

# The Sandbox Manual on the Registering into the Sandbox



# Change log

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## Contents

1.1.	Obtaining (or, at least, applying for) the TPP activity licence for the OAUTH scope from the CI	٧B
(registrat	tion in JERRS)	. 4
1.2.	User registration / TPP for AISP service mock calling	. 4
1.3.	Filling in all mandatory data and agreeing to terms of use	. 5
1.4.	Receiving a confirmation email and activating the account via an embedded link	.7
1.5.	Signing in the application portal (by clicking on Sign In)	.7
1.6.	Filling in your login information	. 8
1.7.	Entering the application menu	. 8
1.8.	Application menu	. 9
1.9.	Add Application	10
1.10.	View	10
1.11.	Subscriptions	11
1.12.	Sandbox keys	12
1.13.	Edit	
1.14.	Delete	13
1.15.	API Menu	
1.16.	Selecting a specific API	15
1.17.	Entering a specific API	16
1.18.	Subscribe	16
1.19.	PSD2 Glossary – selected terms	18



### **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.

## 1. ccess to the SandBox through the API Portal Console

1.1. Obtaining (or, at least, applying for) the TPP activity licence for the OAUTH scope from the CNB (registration in JERRS)

Note: A licence issued by the CNB is not required for the KB API Sandbox; the below registration will suffice.

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

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

PŘEJÍT NA WEB KB.CZ					API@KB.CZ
- KB API Portál			AP	Is Application	
APIs					Sign-up Signrin
Choose category 🗸 Cl	hoose status 🗸		What do you want t	to search?	SEARCH
(     PSD2 services					
AISP-SANDBOX	CISP-SANDBOX	OAUTH2-SANDBO	x	PISP-SAM	IDBOX
Version: v1	Version: v1	Version: v1		Version	n: 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	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)	SANDBOX KB IDP Auth API	orization	KB PISP Componer	nt API
VIEW MORE	VIEW MORE	VIEW MORE	>	VIEW M	



#### 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 fileds "\*"

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

- КВ	API Portal			
<u>≺ GO BACK</u>				
		Create An A	ccount	
		Create your account for an access to KB API portal will need testing certificate which will be provided to After creating the profile, you will receive confirmation	you based on your request by our team.	
		User Inform	ation	
		First Name *	.ast Name *	
		Username / email *		
		Password * C	Confirm password *	
		Company info	rmation	
		E mail t		
		E-mail *		
		Country *		
		Czech Republic	<b>v</b>	
		Organization Name *		
		ICO/LEI *		
		Contact Person *		
		Phone *		
		I accept, that the KB API Sandbox is only avail. The KB API Sandbox provides a testing environm characteristics of a production environment and of testing data. Komerční banka a.s. supports the C Czech Banking Association. As the KB API Sand banka a.s. reserves the right, at its sole discretion testing data at any time.	nent that is used to imitate the create simulated responses based on crech Open API Standard released by the box is only in the test version, Komerční	
		Captcha		
		H L D T q k z		
		Re-type Captcha *		
		REGIST	ER	

– кв



#### 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.

komu Hriba Premyst
Hi Premysl Hriba,
You (premysl hriba@kb.cz) requested to create an account on KB API Portal. To verify your email address and activate your account please click on the following link:
https://api.kb.cz/accountrecoveryendpoint/confirmregistration.do?confirmation=b42e9752-bdc4-4119-8420- 5b82fea8aeaa&userstoredomain=PRIMARY&username=premysl_hriba%40kb.cz&tenantdomain=api.kb.cz&callback=https%3A%2F%2Fapi.kb.cz%2Fportal
If you did not request an account on this Portal, then please ignore this email.
If you need any help or have problems please contact our support team api@kb.cz.
Your Komerční banka a.s.
This electronic message and any attachments (the "message") are confidential, intended solely for the addressee(s), and may contain legally privileged information. Any unauthorized use or dissemination is prohibited.
If you are not the intended recipient pieose delete the message and notify immediately by telephoning or e-mailing the sender. You should not copy the message or use it for any purpose nor disclose its contents to any other person. Given that electronic communications network are not under our direct control, we shall not be held liable for any damage caused by transmission hereof. In case the message is a part of controct negotiations, we are entitled to terminate such negotiations at ony time and for whatever reason. The contract shall not be executed until the parties reach of liad greement on terms and conditions of such a contract.

