Testing Manual for Network Partners

eBill

Version 1.9, valid from 01.07.2024

Change history

All the changes carried out in this document are listed below with the version designation, the change date, a brief description of the change and the specification of the chapters affected.

Version	Date	Change description	Chapter(s)
1.9	01.07.2024	Adjustments concerning NWP API V5. Test cases added. Zewo certification for NPOs (non-profit organisations) and subscription to the II via a QR code	
1.8	01.02.2024	Information on supplementary invoice issuer document removed. Test cases for eBill Direct Debit added. Minor corrections.	
1.7	01.06.2023	Update for release 1.21: Another test case added Other minor corrections	4.4
1.6	30.09.2022	Description of access to eBill Bank Portal revised Document classification changed to C2 References to ISR and external registration forms removed Test case numbering adjusted following chapter deletion	
1.5	18.10.2021	Test Handbook revised and additions relating to NWP API V3 included	
1.4	02.06.2021	Amendments to NWP API V2.5 test cases added	
1.3	10.02.2021	Amendments to NWP API V2.3 test cases added	
1.2	04.09.2020	Search invoice issuer test case adjusted. Certificate info for access to the Bank Portal added	
1.1	03.06.2020	New test case added (Chapter 4.17)	
1.0	10.01.2020	Final version – Bank Portal examples added	

Table 1: Change history

Please send all suggestions, corrections, and proposed improvements to this document to:

SIX BBS Ltd
eBill & Direct Debit Support
Hardturmstrasse 201
CH-8005 Zurich
E-mail: support.billing-payments@six-group.com
www.six-group.com

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Should you encounter any errors in this document or have any suggestions for improvements, we would be grateful if you e-mailed your feedback to **support.billing-payments@six-group.com.**

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1   Introduction

The eBill service enables electronic invoicing, invoice receipt and invoice payment. More than a million users are already receiving their invoices digitally via online banking, thus paying them conveniently, reliably and on time. The eBill service encompasses all forms of electronic invoices, reminders, credit notes and notifications – known collectively as business cases – delivered to the eBill infrastructure by network partners and received online by invoice recipients. In eBill, network partners choose the most efficient type of invoicing and can thereby build up their ranges of digital services for their customers.

The benefits include the following:

- eBill is the secure alternative to invoicing via e-mail

- Participating in eBill is easy

- Searching for and finding customers wishing to switch to eBill is easy

- Integrating eBill in ERP and e-commerce solutions is simple thanks to standardized interfaces and processes

Network partners are part of the eBill network and thus can enable their invoice issuers to send electronic invoices to online banking users. Network partners communicate with the eBill infrastructure via a simple interface. This interface enables communication with the eBill infrastructure on the network partner's side. This makes it a central point of entry for delivering digital invoices to the banking channel.

1.1   Purpose of this Document

The "Test Handbook for Network Partners" is a supplement to the Handbook for Network Partners and the Technical Instructions for Onboarding. It describes the test aspects for a connection as network partner.

1.2   Target Audience

The Handbook for Network Partners is aimed at providers of services relating to electronic invoicing that wish to make the eBill service available to their customers (invoice issuers) via the central eBill infrastructure.

1.3   Change History

All changes made to this document are listed in the change history (Table 1) with the version designation, the change date, a brief description of the change and the specification of the chapters affected.

2   Test Infrastructure

This section describes the test and acceptance infrastructure available, as well as the procedures, processes and rules for use and reporting.

2.1   Overview of eBill Infrastructure

Participants in the eBill service can access the eBill infrastructure via a range of interfaces. The most important are explained in brief below.
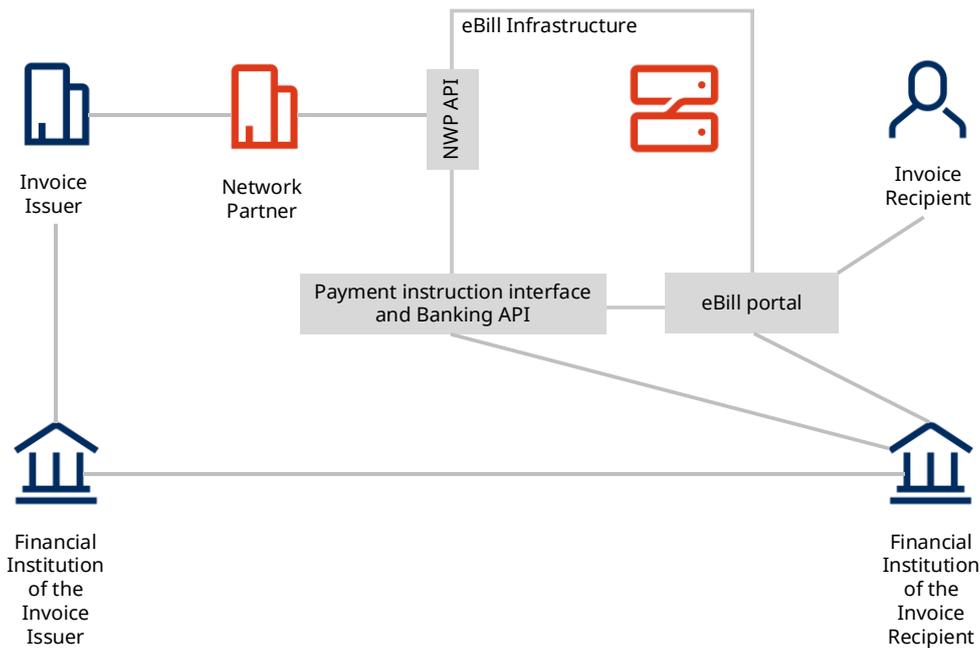
Figure 1:   Overview of the eBill infrastructure

2.1.1   Network Partner API

Network partners are connected to their customers via the network partner API (NWP API). This interface is used to exchange all messages with the participants (e.g., business cases, status reports, registrations).

2.1.2   Bank API

The bank API is a web service interface for the financial institutions of the invoice recipients enabling them to link their online banking systems to the eBill infrastructure.

2.1.3   Payment Transaction Interface

The financial institution of the invoice recipient receives payment information from the eBill infrastructure via the payment transaction interface based on the approved business cases.

2.1.4   eBill Portal

The eBill Portal is a central web application for invoice recipients that can be used by all participating financial institutions. It enables invoice recipients to use eBill functions via the Internet. For end-to-end tests, the eBill Portal can also be accessed via the Bank Portal.

2.2   Test Environment

Implementation by the network partner is not monitored or supervised by SIX and is entirely the responsibility of the network partner in question.

The network partner is granted access to a comprehensive test infrastructure (test system) for support.

The following levels of the eBill infrastructure are generally available to the network partner. These can be reached through various login endpoints:

XE level:

External acceptance/development stage. It contains the current development release stage of the eBill infrastructure. New features are provided every three weeks and can be used for integration work immediately.

XP level:

External acceptance/production stage. It contains the same release stage as the current production environment.

2.3   Use Restrictions

No confidential data

The X levels are available to all network partners in parallel, and the user authorizations and access rights do not correspond to production operational requirements. Therefore, no confidential data (production data) may be used as test data when testing the X levels.

No performance, stress or mass tests

The X levels are not designed for performance, stres or any other mass tests. Appropriate test requirements must be explicitly agreed on and scheduled with eBill Support.

The following general conditions must be complied with:

- The NWP must inform SIX of any performance tests with sufficient advance notice (approximately 14 days).
- SIX must be notified of the objective of the test.
- No production data may be used for performance tests.
- SIX must be notified of the start and end of the performance test.
- There is no guarantee as to the availability of the test levels. It is possible that the test level may not be available at short notice.

