

The Sandbox SK Manual on the Registering into the Sandbox SK

Change log

Date	Version	Description
29.01.2020	1	First document version

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1. Error reporting

Reporting quarantined errors or calling them always takes place via the mailbox api@kb.cz. The e-mail sent must contain the following information, in case the required information is missing, it will not be possible to process the query or error.

PSD2 API: CZ, SK

Environment: Sandbox, Production

Whether it was called from FE Sandbox incl. the type and version of the browser used or, in the case of a BE call, the name and version of the program for the BE call

Request type

Date and time of the call

IP address

The error and its most accurate description, which can be supplemented with the appropriate screenshot

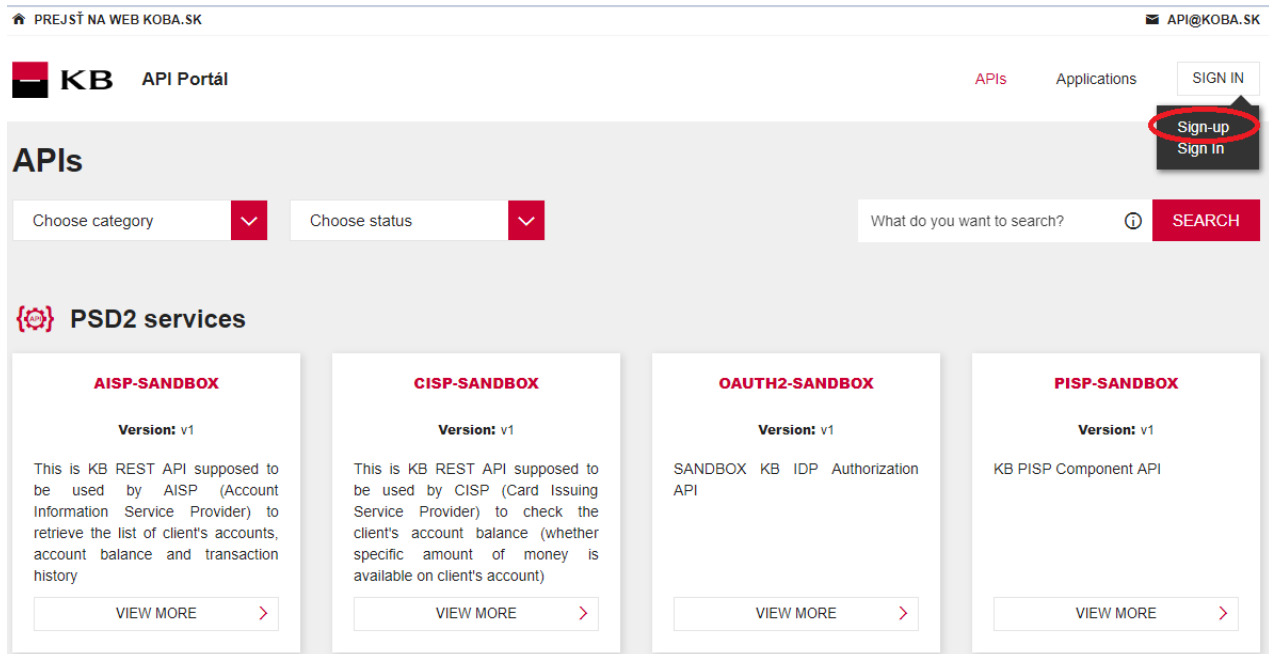
Without the above values, it is not possible to solve the reported error.

2. Access to the SandBox through the API Portal Console

1.1. **A licence issued by the SNB is not required for the KOBA API Sandbox; the below registration will suffice.**

1.2. **User registration / TPP for AISP service mock calling**

API portal homepage (<https://api.koba.sk/portal/?tenant=api.kb.sk>) contains an overview of PSD2 services available in the KB Sandbox. To use them, the user must register in the portal.



The screenshot displays the KB API Portal interface. At the top, there is a navigation bar with the KB logo, 'API Portál', and a 'SIGN IN' button. Below the navigation bar, the main content area is titled 'APIs'. It features a search bar with the placeholder text 'What do you want to search?' and a 'SEARCH' button. There are also two dropdown menus for 'Choose category' and 'Choose status'. Below the search bar, the 'PSD2 services' section is highlighted with a gear icon. This section contains four service cards: 'AISP-SANDBOX', 'CISP-SANDBOX', 'OAUTH2-SANDBOX', and 'PISP-SANDBOX'. Each card lists the service name, version (v1), a brief description of the service, and a 'VIEW MORE' button with a right-pointing arrow. A red circle highlights the 'Sign-up' and 'Sign In' options in the top right corner of the page.

1.3. Filling in all mandatory data and agreeing to terms of use

All mandatory fields must be filled in, terms of use agreed to, and the correct captcha entered during the registration process.

