



Handbook for Network Partners

Introduction and Onboarding

Change History

Version	Date	Amendments
3.5	05.10.2026	Adjustment to chapter 2.1 due to the exclusive support of eBill Direct Debit in CHF. Clarification in chapter 4 regarding functions that can only be performed by primary network partners.
3.4	31.07.2025	Addition of new business case eBill Direct Debit
3.3	05.04.2024	Adjustment to chapter 2.3 due to the introduction of the specific QR code for subscription to an invoice issuer and enhancements to Look-up
3.2	05.04.2023	Adjustments to chapters 2.3 and 4 due to the deactivation of the externally hosted subscription forms Adjustments to chapter 3.2: "Test and acceptance procedure", in particular in Figure 6
3.1	20.10.2022	Revisions to chapter 2.4 "Submitting eBill business cases"
3.0	01.10.2021	Addition to "eBill donation requests" and "eBill for Business Software"
2.3	06.04.2021	Adjustment to chapter 2.2: "Anomaly detection and invoice issuer suspension"
2.2	10.12.2020	Addition to chapter 2.3: "Differences between the official name and the display name of the invoice issuer" Addition to chapter 2.3: "Deactivation of externally hosted subscription forms"
2.0	18.06.2020	Addition to chapter 2.3: "Subscription to the invoice issuer" Addition of a new chapter 2.2: "Anomaly detection and invoice issuer suspension"
1.6	28.01.2020	Addition to section 2.3: "Handling of Domicile Address". When registering business customers, a hyphen (-) should be used if the street and house number are not available.
1.5	10.01.2020	Revision to Version 1.5 (added requirements for subscription forms and information about submission of invoices with no amount in connection with QR-bill)
1.4	30.08.2019	Revision to Version 1.4 (adjustments due to the eBill for Business feature)
1.3	31.05.2019	Revision to Version 1.3 (some content transferred to Rulebook and Operating Agreement)
1.2	08.02.2019	Revision to Version 1.2
1.0	25.10.2018	Revision to Version 1.0
0.3	20.08.2018	Revision to beta version 2
0.2	30.04.2018	Revision to beta version
0.1	31.01.2018	First draft

Information

SIX BBS Ltd («SIX») reserves the right to amend this document as required within the terms of the agreement.

All rights are reserved for this document, including those for photomechanical reproduction, storage on electronic media and translation into foreign languages.

The document has been prepared with the utmost care, but errors and inaccuracies cannot be completely ruled out. SIX cannot assume any legal responsibility or liability for errors or their consequences.

If you find any errors in this document or have any suggestions for improvement, we would be grateful if you could send us your feedback by e-mail to support.billing-payment@six-group.com.

Target group

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.

Purpose

The *Handbook for Network Partners* provides an overview of the eBill service and the interaction between the ecosystem participants: the network partners, the financial institutions, the invoice issuers and the eBill infrastructure. It also outlines the organisational onboarding process for the network partners.

Scope

The *Handbook for Network Partners* describes only the functions and processes that concern the eBill service. The EDI eBill and Workflow eBill services are not included in the infrastructure services. Separate handbooks must be consulted for documentation regarding the Direct Debit service.

The *Handbook for Network Partners* provides an introduction to the topic and refers to other, more detailed documents.

Contents

1.	Introduction	7
1.1	Documentation.....	7
1.2	Roles involved in the invoicing process	9
1.3	Participants in the eBill ecosystem.....	10
1.3.1	SIX/eBill infrastructure	10
1.3.2	Network partners	10
1.3.3	Invoice recipients	10
1.3.4	Invoice issuers	11
1.3.5	Financial service providers of invoice recipients	11
1.3.6	Financial service providers of invoice issuers	11
1.4	Interfaces with the eBill infrastructure	12
1.4.1	Network partner API.....	12
1.4.2	Bank API	12
1.4.3	Payment transaction interface.....	12
1.4.4	eBill portal	12
1.4.5	Note on customer portals (not shown).....	12
2.	Invoicing processes with eBill.....	13
2.1	Registering an invoice issuer with the network partner	13
2.2	Anomaly detection and invoice issuer suspension	14
2.3	Subscription and cancelling subscriptions of invoice recipients.....	15
2.4	Submitting the eBill business cases	18
3.	Network partner onboarding and testing	19
3.1	Registering a network partner for the eBill service	19
3.2	Developing and approving the interface	20
3.2.1	Test infrastructure for integration testing	22
3.2.2	Acceptance test	23
3.2.3	Retesting network-relevant functions.....	23
4.	Functions of the NWP API.....	24
5.	Contact information	27

List of figures

Figure 1: Parties involved	9
Figure 2: System participants.....	10
Figure 3: Interfaces with the eBill infrastructure	12
Figure 4: Process of registering an invoice issuer with the network partner	13
Figure 5: Business process for SIX to register a network partner	19
Figure 6: Testing and acceptance process for network partner implementation.....	21

List of tables

Table 1: List of documents for network partners	8
Table 2: Overview of eBill infrastructure levels for integration tests	22
Table 3: Function of the NWP API	26

1. Introduction

The eBill service is the digital solution for various business cases and enables electronic invoicing, electronic invoice receipt and electronic payment of invoices, including Direct Debits. More than a million users are already receiving their digital eBill business case transactions via online banking and paying their invoices conveniently, reliably and on time in the same way. The eBill service encompasses all forms of electronic invoices, Direct Debits, reminders, credits, advices/notifications as well as donation requests. These communications and transactions are collectively referred to as the "eBill business cases" and are sent to the eBill infrastructure by the network partners and received online by the invoice recipients. With eBill, the network partners can choose the most efficient way of invoicing, enabling them to expand their range 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 standardised interfaces and processes.