2.4   Setting Up Connections to Test Systems

Various preparatory work and configurations are necessary on the part of both the network partner and SIX in order to enable access to the eBill infrastructure via the Network Partner API.

Please refer to the document "Network Partner Onboarding – Technical Instructions" for information on the setting up of connections.

2.5 Software and Release Status

The software status at the XP level corresponds to the current production software status.

New or further developments of the eBill platform are first approved internally by SIX and then made available at the XE level for external testing. Changeover from the XE to XP level takes place only shortly before the production approval.

2.6 eBill Bank Portal

2.6.1 Access to eBill Bank Portal

In addition to setting up the connections, the network partner can also apply for access to the eBill Bank Portal at the XE and XP levels.

With access to the eBill Bank Portal, a network partner can independently test the NWP functionality end-to-end. For this purpose, SIX sets up a dedicated financial institution for each network partner.

In line with Chapter 2.6.2, each user needs a means of authentication.

A maximum of five users of a network partner can be authorized per test level (XE/XP).

In order for SIX to be able to set up access to the eBill Bank Portal, the NWP main contact person must send the following information to SIX via e-mail:

- First name, surname, birth date, and e-mail address of the users to be authorized to access the eBill Bank Portal.

- Desired test level (XE/XP). It is best to authorize the user for both systems at the same time.

- Information on the type of means of authentication (for certificates, enclose the CER file).

- This information can be sent by the main contact person to Support (support.billing-payments@six-group.com)or directly to the technical contact person.

The eBill Bank Portal can be accessed via the following links:

XP: https://billing-xp.np.six-group.com/ebill-bank-portal/ui/

XE: https://billing-xe.np.six-group.com/ebill-bank-portal/ui/

2.6.2 Means of Authentication for Access to eBill Portal

The information on the currently valid means of authentication for accessing the eBill Bank Portal are available in the Member Section at https://billing.six-group.com/private/de/home/certificates.html.

2.6.3   Functions in eBill Bank Portal and eBill Portal

The eBill Bank Portal is a web application for carrying out selected administrative tasks in connection with the administration of invoice issuer and invoice recipient data in the eBill service. Moreover, the eBill Portal can be accessed directly from the eBill Bank Portal (XE and XP level) for testing purposes of a specific user.

The most important functions that are available to a network partner in the eBill Bank Portal are listed below:

- Setting up new e-banking users (test customers)
- Overview of own e-banking users and their details
- Overview of business cases of own e-banking users along with the relevant details
- Overview of payment orders
- Rejection/approval of payment orders on behalf of the test bank for status changes
- Overview of all invoice issuers along with the relevant details
- Subscription, including direct subscription to an invoice issuer
- Access to the eBill Portal for a specific e-banking user

All functions that are available to an actual invoice recipient are also available in the eBill Portal.

- Invoice overview
- Subscription and cancelling subscription to an invoice issuer
- Invoice approval
- Invoice rejection
- Invoice viewing
- Entering a standing approval arrangement
- Adjusting settings, such as notifications, sharing, look-up, etc.

Individual test functions are listed in detail below.

Setting up new e-banking users

The test user can use this function to set up new e-banking users:
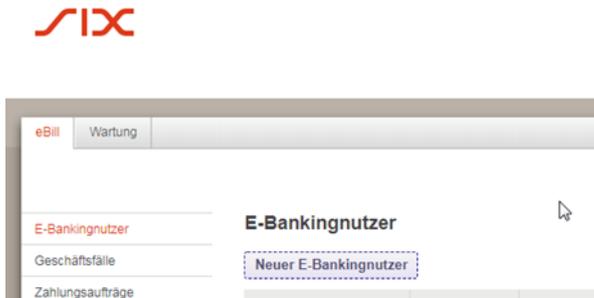
Figure 2:   Setting up e-banking users

After selecting the function, the test user can choose between two options:

Private:

- Registered e-banking user with eBill user: The e-banking user is fully registered as eBill user for the use of the eBill service (eBill Portal).

- Registrable e-banking user: The e-banking user must complete the registration process in order to use the eBill Portal.

Business:

- E-banking user with eBill user: A new eBill business user (this user corresponds to a company) is registered with an e-banking user who has access to eBill for this company.

- E-banking user for existing eBill user: Another e-banking user is registered for the existing eBill business user (company).

Figure 3:   Creating new e-banking users

The NWP Test Bank should be selected as financial institution. It will be opened by SIX for the NWP. Following the setting-up, the e-banking user is displayed in the eBill Bank Portal, and it is possible to switch to the eBill Portal:

Figure 4:   E-banking user information

Subscription to an invoice issuer

By means of this function, the test user can subscribe invoice recipients to invoice issuers. Alternatively, the invoice recipient can be subscribed using the eBill Portal. To simulate a direct subscription from e-banking, the function must be used in the eBill Bank Portal. After selecting a previously created e-banking user, the function can be accessed under "Details":

1. Select eBill banking user to access the details of the eBill user:

Figure 5:   E-banking user subscriptions

2. In the eBill user details, the "Invoice issuer subscription form" function can be accessed by clicking on "Subscribe":
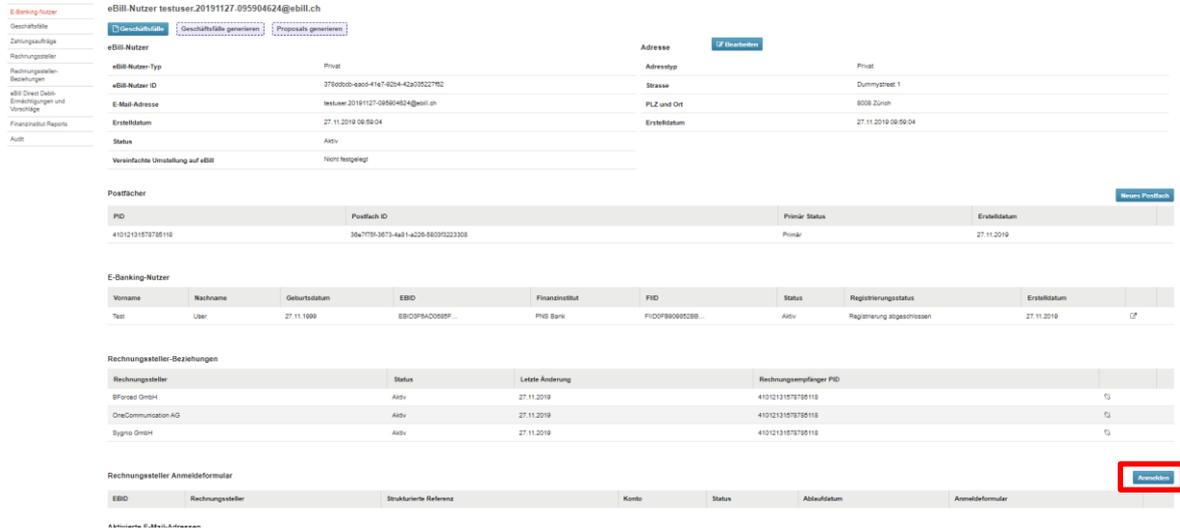
Figure 6:   E-banking user invoice issuer subscription form

3. The overview of available invoice issuers is displayed. The invoice recipient can subscribe to an invoice issuer by selecting it from the list.

   If the direct subscription from e-banking is to be simulated, a structured reference and an account must be specified under "Options".

