Connection establishment guide for Värdefulla Datamängder

API that delivers high-value datasets

Version: 1.01

Table of contents

1 Revision history

Version	Date	Description	Responsible
1.0	2024-10-28	First version of the connection establishement guide created.	Bolagsverket
1.01	2025-02-10	Information about "scopes" are updated.	Bolagsverket

2 Summary

- Access token URL invoke (production):
  https://portal.api.bolagsverket.se/oauth2/token
- Access token URL revoke (production):
  https://portal.api.bolagsverket.se/oauth2/revoke
- Access token URL invoke (test):
  https://portal-accept2.api.bolagsverket.se/oauth2/token
- Access token URL revoke (test):
  https://portal-accept2.api.bolagsverket.se/oauth2/revoke
- Header prefix: Bearer
- Authentication method (grant type): Client Credentials
- Authorization to call the API: Bearer Auth Header
- Scopes: vardefulla-datamangder:read & vardefulla-datamangder:ping
- DevPortal URL (production):
  https://portal.api.bolagsverket.se/devportal/apis
- Request URL endpoint organisationer (production):
  https://gw.api.bolagsverket.se/vardefulla-datamangder/v1/organisationer
- Request URL endpoint dokumentlista (production):
  https://gw.api.bolagsverket.se/vardefulla-datamangder/v1/dokumentlista
- Request URL endpoint dokument (production):
  https://gw.api.bolagsverket.se/vardefulla-
  datamangder/v1/dokument/{dokumentId}
- Request URL endpoint is alive (production):
  https://gw.api.bolagsverket.se/vardefulla-datamangder/v1/isalive
- DevPortal URL (test):
  https://portal-accept2.api.bolagsverket.se/devportal/apis
- Request URL endpoint organisationer (test):
  https://gw-accept2.api.bolagsverket.se/vardefulla-
  datamangder/v1/organisationer
- Request URL endpoint document list (test):
  https://gw-accept2.api.bolagsverket.se/vardefulla-
  datamangder/v1/dokumentlista
- Request URL endpoint document (test):
  https://gw-accept2.api.bolagsverket.se/vardefulla-
  datamangder/v1/dokument/{dokumentId}
- Request URL endpoint is alive (test):
  https://gw-accept2.api.bolagsverket.se/vardefulla-datamangder/v1/isalive

3 Introduction

Connecting to the REST API that Värdefulla Datamängder offers requires the user to be given access to the service in Bolagsverkets environment and that the user authenticate themselves using a so called "access token" via OAuth 2.0.

This document aims to outline the information a user needs to establish a connection to the API Värdefulla Datamängder in the test environment (called 'accept2') and the production environment.

4 OpenAPI specification

A complete specification for the API is available in the OpenAPI format. Follow the steps below to download it:

- Navigate to Bolagsverkets WSO2 DevPortal site:
  - https://portal.api.bolagsverket.se/devportal/apis
- Click on API "Värdefulla Datamängder".
- If you prefer a Swagger file:
  - Click on "Download Swagger" down to the right, below heading "Source".
- If you prefer a Postman Collection:
  - Click on "API Specification" in the left hand menu, and then on "POSTMAN COLLECTION" below paragraph "Gateway".
- Be advised that a Swagger file can be used with different tools to generate client side code.

5 Access token

The API is published on Bolagsverkets API portal, which is based on WSO2 API Manager. This solution utilizes access tokes in the JWT format for authentication.

To generate an access token a "Client Credentials" flow is used according to OAuth 2.0 where the user is authenticating using "client ID" and "client secret". Values for "client ID" and "client secret" are delivered to the user via email as an encrypted zip file when access is given to the user in Bolagsverkets environment. The password is sent separately in an SMS.

The validity period for an access token is limited. The client will have to generate a new one when, or before it expires. Furthermore, the API resources are also protected by "scopes" which must be declared in the request when fetching a token. If they are not present in the token, subsequent calls to the APIs resources using that token will fail.

URL to fetch a token (produktion):
POST to https://portal.api.bolagsverket.se/oauth2/token
URL to fetch a token (test):
POST to https://portal-accept2.api.bolagsverket.se/oauth2/token

5.1 Generate access token from application

A typical approach to generating and using a token involves the following steps:

1. Generate an access token by sending a http POST request to https://portal.api.bolagsverket.se/oauth2/token (production).
   The request requires a header "Content-Type" with value "application/x-www-form-urlencoded".
   Furthermore the "grant_type", "client_id", "client_secret" and "scope" must be included in the body accordingly:
   "grant_type=client_credentials&client_id=<Client ID>&client_secret=<Client Secret>&scope=vardefulla-datamangder:read vardefulla-datamangder:ping".

