default. To give regular users permission to edit the created form, add one or more person objects to the array editors.

```
editors: [{
  'username': 'USERNAME@uio.no'
}]
```

If the form is a copy of an existing form in Nettskjema, and the creator has administration or copy rights to the form to be copied, a reference to the existing form should be included in the POST request as a parameter.


```
POST /api/v2/forms/?copiedFromForm=FORM_ID
```

This will update metadata for the existing form, which may prevent it from being deleted in the future.

GET /forms/{id}/elements

List all elements for a form. Currently, all elements except for matrix questions (Radio and checkbox matrix) are supported

```
$ curl 'https://nettskjema.no/api/v2/forms/5333195/elements' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

The response fields

Path	Type	Description
+[] .elementId+	+Number+	The ID of the element
+[] .elementType+	+String+	The type of the element
+[] .sequence+	+Number+	The sequence of an element
+[] .mandatory+	+Boolean+	If the question is mandatory
+[] .title+	+String+	Title of the element
+[] .answerOptions+	+Array+	Answer options for a question

GET /forms/{id}/questions

List all questions for a form. This endpoint will be deprecated in the future. See the elements endpoint.

```
$ curl 'https://nettskjema.no/api/v2/forms/5333168/questions' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

The response fields

Path	Type	Description
+[] .questionId+	+Number+	The ID of the question
+[] .elementType+	+String+	The type of the question
+[] .sequence+	+Number+	The sequence of the question
+[] .text+	+String+	The text of the question
+[] .description+	+String+	The description of the question
+[] .mandatory+	+Boolean+	If the question is mandatory

Path	Type	Description
<code>+.sendAdditionalRecipientEmail+</code>	+Boolean+	If you should send additional recipient email
<code>+.horizontal+</code>	+Boolean+	If answer options should be displayed horizontally

GET /forms/{id}/submissions

List all submissions for a form

```
$ curl 'https://nettskjema.no/api/v2/forms/5333192/submissions' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

Return only some fields. Only "submissionId" is supported.

```
$ curl 'https://nettskjema.no/api/v2/forms/5333200/submissions?fields=submissionId&fromDate=2019-08-31T10%3A41%3A01.543%2B0200&fromSubmissionId=1' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

Path parameters

Table 4. /api/v2/forms/{id}/submissions

Parameter	Description
+id+	The ID of the form

Request parameters

Parameter	Description
+fields+	Which fields to return. Only <i>submissionId</i> supported
+fromDate+	The earliest delivery date for the submissions we want to include. The date must be gives as an ISO 8601 date, see https://en.wikipedia.org/wiki/ISO_8601 . This will only work for forms that collect personal data.
+fromSubmissionId+	Only returns submissions with submissionId greater than fromSubmissionId

The response fields

Path	Type	Description
<code>+.submissionId+</code>	+Number+	The ID of the submission
<code>+.createdDate+</code>	+String+	When the submission was created

Path	Type	Description
+[] .modifiedDate+	+String+	When the submission was modified
+[] .delivered+	+Boolean+	Whether the submission has been delivered
+[] .respondentEmail+	+String+	The email of the respondent
+[] .answerTime+	+Number+	How long time the respondent used to answer in milliseconds
+[] .respondentNationalIdNumber+	+String+	National ID number of the respondent
+[] .referrerUrl+	+String+	Referer url of the submission
+[] .answers+	+Array+	The answers
+[] .person+	+Object+	The respondent
+[] .submissionSignature+	+Object+	Whether the submission is signed

Validation errors

Response on validation errors

Path	Type	Description
+statusCode+	+Number+	The HTTP status code returned
+message+	+String+	The message returned
+errors+	+Object+	Optional. Error map for validation errors

Invitations

The invitations endpoints require a valid token with either the WRITE_INVITATIONS or READ_INVITATIONS claim. Requests to the invitation endpoints are only valid for forms with the respondent group INVITED.

Invitations are processed asynchronously. Check the *state* field for the current state of each invitation.

GET /invitations/forms/{formId}

Response on GET request returns a list of invited persons, and the current state of the invitation process.

```
$ curl 'https://nettskjema.no/api/v2/invitations/forms/5333206' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

The response fields

Path	Type	Description
+[] .invitationMetadataId+	+Number+	The ID of the invitation
+[] .createdDate+	+String+	When the invitation was created
+[] .lastRemindedDate+	+String+	When a reminder was sent to a respondent
+[] .state+	+String+	The current state of the invitation
+[] .createdBy+	+Object+	The person who created the invitation

POST /invitations/forms/{formId}

Request fields for inviting respondents to a form.

```
$ curl 'https://nettskjema.no/api/v2/invitations/forms/5333210' -i -X POST \
-H 'Authorization: Bearer TOKEN' \
-H 'Content-Type: application/json; charset=UTF-8' \
-d '[ "uio.test@test.uio.no", "uio.test2@test.uio.no" ]'
```

BASH

Table 5. Invitation of respondents

Path	Type	Description	Constraints
[]	Array	Array of emails to be invited	Email must be Strings

POST /invitations/forms/{formId}/remind

Used to remind respondents who have not already submitted a response.