Figure 7:   Structured reference and account

4. After successful subscription, the relationship is displayed with the "Applied" status under the eBill user details:
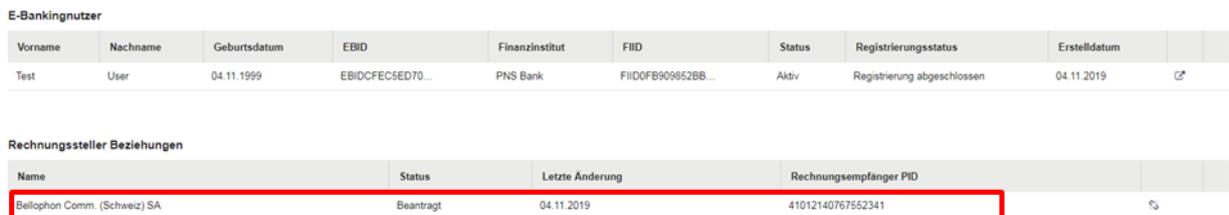
Figure 8:   eBill user details

If the invoice issuer uses a subscription form, this is displayed under "Invoice issuer subscription form" and can be opened there. Opening the subscription form is limited in time, i.e. once the time limit has expired, a new subscription form can be created.

Figure 9:   Invoice issuer subscription form

Payment instructions

In order for a test user to be able to change the status of the business case from the Bank view, it is possible to simulate pain.002 messages in the Bank Portal. After a business case has been approved in the eBill Portal, the test user can access the business case details in the eBill Bank Portal via the business case of the corresponding eBill user:

Figure 10:   E-banking business cases

Figure 11:   Business case details

The overview of payment orders for the corresponding business case can be accessed with the "Payment instructions" button:

Figure 12: Payment instructions

After selecting a payment order, the details are displayed. The pain.001 message that was sent to the bank after the business case was approved is listed under "Messages". To confirm the pain.001 message, the "Create PAIN.002 message" function can be used.
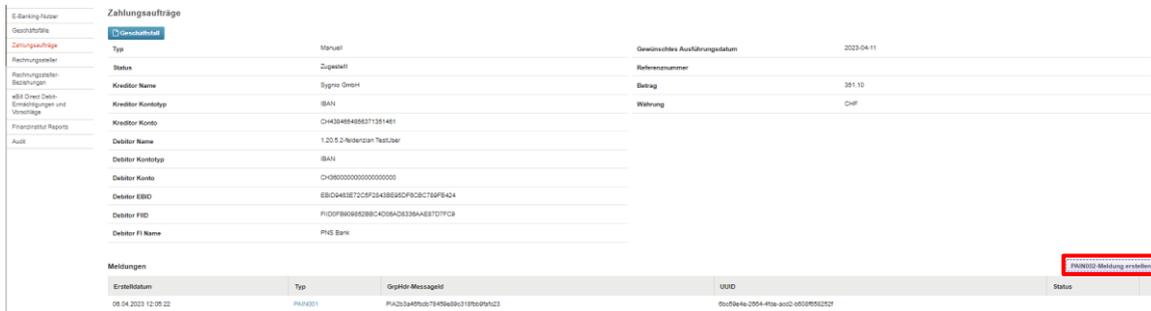
Figure 13: Payment instruction messages

Before creating the pain.002 message, the confirmation status must be selected. The following statuses are available for selection:

- ACCEPTED_VALIDATION: pain.001 message was successfully validated.

- SETTLED: pain.001 message was successfully processed.

- REJECTED: pain.001 message was rejected.

- DELETED: payment order was deleted by the e-banking user.

Figure 14: Message status

After the pain.002 message has been created, it is listed under "Messages":

Figure 15:   Message lists

2.7   Test Data

Master data that cannot be created independently by application functions are provided by SIX in the test environment. In particular, SIX provides the following master data:

- Master data of network partners

- Dedicated financial institution for network partners to access the eBill Bank Portal.

Invoice recipients

New invoice recipients can be set up by the network partner via the eBill Bank Portal.

Invoices

Business cases (invoices, notifications, reminders, etc.) can be delivered by the network partner as a PDF/A-3 via the NWP API.

2.8   Availability of Test Levels

The XE and XP integration levels are in principle permanently available, with the exception of Thursdays. Thursdays are reserved for the system maintenance of the eBill platform, release updates, etc.

SIX also reserves the right to use the XE level exclusively for internal test and acceptance processes as part of further developments and to temporarily restrict access for network partners. These time windows are kept as short as possible.

3 Integration and Acceptance

A network partner develops and tests the interface for the eBill infrastructure independently using the documents received from SIX. Once its independent tests have been completed successfully, the network partner conducts an acceptance test and activates the productive operation. The corresponding test definitions are provided by SIX. Successful performance of the tests is a prerequisite for the acceptance and approval for productive use.

In the first phase, the network partner independently validates and tests implementation using the test infrastructure provided by SIX.

In the second phase, an acceptance test is performed to ensure that the interface can be approved for productive operations.

Acceptance test procedure

1. The network partner develops the interface with the eBill infrastructure based on the documents provided.

2. The network partner conducts a technical integration test on the interface.

3. The network partner uses the test system (XP) to test the interface that it has developed and records the test results in the acceptance test report.

4. Once all test cases have been run through and tested successfully, the network partner contacts SIX for the acceptance test. The acceptance test completed by the NWP is sent to SIX.

5. SIX verifies the test results and completes the acceptance test report.

6. SIX transfers the test environment configuration to the production environment.

7. The network partner specifies the time for the approval for the production environment and notifies SIX accordingly.

8. SIX activates the network partner for the production environment at the appointed time.

9. Once this process is complete, the network partner can offer the eBill service (electronic invoices, reminders, credit notes, notifications and donation requests) to its customers.

3.1   Acceptance Test

After the network partner has successfully completed independent integration tests, an acceptance test can be conducted. The network partner informs the SIX project manager that they are ready for an acceptance test.

The acceptance test checks the functional use cases, or the interfaces, with end-to-end tests between the network partner and SIX. Further information and requirements concerning onboarding can be found in the Technical Onboarding Specifications.

Once the acceptance process is successfully completed, the network partner is configured for productive operations and then activated at the time agreed upon.

3.2   Retesting Network-Relevant Functions

Retesting is performed whenever a new network-relevant function is introduced or an existing one is changed. The network partner tests the new functions or changes to network-relevant functions itself.

3.3   Performance of the Tests and Test Evidence

The network partner is responsible for conducting the acceptance and approval tests.

The test evidence can be provided in different ways and is different depending on the test cases to be conducted:

Self-declaration

The simplest form is self-declaration by the network partner. Test cases in this category do not require any additional control by SIX and fall entirely under the responsibility and expertise of the network partner. They are marked with "**SD**" in the test cases.

Self-declaration with evidence

This category is intended for network-relevant functions that must be implemented. The network partner carries out the corresponding tests independently but provides test evidence as a result (e.g. screenshot, log extract, etc.). They are marked with "**SDE**" in the test cases.

3.4   Prerequisites and Entry Criteria for Acceptance

In order to enter the acceptance process, various prerequisites and entry criteria must be fulfilled:

- Complete technical connection at the XP test level

- Complete application configuration at the XP test level

- The network partner has completed implementation according to the specifications and has independently and successfully worked through the acceptance test cases provided by SIX.

3.4.1   Termination Criteria

Various situations can lead to the termination of the ongoing acceptance process and to a mandatory rescheduling of the acceptance:

- Critical implementation errors on the part of the network planner

- The eBill and/or necessary platform accesses are not available or cannot be made available within two hours.

3.4.2   Reporting and Test Completion

The results of the acceptance test are recorded by SIX in the acceptance test report and are made available to the network partner.

The network partner may comment on the report if they do not agree with the results or if they want to make additions.

