

Frequently Asked Questions

Created:

Customer Service – TPP Support

Table of Contents

1	PSD2 Pre-StepAuthorizationAPI	3
1.1	Unable to create Access Token	3
1.2	Missing PSU demo data	5
2	XS2A-NextGenPSD2BerlinGroup	5
2.1	Unable to authorize consent or payment	5
2.2	Error message ACCESS_EXCEEDED.....	6
3	Further possible errors.....	6
3.1	TPP Management – No TPP Certificate	6
3.2	API Endpoint not responding	7

1 PSD2 Pre-StepAuthorizationAPI

This section answers questions regarding the Pre-StepAuthorizationAPI.

1.1 Unable to create Access Token

Problem:

Calling the following endpoint of the Pre-StepAuthorizationAPI fails:

- psd2-auth/v1/auth/token

Solution:

To successfully receive data using any of the BerlinGroup API calls an access token is needed. It is created using the PSU's credentials and thus further verifies that the PSU has allowed the TPP to access their accounts.

Further it is necessary to communicate all API requests via SSL using the TPP Certificate as your public key paired with your private key.

Note: These examples are taken out of Postman tests from QA, thus you might not need a Postman Token or a different User-Agent.

Step 1: Initial PSD2 Call

```
curl -X POST \
https://api.dkb.de/psd2/v1/consents \
-H 'Accept: application/json' \
-H 'Accept-Encoding: gzip, deflate' \
-H 'Cache-Control: no-cache' \
-H 'Connection: keep-alive' \
-H 'Content-Length: 247' \
-H 'Content-Type: application/json' \
-H 'Host: api.dkb.de' \
-H 'PSU-IP-Address: 192.168.178.1' \
-H 'Postman-Token: 87XXX,52XXX' \
-H 'User-Agent: PostmanRuntime/7.15.2' \
-H 'X-Request-ID: 47XXX' \
-H 'cache-control: no-cache' \
-d '{
"access": {
"allPsd2": "allAccounts"
},
"recurringIndicator": false,
"validUntil": "2020-12-12",
"frequencyPerDay": 4,
"combinedServiceIndicator": false
}'
```

Note that no authorization header is necessary at this point. This call is to generate the URL with which to generate the access token.

An initial call is necessary to create your TPP in the database, future interactions with the API can start directly with step 2.

Step 2: Generate OAuth Token / Login

```
curl -X POST \
https://api.dkb.de/pre-auth/psd2-auth/v1/auth/token \
-H 'Accept: application/json' \
-H 'Accept-Encoding: gzip, deflate' \
-H 'Accept-Language: en' \
-H 'Cache-Control: no-cache' \
-H 'Connection: keep-alive' \
-H 'Content-Length: 59' \
-H 'Content-Type: application/json' \
-H 'Host: api.dkb.de' \
-H 'Postman-Token: XXX' \
-H 'User-Agent: PostmanRuntime/7XXX' \
-H 'cache-control: no-cache' \
-d '{
"username": "un",
"password": "pw"
}'
```

These contain the PSU Credentials for the User you are logging in for.

Step3: Post a Consent

```
curl -X POST \
https://api.dkb.de/psd2/v1/consents \
-H 'Accept: application/json' \
-H 'Accept-Encoding: gzip, deflate' \
-H 'Cache-Control: no-cache' \
-H 'Connection: keep-alive' \
-H 'Content-Length: 247' \
-H 'Content-Type: application/json' \
-H 'Host: api.dkb.de' \
-H 'PSD2-AUTHORIZATION: Bearer eyXXX' \
-H 'PSU-IP-Address: 192.168.178.1' \
-H 'Postman-Token: 87XXX,52XXX' \
-H 'User-Agent: PostmanRuntime/7.15.2' \
-H 'X-Request-ID: 47XXX' \
-H 'cache-control: no-cache' \
-d '{
"access": {
"allPsd2": "allAccounts"
},
"recurringIndicator": false,
"validUntil": "2021-12-12",
"frequencyPerDay": 4,
"combinedServiceIndicator": false
}'
```

This is the bearer Token returned in Step2.