The network partners are part of the eBill network and thus can enable their invoice issuers to send the electronic eBill business cases to online banking users. The network partners communicate with the eBill infrastructure via a simple interface. This interface allows communication to the eBill infrastructure on part of the network partner, making it a central point of entry for submitting digital eBill business cases to the banking channel.

eBill for Business/eBill for Business Software

eBill for Business/eBill for Business Software are extensions of eBill dedicated to business customers. They are intended to allow companies and corporate-like eBill users to authorise other corporate users to view, approve and reject the eBill business cases on behalf of the company and/or to process them further with their own business software. In order to identify the business invoice recipients when subscribing or cancelling a subscription, performing a look-up and submitting business cases, the network partner should generally use the business identification number (UID).

1.1 Documentation

File	Description
<i>Framework Network Partner Agreement</i>	Agreement between SIX and the network partner on the connection to the eBill infrastructure for the invoice issuer.
<i>Rulebook</i>	Annex to the Agreement. It sets out the obligations, rights and responsibilities of the network partner with the aim of providing a consistent eBill service.
<i>Operating Agreement</i>	Annex to the Agreement. It sets out the scope of the service provided by SIX to the network partner.
<i>Price List</i>	Annex to the Agreement. It sets out the invoicing of the eBill service to the network partners.
<i>Handbook for Network Partners — Introduction and Onboarding</i>	This document. It describes the eBill functions and onboarding processes. Target group: the product and IT management teams of the network partners.

networkpartner-api-doc.pdf	Detailed technical NWP API documentation. Target group: the software architects and developers.
networkpartner-api-swagger.yaml	OpenAPI specification for the NWP API. ¹ Target group: the software developers and code generators.
<i>Network Partner Onboarding — Technical Instructions</i>	Detailed technical documentation for the onboarding of the network partners. Target group: the software architects and developers.
<i>Test Manual for Network Partners</i>	Detailed documentation for testing and acceptance.

Table 1: List of documents for network partners

¹ Note: the best way to view the OpenAPI specification is using an editor such as <https://editor.swagger.io>.

1.2 Roles involved in the invoicing process

The following overview illustrates the roles involved in the invoicing process. For context, it also shows roles and other persons that are outside the scope of eBill.

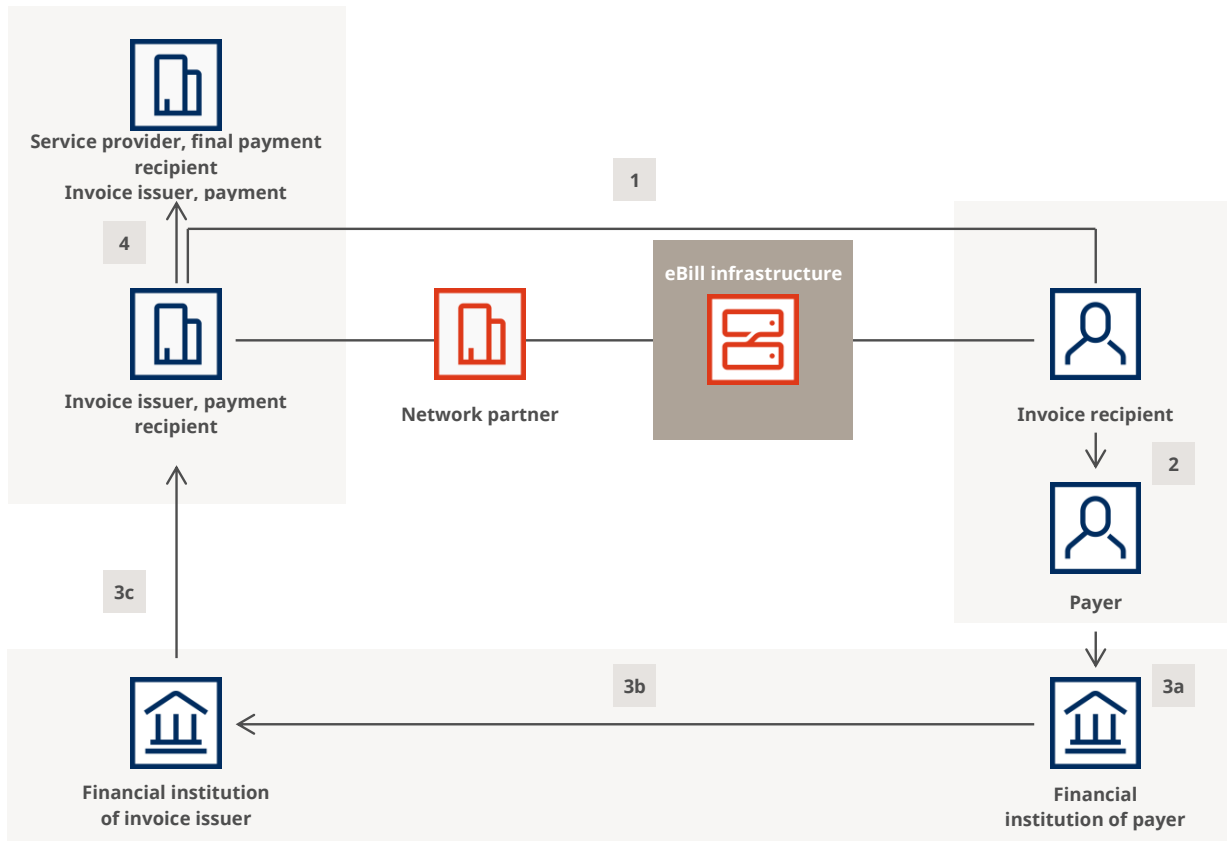


Figure 1: Parties involved

It is possible that the parties listed within an area of the same colour are identical. For example, the invoice recipient and the person who ultimately pays the invoice are often one and the same.

1. The invoice issuer sends the eBill business cases to their recipients via the invoice issuer's network partners.
2. The invoice recipient approves the eBill business case and the payment information is sent to the invoice recipient's financial institution. In general, the invoice recipient and the payer are the same person.
3. Outside the scope of eBill, the payer submits payment via their financial institution and the invoice issuer's financial institution transfers the corresponding amount to the invoice issuer's account.
 - a) A financial institution charges the account of the payer.
 - b) The financial institution of the payer carries out the transfer to the financial institution of the invoice issuer.
 - c) The financial institution of the invoice issuer sends a credit advice to the invoice issuer.
4. Outside the scope of eBill, the invoice issuer informs the ultimate creditor that payment has been received.