The acceptance test report forms the basis for the activation of the network partner for production, or for determining the next steps to be taken.

4   Network Partner Function Test Cases

This section describes the eBill functions of the NWP API. All details such as resources, technical operations, payload definitions, validation information, etc. can be found in the detailed technical OpenAPI specifications and the documentation of the content of the structured information from the eBill format.

Network-relevant functions of the NWP API are marked with an asterisk * and must be implemented and documented with evidence by the network partner.

Test evidence is provided as self-declaration (SD) or as self-declaration with evidence, "**SDE**" (see section: 3.3 Performance of the Tests and Test Evidence). To be able to execute the test cases, access to the eBill infrastructure via the network partner's API must be established.

4.1   Querying System Status

Requests information about the system status (can be used as a health check for the eBill infrastructure).

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
1.1	Query system status.	SD	Access via the NWP API is established.	Query system status. Health check.	Request is processed successfully. Authentication and authorization were successful.
1.2	Query system status and display maintenance window.	SD	Access via the NWP API is established. A published maintenance window is set up by SIX for the future.	Query system status. Health check.	Request is processed successfully. Authentication and authorization were successful. Published maintenance windows are transmitted and displayed by the NWP.

4.2 Querying Sectors

Sectors are valid across the system and are managed in the eBill infrastructure. The network partner assigns one or more sectors to an invoice issuer during data entry.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
2.1	Query sectors.	SD	Access via the NWP API is established.	Query supported sectors.	Sectors are transmitted and displayed in ger, fre, ita and eng languages.

4.3 Searching/Querying Invoice Issuers

The network partner can query the invoice issuers connected to the eBill infrastructure. The network partner receives a list with the returned invoice issuer list and can search in it for the desired information.

With the exception of the subscription URL, every network partner can see all the information of an invoice issuer. Only the primary network partner sees the subscription URL.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
3.1	Query public data of all invoice issuers. With search by name.	SD	Access via the NWP API is established.	Query public data of all invoice issuers with various search criteria. Search by: - Name of invoice issuer	Invoice issuers that are found based on the search criteria are returned and displayed.
3.2	Query public data of all invoice issuers. With search by UID.	SD	Access via the NWP API is established.	Query public data of all invoice issuers with various search criteria. Search by: - UID	Invoice issuers that are found based on the search criteria are returned and displayed.
3.3	Query public data of all invoice issuers. With search by IBAN/QR-IBAN.	SD	Access via the NWP API is established.	Query public data of all invoice issuers with various search criteria. Search by: - IBAN/QR-IBAN	Invoice issuers that are found based on the search criteria are returned and displayed.
3.4	Query public data of all invoice issuers. Search is performed using multiple search criteria.	SD	Access via the NWP API is established.	Query public data of all invoice issuers with various search criteria. Combine different search criteria. - Name of invoice issuer - UID - IBAN/QR-IBAN	Invoice issuers that are found based on the search criteria are returned and displayed.

| **3.5** | Query detailed data of an invoice issuer. With search by invoice issuer ID. | SD | Access via the NWP API is established.

Invoice issuer is registered.

Network partner is assigned as primary NWP for this invoice issuer. | Query detailed data of an invoice issuer with various search criteria. Search by:

- Invoice issuer ID | Only the detailed data on the desired invoice issuer is returned and displayed. |

4.4 Registering Invoice Issuers*

This use case is a central element of the services provided by SIX and enables invoice issuers to be onboarded for the eBill service.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
4.1	Set up/register a new invoice issuer without a subscription form.	SDE	Access via the NWP API is established. Invoice issuer has not yet been connected to another NWP.	Register a new invoice issuer on the eBill infrastructure. - Name of invoice issuer - UID from the Commercial Register - Contact data for all languages (ger, fre, ita, eng): display name, address data, logo, e-mail address, phone number - Sector(s) - Account information - Anomaly detection limit (set value 250,000)	Invoice issuer is set up with the desired data elements. Invoice issuer ID is reported back and stored for the invoice issuer.
4.2	Set up/register a new invoice issuer for donation requests without a subscription form. (Optional if the invoice issuer does not submit donation requests.)	SDE	Access via the NWP API is established. Invoice issuer has not yet been connected to another NWP.	New registration of an invoice issuer for donation requests on the eBill infrastructure. - Name of invoice issuer - UID from the Commercial Register - Contact data for all languages (ger, fre, ita, eng): display name, address data, logo, e-mail address, phone number - Sector(s) - Account information - Anomaly detection limit (set value 250,000)	Invoice issuer for donation requests is set up with the desired data elements. Invoice issuer ID is reported back and stored for the invoice issuer.

4.3	Repeated setting up/registration of an invoice issuer.	SDE	Access via the NWP API is established. An invoice issuer has been already activated once.	Register an invoice issuer that shares any of the following characteristics with the previously registered issuer: - Credit account (+ account addition where available) - Display name, street and place - If a UID exists according to the Commercial Register: display name and commercial register UID	Invoice issuer has not been set up. User is notified of the error.

4.5   Editing Invoice Issuer Data*

This use case is a central element of the services provided by SIX and makes it possible to keep invoice issuer data up to date. Invoice issuer data can be managed only by the primary network partner.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
5.1	Change invoice issuer name.	SDE	Access via the NWP API is established. Invoice issuer is fully registered, and the acting NWP is the primary NWP.	Change legal name.	Name is correctly changed.
5.2	Change invoice issuer UID number.	SDE	Access via the NWP API is established. Invoice issuer is fully registered.	Change UID number.	UID number is correctly changed.
5.3	Change invoice issuer contact information in German.	SDE	Access via the NWP API is established. Invoice issuer is fully registered.	Change German contact data: - Display name - Address - Email - Phone number	German contact data is correctly changed.
5.4	Change invoice issuer contact information in French.	SDE	Access via the NWP API is established. Invoice issuer is fully registered.	Change French contact data: - Display name - Address - Email - Phone number	French contact data is correctly changed.

5.5	Change invoice issuer contact information in Italian.	SDE	Access via the NWP API is established. Invoice issuer is fully registered.	Change Italian contact data: - Display name - Address - Email - Phone number	Italian contact data is correctly changed.
5.6	Change invoice issuer contact information in English.	SDE	Access via the NWP API is established. Invoice issuer is fully registered.	Change English contact data: - Display name - Address - Email - Phone number	English contact data is correctly changed.
5.7	Change/add invoice issuer sector.	SDE	Access via the NWP API is established. Invoice issuer is fully registered.	Change sector and/or add an additional sector.	Sector is correctly changed/added.
5.8	Change/add invoice issuer account data.	SDE	Access via the NWP API is established. Invoice issuer is fully registered.	Change account data and/or add an additional account.	Account is correctly changed/added.
5.9	Change the limit for anomaly detection.	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Limit for anomaly detection is set to 1,000.	Set limit for anomaly detection to new value 125,000.	Limit has been set to the new value.

5.10	Declare invoice issuer as a donation organization. (Optional if the invoice issuer does not submit donation requests.)	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice issuer is not declared as a donation organization.	Change the donation ID for the invoice issuer. Declare invoice issuer as a donation organization.	Donation ID has been activated. Invoice issuer is allowed to submit donation requests.
5.11	Invoice issuer is no longer declared as a donation organization. (Optional if the invoice issuer does not submit donation requests.)	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice issuer is declared as a donation organization.	Change the donation ID for the invoice issuer. Invoice issuer is no longer declared as a donation organization.	Donation ID has been deactivated. Invoice issuer is not allowed to submit donation requests. s

4.5.1   Changing Invoice Issuer Data Logo*

This use case is a central element of the services provided by SIX and makes it possible to keep invoice issuer data up to date.

