Bank-Verlag GmbH

Sandbox
Test documentation for the XS2A test environment

Index

1.   Introduction

The EU published EBA RTS stipulates several requirements (loosely quoted) on testing of PSD2 XS2A implementations by TPPs:

- Art. 30(5): "ASPSPs shall make available a testing facility, including support, for connection and functional testing by TPPs"

In regards to PSD2 Bank-Verlag GmbH provides its customers with the XS2A interface and a test environment - called sandbox in the following - that supports the XS2A interface of the Berlin Group version 1.3.12 to be used for integration testing by TPPs. In total the BV serving 20 Banks with the XS2A Interface. (for further information regarding our XS2A interface please check the ImplOpt sheet and the YAML on our landingpage). In case we do not support an use case you will receive the specific error code.

The base of the BV sandbox is the test concept and test cases of the NextGenPSD2 Implementation Support Program (NISP). The NISP was set up to ensure a common testing framework of ASPSPs implementing the NextGenPSD2 API. Details on the NISP program and a list of URLs of the sandboxes can be found under www.nisp.online.

The objectives of this document are:

- Clarify the test architecture
- Define the requirements for using the sandbox
- Define the test cases
- Define the test support

In total the BV serving 20 Banks with the XS2A Interface. For the following 16 banks we offer only a test environment under one test bank identification, due to the fact that the implementation of the NextGenPSD2 API for frontend and backend systems is identical in this group, up to some possible configurations:

Bankhaus Lampe KG
Bethmann Bank AG
Consors Finanz, BNP Paribas S.A. Niederlassung Deutschland
BNP Paribas Personal Finance SA, Niederlassung Österreich
Deutsche Bundesbank
Europäisch-Iranische Handelsbank AG
Isbank AG Zentrale Frankfurt
Merck Finck Privatbankiers AG
Misr Bank-Europe GmbH
MUFG Bank (Europe) N. V. Germany Branch
ODDO BHF-Bank AG
Sydbank A/S Filiale Flensburg

We pool this banks into on "XBANK" mock. However you will reach every bank with a separate sandbox URL according the NISP Testdirectory.

2.   Special procedures of the Interface

In essence, our interface and Sandbox behaves analogously to the 1.3.12. Berlin Group. Nevertheless, there are procedures that might be different from other interfaces.

2.1   PSU Corporate-ID

In our solution the PSU Corporate-ID is also used for non-corporate accounts. An example is a married couple that uses one account. This would mean that two PSU-IDs would only be used for one account or one customer ID. This customer ID is created by the bank and should be included in the PSU Corporate-ID field in this case.

2.2   Decoupled Approach

For our interface it is necessary that a PSU is identified based on a PSU-ID and a PSU-PIN/password before any decision can be made about next steps, for example which authentication method to be used for this PSU. For this reason the TPP has to transfer the PSU-ID and the PSU-PIN/password to the XS2A interface of the ASPSP.
Our Interface support the embedded approach for transferring the PSU-PIN as first factor of the authentication. As second factor (categorized as possession) the PSU uses an authentication app of the ASPSP, which uses a decoupled approach for the second factor (i.e. the authentication app generates a signature as proof of possession and transmits this directly to the backend system of the ASPSP).

