



Getting measurements from Efento Cloud through API

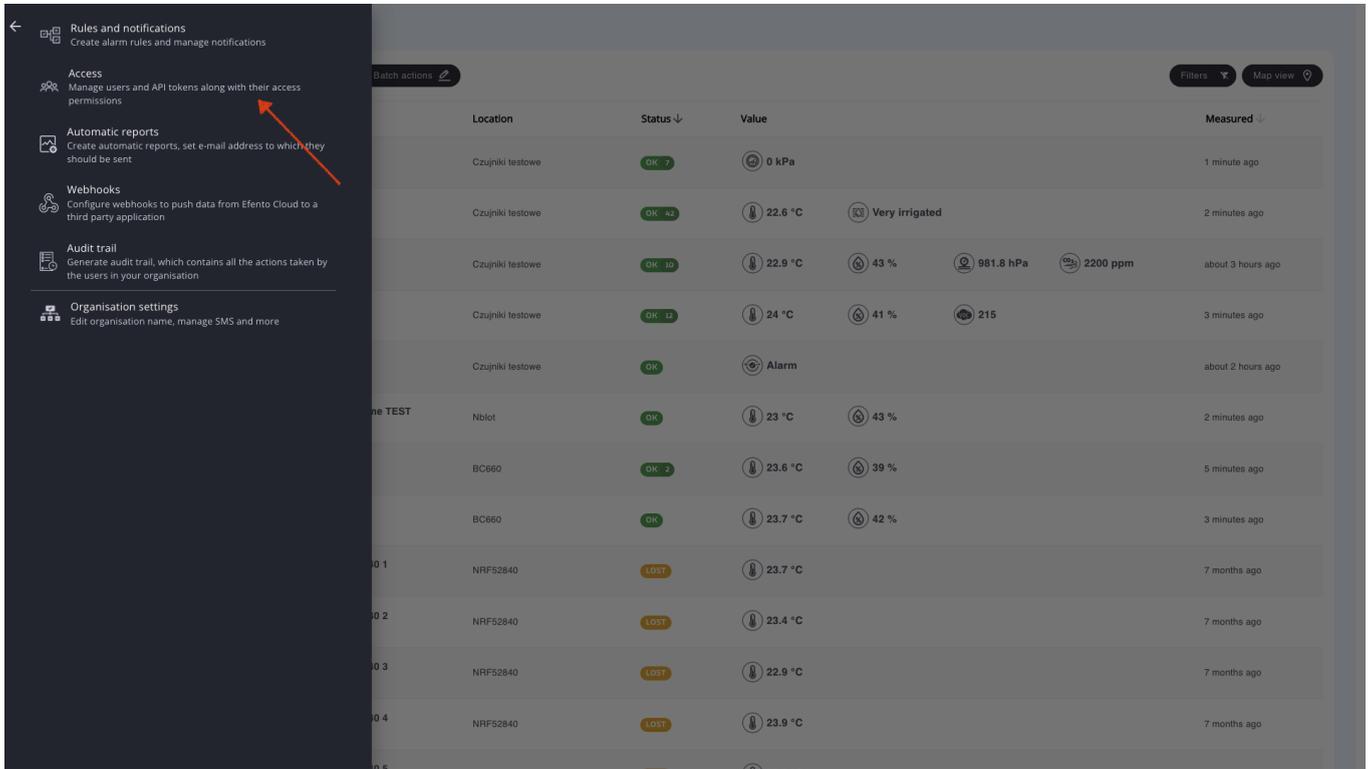
User manual

V 1.1

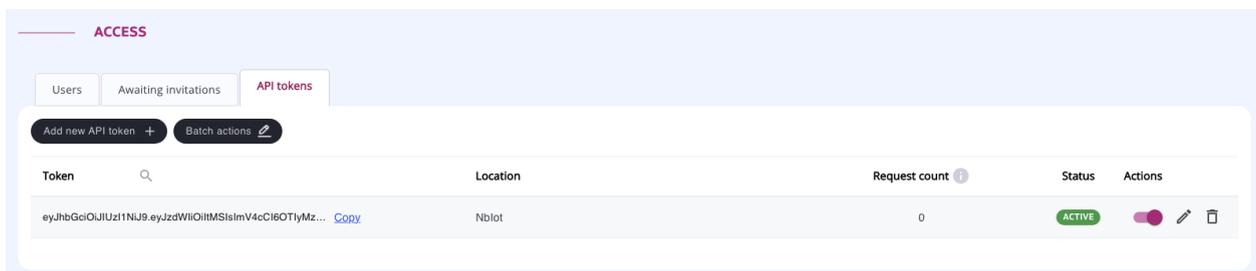
25.04.2023

Create an API token in Efento Cloud

API tokens are used to allow third party applications to communicate with Efento Cloud in order to read the data. API tokens provide read only access (get the measurements, get the alerts). In order to create a new API token select the settings icon (gear) and then *Access* from the menu on the left and click on the *API tokens* tab.