1.3 Participants in the eBill ecosystem

The chain of eBill services comprises five types of system participants. These are shown in Figure 2.

The invoice issuer (creditor) and the invoice recipient (debtor) are usually parties to the applicable Agreement and require electronic invoice exchange or participation in electronic payment transactions. A special configuration is provided for donation requests.

To this end, the network partner offers the eBill service to the registered invoice issuers, enabling them to submit the eBill business cases to the invoice recipients.

The invoice recipients receive access to the eBill business cases submitted via the online banking application of their financial institution.

The infrastructure acts as a central hub, offering its partners (the network partners and the financial institutions) basic services that enable the provision of end-client services.

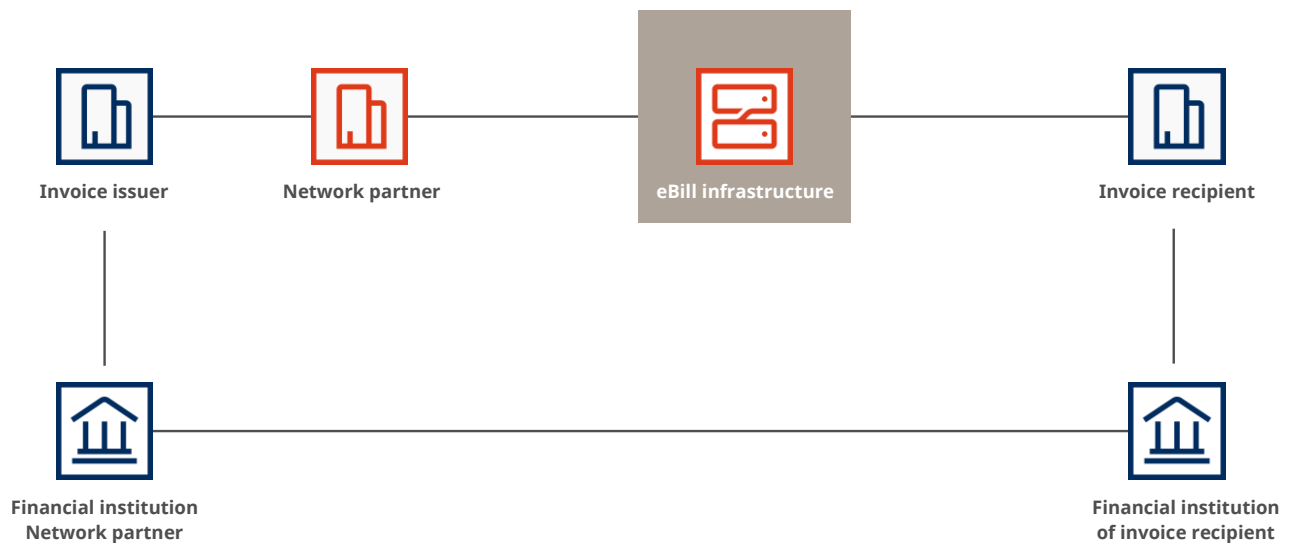


Figure 2: System participants

1.3.1 SIX/eBill infrastructure

SIX is the operator of the eBill infrastructure. SIX develops, maintains and monitors the infrastructure. The eBill infrastructure is the system platform for operating the eBill service. Its primary purpose is to manage the system participants and process the business cases, and it encompasses all components required to operate the service, such as hardware, software and operating systems.

1.3.2 Network partners

The network partners are parties to the agreement with SIX, technically and contractually linked to the eBill infrastructure and, at the same time, parties to the agreement with the invoice issuer. They convert the business cases of invoice issuers into the standard eBill format and send them to the eBill infrastructure on behalf of the invoice issuer.

1.3.3 Invoice recipients

The invoice recipients are natural or legal persons that receive, check and approve for payment all business cases that occur in the context of their customer relationships with the financial service providers via the SIX eBill portal or the online banking systems of their financial institutions or the relevant systems of other financial service providers.

1.3.4 Invoice issuers

The invoice issuers are legal persons that send the business cases to the network partners in any form (e.g. paper, electronic) for submission to the eBill infrastructure.

1.3.5 Financial service providers of invoice recipients

The financial service providers of the invoice recipients grant the invoice recipients access to the eBill infrastructure so that they can view and edit the business cases. The financial service providers present invoices, issue approvals or rejections and create payment orders on behalf of their customers and of the invoice recipients, or initiate the settlement of invoices or reminders.

1.3.6 Financial service providers of invoice issuers

The financial institutions of the invoice issuers process and settle the payment orders initiated by the invoice recipients' financial institutions and present the invoice issuers with any applicable credit or debit. The financial service providers of the invoice issuers have no direct involvement with the eBill infrastructure, with the exception of eBill Direct Debit. In the case of eBill Direct Debit, the financial institution has a relationship with the eBill infrastructure in the form of the SIX bank admin portal by entering the invoice issuer-specific monthly submission amount limit in this portal.

In the case of Direct Debit, the invoice issuer's financial institution handles the account management for the invoice issuer (including the account booking of a credit from a Direct Debit transaction) and assumes the credit risk in the context of chargebacks initiated by the invoice recipient.

1.4 Interfaces with the eBill infrastructure

Participants in the eBill service can access the eBill infrastructure via a range of interfaces. The most significant ones are shown in Figure 3 and explained in brief below.