1.2 Missing PSU demo data

Problem:

The TPP was not provided demo data by the bank whose API they want to test and the TPP owns no accounts at this bank.

Solution:

Crealogix provides a Test Center including demo accounts and demo users for any TPP to test the API solution. This Test Center can be found at the following URL:

<https://preview.wso2-clx.crealogix-online.com/store/>

This Test Center behaves the same as any of our PSD2 API Solutions utilized by our clients, the difference is the backend that is attached to it. Testing against our Test Center allows our support team quicker access to log files and quick administration of the TPP Management as this environment lies in the responsibility of Crealogix.

Our experts have also provided documents regarding implementation and workflows, they can be found under each API in the Tab named **DOCUMENTATION**. For example:

<https://preview.wso2-clx.crealogix-online.com/store/apis/info?name=XS2A-NextGenPSD2BerlinGroup&version=1.3&provider=admin#tab2>

2 XS2A-NextGenPSD2BerlinGroup

This section answers questions regarding the XS2A-NextGenPSD2BerlinGroup API. The NextGenPSD2 Framework offers a modern, open, harmonized and interoperable set of Application Programming Interfaces (APIs) as the safest and most efficient way to provide data securely.

2.1 Unable to authorize consent or payment

Problem:

Calling the following endpoints of the Pre-StepAuthorizationAPI fails:

- /v1/consents/{consentId}/authorisations/
- /v1/{payment-service}/{payment-product}/{paymentId}/authorisations/

Solution:

In recurring cases this endpoint was provided without a request body: The endpoint requires no actual data in the body, but does require one nevertheless. An empty body should be provided as follows and cannot be NULL:

```
{
}
```

2.2 Error message ACCESS_EXCEEDED

Problem:

Calling the following endpoints of the Pre-StepAuthorizationAPI fails:

- /v1/accounts/{account-id}/balances
- /v1/accounts/{account-id}/transactions

The error message returned is **429 Too Many Requests** and the error code is **ACCESS_EXCEEDED**.

Solution:

When creating a consent, the parameter frequencyPerDay specifies how often the TPP can access the PSU account data without the PSU being involved. The counter is iterated when no PSU-IP-Address is provided in the header of the request. There are separate counters for retrieving balances and transactions. The maximum value this frequency can be set to is defined by the bank implementing the API, but can not be set to be lower than four (4).

3 Further possible errors

This section answers questions that are not specific to a certain API.

3.1 TPP Management – No TPP Certificate

Problem:

Registering as a TPP requires the upload of a TPP certificate, but no such file exists to be uploaded.

Solution:

In some cases, a TPP has no TPP certificate to upload. Access to the API and further to the bank backend is only possible with an uploaded TPP certificate as this defines the TPP roles (AIS, PIS, etc.) and proves a provider is a verified Third Party Provider (TPP). These certificates can be acquired by various national trust centers such as the BaFin in Germany.

3.2 API Endpoint not responding

Problem:

Calling one of the following endpoints does not return data:

- /v1/card-accounts
- /v1/card-accounts/{account-id}
- /v1/card-accounts/{account-id}/balances
- /v1/card-accounts/{account-id}/transactions
- /v1/signing-baskets
- /v1/signing-baskets/{basketId}
- /v1/signing-baskets/{basketId}/status
- /v1/signing-baskets/{basketId}/authorisations
- /v1/signing-baskets/{basketId}/authorisations/{authorisationId}
- /v1/accounts/{account-id}/transactions/{transactionId}

Solution:

When designing the product, these endpoints were discussed with the customers and removed from the current version of the product. These may be implemented in future version, but no comment can be made about when this would be possible as it is currently not in focus.

Specifically card accounts are currently not deemed mandatory for PSD2, this is in accordance to a decision from the EuGH made on 04.10.2018 (Case: C 191/17).