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

PŘEJÍT NA WEB KB.CZ API@KB.CZ KB API Portál APIs Applications SIGN IN Sian-ua **APIs** Choose category Choose status What do you want to search? SEARCH 1 (O) PSD2 services AISP-SANDBOX CISP-SANDBOX OAUTH2-SANDBOX PISP-SANDBOX Version: v1 Version: v1 Version: v1 Version: v1 This is KB REST API supposed to This is KB REST API supposed to SANDBOX KB IDP Authorization KB PISP Component API be used by AISP (Account be used by CISP (Card Issuing API Information Service Provider) to Service Provider) to check the retrieve the list of client's accounts, client's account balance (whether account balance and transaction specific amount of money is history available on client's account) VIEW MORE > VIEW MORE > VIEW MORE > VIEW MORE >

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@KB.CZ
<b>KB</b> API Portal		
<u>&lt; GO BACK</u>		
	Sign in to your account	
	Username	
	Password	
	Remember me on this computer	
	SIGN IN	
	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.

PŘEJÍT NA WEB KB.CZ			API@KB.CZ
- KB API Portál		APIs Applications	PREMYSL_HRIBA@KB.CZ@API.KB.CZ
APIs			
Choose category 🗸 C	Choose status	What do you v	want to search? (i) SEARCH
(     PSD2 services	CISP-SANDBOX	OAUTH2-SANDBOX	PISP-SANDBOX
Version: v1	Version: v1	Version: v1	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	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)	SANDBOX KB IDP Authorization API	KB PISP Component API
VIEW MORE	VIEW MORE	VIEW MORE	VIEW MORE



#### 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						
PŘEJÍT NA WEB KB.CZ					API@KE	.cz
<b>KB</b> API Portál			APIs Aj	pplications	PREMYSL_HRIBA@KB.CZ@API.KB.C	:
+ ADD APPLICATION						
Applications						
An application is a logical collection of APIs levels. The DefaultApplication is pre-create			a collection of API	s and to subscrib	be to one API multiple times with different SL/	
Q Filter by						
Name	Tier \$	Workflow Status	Subscriptions	Actions		\$
Test_KB	Unlimited	ACTIVE	4		<ul> <li>✓ 1</li> </ul>	
Show 10 v entries Showing 1 to	I 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.

PŘEJÍT NA WEB KB.CZ					API@KB.CZ
	tál		APIs	Applications	PREMYSL_HRIBA@KB.CZ@API.KB.CZ
✓ APPLICATION LIST					
Add Applicat	tion				
	ection of APIs. Applications allow you is pre-created and allows unlimited a	-	collection of	APIs and to subscri	be to one API multiple times with different SLA
Name*					
	Characters left: 70				
Per Token Quota	UNLIMITED	Allows unlimited requests			
	This feature allows you to assign an will be shared among all the subscri	API request quota per access token. Allo bed APIs of the application.	cated quota	1	
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;
- SANDBOX KEYS see Chapter 1.12; SUBSCRIPTION see Chapter 1.11. 2.
- 3.

🎓 PŘEJÍT NA WEB	B KB.CZ						API@KB.CZ
- КВ	API Portál				APIs	Applications	PREMYSL_HRIBA@KB.CZ@API.KB.CZ
✓ APPLICATION	LIST / EDIT						
			Def	aultApplica	tion		
			DETAILS	SANDBOX KEYS	SUBSCR	IPTIONS	
		Status	APPROVED Unlimited Allo	ws unlimited requests			
		Per Token Quota		ows you to assign an API mong all the subscribed			). Allocated quota
		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.

PŘEJÍT NA WEB KB.CZ			API@Ki
KB API Portál		APIs Applications	PREMYSL_HRIBA@KB.CZ@API.KB.C
PPLICATION LIST			
	Test_H	(B	
	DETAILS SANDBOX KI	EYS SUBSCRIPTIONS	
		·	
Q Filter by			
API Name	Subscription Tier	♦ Status	♦ Actions
AISP-Sandbox - v1	Unlimited	UNBLOCKED	â
CISP-Sandbox - v1 PUBLISHED	Unlimited	UNBLOCKED	â
OAuth2-Sandbox - v1 PUBLISHED	Unlimited	UNBLOCKED	â
PISP-Sandbox - v1	Unlimited	UNBLOCKED	<b>a</b>