3.   BV sandbox

The model shown below shows the BV Sandbox architecture.
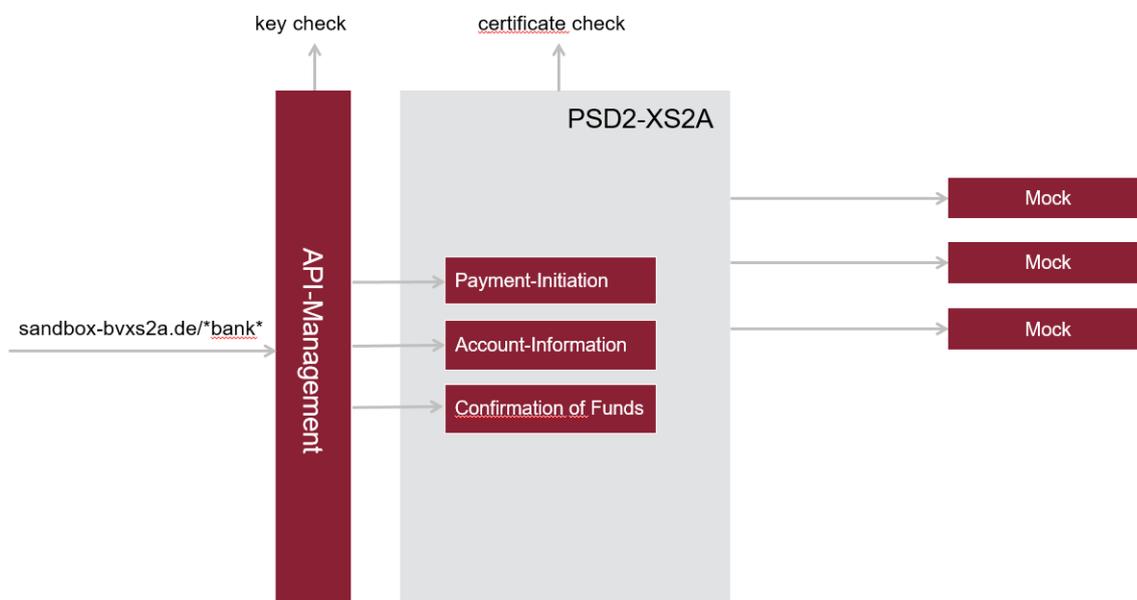
The test environment is set up with the real api management and XS2A interface that also will used in the production environment. But the accounts given in the test environment are static, i.e. the account entries are once defined. A payment initiation submitted to such an account have no effect on the account statement. No exemptions will be supportet in the sandbox.

URL: For our customers we set up bank specific URLs for the sandbox with the following structure (sandbox-bvxs2a.de/*bank*). You have to use the right URL for the bank you want to test with.

ASPSP Name	URL Sandbox
Deutsche Apotheker- und Ärztebank eG	www.sandbox-bvxs2a.de/apobank
Bankhaus Lampe KG	www.sandbox-bvxs2a.de/bankhauslampe
Bethmann Bank AG	www.sandbox-bvxs2a.de/bethmannbank
Consors Finanz, BNP Paribas S.A. Niederlassung Deutschland	www.sandbox-bvxs2a.de/consorsfinanz
BNP Paribas Personal Finance SA, Niederlassung Österreich	www.sandbox-bvxs2a.de/consorsfinanz
Deutsche Bundesbank	www.sandbox-bvxs2a.de/bundesbank
Europäisch-Iranische Handelsbank AG	www.sandbox-bvxs2a.de/eihbank
Isbank AG Zentrale Frankfurt	www.sandbox-bvxs2a.de/isbank
Merck Finck Privatbankiers AG	www.sandbox-bvxs2a.de/merckfinck
Misr Bank-Europe GmbH	www.sandbox-bvxs2a.de/misrbank
MUFG Bank (Europe) N. V. Germany Branch	www.sandbox-bvxs2a.de/mufg
ODDO BHF-Bank AG	www.sandbox-bvxs2a.de/oddobhf
Sydbank A/S Filiale Flensburg	www.sandbox-bvxs2a.de/sydbank
TARGOBANK AG	www.sandbox-bvxs2a.de/targobank
Volkswagen Bank GmbH	www.sandbox-bvxs2a.de/vwbank

API Key: To reach our sandbox you have to include an API Key in the header.
Please find below a example request with the highlighted API Key:

POST /xbank/v1/payments/sepa-credit-transfers HTTP/1.1
Host: www.sandbox-bvxs2a.de
X-bvpsd2-test-apikey: tUfZ5KOHRTFrikZUsmSMUabKw09UIzGE
X-Request-ID: xxxx
PSU-ID: xxxx
PSU-IP-Address: xxxx
Content-Type: xxx
…

Certificate: The delivery of the production certificate is not dependent on the successful integration tests with the sandbox. You will need only a test certificate. The XS2A interface will check the right syntax, semantic and the correct TPP role when addressing the Payment Initiation, Account Information or Confirmation of Funds Services.
As a Trust Center we offer (test) certificates. In case you will need some please contact ver-trieb@bank-verlag.de.