Invoice issuer data can be managed in full only by the primary network partner.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
6.1	Change invoice issuer logo.	SDE	Access via the NWP API is established. Invoice issuer is fully registered. A logo is saved with the invoice issuer.	Replace invoice issuer's logo.	Logo is correctly replaced. New logo is displayed.
6.2	Delete invoice issuer logo.	SDE	Access via the NWP API is established. Invoice issuer is fully registered. A logo is saved with the invoice issuer.	Delete invoice issuer's logo.	Logo is deleted. Logo is no longer displayed.
6.3	Add invoice issuer logo.	SDE	Access via the NWP API is established. Invoice issuer is fully registered. No logos are saved for the invoice issuer.	Add invoice issuer's logo.	Logo has been added and is displayed.

4.5.2 Zewo Certification for NPOs (Non-Profit Organisations)

This use case can be used by an NWP to manage the Zewo label for NPOs (non-profit organisations). This allows e-Bill users to identify Zewo-certified NPOs easily.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
7.1	Query the list of Zewo certification IDs.	SDE	Access via the NWP API is established.	Query the list of Zewo certification IDs.	If certification IDs are stored, they are reported back.
7.2	Zewo certification Add logo for an NPO (non-profit organisation).	SDE	Access via the NWP API is established. Invoice issuer is fully registered. No Zewo label is saved for the invoice issuer.	Save Zewo label for an NPO.	Zewo label was added and is shown in the eBill Portal.
7.3	Zewo certification Change logo for an NPO (non-profit organisation).	SDE	Access via the NWP API is established. NPO invoice issuer is fully registered. A Zewo label is saved with the invoice issuer.	Replace invoice issuer's Zewo label.	Zewo label is correctly replaced. New Zewo label is shown.
7.4	Zewo certification Delete logo for an NPO (non-profit organisation).	SDE	Access via the NWP API is established. Invoice issuer is fully registered. A Zewo label is saved with the invoice issuer.	Delete invoice issuer's Zewo label.	Zewo label was deleted. Zewo label is no longer displayed.

4.5.3 Deregistering Invoice Issuers*

This use case is a central element of the services provided by SIX and makes it possible to deregister an invoice issuer from the eBill service. Invoice issuer deregistration can be performed only by the primary network partner. When an invoice issuer is deregistered, it is not deleted but set to "inactive" in the system. As a result, it can no longer submit business cases or be found on the list of invoice issuers in the eBill Portal.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
8.1	Deactivate eBill for invoice issuer.	SDE	Access via the NWP API is established. Invoice issuer was set up in the eBill infrastructure. The status is ACTIVE and subscriptions to the invoice issuer are allowed. The invoice issuer is visible in the eBill Portal for subscriptions.	Deactivate eBill for invoice issuer.	Invoice issuer status is inactive. Subscriptions to the invoice issuer are no longer possible. The invoice issuer is no longer visible in the eBill Portal for subscriptions.

4.6 Querying Invoice Recipients*

This service is a central element of the services provided by SIX and supports a simplified (invoice issuer-initiated) process for subscribing an invoice recipient to the invoice issuer for obtaining electronic invoices. This operation is also referred to as "Invoice Recipient Look-up".

Only invoice recipients that have consented to the look-up process or have an active relationship with the invoice issuer can be found.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
9.1	Search for a possible invoice recipient by e-mail address. Invoice recipient is found.	SDE	Access via the NWP API is established. Invoice issuer has the invoice recipient's e-mail address. The invoice recipient must allow being found by invoice issuers.	Search for an invoice recipient via the e-mail address that the customer stores for eBill.	The desired recipient is found. E-mail address and the participant's identification number (PID) is reported back. Search result is displayed accordingly.

| 9.2 | Search for a possible invoice recipient customer ID (Participant Identification Number – PID). | SDE | Access via the NWP API is established.

The invoice issuer has a customer ID (participant identification number – PID) of the invoice recipient.

The invoice recipient must allow being found by invoice issuers. | Search for an invoice recipient via invoice recipient ID such as participant identification number (PID).

Search with:

41020165119257508 | The desired recipient is found. Participant identification number (PID) is reported back.

Search result is displayed accordingly. |
| 9.3 | Search for a possible invoice recipient by e-mail address.
Invoice recipient is not found. | SDE | Access via the NWP API is established.

Invoice issuer has the invoice recipient's e-mail address.

The invoice recipient must be set up in such a way that it cannot be found by invoice issuers. | Search for an invoice recipient via the e-mail address that the customer stores for eBill. | The desired participant is not found. E-mail address is not reported back.

Search result is displayed accordingly. |

9.4	Search for a possible invoice recipient by UID.	SDE	Access via the NWP API is established. Invoice issuer has the invoice recipient's UID address. The invoice recipient is registered as a company and must allow being found by invoice issuers.	Search for an invoice recipient via eBill user (UID) that the business customer stores for eBill.	The desired participant is found. eBill user (UID) and participant identification number (PID) are reported back. Search result is displayed accordingly.
9.5	Search for several possible invoice recipients by e-mail address.	SDE	Access via the NWP API is established. Invoice issuer has several e-mail addresses of possible invoice recipients. The invoice recipients must allow being found by invoice issuers.	Search for multiple invoice recipients via multiple e-mail addresses. Search for multiple invoice recipients via multiple e-mail addresses that have been stored for eBill.	The found participants are reported back. Search result is displayed accordingly.

9.6	Search for multiple possible invoice recipients by customer ID (Participant Identification Number – PID).	SDE	Access via the NWP API is established. Invoice issuer has several PIDs of possible invoice recipients. The invoice recipients must allow being found by invoice issuers.	Search for multiple invoice recipients via invoice recipient ID, such as Participant Identification Number (PID).	The found participants are reported back. Search result is displayed accordingly.
9.7	Search for multiple possible invoice recipients by UID.	SDE	Access via the NWP API is established. Invoice issuer has several UIDs of possible invoice recipients. The invoice recipients must allow being found by invoice issuers.	Search for multiple invoice recipients via eBill user (UID).	The found participants are reported back. Search result is displayed accordingly.

4.7   Submitting Business Cases*

This use case is a core element of the services provided by SIX. It ensures that business cases are sent from the network partner to the eBill infrastructure.

Business cases can be submitted via any network partner. Submission results in a business case being placed in the data room of the network partner and invoice issuer involved.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
10.1	Submit an invoice.	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice recipient has subscribed to the desired invoice issuer.	Submit invoice as PDF/A-3.	Invoice is processed and can be seen in the Bank Portal and in the eBill Portal as "Invoice" with "Open" status.
10.2	Submit a reminder. (Optional if the invoice issuer does not submit reminders.)	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice recipient has subscribed to the desired invoice issuer. An invoice has been submitted.	Submit reminder as PDF/A-3 with reference to an invoice that has been previously submitted.	Reminder is processed and can be seen in the Bank Portal and in the eBill Portal as "Reminder" with "Open" status. The business case (details) contains a reference to the original invoice and vice versa. In the customer's eBill Portal, the original invoice can be retrieved via the reminder, and the reminder via the original invoice.