Mandatory fields "*"

Fields and validation:

First Name: fill in name incl. Diacritics

Surname: fill in the surname incl. Diacritics

Username / Email: special characters are not allowed in the domain

Password: Password must contain min. 8 and a maximum of 12 characters, must contain the numbers 0-9 as well as lowercase and capital letters, as well as special characters like! @ # \$% & Etc.

E-mail: maximum length is 31 characters

Organization name: fill in the name of your organization

ICO / LEI: fill in your ICO or LEI

Phone: enter the contact mobile phone number in international format eg + 420 / + 421 etc.

[< GO BACK](#)

Create An Account

Create your account for an access to KB API portal sandbox. For full access to our system you will need testing certificate which will be provided to you based on your request by our team. After creating the profile, you will receive confirmation e-mail with further information.

User Information

First Name *

Last Name *

Username / email *

Password *

Confirm password *

Company information

E-mail *

Country *

Organization Name *

ICO/LEI *

Contact Person *

Phone *

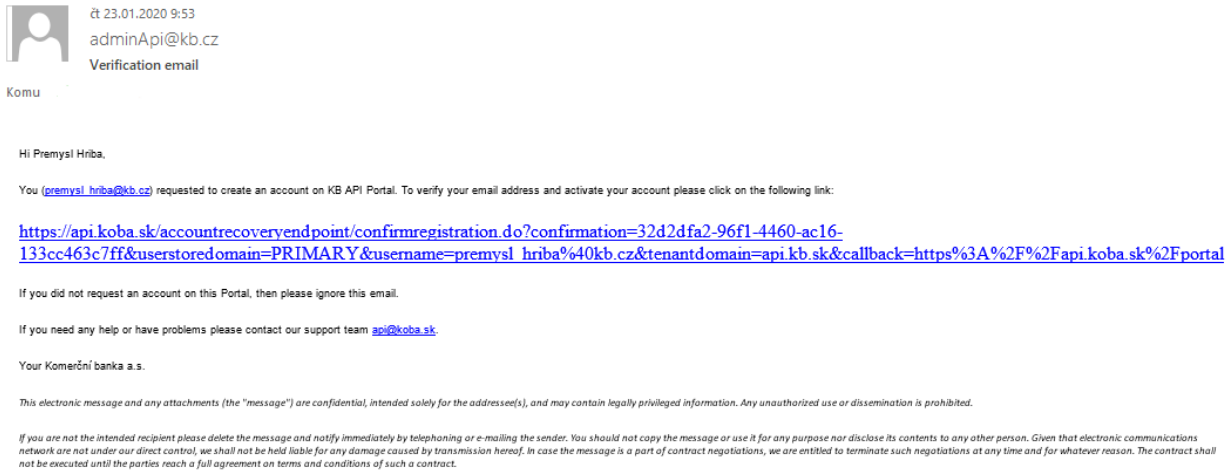
I accept, that the KB API Sandbox is only available for testing purposes of third parties. The KB API Sandbox provides a testing environment that is used to imitate the characteristics of a production environment and create simulated responses based on testing data. Komerční banka a.s. supports the Czech Open API Standard released by the Czech Banking Association. As the KB API Sandbox is only in the test version, Komerční banka a.s. reserves the right, at its sole discretion, to change, modify, add or remove testing data at any time.

Captcha

Re-type Captcha *

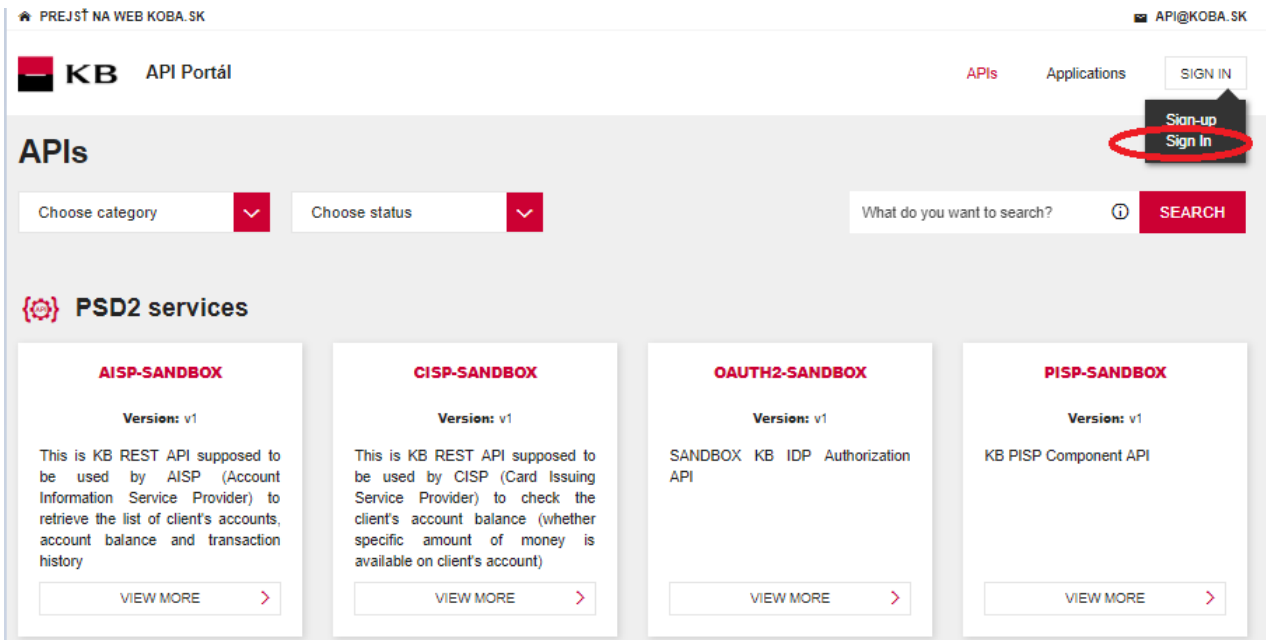
1.4. Receiving a confirmation email and activating the account via an embedded link