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

🙊 PŘEJÍT NA WE	B KB.CZ				API@KB.CZ
_					-
– KB	API Portál		APIs	Applications	PREMYSL_HRIBA@KB.CZ@API.KB.CZ
✓ APPLICATION			t_KB DX KEYS SUBSCR	PTIONS	
SHOW KE	ey 📑	Сору			
Grant Ty	pes				
		es to generate Access Tokens. Based or		t, you can enable o	
Refre		SAML2     Client Credential	Implicit Code		Password
Callback URL			Code		
https://www.					
The followin		enerate an access token using the Pass	vord Grant type.		8
		<pre>ie=Username&amp;password=Password" \ (consumer-key:consumer-secret)" \</pre>			
In a similar	manner, you can generate an acce	ss token using the Client Credential gran	t type with the following cUP	RL command.	
	-d "grant_type=client_credenti -H "Authorization: Basic Base6 https://api.kb.cz/token	ols" \ (consumer-key:consumer-secret)" \			8
Access Toke	a Test Access Token n				
Above token h aisp : a pisp : p SELECT	isp. 1 isp.	is. If you want to regenerate this token, p	lease select it's scopes and	validity period.	~
Validity per 3600 REGEN		onds			_



#### 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.

🙊 PŘEJÍT NA WEB I	KB.CZ						API@KB.CZ
– КВ	API Portál				APIs	Applications	PREMYSL_HRIBA@KB.CZ@API.KB.CZ
✓ APPLICATION LI		ит		_			
				Test_KB			
		•	ETAILS	SANDBOX KEYS	SUBSCR	IPTIONS	
		Status	APPROVED				
		Per Token Quota	This feature allo	ows unlimited requests ows you to assign an API among all the subscribed A			Allocated quota
		Description	Not Given				
PŘEJÍT NA WEB	KB.CZ						API@KB.CZ
🗖 КВ	API Portál				APIs	Applications	PREMYSL_HRIBA@KB.CZ@API.KB.CZ
GO BACK     GO BACK     GO     G							
Edit App	olicatio	n					
	Name*	Test_KB					
		Characters left: 63					
Per T	Token Quota	UNLIMITED	✓ Allows	unlimited requests			
		This feature allows you to as will be shared among all the			en. Allocated	quota	
	Description						
		UPDATE					

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.

KB

♠ PŘEJÍT NA WEB KB.CZ				(1)		API@KB.CZ
<b>KB</b> API Portál			APIS A	pplications	PREMYSL_HRIBA@KB.	CZ@API.KB.CZ
+ ADD APPLICATION						
Applications						
An application is a logical collection of APIs levels. The DefaultApplication is pre-create			a collection of API	s and to subscrit	be to one API multiple times wit	h different SLA
Q Filter by					(2	
Name	Tier \$	Workflow Status	Subscriptions \$	Actions	$\sim$	¢
DefaultApplication	Unlimited	ACTIVE	0		· / 💼	
Test_KB	Unlimited	ACTIVE	4		• / <b>1</b>	
Show 10 v entries Showing 1 to 2	2 of 2 entries				$\cup$	1
REJÍT NA WEB KB.CZ						API@KB.CZ
KB API Portál			APIs Aj	pplications	PREMYSL_HRIBA@KB.	CZ@API.KB.CZ
+ ADD AF Confirm Dele	te				×	
Applic Are you sure you want	to remove the application "Defa	aultApplication" ?				
An application levels. The De		YES NO				ifferent SLA
Q Filter by						
Name	Tier 🔶	Workflow Status	Subscriptions	Actions		
DefaultApplication	Unlimited	ACTIVE	0		• / п	
Test_KB	Unlimited	ACTIVE	4		• / 🖬	
Show 10 v 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.

PŘEJÍT NA WEB KB.CZ					API@KB.C
KB API Por	tál		APIs Ap	plications	HRIBA@KB.CZ@API.KB.CZ
+ ADD APPLICATION					
Applications					
		you to use a single access token to in ad access by default	woke a collection of APIs	and to subscribe to one API multi	ple times with different SLA
	ection of APIs. Applications allow is pre-created and allows unlimite		woke a collection of APIs	and to subscribe to one API multi	ple times with different SLA
evels. The DefaultApplication			APIs     Subscriptions \$	and to subscribe to one API multi Actions	ple times with different SLA
evels. The DefaultApplication	is pre-created and allows unlimite	ed access by default.			ple times with different SLA
evels. The DefaultApplication Q Filter by Name	Tier	ed access by default.	Subscriptions \$		¢

#### 1.16. Selecting a specific API

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

A PŘEJÍT NA WEB KB.CZ			API@KB.CZ
<b>KB</b> API Portál		APIs Applications	PREMYSL_HRIBA@KB.CZ@API.KB.CZ
APIs			
Choose category 🗸	Choose status 🗸	What do you	want to search? (i) SEARCH
( PSD2 services			
AISP-SANDBOX	CISP-SANDBOX	OAUTH2-SANDBOX	PISP-SANDBOX
Version: v1	Version: v1	Version: v1	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	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)	SANDBOX KB IDP Authorization API	KB PISP Component API