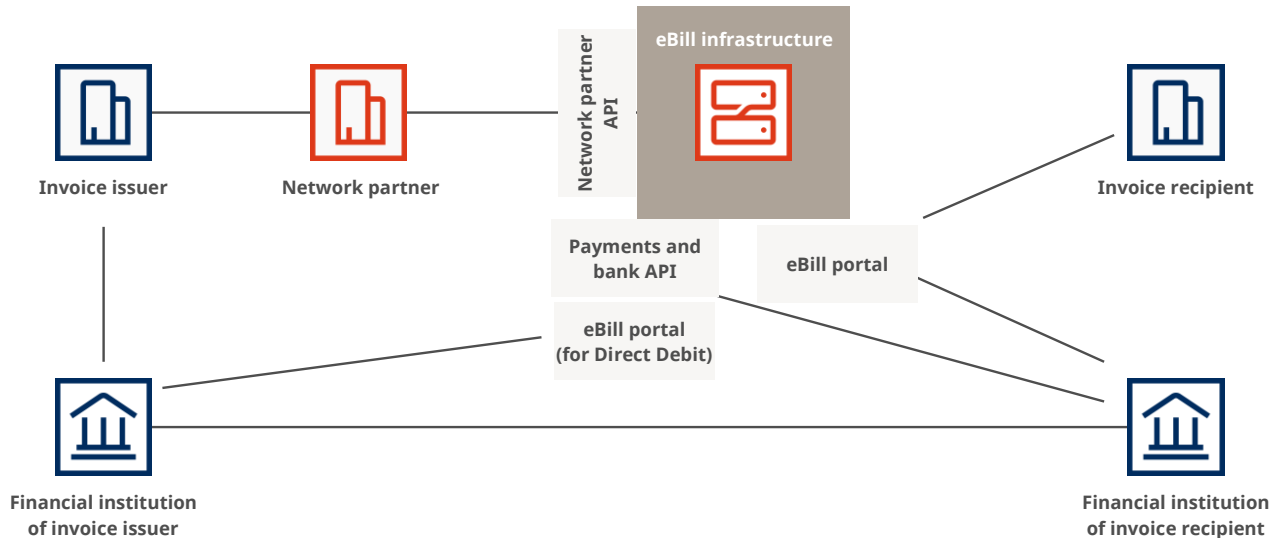


Figure 3: Interfaces with the eBill infrastructure

1.4.1 Network partner API

The 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. the business cases, status reports, registrations).

1.4.2 Bank API

The bank API is a web service interface for the invoice recipient's financial institutions that enables them to link their online banking systems to the eBill infrastructure.

1.4.3 Payment transaction interface

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

1.4.4 eBill portal

The eBill portal is a central web application for the invoice recipients that can be used by all participating financial institutions. It enables the invoice recipients to use eBill functions over the Internet. The eBill portal is always accessed from the online banking system of the invoice recipient's financial institution by using the eBill function.

For Direct Debit, there is an additional eBill portal on the invoice issuer side, in which the invoice issuer's financial institution enters the respective monthly amount limit for eBill Direct Debit claims.

1.4.5 Note on customer portals (not shown)

A network partner can use a customer portal for the invoice issuers to provide functions enabling the invoice issuer to manage their own master data and execute actions in connection with the business cases. Whether a customer portal is offered, and the extent of its functionality, depends on the services offered by the network partner.

The eBill infrastructure itself does not offer a customer portal for the invoice issuers.

2. Invoicing processes with eBill

This chapter describes the three most important processes involved in invoicing with eBill for the network partner. These are: registering an invoice issuer with the network partner and in the eBill infrastructure, subscribing an invoice recipient to the invoice issuer's system and submitting the business cases.

2.1 Registering an invoice issuer with the network partner

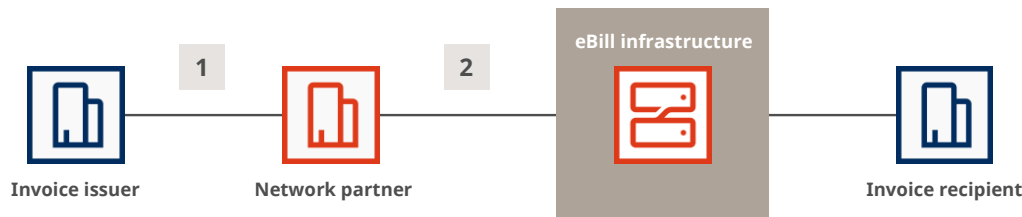


Figure 4: Process of registering an invoice issuer with the network partner

Depending on what the network partner offers and the situation regarding their agreement with the invoice issuer, the process of registering an invoice issuer may proceed as follows:

1. The invoice issuer learns about the offer and registers with the network partner for a service that includes eBill.
2. Once the invoice issuer has passed an identity check by the network partner, that network partner forwards the invoice issuer's data to the eBill infrastructure and receives a new invoice issuer identification.
 - a) Once the invoice issuer has been assigned their identification, they can start using the eBill service right away.
 - b) The smooth interaction between the processes means that the activation of an invoice issuer can be completed in a matter of minutes, and the invoice issuer can then send the electronic eBill business cases (in particular invoices) to their customers.

If the invoice issuer has already registered with a different network partner, they will need to specify which network partner is the primary network partner authorised to manage their master data in the eBill infrastructure. The detailed specifications can be found in the *Rulebook for Network Partners*.

When registering invoice issuers for the eBill Direct Debit service, it should be noted that such an invoice issuer, due to the credit risk associated with chargebacks, requires a financial institution in addition to the network partner, which enables them for eBill Direct Debit in the SIX eBill Bank portal by entering the corresponding submission amount limit in CHF for eBill Direct Debit.

2.2 Anomaly detection and invoice issuer suspension

To ensure that eBill business cases recipients are not affected by unjustified eBill business cases, SIX has introduced an anomaly detection process.

The network partners are required to define a monthly limit of eBill business cases that each new invoice issuer can submit per month.

The limit should be based on the invoice issuer's "ordinary business". To assess the "ordinary business", the network partners can use criteria such as the number of employees or turnover/the number of (paper) invoices, etc. within the previous year.