10.3	Submit an installment invoice. (optional if the invoice issuer does not submit installment invoices)	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice recipient has subscribed to the desired invoice issuer.	Submit installment invoice as PDF/A-3	Installment invoice is processed and can be seen in the Bank Portal and in the eBill Portal as "Invoice" with "Open" status.
10.4	Submit a credit note. (optional if the invoice issuer does not submit credit notes)	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice recipient has subscribed to the desired invoice issuer.	Submit credit note as PDF/A-3.	Credit note is processed and can be seen in the Bank Portal and in the eBill Portal as "Credit note".
10.5	Submit a notification. (optional if the invoice issuer does not submit notifications)	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice recipient has subscribed to the desired invoice issuer.	Submit notification as PDF/A-3.	Notification is processed and can be seen in the Bank Portal and the eBill Portal as "Notification".

10.6	Rolled-over invoice. Submit an invoice with reference to another business case of the same invoice issuer.	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice recipient has subscribed to the desired invoice issuer. An invoice has already been submitted and its status is "Open".	Submit invoice as PDF/A-3 with reference to a business case that has previously been submitted.	Invoice is processed and can be seen in the Bank Portal and in the eBill Portal as "Invoice" with "Open" status. The referenced rolled-over invoice is displayed with "Completed" status.
10.7	Submit a donation request. Without a specific donation purpose and donation amount. (Optional if the invoice issuer does not submit donation requests.)	SDE	Access via the NWP API is established. An invoice issuer is fully registered as a donation invoice issuer. Invoice recipient has subscribed to the desired invoice issuer.	Submit invoice as PDF/A-3. One-time donation purpose and donation amount.	Invoice is processed and can be seen in the Bank Portal and the eBill Portal as "Donation request" with "Open" status.

10.8	Submit a donation request (earmarked). With specific donation purposes and donation amounts. (Optional if the invoice issuer does not submit donation requests.)	SDE	Access via the NWP API is established. An invoice issuer is fully registered as a donation invoice issuer. Invoice recipient has subscribed to the desired invoice issuer.	Submit invoice as PDF/A-3. List of donation purposes and list of donation amounts is provided.	Invoice is processed and can be seen in the Bank Portal and the eBill Portal as "Donation request" with "Open" status.
10.9	Submit incorrect invoice. Invoice recipient has not subscribed to the invoice issuer.	SDE	Access via the NWP API is established. Invoice issuer is fully registered. Invoice recipient has **not** subscribed to the desired invoice issuer and the eBill user cannot be added automatically (look-up).	Submit invoice as PDF/A-3.	Invoice is rejected and not processed. Internal process in the event of an error is triggered at the NWP. The invoice issuer must be informed about the incorrect submission. The invoice issuer adjusts their processing.
10.10	Submit incorrect invoice. With incorrect identification.	SDE	Access via the NWP API is established. Invoice issuer is fully registered.	Submit invoice as PDF/A-3 with wrong participation identification number (PID) or unknown e-mail address.	Invoice is rejected and not processed. Internal process in the event of an error is triggered at the NWP. The invoice issuer must be informed about the incorrect submission. The invoice issuer adjusts their processing.

4.8   Querying Business Case Data

This use case is a supporting element of the services provided by SIX and enables the network partner to request information concerning business cases that it has initiated.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
11.1	Query business case data for an invoice.	SD	Access via the NWP API is established. An invoice was submitted and processed.	Query business case data for the submitted invoice.	Information about the requested invoice is reported back and displayed.
11.2	Query business case data for a reminder.	SD	Access via the NWP API is established. A reminder was submitted and processed.	Query business case data for the submitted reminder.	Information about the requested reminder is reported back and displayed.
11.3	Query business case data for an installment invoice.	SD	Access via the NWP API is established. An installment invoice was submitted and processed.	Query business case data for the submitted installment invoice.	Information about the requested installment invoice is reported back and displayed.
11.4	Query business case data for a donation request.	SD	Access via the NWP API is established. A donation request invoice was submitted and processed.	Query business case data for the submitted donation request.	Information about the requested donation request is reported back and displayed.

4.9   Querying Business Case Processing Events

This use case is a supporting element of the services provided by SIX and enables the network partner to query business case processing events and forward the information to its invoice issuers.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
12.1	Query status change of business cases (invoice and reminder).	SD	Access via the NWP API is established. An invoice and a reminder were submitted and processed.	Business cases invoices and reminders have been approved or rejected. Query processing events for business case invoices and reminders.	Information on the status change for the business cases invoices and reminders is reported back and processed by the NWP.
12.2	Query status change of business cases (donation requests with a specific donation purpose).	SD	Access via the NWP API is established. Donation requests were delivered and processed.	Donation request business cases with a specific donation purpose approved. Query processing events for business case donation requests.	Status change information for the donation request business case is reported back and processed by the NWP including the donation purpose.

| 12.3 | Query status change of business cases (installment invoice). | SD | Access via the NWP API is established.

An installment invoice was submitted and processed. | Business cases for installment invoice have been submitted and approved or rejected.

Query processing events for business case installment invoices. | Information on the status change for the installment invoice is reported back and processed by the NWP. |

4.10   Retrieving Subscription and Cancellation Events*

This use case is an element of the services provided by SIX and enables the network partner to obtain events for the invoicing authorisation created between the invoice recipient and invoice issuer and to forward the information to its invoice issuers. By processing of these events, validation errors during submission can be avoided.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
13.1	Query events via delivery permit (subscription).	SDE	Access via the NWP API is established. No subscription forms are saved for the invoice issuer. Subscription to the invoice issuer takes place **without** a subscription form.	Invoice recipient subscribes to the invoice issuer.	Information on the desired subscription status is transmitted. The information is communicated to the invoice issuer in an appropriate form. Relationships are accordingly tracked in the NWP infrastructure.
13.2	Query events via delivery permit (cancellation).	SDE	Access via the NWP API is established. Invoice recipient has subscribed to the invoice issuer.	Invoice recipient cancels subscription to the invoice issuer.	Information on the desired cancellation status is transmitted. The information is communicated to the invoice issuer in an appropriate form. Relationships are accordingly tracked in the NWP infrastructure.

4.11   Querying Changed E-Mail Addresses

This use case is a supporting element of the services provided by SIX and enables the network partner to retrieve events for changed e-mail addresses and to forward the information to its invoice issuers. By processing of these events, validation errors during submission can be avoided.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
14.1	Collect events about e-mail addresses that have been changed.	SD	Access via the NWP API is established. Invoice recipient is registered for eBill.	Invoice issuer changes their e-mail address in the eBill Portal. An invoice is submitted to the old e-mail address. Collect events about e-mail addresses that have been changed.	Event for the changed e-mail address is sent. The information is communicated to the invoice issuer in an appropriate form. Invoice issuer saves the new e-mail address for further submissions.

4.12 Invoice Recipient Subscription via Invoice Issuer Website

This service supports an invoice recipient-initiated subscription to the invoice issuer via the invoice issuer's website/portal.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
15.1	Invoice recipient can register for eBill directly on the invoice issuer's website.	SD	Access via the NWP API is established. Invoice recipient is registered for eBill. Invoice issuer supports an eBill subscription directly from its website.	1. The invoice recipient enters the e-mail address used in eBill on the invoice issuer's website. The subscription is triggered. 2. The verification code that was sent to the specified e-mail address is entered on the invoice issuer's website.	1. An e-mail with verification code is sent to the specified e-mail address. 2. After successful subscription with the verification code, a relationship between invoice issuer and invoice recipient with the status "Active" is created and can be seen in the Bank Portal under "Invoice issuer relationships" for the corresponding eBill user. The invoice recipient's subscription data are reported back to the NWP.
15.2	Invoice recipient subscribes via the invoice issuer's website with an incorrect verification code.	SD	Access via the NWP API is established. Invoice recipient is registered for eBill. An invoice issuer can be created via the Bank Portal. Invoice issuer supports an eBill subscription directly from its website.	1. The invoice recipient enters the e-mail address used in eBill on the invoice issuer's website. The subscription is triggered. 2. An incorrect verification code is entered on the invoice issuer's website.	1. An e-mail with verification code is sent to the specified e-mail address. 2. Error message is reported back to the NWP and displayed to the invoice recipient.