A confirmation email containing the activation link is sent at the email address entered during the registration process. You can complete the registration process and activate the portal account by clicking on the link.



1.5. Signing in the application portal (by clicking on Sign In)


You can sign in the portal by clicking on the button in the right upper corner of the screen.



1.6. Filling in your login information

The user fills in his/her name and password entered during the registration process.

[GO TO KB WEBSITE](#)
[API@KOBA.SK](#)

 **KB** - API Portal

[< GO BACK](#)

Sign in to your account


Remember me on this computer


[Forgot Password](#)

1.7. Entering the application menu

After signing in, the information about the user currently logged in is displayed in the right upper corner of the screen. By clicking on the “Applications” button in the upper part of the screen, the currently logged-in user can enter the menu in which all his/her applications are registered.

[PREJŠŤ NA WEB KOBA.SK](#)
[API@KOBA.SK](#)

 **KB** API Portál

[APIs](#)
Applications
 PREMYSL_HRIBA@KB.CZ@API.KB.SK

APIs

{@} PSD2 services

AISP-SANDBOX	CISP-SANDBOX	OAUTH2-SANDBOX	PISP-SANDBOX
<p>Version: v1</p> <p>This is KB REST API supposed to be used by AISP (Account Information Service Provider) to retrieve the list of client's accounts, account balance and transaction history</p> <p style="text-align: right;">VIEW MORE ></p>	<p>Version: v1</p> <p>This is KB REST API supposed to be used by CISP (Card Issuing Service Provider) to check the client's account balance (whether specific amount of money is available on client's account)</p> <p style="text-align: right;">VIEW MORE ></p>	<p>Version: v1</p> <p>SANDBOX KB IDP Authorization API</p> <p style="text-align: right;">VIEW MORE ></p>	<p>Version: v1</p> <p>KB PISP Component API</p> <p style="text-align: right;">VIEW MORE ></p>

1.8. Application menu

In this menu, the user can see all his/her applications. For the first time, applications must first be registered/added. More applications can be added using the “ADD APPLICATION” button and existing applications can be viewed, edited and/or deleted using the respective buttons (View, Edit, Delete).