```
$ curl 'https://nettskjema.no/api/v2/invitations/forms/5333204/remind' -i -X POST \  
-H 'Authorization: Bearer TOKEN' \  
-H 'Content-Type: application/json;charset=UTF-8'
```

The response fields

Path	Type	Description
+success+	+Number+	The number of successful reminders sent
+failed+	+Number+	The number of failed invitations

Submissions

Endpoint for getting submissions.

GET /submissions/{submissionId}

Requires a valid token with the READ_SUBMISSIONS claim.

```
$ curl 'https://nettskjema.no/api/v2/submissions/3868408' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

Path parameters

Table 6. /api/v2/submissions/{id}

Parameter	Description
+id+	The ID of the submission

The response fields

Path	Type	Description
+submissionId+	+Number+	The ID of the submission
+createdDate+	+String+	When the submission was created
+modifiedDate+	+String+	When the submission was modified
+delivered+	+Boolean+	Whether the submission has been delivered
+respondentEmail+	+String+	The email of the respondent
+answerTime+	+Number+	How long time the respondent used to answer in milliseconds
+respondentNationalIdNumber+	+String+	National ID number of the respondent
+referrerUrl+	+String+	Referer url of the submission
+answers+	+Array+	The answers
+person+	+Object+	The respondent
+submissionSignature+	+Object+	Whether the submission is signed

GET /submissions/{submissionId}/encrypted-json

Get an encrypted JSON-serialization of the submission. Requires a valid token with the READ_SUBMISSIONS claim.

```
$ curl 'https://nettskjema.no/api/v2/submissions/3868412/encrypted-json' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

Path parameters

Table 7. /api/v2/submissions/{id}/encrypted-json

Parameter	Description
+id+	The ID of the submission

Response

Ascii armored PGP-encrypted JSON (plain text). Ref. RFC4880 *OpenPGP Message Format* section 6

<https://tools.ietf.org/html/rfc4880#section-6.6>

GET /submissions/{submissionId}/encrypted-pdf

Get an encrypted PDF-serialization of the submission. Requires a valid token with the READ_SUBMISSIONS claim.

```
$ curl 'https://nettskjema.no/api/v2/submissions/3868406/encrypted-pdf' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

Path parameters

Table 8. /api/v2/submissions/{id}/encrypted-pdf

Parameter	Description
+id+	The ID of the submission

Response

Ascii armored PGP-encrypted PDF (plain text). Ref. RFC4880 *OpenPGP Message Format* section 6

<https://tools.ietf.org/html/rfc4880#section-6.6>

GET /submissions/{submissionId}/encrypted-attachments/

List all encrypted attachments for a submission. Requires a valid token with the READ_SUBMISSIONS claim.

```
$ curl 'https://nettskjema.no/api/v2/submissions/3868411/encrypted-attachments' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

Path parameters

Table 9. /api/v2/submissions/{submissionId}/encrypted-attachments

Parameter	Description
+submissionId+	The ID of the submission

The response fields

Path	Type	Description
------	------	-------------

Path	Type	Description
+[]+	+Array+	List of encrypted attachment IDs

GET /submissions/{submissionId}/encrypted-attachments/{encryptedAttachmentId}

Get the encrypted attachment. Requires a valid token with the READ_SUBMISSIONS claim.

```
$ curl 'https://nettskjema.no/api/v2/submissions/3868410/encrypted-attachments/4502' -i -X GET \
-H 'Authorization: Bearer TOKEN'
```

BASH

Path parameters

Table 10. /api/v2/submissions/{submissionId}/encrypted-attachments/{encryptedAttachmentId}

Parameter	Description
+submissionId+	The ID of the submission
+encryptedAttachmentId+	The ID of the encrypted attachment

Response

Ascii armored PGP-encrypted attachment (plain text). Ref. RFC4880 *OpenPGP Message Format* section 6

<https://tools.ietf.org/html/rfc4880#section-6.6>

DELETE /submissions/{submissionId}

Delete a submission. Requires a valid token with the DELETE_SUBMISSIONS claim

```
$ curl 'https://nettskjema.no/api/v2/submissions/3868409' -i -X DELETE \
-H 'Authorization: Bearer TOKEN'
```

BASH

Path parameters

Table 11. /api/v2/submissions/{id}

Parameter	Description
+id+	The ID of the submission

On successful deletion, the API returns 204 NO CONTENT

Reference Data

Some fields have restrictions on the values that can be set. A list of those fields, and their current legal values can be found at the following endpoint:

```
$ curl 'https://nettskjema.no/api/v2/reference-data/' -i -X GET \  
  -H 'Content-Type: application/json; charset=UTF-8'
```

BASH

Path	Type	Description
+deliveryDestination+	+Object+	Valid delivery destinations
+respondentGroup+	+Object+	Valid respondent groups

Last updated 2019-09-02 10:36:50 +0200