4. Configurations parameters for test scenarios

The TPP is recommended to test all services and payment products regarding positive and negative test cases. How to provoke negative and positive reactions from the sandbox which are resulting in production from dedicated backend statuses is explained in the sections below by using PSU-ID profile.

4.1 PSU profiles

The sandbox will support different PSU profiles:

XBANK (embedded und decoupled)

PSU ID Value	Description
PSD2TEST1	User supports Access Blocked
PSD2TEST2*	User supports a selections of CHIP_OTP, SMS_OTP, PHOTO_OTP and PUSH_OTP (embedded)
PSD2TEST3	User supports PUSH_OTP (embedded)
PSD2TEST4	User supports PUSH_OTP (decoupled)

Deutsche Apotheker- und Ärztebank eG (embedded und decoupled)

PSU ID Value	Description
PSD2TEST1	User supports Access Blocked
PSD2TEST2*	User supports a selections of SMS_OTP (embedded), PHOTO_OTP (embedded) and PUSH_OTP (decoupled)
PSD2TEST3	User supports SMS_OTP only (embedded)
PSD2TEST4	User supports PUSH_OTP (decoupled)

TARGOBANK AG (embedded und decoupled)

PSU ID Value	Description
PSD2TEST1	User supports Access Blocked
PSD2TEST2*	User supports a selections of SMS_OTP (embedded), PHOTO_OTP (embedded) and PUSH_OTP (decoupled)
PSD2TEST3	User supports SMS_OTP only (embedded)
PSD2TEST4	User supports PUSH_OTP (decoupled)

Volkswagen Bank GmbH (embedded und decoupled)

PSU ID Value	Description
PSD2TEST1	User supports Access Blocked
PSD2TEST2*	User supports a selections of Photo_OTP (embedded) and PUSH_OTP (decoupled)
PSD2TEST3	User supports Photo_OTP only (embedded)
PSD2TEST4	User supports PUSH_OTP (decoupled)

* Please be informed that this test should only show the possibility to select a OTP method. After you have selected a method, the SMS_OTP continues.

4.2   Credentials

This concept supports static credentials for credential checks:
- correctPassword is a tag for a password that is correct for all PSU-IDs
- correctOTP is a tag for an OTP that is correct for all SCAs

All banks except VW Bank

Credentials	Value
correctPassword	123456
correctOTP	000000

VW Bank

Credentials	Value
correctPassword	123456
correctOTP	0000000

4.3   Account information

This concept supports all valid IBANs and BICs. For the tests you can use the following IBAN and BIC:

XBANK

Account	Value
IBAN	DE51250400903312345678
BIC	XBANDECGXXX

Deutsche Apotheker- und Ärztebank eG

Account	Value
IBAN	DE75300606010069607269
BIC	DAAEDEDDXXX

TARGOBANK AG

Account	Value
IBAN	DE70300209005320320678
BIC	CMCIDEDDXXX

Volkswagen Bank GmbH

Account	Value
IBAN	DE53270200000001234567
BIC	VOWADE2BXXX

4.4 Differences XS2A Interfaces

For further information regarding our XS2A interfaces please check the implementer options sheet on the landingpages. There will be one sheet for the "XBANK" group and one sheet for the TRAGOBANK AG and Degussa Bank AG.

5. Test cases

For testing the XS2A API, NISP participants have agreed on an internal test case catalogue. The selection of applicable test cases is steered by a system implementation configuration sheet, called "implementer options" that you can download on the landing page.

6. Support

The sandbox is available 24/7 for online testing by TPPs. The operational support for the sandbox is available during the opening hours 9:00h-16:00h at local time.
In case of any issues please contact: Service-Desk@Bank-Verlag.de