MARGINAL E

USER GUIDE



OPEN BANKING DEVELOPER PORTAL

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1. INTRODUCTION TO MARGINALEN BANK PSD2 API SOLUTION

Marginalen Bank PSD2 API is a solution compliant with the requirements of the Revised Payment Services Directive (PSD2). It enables access to accounts (XS2A) to third parties, using strict rules and best practices for the security of these interactions.

For consumer accounts the solution consists of a platform for going beyond compliance, where banks can expose other areas of banking business to the outside world, in order to be competitive in the fast changing market, paving the way for partial or complete digital transformation. In order to create solutions towards our corporate accounts we provide access through the clients regular interface.

1.1 OPEN BANKING DEVELOPER PORTAL

The Open Banking Developer Portal is intended for third party providers, TPPs, that want to register with Marginalen Bank. This a separate application and the TPPs can create their own account and register their applications with Marginalen Bank. The registration of an application generates a unique API key and security certificate per application. There is only one API key per application.

Additionally, there is a Blueprints page on which the user can take a quick look of the API Documentation. The Open Banking Developer Portal interface is located at https://developer.marginalen.se/

2. GETTING STARTED WITH OPEN BANKING DEVELOPER PORTAL

The Open Banking Developer Portal landing page presents you with a welcoming message and a navigation bar for easy access to what the portal offers.

2.1 CREATING YOUR DEVELOPER PORTAL ACCOUNT

You can create an account either by clicking the Sign Up button in the navigation bar or by clicking the Sign Up & Get Started button. This navigates you to Build Your Profile form where you will need to enter the following information:

- Username
- Email
- Confirm email
- Password, and
- Confirm password

All these fields are mandatory for registration. Upon successful registration and verification of your account you can add some additional personal information on the User Profile page (section 3.1).

2.2 VERIFYING YOUR TPP ACCOUNT

Clicking the Register button in the registration process, lands you on the Open Banking Developer Portal as unverified user. To use the functionalities the Open Banking Developer Portal offers you as a user, you must first verify the email address you provided in the registration process.

2.2.1 CHANGE YOUR EMAIL SETTINGS

If you want to change the email address used in the registration process, then on the Email verification page, do the following:

- · Click the "change your email settings" link.
- · In the input field enter the new email address you want to use for the Developer Portal.
- · Click the Save button.
- · Click the Resend verification mail link.

Now the mail will be sent to the new email address you provided. To verify the account with the new email address, click the link that was sent on the new email address you provided.

2.3 CHANGE PASSWORD

Once you are logged in and you want to change your current password, simply click on your profile name in the top right corner, and then the Change password button. This will redirect you to a form where you have to enter your old password, new password, and confirm the new password. Once you enter these values, click the Change Password button and this will redirect you to your User Profile page.

2.4 FORGET YOUR PASSWORD

In case you forget your password, you can click on the "Forgot your password" link on the Login form. Clicking this link opens a form where you need to type in your email address, and then click the Reset password button. This action will send you an email with a link on the email address you provided. Clicking the link opens a form for new password.

Enter the new password and confirm it, and then click the Reset button.

2.5 LOGOUT

If you want to log out of Open Banking Developer Portal, you need to do the following:

- In the top right corner, click on your profile name.
- · Click the Logout button.

3. THE OPEN BANKING DEVELOPER INTERFACE

In order to use the Portal's functionalities, you have to be registered and verified. Unregistered user can only access to the Blueprints, on the landing page by clicking on the API Blueprints button.

3.1 USER PROFILE

Completion of registration and verification of your account lands you to this page.

This page contains personal information given during the registration process: username and email, which cannot be edited (read-only).

Clicking the 'Delete this user' button and then the 'Delete' button on the confirmation dialog form, deletes all data for the TPP stored at Marginalen bank.

If you are currently located on another page, you can access this page by either clicking User Profile on the sidebar menu, or by clicking on your username in the top right corner, and then clicking the Profile button.

3.2 API KEY

3.2.1 GENERATING API KEY AND SANDBOX

This is the form you will be using for registering your application with Marginalen Bank. To use the PSD2 exposed APIs, you should register your application with Marginalen Bank, entering the following information:

- Application name
- Return URL
- Service Types

Clicking the Generate API Key button will open a pop-up window with your Client Secret. This you will need for generating an access token which is used for authorization. Every API call requires authorization access token. Successful generation of an API Key displays a form just below, for generating a Sandbox.

Enter SSNs and Names for the sandbox which you will need for testing the APIs later.

You can use the site https://fejk.se/ to generate test SSNs (i.e. PSUs).

After you have done this, click the Generate Sandbox button. If the sandbox generation is complete you will see the Reset Sandbox and Delete Sandbox buttons.

Reset Sandbox button sets a default balance in the accounts of the sandbox for both PSUs.

Delete Sandbox button deletes the Sandbox, so that you can create a new one.

On successful API Key generation a certificate is also generated which you will use it in Sandbox environment only. You can download or reset the certificate on the Download certificate and Reset certificate buttons, respectively. The certificate is needed for signing requests. This is in detail explained in the API Documentation Examples document.

3.2.2 GENERATING ACCESS TOKEN

For generating an access token you will need a client id, i.e. the API Key value, and the client secret that was generated on generating API key.

The token is requested by calling

curl -X POST \

https://api-sandbox.openbanking.marginalen.se/connect/token \

-H 'Content-Type: application/x-www-form-urlencoded' \

-d

'client_id=<your_client_id>&grant_type=client_credentials&client_secret=<your_client_secret>&sco pe=aisp%20pisp%20piisp'

3.3 BLUEPRINTS

Blueprints page provides detailed information about the APIs that are currently supported by Marginalen Bank. Marginalen Bank currently provides the following API documentation:

- Consumer Accounts API
- Consumer Card accounts API
- Consumer Consents API
- Consumer Payments API
- Consumer Fallback Interface & Corporate Account Access

To view detailed information about the APIs simply click the dropdown menu and select the desired API. Clicking the Download Yaml button downloads the selected API in .yaml format.