The network partner can define the limit at their own discretion. The default setting of SIX is the limit of 500 transactions per month. Based on this limit and on the business cases submitted, SIX measures the utilisation of the limit. Only the primary network partners can request information on the limit and on its current utilisation per invoice issuer.

When the business cases are submitted, the network partner receives a notification whenever the limit has been exceeded. The submission is rejected.

If the invoice should still be submitted, the network partner can override the threshold validation per submission. The network partner must verify in advance whether it is reasonable to exceed the limit. In case of doubt, the submission must be deferred and the invoice issuer must be contacted.

If the eBill business cases are not submitted based on the clarification from a relevant network partner, SIX must be informed accordingly. Subsequently, SIX contacts the network partner and suspends the invoice issuer if needed.

If the limit is deemed to be insufficient in the long term, it can be adjusted by the primary network partner.

To increase the limit, a non-primary network partner must contact the invoice issuer, who then initiates the limit increase with the primary network partner.

2.3 Subscription and cancelling subscriptions of invoice recipients

In order for the electronic eBill business cases to be sent from an invoice issuer to an invoice recipient, a connection must be established between the two parties. This connection is referred to as a "delivery permit" and the process is referred to as a "subscription". There are various methods for completing the subscription process:

1. Subscription initiated by the invoice recipient
 - Subscription via the eBill portal
 - Direct subscription through online banking
 - Subscription to an invoice issuer
 - Subscription via a specific QR code
2. Subscription initiated by the invoice issuer
 - Look-up

The aim of the architecture selected for the invoice recipient-initiated subscriptions is to not change the existing invoice-issuer interfaces and to provide a process for the new network partners that can be implemented with minimal effort.

When creating the specific QR code, the invoice issuer has the option of using specific data of the invoice recipient (for details, see the technical documentation). These data may only be used if they have been legitimately collected by the invoice issuer and if the collection of data also permits such use of the data. It is recommended that the data categories used to create the QR code be disclosed to the invoice recipient if an accompanying letter, etc. is sent.

It is not permitted to use particularly sensitive personal data to create the QR code.

The aim of invoice issuer-initiated subscriptions is to significantly increase eBill conversion rates, as subscriptions can also be initiated by the invoice issuer.

The invoice recipient is uniquely identified by an e-mail address in the case of eBill for private individuals and by an enterprise identification number (UID) in the case of eBill for Business/eBill for Business Software. To make full use of the invoice recipient search functionality, it is recommended that the invoice issuer collects the e-mail addresses or UIDs of their customers in advance and that they declare at the time of data collection that this information may also be used for eBill. There is an option of entering the date of birth or postcode to narrow down the results. In any case, even with the look-up function, the invoice issuer can only use the email address or UID of their own customers for the search if the data have been legitimately collected by the invoice issuer and if the collection of data also permits such use of the data.

Details on the subscription processes can be found in the technical interface description.

Difference between the legal name and the display name of the invoice issuer

The legal name is used in the invoice overview in the eBill portal for reasons of consistency, as the invoice issuer is obliged to use their legal name in the attached PDF invoice.

On the contrary, the legal name is not used in the overview of the available invoice issuers, as the legal name is not always known to the invoice recipient and the search for an invoice issuer is rather performed with a known display name.

Requirements for invoice recipient subscription

It is recommended that the network partners configure their invoice issuers so that they can run the standard subscription via eBill (i.e. without a subscription form). With a standard eBill subscription, the following details of the invoice recipient are collected:

- Name:
 - Private customers: first name and last name
 - Corporate customers: company name
- Participant type (private or corporate)
- Address

In special cases, the financial institutions do not have street names for the domicile address of business customers (e.g. associations). In such cases, a hyphen (-) may be used in place of the information that is missing.
- Identification:
 - Private customers: e-mail address
 - Corporate customers: eBill user business UID (if available)
- Invoice recipient mailbox (PID)
- Correspondence language

If the invoice issuer needs additional customer information for the processing of the invoice-recipient subscriptions, the network partners can define up to three (3) customisable additional fields for such invoice issuers. The invoice recipient must fill in those additional fields when completing their subscription. To ensure user-friendliness at all times, the network partners are encouraged not to use any additional fields where possible, and to use more than one additional field only in very exceptional cases. In addition, it is possible to display an invoice issuer-specific information text for the invoice recipient on the subscription form. Only plain text may be used for these user-specific additional and information fields. Links are not supported. Information text and additional fields can only be used for the subscription via the eBill portal, not for direct subscription via online banking.

Details on the form approach can be found in the technical documentation.

Special features when subscribing to non-profit organisations (NPOs)

In general, the subscription of an invoice recipient enables an invoice issuer to submit all types of eBill business cases. However, donation requests can only be submitted by the eBill invoice issuers that have been verified and labelled by the network partners as non-profit organisations (see the *Rulebook for Network Partners*). The subscription methods are generally the same as for eBill invoices. There are differences in the following areas:

- Look-up: the NPOs can find potential donors via look-up and send them requests for donations. However, the look-up for donation requests must be retrieved separately from the existing look-up via opt-in. If an invoice recipient only wishes to receive donation requests from the selected organisations they have explicitly subscribed to, then the look-up for donation requests can be deactivated. Donation requests via look-up can only be submitted by the NPOs that already have a relationship with an invoice recipient (see the *Rulebook for Network Partners*).
- Subscription in the portal or on the NPO website: it is similar to the subscription for eBill invoices and allows the NPO to record the recipient, frequency, purpose and amount of the donation on their own website and then to submit a one-off or regular donation requests in the eBill format.
- Subscription via search: the invoice recipients can retrieve a list of the NPOs in the eBill portal or via e-/m-banking and search for the desired organisation. It is possible to subscribe to an NPO using the search function. Similar to subscribing to an invoice issuer, the NPO receives information about the subscription and can now send a donation request. If required, there is the possibility of entering the information about the amount, the purpose or the frequency of the donation from the invoice recipient when completing the subscription. To do this, the relevant customisable additional fields, including the dropdown, must be set up for subscription.