4.13   Checking if Invoice Recipient is Available in eBill Infrastructure

This service enables a network partner to check whether an invoice recipient is available in the eBill infrastructure based on the "PID" participant number.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
16.1	Check if an invoice recipient exists. Customer is found.	SDE	Access via the NWP API is established. The invoice issuer has a customer ID such as the participant identification number (PID) of the invoice recipient.	Check whether an invoice recipient exists in the eBill infrastructure via the invoice recipient ID, such as participant identification number (PID). Search e.g. with: 41020165119257508	The desired recipient is found. Participant identification number (PID) is reported back.
16.2	Check if an invoice recipient exists. Customer is not found.	SDE	Access via the NWP API is established. The invoice issuer has a customer ID, such as the participant identification number (PID) of the invoice recipient.	Check whether an invoice recipient exists in the eBill infrastructure via the invoice recipient ID, such as participant identification number (PID). The search is made with a PID which does not exist. Search e.g. with: 41020165112345678	The desired participant is not found.

4.14   Creating or Changing Subscription Form Directly in eBill Infrastructure

This use case is a supporting element of the services provided by SIX and makes it possible for an NWP to save a subscription form for an invoice issuer directly in the eBill infrastructure. For the additional fields, only fields that are mandatory should be created. Such a subscription form will be accessed whenever an invoice recipient wants to subscribe to an invoice issuer. Only the primary network partner of an invoice issuer can save subscription forms for this invoice issuer.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
17.1	Create a subscription form in the eBill infrastructure.	SD	Access via the NWP API is established. The NWP has created its own invoice issuer.	- A subscription form is saved for the desired invoice issuer. - Info text in the respective language (ger, fre, ita, eng). - Form field (CUSTOM type for all to be visible) in the respective language (ger, fre, ita, eng), e.g. for customer number. - Validation of the form field: minimum length 3 digits/maximum 6 digits, allowed numeric input between 800 and 700,500. - Description text for customer number in the respective language (ger, fre, ita, eng) e.g.: "You can find the customer number on the back of your customer card". - Create form field of BIRTHDAY type.	If a user wishes to subscribe to this invoice issuer via the eBill Portal, the created subscription form will be displayed. - Saved info text is displayed. - Input field (e.g. for customer number) is displayed. - Input according to saved validation. - Date of birth field is displayed. No input possible. - Check the subscription form in ger, fre, ita, eng, depending on the language of the invoice recipient.

17.2	Create a subscription form for a donation invoice issuer in the eBill infrastructure.	SD	Access via the NWP API is established. The NWP has created its own donation invoice issuer.	- A subscription form is saved for the desired invoice issuer. - Info text in the respective language (ger, fre, ita, eng). - Form field (CUSTOM type for all to be visible) in the respective language (ger, fre, ita, eng), e.g. for customer number. - Validation of the form field: minimum length 3 digits/maximum 6 digits, allowed numeric input between 800 and 700,500. - With several selection fields for donation purpose, e.g. for "oceans, jungles, Arctic".	If a user wishes to subscribe to this invoice issuer via the eBill Portal, the created subscription form will be displayed. - Saved info text is displayed. - Input field (e.g. for customer number) is displayed. - Input according to saved validation. - Check the subscription form in ger, fre, ita, eng, depending on the language of the invoice recipient. - A donation purpose "oceans, jungles, Arctic" can be selected.

17.3	Edit an existing subscription form in the eBill infrastructure.	SD	Access via the NWP API is established.
			
			The NWP has created its own invoice issuer. A subscription form is saved for this.
			
			The network partner is assigned as primary NWP for this invoice issuer.
				- Change info text in the respective language (ger, fre, ita, eng).
				- Form field: Change name, description and validation rule.
					If a user wishes to subscribe to this invoice issuer via the eBill Portal, the changed subscription form will be displayed.
					
					- Change info text according to the change in the respective language (ger, fre, ita, eng).
					- Form field according to change:
					  o Designation
					  o Description
					  o Validation rule

4.15   Querying Subscription Form

The network partner can query the subscription forms saved for an invoice issuer. The network partner receives the saved data for the requested subscription form. Only the primary network partner can receive the data on an invoice issuer.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
18.1	Query form data of an invoice issuer in the eBill infrastructure.	SD	Access via the NWP API is established. The NWP has created its own invoice issuer. A subscription form is saved for this in the eBill infrastructure. The NWP is assigned as primary NWP for this invoice issuer.	Query data of the saved subscription form for the invoice issuer.	The form data of the desired invoice issuer saved in the eBill infrastructure is transmitted and displayed.

4.16   Deleting Subscription Form

The network partner can delete the subscription forms saved for an invoice issuer.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
19.1	Delete the subscription form of an invoice issuer in the eBill infrastructure.	SD	Access via the NWP API is established. The NWP has created its own invoice issuer. A subscription form is saved for this. The NWP is assigned as primary NWP for this invoice issuer.	Delete data of the saved subscription form for the invoice issuer.	The saved subscription form of the desired invoice issuer has been deleted in the eBill infrastructure. When trying to subscribe to this invoice issuer via the eBill Portal, subscription form is no longer displayed.

4.17   eBill Direct Debit

4.17.1   Registering and Activating Invoice Issuers for eBill Direct Debit

This use case is a central element of the services provided by SIX and enables invoice issuers to be onboarded for the eBill service, including the eBill Direct Debit functionality.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
20.1	Set up/register a new invoice issuer. The invoice issuer is activated for the eBill Direct Debit functionality.	SD	Access via the NWP API is established. Invoice issuer has not yet been connected to another NWP.	Register a new invoice issuer on the eBill infrastructure. - Name of invoice issuer - Supporting eBill Direct Debit - UID from the Commercial Register - Contact data for all languages (ger, fre, ita, eng): display name, address data, logo, e-mail address, phone number - Sector(s) - Account information - Anomaly detection limit (set value 250,000)	Invoice issuer is set up with the desired data elements. The eBill Direct Debit functionality is activated for the invoice issuer. Invoice issuer ID is reported back and stored for the invoice issuer.

4.17.2 Invoice Issuer: Managing Entry for eBill Direct Debit

The setting whether an invoice issuer supports eBill Direct Debit is activated or deactivated.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
21.1	Change the eBill Direct Debit configuration for the invoice issuer. Set the eBill Direct Debit configuration from activated to deactivated.	SD	Access via the NWP API is established. Invoice issuer has not yet been connected to another NWP. The invoice issuer supports eBill Direct Debit.	The configuration for eBill Direct Debit is changed for the invoice issuer. - No longer supporting eBill Direct Debit	The eBill Direct Debit functionality is no longer activated for the invoice issuer.
21.2	Change the eBill Direct Debit configuration for the invoice issuer. Set the eBill Direct Debit configuration from deactivated to activated.	SD	Access via the NWP API is established. Invoice issuer has not yet been connected to another NWP. The invoice issuer does not currently support eBill Direct Debit.	The configuration for eBill Direct Debit is changed for the invoice issuer. - The invoice issuer now supports eBill Direct Debit -	The eBill Direct Debit functionality is activated for the invoice issuer.

