INSTANT PAYMENT SYSTEM (IPS) ON THE BASE OF THE SMARTVISTA SOLUTION

THE PROCEDURE FOR CONDUCTING THE CERTIFICATION TESTING FOR AN IPS PARTICIPANT

Contents:

1 GENERAL CONDITIONS

1.1 Goals and objectives of the document

This document describes the procedure of the certification testing of a Participant bank (receiving and sending messages according to the Specification IPS API (the descripion of the messages format based on ISO 20022)) based on the SmartVista solution.

1.2 Terms, definitions, and abbreviations

- BPC – BPC Group
- FinTech Association – Association of the Development of Financial Technologies
- IPS – Instant Payment System
- IPS support service – the team of specialists from BPC, who provide support during the certification testing.
- Participant – a bank or another financial organization that applied for connecting to IPS according to the Instructions for the connection to IPS and that received an approval from the FinTech Association to connect to IPS.
- BIC – Bank Identifier Code, a combination of digits that is assigned to a Participant by the regulatory institution.
- Integration testing of banking systems is a set of measures conducted by a Participant cooperatively with the IPS support service in order to confirm the technical preparedness of the Participant's system to work with IPS according to the ISO20022 IPS API Specification.

2 PLANNING TESTING

Planning of the certification testing starts at the moment when the Participant is notified about the positive result of considering the completed connection questionnaire.

To plan the test on the Participant's side, a project manager (PM) must be dedicated. This PM:
- approves on the testing schedule;
- coordinates the timely implementation of all necessary works on the Participant's side.

Within the certification testing procedure from the point of view of the Participant there are the stages specified in Table 1.

Table 1 - Main stages of certification testing

Stage	Description
Preparation for the testing	The Participant performs preparatory actions
Connection	The Participant performs the actions necessary for the connection to IPS
Testing	The Participant performs the necessary tests Based on the results of the certification testing performed, both parties fill in a document of completing the testing.

Two main time slots are allocated for the Participant to conduct the testing procedure (see Table 2).

The reserve test slots are allocated to the Participant if necessary (in case of an unsuccessful passing of tests within the main interval).

Table 2 - Time slots to conduct testing

Time slot	Deadlines	Comment
The main time slot for testing	5 working days	The criteria of success is passing all the approved test scenarios.
Time to correct errors	The deadline is agreed with the Participant	The participant corrects errors in the agreed interval.
The reserve time slot for testing	5 working days	Repeated testing. The criteria of success is passing all the approved test scenarios.

In case of a failed testing by the Participant, the BPC representative notifies the representative of the FinTech Association.

In case of presence of incorrected errors after conducting the testing within the main and reserve time slots (see Table 2), the Participant agrees with the manager a separate plan for conducting repeated tests.

3   PREPARATION FOR THE TESTING

3.1   Connection

The Participant is provided with the Guidelines to for connecting to the IPS prototype that describes the scheme and procedure for connecting the Participants to the prototype of the Instant Payment System.

Based on the received connection parameters (the IP-address and port), the Participant must set up domestic information systems to connect in accordance with the provided document.

3.1.1 Connection testing procedure

After receiving a confirmation from the IPS support service of the completion of the Participant's settings in IPS, the Participant performs a physical testing of the connection from the Participant's infrastructure to IPS, according to the above mentioned instructions. Within the allocated time slot the IPS support service consults the Participant's staff if necessary.

After a successful completion of the connection test, the Participant can start testing the business functions of the IPS prototype according to the current version of the ISO20022 API Specification.

4   CONDUCTING TESTING

4.1   General conditions

On the agreed date the Participant must be prepared to start testing. All the necessary settings must be implemented in the tesing environment of the Participant and IPS, and the availability of all access permissiong must be checked.

During the testing, the Participant must carry out the tests specified in the test plan. During the period allotted for the testing, the Participant must achieve the successful execution of all test scenarios.

Information on the actual result of the testing within the agreed list of tests must be reflected in the provided plan with the date and time of the operation specified, as well as the attributes specified in the document (see Appendix # 1)

4.2 Description of the testing procedure

The testing of Participants assumes four stages (the description of each stage is given in the sections below):
- independent testing by the Participant of the structure of generated XML requests (in the off-line mode, without connection to IPS) - the XML Validation;
- testing by the Participant of requests with connection to IPS, including sending requests to the Participant itself for analyzing the results and adjustment;
- testing by the Participant of requests with connection to IPS, including the service on the IPS side emulating the behavior of a recipient Participant;
- testing by the Participant of requests with connection to IPS, the interbank testing including sending and exchanging messages between two or more Participants.

4.2.1 Independent testing by the Participant of the structure of generated XML requests (in the off-line mode, without connection to IPS) - the XML Validation;

Before starting the online certification, the Participant must conduct an independent testing to ensure that his system is prepared for sending and processing messages in the correct format. The validation is required to make sure that the structure of XML messages comply with the IPS API specification.