View



Edit



Delete

PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

+ ADD APPLICATION

Applications

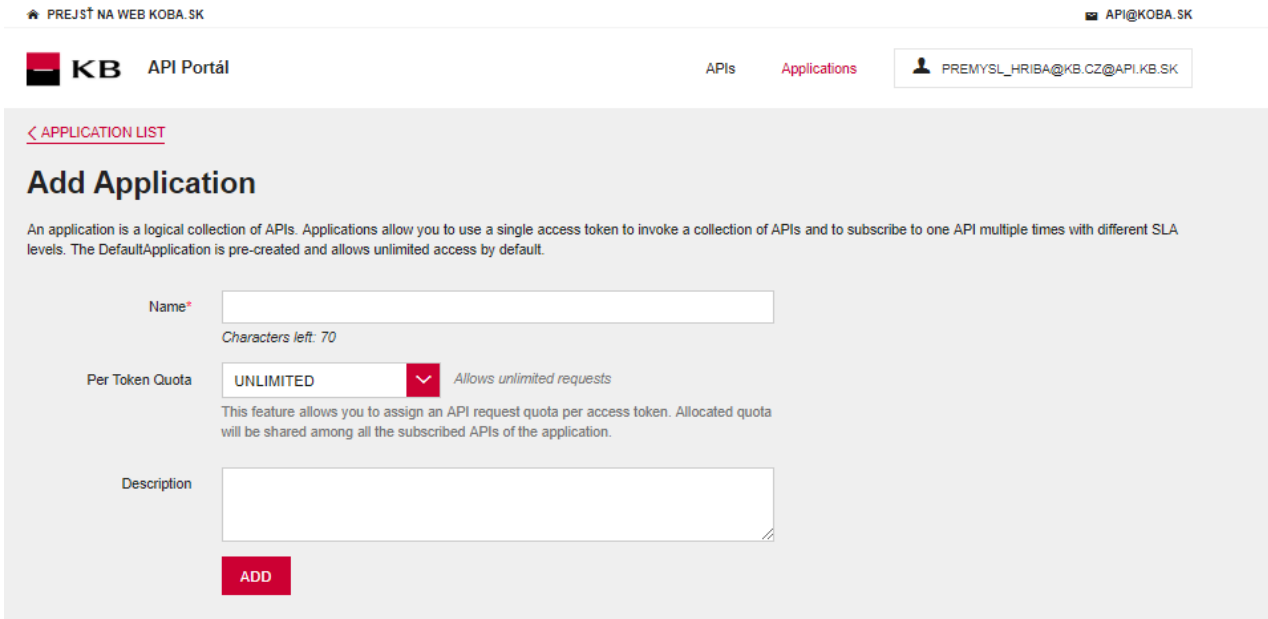
An application is a logical collection of APIs. Applications allow you to use a single access token to invoke a collection of APIs and to subscribe to one API multiple times with different SLA levels. The DefaultApplication is pre-created and allows unlimited access by default.

Name	Tier	Workflow Status	Subscriptions	Actions
DefaultApplication	Unlimited	ACTIVE	0	👁 ✎ 🗑

Show entries Showing 1 to 1 of 1 entries 1

1.9. Add Application

By clicking on the “ADD APPLICATION” button, the user can view a screen in which a new application can be created. Here, the user can enter the name of the new application into the “Name” mandatory field, select one of the options in the “Per Token Quotas” field, and enter the description of the new application into the “Description” field. The “Description” field needs not to be filled in. The default value of the “Per Token Quotas” field is “UNLIMITED”. If the user clicks on the “ADD” button without filling in the “Name” field, no application is created and the field is highlighted in red.



PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

[< APPLICATION LIST](#)

Add Application

An application is a logical collection of APIs. Applications allow you to use a single access token to invoke a collection of APIs and to subscribe to one API multiple times with different SLA levels. The DefaultApplication is pre-created and allows unlimited access by default.

Name*
Characters left: 70

Per Token Quota UNLIMITED ▼ Allows unlimited requests
This feature allows you to assign an API request quota per access token. Allocated quota will be shared among all the subscribed APIs of the application.

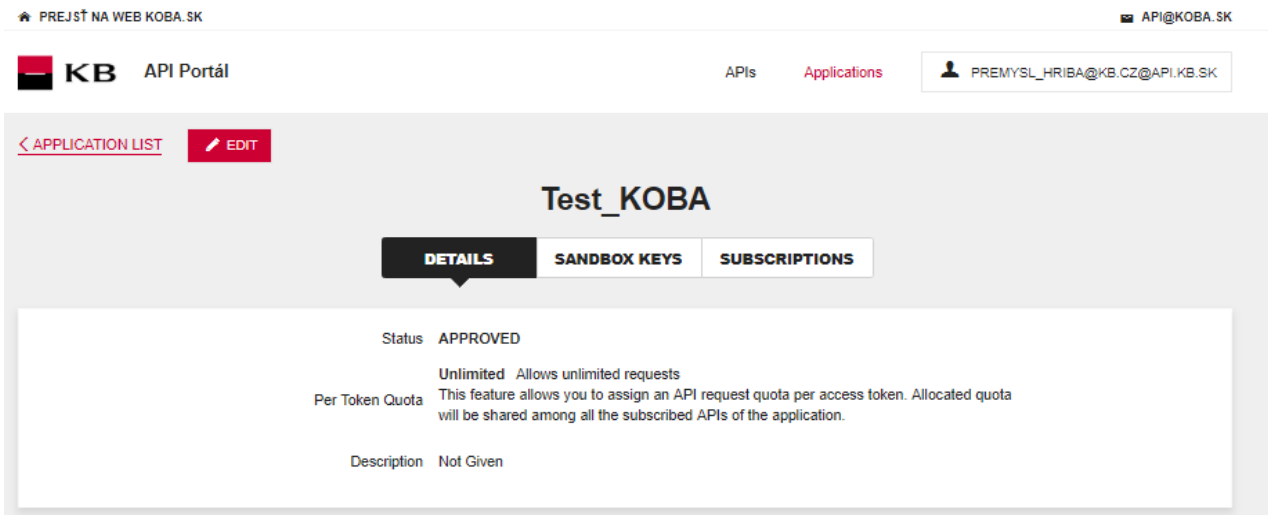
Description

ADD

1.10. View

If the “View” option is selected, the user can view the given application. The function consists of 3 main parts:

1. DETAILS – a brief description of the properties of the application, which were defined by its author or were later changed;
2. SANDBOX KEYS – see Chapter 1.12;
3. SUBSCRIPTION – see Chapter 1.11.



PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

[< APPLICATION LIST](#) EDIT

Test_KOBA

DETAILS
SANDBOX KEYS
SUBSCRIPTIONS

Status	APPROVED
Per Token Quota	Unlimited <small>Allows unlimited requests</small> <small>This feature allows you to assign an API request quota per access token. Allocated quota will be shared among all the subscribed APIs of the application.</small>
Description	Not Given

1.11. Subscriptions

A list of the APIs used by the given application. The subscription can be made through the API menu, after clicking on the specific API and deleted by clicking on the relevant “Delete/Dustbin” button.

How add API: [API Menu](#)

PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

[< APPLICATION LIST](#) EDIT

Test_KOBA

DETAILS
SANDBOX KEYS
SUBSCRIPTIONS

API Name	Subscription Tier	Status	Actions
CISP-Sandbox - v1 PUBLISHED	Unlimited	UNBLOCKED	🗑
AISP-Sandbox - v1 PUBLISHED	Unlimited	UNBLOCKED	🗑

Show entries | Showing 1 to 2 of 2 entries 1

1.12. Sandbox keys

AISP/PISP authentication tokens are generated here. The specific procedure is described in the Sandbox SK AIS and PIS manuals.

PREJSTĚ NA WEB KOBASK API@KOBASK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

< APPLICATION LIST EDIT

Test_KOBA

DETAILS **SANDBOX KEYS** SUBSCRIPTIONS

SHOW KEYS

Consumer Key [REDACTED] [COPY]

Consumer Secret [REDACTED] [COPY]

Grant Types

The application can use the following grant types to generate Access Tokens. Based on the application requirement, you can enable or disable grant types for this application.

- Refresh Token
- SAML2
- Implicit
- Password
- IWA-NTLM
- Client Credential
- Code

Callback URL

https://www.koba.sk

UPDATE

Generating Access Tokens

The following cURL command shows how to generate an access token using the Password Grant type.

```
curl -k -d "grant_type=password&username=Username&password=Password" \
-H "Authorization: Basic Base64(consumer-key:consumer-secret)" \
https://api.koba.sk/token
```

In a similar manner, you can generate an access token using the Client Credential grant type with the following cURL command.

```
curl -k -d "grant_type=client_credentials" \
-H "Authorization: Basic Base64(consumer-key:consumer-secret)" \
https://api.koba.sk/token
```

Generate a Test Access Token

Access Token [REDACTED] [COPY]

Above token has a validity period of 3600 seconds. If you want to regenerate this token, please select it's scopes and validity period.

aisp : aisp. 1
pisp : pisp.
SELECT. [UP]