The values in the angle brackets should be replaces with the users credentials. Note that in the body above we are also retrieving both available scopes in a single request.

See chapter "Examples" below for cURL examples.

2. The access token you get in the response has a validity period. See value "expires_in" in the JSON response. That value tells us how many seconds the token is valid.

3. Make a request to the API and supply a header named "Authorization". Its value must be "Bearer <credentials>" where "<credentials>" is replaced by the "access_token" value received in the response in step 2.

4. When the period of validity for the token is close to coming to an end you go back to step 1 and generate a new token.

If you wish to revoke an access token before it has expired, so that it cannot be used for further requests, you can send an http POST request to:

URL to revoke token (production):
https://portal.api.bolagsverket.se/oauth2/revoke
URL to revoke token (test):
https://portal-accept2.api.bolagsverket.se/oauth2/revoke

This request also has to be made using the "Client Credentials" flow, just as in step 1 above. Additionally, the token value itself must be sent in the body in the request. See chapter "Examples" below for a cURL example.

6 URLs for API reaources

The following URLs are exposed as resources in the API. Valid scopes are "vardefulla-datamangder:ping" for the "/isalive" resource and "vardefulla-datamangder:read" for the other resources. Refer to the OpenAPI specification for valid JSON payloads to the POST resources.

To check if the API is responding send an http GET request to:
Production: https://gw.api.bolagsverket.se/vardefulla-datamangder/v1/isalive
Test: https://gw-accept2.api.bolagsverket.se/vardefulla-datamangder/v1/isalive

To retrieve information about and organisation send an http POST request to:
Production: https://gw.api.bolagsverket.se/vardefulla-datamangder/v1/organisationer
Test: https://gw-accept2.api.bolagsverket.se/vardefulla-datamangder/v1/organisationer

To retrieve a document list for an organisation send an http POST request to:
Production: https://gw.api.bolagsverket.se/vardefulla-datamangder/v1/dokumentlista

Test: https://gw-accept2.api.bolagsverket.se/vardefulla-datamangder/v1/dokumentlista

To retrieve a document send an http GET request to ("dokumentid" is replaced by a document identity retrieved from the response from /dokumentlista):
Production: https://gw.api.bolagsverket.se/vardefulla-datamangder/v1/dokument/{dokumentId}
Test: https://gw-accept2.api.bolagsverket.se/vardefulla-datamangder/v1/dokument/{dokumentId}

6.1 Approved test data in the test environment

The test environment imposes restrictions on the company registration numbers that can be used in requests for organisation and document lists. If another number is used, a response will be returned listing which company registration numbers are allowed for the test environment.

The allowed numbers and their expected responses are described in the excel document "Testdata API Värdefulla datamängder".

7 Examples

In our examples, we are using cURL requests exported from the tool "Insomnia". The URL is set to test environment "accept2".

7.1 Generate an access token

Request to test environment:

```
curl --request POST \
  --url https://portal-accept2.api.bolagsverket.se/oauth2/token \
  --header 'Content-Type: application/x-www-form-urlencoded' \
  --data grant_type=client_credentials \
  --data client_id=myClientID \
  --data client_secret=myClientSecret \
  --data scope=vardefulla-datamangder:read vardefulla-datamangder:ping
```

Response:

```
{
  "access_token": "valueOnGeneratedAccessToken",
  "scope": "vardefulla-datamangder:read vardefulla-datamangder:ping",
  "token_type": "Bearer",
  "expires_in": 3600
}
```

7.2 Revoke an access token

Request to test environment:

```
curl --request POST \
  --url https://portal-accept2.api.bolagsverket.se/oauth2/revoke \
  --header 'Content-Type: application/x-www-form-urlencoded' \
  --data grant_type=client_credentials \
  --data client_id=myClientID \
  --data client_secret=myClientSecret \
  --data token= valueOnGeneratedAccessToken
```

Response:

```
HTTP status code 200 is returned.
```

7.3 Request resource "isalive"

Request to test environment:

```
curl --request GET \
  --url https://gw-accept2.api.bolagsverket.se/vardefulla-datamangder/v1/isalive \
  --header 'Authorization: Bearer valueOnGeneratedAccessTokenWithScopePing' \
  --header 'accept: */*'
```

Svar:

```
HTTP status code 200 is returned.
```