The Participant can perform the validation of XML messages independently (XSDs are provided separately) or in the way recommended by the IPS support service and described in Appendix #2.

4.2.2 Testing by the Participant of requests with connection to IPS, including sending requests to the Participant itself for analyzing the results and adjustment

The scheme of this stage of testing is presented in the diagram (Figure 1):
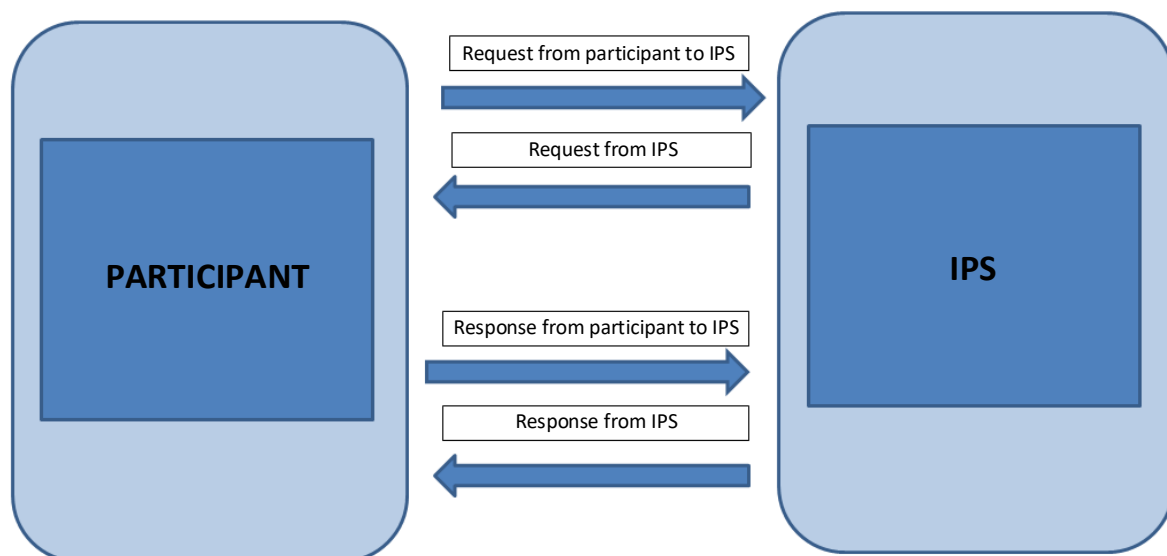
Figure 1 – Testing by the Participant of requests with connection to IPS

For this stage the participant needs to connect to the IPS platform.

This stage of testing involves such an exchange of messages when the Participant is both the initiator of the request and the recipient.

Within this phase, the entire set of tests defined in the plan (see Appendix #1) must be conducted with the same value specified as the BIC recipient and the BIC sender — it must be the BIC specified by the Participant in the application form on registration.

4.2.3 Testing by the Participant of requests with connection to IPS, including the service on the IPS side emulating the behavior of a recipient Participant;

This stage is an integral part of the online certification and involves the implementation of tests defined in the plan (see Appendix #1).

Tests of this stage are divided into the following two blocks:

− Block #1 Test scenarios in which the Participant acts as the initiator of a request (see Appendix #3).
− Block #2 Test scenarios in which the Participant acts as the recipient of a request (see Appendix #4).

The description of all test scenarios is presented in the form of tables and as a textual description with recommendations for the implementation. When conducting tests, you need to have the following documents:

- The set of ISO 20022 IPS API specifications.
    - The specification of the recipient, SVIP_ISO 20022_ASMT_Searching_for_Bank_Verification
    - The specification SVIP_ISO 20022_PACS_Transfers
    - The specification SVIP_ISO 20022_TSIN_Invoices
    - The specification SVIP_ISO 20022_BAH
    - The specification SVIP_Customized_Users_Registration
    - The guidelines to the set of specifications
- The guidelines on how to connect to the prototype

4.2.4 Interbank testing by the Participant of requests with connection to IPS, including sending and exchanging messages between two or more Participants

This stage is final in conducting the certification testing. Information on conducting the testing at this stage, as well as the list of necessary test data are provided separately (see Appendix #5).

5 VERSION HISTORY

Version	Date	Contributor	Description
1.0	28.02.2018	BPC	The initial version of the document.
1.3	16.03.2018	BPC	1) The version number is changed in accordance with the specification package. 2) In test cases, UserType values are changed in accordance with the specification. 3) New test cases are added. 4) Minor corrections of test data are made.
1.4	13.04.2018	BPC	1) Appendix #5 is added. 2) Changes are made to the "PUSH Translations" test cases as concerns

			filling in TxId. 3) New test cases are added. 4) Minor corrections of test data are made. 5) Values of unsuccessful response codes are corrected in accordance with the specification.