- Direct subscription: the direct subscription is similar to that for eBill invoices. The NPOs can use the reference number in the payment to determine the type of donation and send future donation requests via eBill.

2.4 Submitting the eBill business cases

A standard format for the electronic eBill business cases has been defined for the submission of business cases by a network partner to the eBill infrastructure. The eBill infrastructure will only process this format and will not convert from other formats. Transformations from other message formats to the eBill format may be offered as services by the network partner.

The definition of this format involves consistently ensuring that only the attributes necessary for processing in the eBill infrastructure and the banking channel are requested.

QR-bills can easily be converted to eBill invoices. Please note that QR-bills with the amount "0.00" that are not intended for payment can only be transmitted to the eBill infrastructure as notifications. Following the introduction of the QR-bill, invoices without an amount can now also be received via the eBill infrastructure. SIX recommends that network partners offer invoice issuers the option of submitting their QR-bills in such a way that the network partner performs the conversion to the standard format and submits the invoices to the eBill infrastructure.

A Direct Debit claim must be based on an existing claim (e.g. health insurance premium, telephone bill, credit card statement, leasing payments) and may only be submitted if an active debit authorisation exists between the invoice issuer and the invoice recipient and this is stored centrally in the eBill infrastructure.

The following special features apply to donation requests:

- An NPO can optionally provide a list of donation purposes (e.g. environment, children, project). The invoice recipient can choose a purpose from this list when making their donation approval. The selected purpose is then transmitted to the network partner. From 1 to 20 such purposes can be specified by the invoice issuer for the invoice recipient. For reasons of usability, the number of purposes should be kept as small as possible. In case of doubt or if nothing is specified by the invoice recipient, this always means "No specific donation purpose".
- An NPO can provide a list of suggested amounts, which are proposed to the invoice recipient when they approve their donation. A donation request with amount options cannot be approved via a standing payment order but can only be approved manually. The invoice recipient must actively select the amount when making their approval.
- The minimum amount for a donation is 5 CHF.
- An NPO can send donation receipts as a business case "Advice" in eBill. The due date is not displayed to the user as a due date per se, but rather as a "Donation date".
- Submissions of donation requests as well as successfully approved donations are shown as separate items on the monthly invoice.
- Donation requests will show the total amount to be invoiced through the network partner for the relevant invoicing month. The corresponding price item does not contain details about the number or total amount of donation requests successfully executed. The network partners are advised to record donations resulting from a successful donation request by actively managing the events of the *GET/events/business-case-status-changed* endpoint.

3. Network partner onboarding and testing

3.1 Registering a network partner for the eBill service

A network partner wishes to provide the eBill service to their customers for the first time and, after signing the service agreement, is registered in the eBill infrastructure as a new network partner.

The connection type, i.e. the basic services for the connection to the eBill network and the procedure for activation, are defined at a briefing. The network partner develops their own interface for connecting their system to the eBill infrastructure (network partner API) and implements the entry point for the eBill service in their system.

Activating a network partner is a complex process involving many technical interdependencies. Experience shows that it can take up to 12 weeks to fully activate a network partner. Therefore, it is imperative to establish contact early.

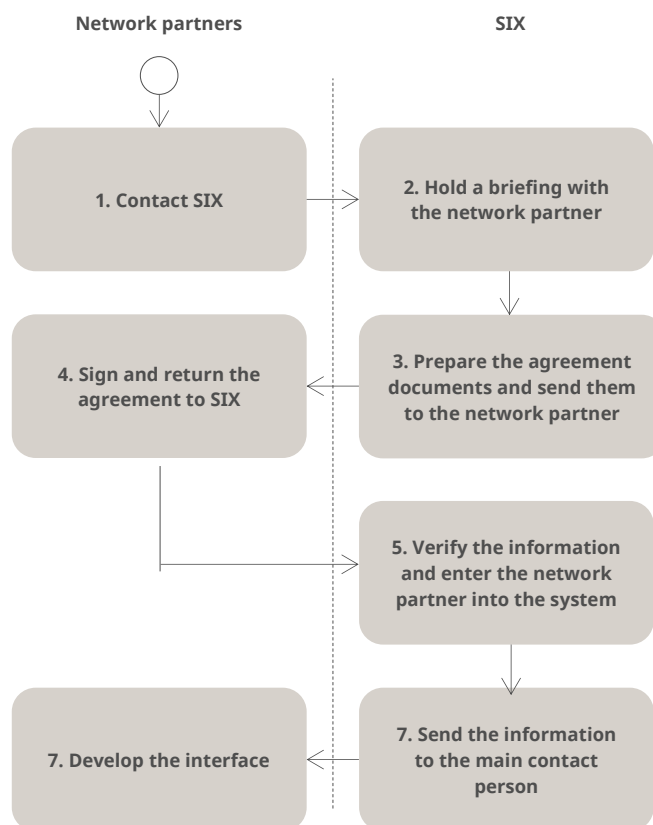


Figure 5: Business process for SIX to register a network partner

1. The network partner contacts SIX by telephone or e-mail.
2. SIX holds a briefing with the network partner.
3. SIX prepares the agreement documents and sends them to the network partner along with the *Handbook for Network Partners* and all other key development and implementation documents.
4. The network partner checks the agreement documents, adds the required information to the agreement and returns it to SIX. The network partner also appoints the main contact person and a deputy.
5. Having received the agreement, SIX checks it, and, if there are no outstanding issues, adds the network partner to the eBill infrastructure.

6. SIX informs the appointed main contact person as soon as the network partner is registered.
7. The network partner can, after successful registration, begin with the development of the interface.

3.2 Developing and approving the interface

A network partner develops and tests the interface to the eBill infrastructure independently using the documents received from SIX. Upon successful completion of independent tests, the network partner works with SIX to conduct an acceptance test and activate the productive operation. The network partner must be registered in the eBill infrastructure as an eBill participant and have received the documents for developing the interface. SIX alone decides whether to activate the network partner for active productive operation.