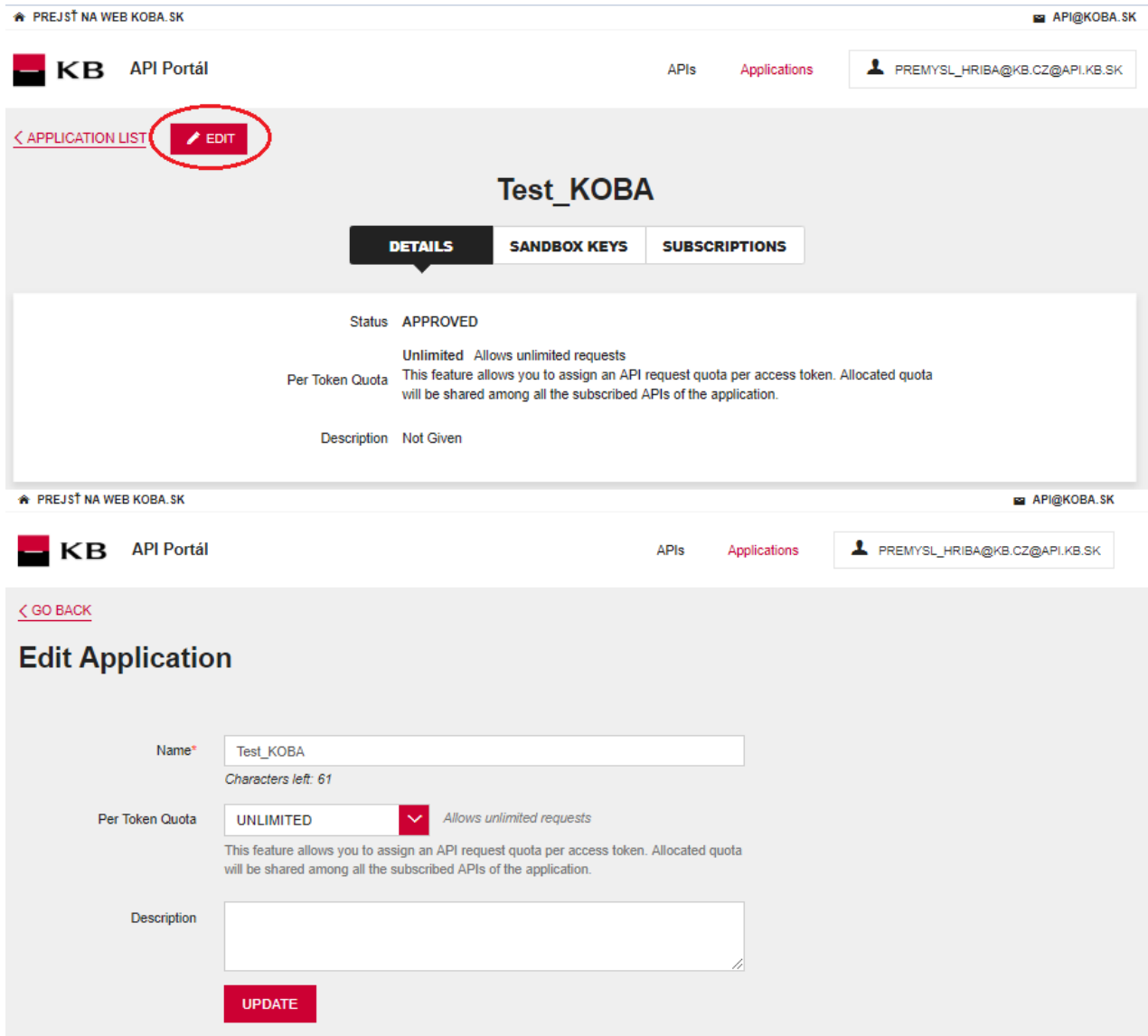
Validity period

3600 Seconds

REGENERATE 2

1.13. Edit

If the “Edit” option is selected, the user can view the same screen as for Add Application (above), but with values prefilled. The information contained herein can be updated and saved by clicking on the “UPDATE” button.



PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

[< APPLICATION LIST](#) EDIT

Test_KOBA

DETAILS
SANDBOX KEYS
SUBSCRIPTIONS

Status	APPROVED
Per Token Quota	<p>Unlimited Allows unlimited requests</p> <p>This feature allows you to assign an API request quota per access token. Allocated quota will be shared among all the subscribed APIs of the application.</p>
Description	Not Given

PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

[< GO BACK](#)

Edit Application

Name*

Characters left: 61

Per Token Quota UNLIMITED ▼ Allows unlimited requests

This feature allows you to assign an API request quota per access token. Allocated quota will be shared among all the subscribed APIs of the application.

Description

UPDATE

1.14. Delete

If the “Delete” option is selected, the user can see a message confirming the deletion of a given application (“Are you sure you want to remove the application “App_name” ?”) plus 2 buttons – “YES” and “NO”. If the “YES” option is selected, the application will be deleted and the previous screen with an overview of the applications will be displayed. The deleted application no longer appears in the list. If the user chooses the “NO” option, he/she returns to the previous screen containing the original list of applications.

[+ ADD APPLICATION](#)

Applications

An application is a logical collection of APIs. Applications allow you to use a single access token to invoke a collection of APIs and to subscribe to one API multiple times with different SLA levels. The DefaultApplication is pre-created and allows unlimited access by default.

Filter by ...

Name	Tier	Workflow Status	Subscriptions	Actions
DefaultApplication	Unlimited	ACTIVE	0	2
Test_KOBA	Unlimited	ACTIVE	2	

Show 10 entries Showing 1 to 2 of 2 entries

1[+ ADD AP](#)

Confirm Delete

✕

This application is subscribed to 2 APIs. Are you sure you want to remove the application "Test_KOBA"? This will cancel all the existing subscriptions and keys associated with the application.

Filter by

Name	Tier	Workflow Status	Subscriptions	Actions
DefaultApplication	Unlimited	ACTIVE	0	
Test_KOBA	Unlimited	ACTIVE	2	

Show 10 entries Showing 1 to 2 of 2 entries

1

1.15. API Menu

By clicking on “APIs” in the upper part of the screen, the currently logged-in user can enter the menu containing all APIs he/she is allowed to access.

PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

[+ ADD APPLICATION](#)

Applications

An application is a logical collection of APIs. Applications allow you to use a single access token to invoke a collection of APIs and to subscribe to one API multiple times with different SLA levels. The DefaultApplication is pre-created and allows unlimited access by default.

Filter by ...

Name	Tier	Workflow Status	Subscriptions	Actions
DefaultApplication	Unlimited	ACTIVE	0	View Edit Delete
Test_KOBA	Unlimited	ACTIVE	2	View Edit Delete

Show 10 entries Showing 1 to 2 of 2 entries 1

1.16. Selecting a specific API

The user can view the specific API by clicking on the “VIEW MORE” button.

PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

APIs

Choose category Choose status What do you want to search? [SEARCH](#)

PSD2 services

AISP-SANDBOX

Version: v1

This is KB REST API supposed to be used by AISP (Account Information Service Provider) to retrieve the list of client's accounts, account balance and transaction history

[VIEW MORE](#)

CISP-SANDBOX

Version: v1

This is KB REST API supposed to be used by CISP (Card Issuing Service Provider) to check the client's account balance (whether specific amount of money is available on client's account)

[VIEW MORE](#)

OAUTH2-SANDBOX

Version: v1

SANDBOX KB IDP Authorization API

[VIEW MORE](#)

PISP-SANDBOX

Version: v1

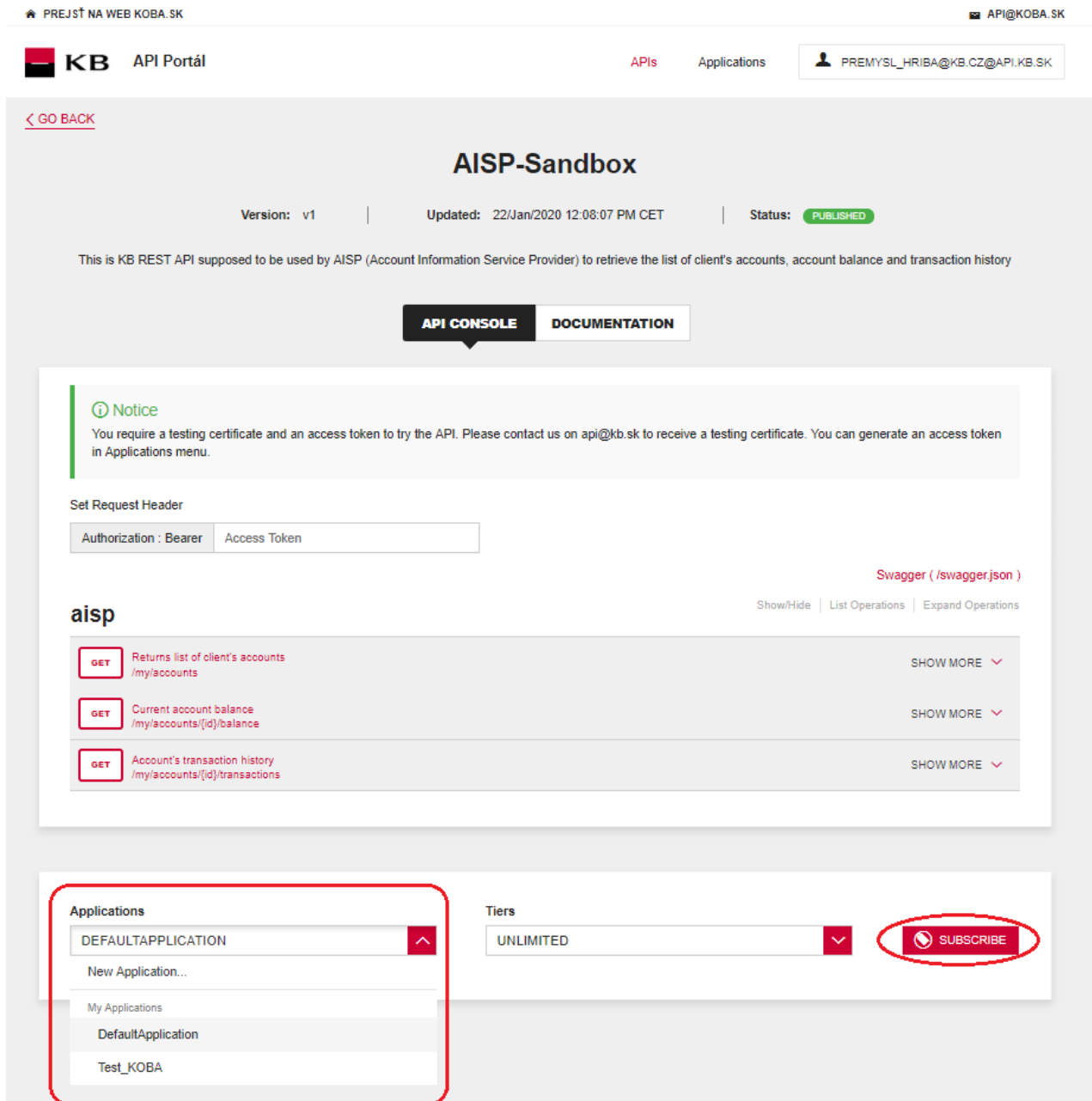
KB PISP Component API

[VIEW MORE](#)

1.17. Entering a specific API

- API CONSOLE – list of operations allowed by the specific API;
- DOCUMENTATION – all available documentation concerning the specific application.