#### 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).

* PŘEJÍT NA WE	B KB.CZ							Maria Api@KB.CZ
🗖 КВ	API Portál				APIs	Applications	PREMYSL_	HRIBA@KB.CZ@API.KB.CZ
GO BACK								
			A	ISP-Sandbo	X			
	Versio	on: v1	Updated:	06/Sep/2019 12:53:38 P	M CEST	Status:	PUBLISHED	
This is I	KB REST API supposed to b	e used by AISP (Acco	unt Information	n Service Provider) to retrie	we the list o	of client's accounts a	account balance and	transaction history
1113 13 1					we the list t	or chemical decounties, r		a ansaction mistory
			API CON		TATION			
			_					
1.1								
	lotice							
	require a testing certificate an plications menu.	id an access token to	try the API. Ple	ease contact us on api@kb	.cz to recei	ve a testing certificat	te. You can generate	e an access token
Set Requ	lest Header			7				
Authori	ization : Bearer Access T	oken						
							Swag	ger ( /swagger.json )
aisp						Show/H	lide List Operations	Expand Operations
	Returns list of client's account	Its						
GET	/my/accounts							SHOW MORE 🗸
GET	Current account balance /my/accounts/{id}/balance							SHOW MORE 🖌
	•							
GET	Account's transaction history /my/accounts/{id}/transaction							SHOW MORE 🗸
Applicati	ions			Tiers				
DEFAU	ULTAPPLICATION		^	UNLIMITED			~	
New A	Application							
My App	plications							
Defa	aultApplication							
Test	t_KB		J					

#### 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.



ejît na we	B KB.CZ						🖴 API@I
кв	API Portál		APIs	Applications	L PRE	MYSL_HRIBA@	QKB.CZ@API.KB.
BACK	Subscription Successful						×
This	You have successfully subscribed to the API.		ON THIS PAG				
1115 15	AD ALST AFT Supposed to be used by Arsh (Account morman				, account bara		court astory
You in Ap	Notice require a testing certificate and an access token to try the API. F splications menu. uest Header	Please contact us on api@kl	b.cz to receive	e a testing certific	cate. You can g	enerate an ac	cess token
You in Ap Set Requ	require a testing certificate and an access token to try the API. F oplications menu.	Please contact us on api@kl	b.cz to receive	e a testing certific	cate. You can g	enerate an ac	cess token
You in Ap Set Requ Author	require a testing certificate and an access token to try the API. F oplications menu. uest Header rization : Bearer Access Token	Please contact us on api@kl	b.cz to receive			Swagger ( /s	waggerjson)
You in Ap Set Requ	require a testing certificate and an access token to try the API. F oplications menu. uest Header rization : Bearer Access Token	Please contact us on api@kl	b.cz to receiv		cate. You can g /Hide   List Op	Swagger ( /s	waggerjson)
You in Ap Set Requ Author	require a testing certificate and an access token to try the API. F oplications menu. uest Header rization : Bearer Access Token	Please contact us on api@kl	b.cz to receivo			Swagger ( /s erations   Exp	waggerjson)
You in Ap Set Requ Author	require a testing certificate and an access token to try the API. F oplications menu. uest Header rization : Bearer Access Token Returns list of client's accounts	Please contact us on api@ki	b.cz to receive			Swagger ( /s erations   Exp SHOW	wagger.json ) and Operations
You in Ap Set Requ Author aisp	require a testing certificate and an access token to try the API. For polications menu.	Please contact us on api@ki	b.cz to receive			Swagger ( /s erations   Exp SHOW SHOW	wagger json ) and Operations / MORE ~
You in Ap Set Requ Author aisp GET	require a testing certificate and an access token to try the API. F oplications menu. uest Header rization : Bearer Access Token Returns list of client's accounts /my/accounts Current account balance /my/accounts/(d)/balance Access Token	Please contact us on api@ki	b.cz to receivo			Swagger ( /s erations   Exp SHOW SHOW	wagger json ) and Operations / MORE ~ / MORE ~
You in Ap Set Requ Author aisp GET	require a testing certificate and an access token to try the API. F oplications menu. uest Header fization : Bearer Access Token Returns list of client's accounts /my/accounts Current account balance /my/accounts/(id)/balance Account's transaction history /my/accounts/(id)/transactions	Please contact us on api@ki	b.cz to receivo			Swagger ( /s erations   Exp SHOW SHOW	wagger.json ) and Operations MORE ~ MORE ~



#### 1.19. PSD2 Glossary – selected terms

#### **API** – Application Programing 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/licenced by the CNB)

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)