Click the *Add API token* button and select the location, to which the API token will provide access. Once the API token is created, its value will be visible on the list in the *API token* tab. Click on the Copy to copy the API token. API token will be used to authenticate the requests sent by your application to Efento Cloud.



If you want to change the location to which the API token has access click on the edit (pencil) button. To remove the API token, click on the delete (wastebin) button. To disable the API token (revoke the access), switch off the toggle in the *Actions* column.

Get lists of organisations

Check the IDs of the organisations, to which you have access, by sending the following request to Efento API:

Method: GET

Endpoint: <https://cloud.efento.io/api/v2/organizations>

Headers:

Authorization: *API token* (e.g. "adsFcdc34rf...")

In the response from Efento API, you will receive JSON that contains the list of all the organisations to which you have access along with their IDs and names:

```
{
  "totalCount": 1,
  "organizations": [
    {
      "id": 2881,
      "name": "Organisation 1",
      "createdAt": "2022-05-25 11:09:27",
      "updatedAt": "2022-05-25 11:09:27",
      "token": "hf04gb0e-bsd3-440c-9fb9-ad0daad420e0",
      "smsSent": 0,
      "smsLeft": 0,
      "licensesLeft": 0,
      "measurementPointsCount": 1
    },
  ]
}
```

You will need the ID of the organisation in the next request (`"id": 2881`).

Get list of all locations in your organisation

Sensors in organisations are grouped by locations. To receive the list of all locations in your organisation use the following request:

Method: GET

Endpoint: <https://cloud.efento.io/api/v2/locations?organization-id=ID-OF-YOUR-ORGANISATION> (e.g. <https://cloud.efento.io/api/v2/locations?organization-id=2881>)

Headers:

Authorization: *API token* (e.g. "adsFcdc34rf...")

In the response from Efento API, you will receive JSON that contains the list of all the locations to which you have access along with their IDs and names:

```
{
  "locations": [
    {
      "id": 5655,
      "name": "TOP",
      "organizationId": 2881,
      "createdAt": "2022-05-25 11:09:27",
      "parentId": 0
    }
  ],
  "totalCount": 1
}
```

You will need the ID of the location in the next request ("id": 5655).

Get list of the measurement points with their most recent measurements

To receive the list of all measurement points in the selected location use the following request:

Method: GET

Endpoint: <https://cloud.efento.io/api/v2/measurement-points?location-ids=ID-OF-THE-LOCATION> (e.g. <https://cloud.efento.io/api/v2/measurement-points?location-ids=5655>)

Headers:

Authorization: *API token* (e.g. "adsFcdc34rf...")

IMPORTANT! By default, the API returns the first 20 measurement points assigned to the organisation. If your organisation contains more than 20 measurement points, you need to use pagination to retrieve the information about all the devices.

<https://cloud.efento.io/api/v2/measurement-points?location-ids=ID-OF-THE-LOCATION&limit=20&offset=0> (e.g. <https://cloud.efento.io/api/v2/measurement-points?location-ids=5655&limit=20&offset=0>)

Limit - number of the measurement points you want to retrieve (min. 20, max.100)

offset - offset used to shift the measurement points retrieved by the request (e.g. to retrieve first 100 measurement points use "...&limit=100&offset=0", to retrieve second 100 measurement points use "...&limit=100&offset=100", to retrieve third 100 measurement points, use "...&limit=100&offset=200", etc.)

In the response from Efento API, you will receive JSON that contains the list of all the measurement points assigned to the selected location along with their IDs and names and the value of the most recent measurement:

```
{
  "measurementPoints": [
    {
      "id": 989330,
      "locationId": 5655,
      "createdAt": "2022-05-25 12:17:22",
      "name": "40EBEC",
      "unconfirmedAlertsCount": 358,
      "activeAlertsCount": 0,
      "status": "OPERATIONAL",
      "measurements": {
        "measuredAt": "2022-06-15 12:15:00",
        "period": 5,
        "channels": [
          {
            "number": 1,
            "name": "40EBEC",
            "type": "ALARM",
            "value": 0,
            "status": "OK"
          }
        ]
      }
    },
    {
      "device": {
        "id": 1128025,
        "serialNumber": "282C0240EBEC",
        "powerStatus": "BATTERY_OK",
        "signal": 37,
        "nextCommunicationAt": "2022-06-15 13:21:03"
      }
    }
  ],
  "totalCount": 1
}
```

You will need the ID of the measurement point for the next request ("`id`": 989330)

Get measurements from the selected time period

To receive the the measurement from the selected time period use the following request:

Method: GET

Endpoint: `https://cloud.efento.io/api/v2/measurement-points/ID-OF-THE-MEASUREMENT-POINT/measurements?from=DATE-OF-THE-FIRST-MEASUREMENT-IN-UTC&to=DATE-OF-THE-LAST-MEASUREMENT-IN-UTC` (e.g.

`https://cloud.efento.io/api/v2/measurement-points/989330/measurements?from=2022-06-14 22:00:00&to=2022-06-15 21:59:59`)

Headers:

Authorization: *API token* (e.g. "adsFc34f...")

In the response from Efento API, you will receive JSON that contains the list of all the measurements taken in the selected time period.