The subscription of a selected API can be made here by clicking on the “SUBSCRIBE” button, so that the given applications can use the API’s functions (as long as the user is properly signed in).



PREJST NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

[< GO BACK](#)

AISP-Sandbox

Version: v1 | Updated: 22/Jan/2020 12:08:07 PM CET | Status: PUBLISHED

This is KB REST API supposed to be used by AISP (Account Information Service Provider) to retrieve the list of client's accounts, account balance and transaction history

API CONSOLE
DOCUMENTATION

i Notice

You require a testing certificate and an access token to try the API. Please contact us on api@kb.sk to receive a testing certificate. You can generate an access token in Applications menu.

Set Request Header

Authorization : Bearer Access Token

[Swagger \(/swagger.json \)](#)

aisp

[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	Returns list of client's accounts /my/accounts	SHOW MORE ▼
GET	Current account balance /my/accounts/{id}/balance	SHOW MORE ▼
GET	Account's transaction history /my/accounts/{id}/transactions	SHOW MORE ▼

Applications

DEFAULTAPPLICATION ▲

New Application...

My Applications

DefaultApplication

Test_KOBA

Tiers

UNLIMITED ▼

SUBSCRIBE

1.18. Subscribe

After an application has been selected and the “SUBSCRIBE” button clicked, a message confirming the successful API subscription is displayed. Subsequently, the user can either stay on the screen where he/she was before making the subscription, or click on the “VIEW SUBSCRIPTIONS” button to move to the VIEW/SUBSCRIPTIONS section of the application for which the given API has just been subscribed.

PREJŠŤ NA WEB KOBA.SK API@KOBA.SK

KB API Portál APIs Applications PREMYSL_HRIBA@KB.CZ@API.KB.SK

Subscription Successful ✕

You have successfully subscribed to the API.

VIEW SUBSCRIPTIONS STAY ON THIS PAGE

API CONSOLE DOCUMENTATION

i Notice

You require a testing certificate and an access token to try the API. Please contact us on api@kb.sk to receive a testing certificate. You can generate an access token in Applications menu.

Set Request Header

Authorization : Bearer Access Token

[Swagger \(/swagger.json \)](#)

aisp

[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	Returns list of client's accounts <code>/my/accounts</code>	SHOW MORE ▼
GET	Current account balance <code>/my/accounts/{id}/balance</code>	SHOW MORE ▼
GET	Account's transaction history <code>/my/accounts/{id}/transactions</code>	SHOW MORE ▼

Applications

Tiers

SUBSCRIBE

TEST_KOBA ▼

UNLIMITED ▼

1.19. PSD2 Glossary – selected terms

API – Application Programming Interface

REST – (Representational State Transfer) is an API architecture, which allows for accessing the data and execute CRUD operations. It usually uses the HTTP/HTTPS protocol. REST is stateless, which makes communication with the API much easier and allows for the parallel processing of its contents. At the same time, it can be easily used with HTTP, which is a widely used protocol. Last not least, it provides a standard of a kind so we can easily use an API created by somebody else or offer our API to a number of other users. The REST interface supports uniform and easy access to resources. Such resources can be data or application states (as long as they can be described using specific data). All resources have their URI identifier. REST defines four basic methods of access (GET, PUT, POST, and DELETE). The HTTP Verbs have the following meaning:

- GET – obtaining the data
- POST – creating
- PUT – editing (like SET, it edits an entire resource)
- DELETE – deleting
- PATCH – partial editing

REST API – Distributed environment interface oriented on data, not on calling procedures like RPC (XML-RPC) or SOAP. Web services define remote procedures and their calling protocol; REST decides how the data should be approached. REST API uses HTTP methods, such as @GET, @PUT, @POST, @DELETE, @PATCH.

TPP – Third Party Provider (a third party registered with the Slovak National Bank or another official authority within the EU.)

AIS – Account Information Service

AISP – Account Information Service Provider

PIS – Payment Initiation Service

PISP – Payment Initiation Service Provider

CIS – Card-based Payment Instrument Issuance Service

CISP – Card-based Payment Instrument Issuance Service Provider

ASPSP – Account Servicing Payment Service Provider (a bank holding the debtor's payment account)