The development and approval of the interface to the eBill infrastructure is divided into two phases:

1. Integration test by the network partner
2. Collaborative acceptance test

In the first phase, the network partner independently validates and tests their implementation using the test infrastructure provided by SIX (blue area in Figure 6).

In the second phase, a collaborative acceptance test is performed to ensure that the interface can be approved for the productive operation (grey area in Figure 6).

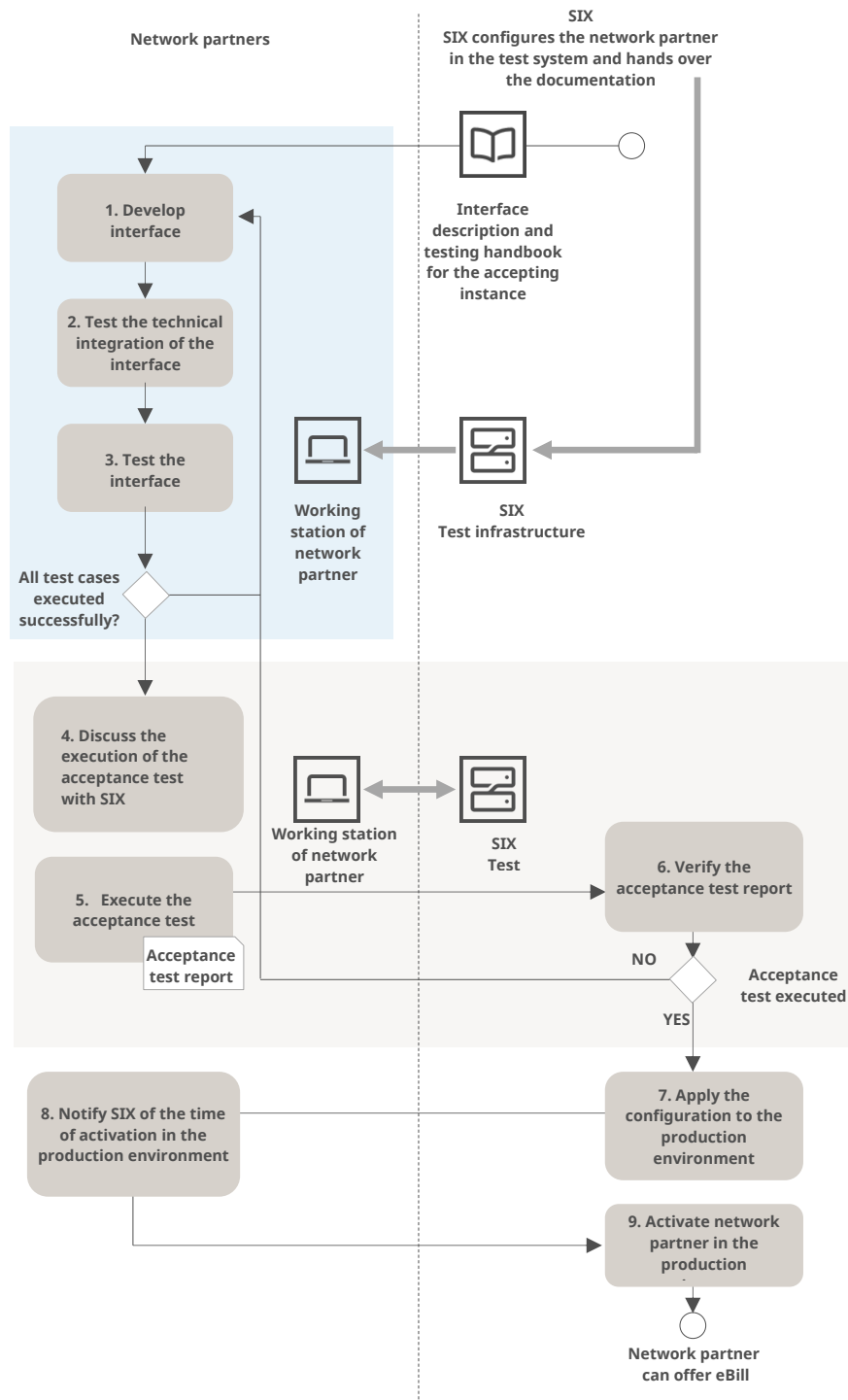


Figure 6: Testing and acceptance process for network partner implementation

1. The network partner develops the interface to 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 to test the interface that they have developed.
4. Once all test cases have been completed and successfully tested, the network partner contacts SIX to perform the acceptance test.

5. The network partner executes the acceptance test independently and documents the results in the acceptance test report.
6. SIX verifies the acceptance test report.
7. SIX transfers the test environment configuration to the production environment.
8. The network partner specifies the time for the approval for the production environment and notifies SIX accordingly.
9. SIX activates the network partner for the production environment at the appointed time.
10. Once this process is complete, the network partner can offer the eBill service to their customers (electronic invoices, reminders, credits and advices/notifications).

3.2.1 Test infrastructure for integration testing

The interface 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 given access to a comprehensive test infrastructure (test system) for support.

In general, the following levels of the eBill infrastructure are available to the network partner:

Level	Description
XE	External acceptance/development stage. It contains the current development release stage of the eBill infrastructure. New features are delivered every three weeks and can be used immediately for integration.
XP	External acceptance/production stage. It contains the same release stage as the current production environment.
P	Production

Table 2: Overview of eBill infrastructure levels for integration tests

The test environment corresponds to the test level "external acceptance" and comprises a nearly complete eBill system environment. Accordingly, all necessary related systems are configured and available. However, the availability of the test system is limited compared with the production system. The test environment is available to all network partners, and user authorisations and access rights do not match the operational requirements.