4.17.3   eBill Direct Debit Invitations Together with Look Up

An invoice issuer can invite an invoice recipient to support eBill Direct Debit and thus receive eBill Direct Debit claims.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
22.1	Check if an invoice recipient exists. Invoice recipient is found.	SD	Access via the NWP API is established. The invoice issuer supports eBill Direct Debit. Invoice issuer has the invoice recipient's customer ID such as their e-mail address.	The invoice issuer uses the e-mail address to check whether the invoice recipient is known in the eBill infrastructure (Look-Up).	Invoice recipient is found: • An eBill DD invitation can be sent to the invoice recipient. • Continue with test case 21.2 Invoice recipient is not found: • No eBill DD invitation can be sent to the invoice recipient.
22.2	Submit an eBill Direct Debit invitation. Invoice recipient exists in the eBill infrastructure and would like to receive eBill Direct Debit invitations.	SD	Access via the NWP API is established. The invoice issuer supports eBill Direct Debit. The invoice recipient supports eBill Direct Debit. Test case 21.1 was performed. The invoice recipient would like to be found by invoice issuers for eBill Direct Debit and receive respective invitations.	An eBill Direct Debit invitation is sent to the invoice recipient.	An eBill Direct Debit invitation has been processed and is visible to the invoice recipient in the eBill Portal. The invoice recipient can now accept or reject it.

4.17.4 Submitting eBill Direct Debit Claim

Submitting eBill Direct Debit claims for a specific invoice recipient.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
23.1	Submit an eBill Direct Debit claim.	SD	Access via the NWP API is established. The invoice issuer supports eBill Direct Debit. Invoice recipient has subscribed to the desired invoice issuer. An eBill Direct Debit authorisation has been set up for the invoice issuer by the invoice recipient.	Submit an eBill Direct Debit claim to the invoice recipient (PDF/A-3 format).	The eBill Direct Debit claim has been processed and is visible in the Bank Portal and the eBill Portal in the status "approved".

4.17.5 Collecting events for eBill Direct Debit authorisations and reclaims

Collecting and processing events that influence eBill Direct Debit processing.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
24.1	Query events via the eBill Direct Debit authorisation (authorisation has been created).	SD	Access via the NWP API is established. The invoice issuer supports eBill Direct Debit. The invoice recipient has not subscribed to the invoice issuer yet.	An invoice recipient subscribes to the invoice issuer and then creates an eBill Direct Debit authorisation.	Information about the subscription and the created eBill Direct Debit authorisation is transmitted. 2 events are to be processed. 1. One for the registration 2. One for the information on the authorisation The information is communicated to the invoice issuer in an appropriate form. The invoice issuer switches the invoice recipient to receiving eBill Direct Debit claims.

| 24.2 | Query events via the eBill Direct Debit authorisation (authorisation has been deleted). | SD | Access via the NWP API is established.

The invoice issuer supports eBill Direct Debit. | An invoice recipient deletes a previously created eBill Direct Debit authorisation. | Information about the deleted eBill Direct Debit authorisation is transmitted.

The information is communicated to the invoice issuer in an appropriate form.

The invoice issuer switches the invoice recipient to receiving normal eBill invoices or paper invoices.
eBill Direct Debit claims may no longer be submitted to the corresponding invoice recipient. |
| **24.3** | Query status change of business cases.
A reclaim for an eBill Direct Debit claim was triggered. | SD | Access via the NWP API is established.

The invoice issuer supports eBill Direct Debit.

An eBill Direct Debit claim was submitted.
The eBill Direct Debit claim has been processed and the payment has been triggered (paid). | The invoice recipient selects a paid eBill claim and triggers the reclaim process.

Query processing events for business cases. | Information on status changes for the business cases invoices and eBill Direct Debit claims is reported back and processed by the NWP.

The information about a reclaim is communicated to the invoice issuer in an appropriate form. |

4.18   Subscription to the II via QR Code

The II can generate a QR code and provide it to their IRs. Such QR code allows IRs to initiate subscription to the II.

ID	Brief description of test	Declaration	Prerequisites	Action	Expected result
25.1	Generate a URL without form fields and without reference no.	SDE	Access via the NWP API is established. The NWP has created its own invoice issuer. No subscription form is saved for this. The NWP is configured as primary NWP for this invoice issuer.	The II generates a generic subscription URL for their IRs. The URL received is converted to a QR code. Calling up/scanning the QR code. The QR form app is called up and shown. Carry out subscription to the II via QR form app.	Subscription to the II has been completed. Relationship with the II has been set up and a subscription event generated.
25.2	Generate a URL without form fields but with reference no.	SDE	Access via the NWP API is established. The NWP has created its own invoice issuer. No subscription form is saved for this. The NWP is configured as primary NWP for this invoice issuer.	The II generates a subscription URL for their IRs, containing a customer-specific reference no. The URL received is converted to a QR code. Calling up/scanning the QR code. The QR form app is called up and shown. Carry out subscription to the II via QR form app.	Subscription to the II has been completed. Relationship with the II has been set up and a subscription event generated. The reference no. is reported back to the NWP in the subscription event.

25.3	Generate a URL with form fields but without reference no.	SDE	Access via the NWP API is established. The NWP has created its own invoice issuer. A subscription form is saved for this. The NWP is configured as primary NWP for this invoice issuer.	The II generates a subscription URL for their IRs, containing customer-specific form fields. The URL received is converted to a QR code. Calling up/scanning the QR code. The QR form app is called up and shown. Carry out subscription to the II via QR form app.	Subscription to the II has been completed. Relationship with the II has been set up and a subscription event generated. The customer-specific fields from the subscription URL are reported back to the NWP in the subscription event.
25.4	Generate a URL with form fields and reference no.	SDE	Access via the NWP API is established. The NWP has created its own invoice issuer. A subscription form is saved for this. The NWP is configured as primary NWP for this invoice issuer.	The II generates a subscription URL for their IRs, containing customer-specific form fields and reference no. The URL received is converted to a QR code. Calling up/scanning the QR code. The QR form app is called up and shown. Carry out subscription to the II via QR form app.	Subscription to the II has been completed. Relationship with the II has been set up and a subscription event generated. The customer-specific fields and reference no. from the subscription URL are reported back to the NWP in the subscription event.

4.19 Error Cases and Error Handling

Each HTTP request from the client is answered with an HTTP status code. The status code indicates to the client whether the request was successful or not. In the event of an error, the response body contains additional information about what the cause of the error may be.

If an NWP requires help from SIX for problems, the requests to SIX should not be formulated in general terms. SIX always requires the following information for research and better error analysis:

- The use case, which call was accessed and the contents of it
- Date and exact time of the problem/test
- Which level is affected: XE or XP
- Error message
- Network Partner ID
- X-Correlation-Id (an ID that identifies the request, assigned by the network partner. It is also reported back in the response).

Example:

Request made:	GET /api/pns/xe/networkpartner/v1/billers/BIID0000000117 Host: api-etu.six-group.com		
Date:	28.08.2019 / 08:51	**Network Partner ID:**	NWID0091234567
System XE, XP, P level:	XE level	**X-Correlation-Id:**	bde19bdc-cb12-4599-b14c-a9d141d94785

Error message	{
	 "type": "/problems/NETWORK_PARTNER_OPERATION_NOT_ALLOWED",
	 "title": "Requested operation not allowed for network partner",
	 "status": 403,
	 "detail": "There are restrictions regarding access to some resources. See network partner API documentation in <<Primary Network Partners>> for details.",
	 "instance": "/api/pns/networkpartner/v1/billers/BIID0000000117/errors/NWID0000011212/bde19bdc-cb12-4599-b14c-a9d141d94785",
	  "technicalReason": "failed to access the resource, the network partner with id 'NWID0000011212' is not allowed to access the resource of the biller with id 'BIID0000000117'"
	}		