With access to the test system, the network partner can verify the interfaces to the eBill infrastructure independently. This means that the network partner can run their own end-to-end checks on business processes. The test system can also be used for backward compatibility tests. The basic test data and a set of test invoice recipients are provided by SIX. It is not allowed to use confidential data on the test system; in particular, testing with operational data sets is expressly forbidden. The test system is not designed for unannounced performance or stress tests. The appropriate testing requirements must be agreed upon with Support in advance and incorporated into the planning. The network partner generates the invoice issuer and transaction data (messages) themselves:

- a) Invoice issuer data via the application functions.
- b) The network partner makes their invoice issuer test data available for creating transaction data. This can be used to feed test messages into the system in all defined and permissible forms via the network partner API.

3.2.2 Acceptance test

Once the network partner has completed the development and successfully tested the implemented functionalities end to end, they will conduct an acceptance test in agreement with SIX. The test consists of relevant test cases which are defined in the *Test Handbook for Network Partners*. The relevant and applicable test cases are aligned with the functionalities implemented. The test cases applied must cover at least the network-relevant functions.

The test results are recorded in the *Acceptance Test Report for Network Partners*. If test cases are not run, the reason must be given; likewise if a test is run and fails, the reason must be given.

The acceptance test report is delivered to SIX for verification. Missing or incorrect test cases without sufficient justification, or those with inadequate documentation, must be repeated or re-documented. If all relevant tests have been successfully completed and any discrepancies are well justified and traceable, SIX and the network partner's test manager will recommend that the network partner releases into production the functionality implemented. Once this recommendation has been made, it is at the network partner's discretion when to start the productive operation.

3.2.3 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 functionality or changes to the network-relevant functions independently and then performs an acceptance test under the direction of SIX. The acceptance retest follows the same procedure as the acceptance test described in chapter 3.2.2 for activating the network partner for the productive operation (grey area in Figure 6). However, it only applies to the new or modified functions.

4. Functions of the NWP API

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 specifications of the Open API and in the documentation of the content of the structured information of the eBill format.

The invoice recipients are registered for the eBill functions via the financial institutions and the registration process is therefore not described further in this document.

Overview of the functions of the NWP API (network-relevant functions are indicated with an * and must be implemented by the network partner):

Function	Description
Querying the system status	Queries the system status (it can be used as a "health check" for the eBill infrastructure).
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.
Querying an invoice issuer	The network partner searches for an invoice issuer by sending invoice issuer search criteria to the eBill infrastructure. Invoice issuer data can be viewed in full only by the primary network partner. All other network partners can query a limited set of invoice issuer data (the invoice issuer's subscription and logout URLs are hidden; the primary network partner is not shown).
Registering an invoice issuer*	This use case is a central element of the services provided by SIX and enables the onboarding of invoice issuers to the eBill service. This function is network-relevant. The network partner is bound by contractual obligation to implement it.
Editing invoice issuer data*	This use case is a central element of the services provided by SIX and enables the invoice issuer data to be kept up to date. This function is network-relevant. The network partner is bound by contractual obligation to implement it. Invoice issuer data can be managed in full only by the primary network partner.
Deregistering an invoice issuer*	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, they are not deleted but set to "inactive" in the system. As a result, they can no longer submit business cases or be found on the list of invoice issuers in the eBill portal. This function is network-relevant. The network partner is bound by contractual obligation to implement it.

Function	Description
Querying an invoice recipient*	This service is a central element of the services provided by SIX and supports a simplified (invoice issuer-initiated) process of subscribing an invoice recipient to the invoice issuer for obtaining electronic invoices. This operation is also referred to as an "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. This function is network-relevant. The network partner is bound by contractual obligation to implement it.
Submitting a business case*	This use case is a core element of the services provided by SIX. It ensures that the business cases are sent from the network partner to the eBill infrastructure. Business cases can be submitted via any network partner. A submission results in the business cases being placed in the data rooms of the network partners and the invoice issuers involved. This function is network-relevant. The network partner is bound by contractual obligation to implement it. Support for the case type "donation request business" and Direct Debit is entirely optional for the network partners.
Querying business case data	This use case is a supporting element of the services provided by SIX and allows the network partner to request information concerning the business cases that they have submitted.
Querying business case processing events	This use case is a supporting element of the services provided by SIX and allows the network partner to request information concerning business case processing events and forward this information to their invoice issuers.
Retrieving subscription data*	When an invoice recipient subscribes to an invoice issuer, the network partner can obtain detailed information from SIX (standard subscription details and details specific to an invoice issuer as in chapter 2.3 above). This can be used to inform the invoice issuer directly of the subscription (subscription events with the option of additional fields) or to pre-populate the subscription forms. The subscription data are only displayed to the primary network partner. Depending on the type of subscription, the subscription data also include a reference number (e.g. QR reference) and the credit account of the invoice issuer (direct subscription). This function is network-relevant. The network partner is bound by contractual obligation to implement it and to forward the subscription data to the invoice issuer.
Querying cancellation events	This use case is a supporting element of the services provided by SIX and allows the network partner to obtain events for the

Function	Description
	delivery permit created between the invoice recipient and invoice issuer and to forward the information to their invoice issuers. By processing these events, validation errors during submission can be avoided. This function can only be performed by the primary network partner.
Subscription to an invoice issuer	An invoice recipient may subscribe to an invoice issuer on the invoice issuer's website. This functionality is available in the network partner's API and each network partner can offer this functionality to their invoice issuers.
Invitation of an invoice recipient for Direct Debit	Enables the invoice issuer to invite a specific invoice recipient to use Direct Debit by suggesting the creation of a debit authorisation to them.

Table 3: Function of the NWP API



5. Contact information

Postal address

SIX BBS Ltd
eBill & Direct Debit Support
Hardturmstrasse 201
P.O. Box 1521
8021 Zurich
Switzerland

Support inquiries

Telephone +41 58 399 4800

E-mail banking-support@six-group.com

Office hours Monday to Friday, 8 am to 12 pm and 1 pm to 5 pm (excluding national and cantonal public holidays)