E-bill manual

PostFinance

E-invoice Customer Service

PostFinance Ltd
Mingerstrasse 20
3030 Bern

www.postfinance.ch/billing-solutions

Consulting and Sales for Business Customers
Telephone   +41 58 448 14 24

Activations and operating support
Billing Support
Telephone   +41 31 667 99 00
E-mail   billing-support@postfinance.ch

Contents

1. Service description

1.1 Brief description of the service and document overview

PostFinance Ltd, in conjunction with SIX BBS Ltd (eBill), provides an e-invoice solution based on the consolidator model. It is designed for the electronic transmission of invoices. In this document, invoices, invoice data and data are understood to be invoices, reminders, notifications, credit notes or donation requests.

The PostFinance e-bill solution enables billers to send their customers electronic invoices in CHF, EUR, USD, AUD, CAD, DKK, GBP, JPY, NOK, SEK without media fragmentation.

Invoice recipients can either process electronic invoices via their e-banking or import them into their own finance software via different channels for further processing. PostFinance is thus primarily a transport system for invoice data.

PostFinance recommends that business customers download the data via data transfer. They can thus transfer the invoice data to their own software where further processes (e.g. processing accounts payable) can be optimized and automated. In the absence of the appropriate software, PostFinance recommends registering via e-finance on the Swiss banks' eBill portal.

The main advantages of e-bill lie in the fully-automated data processing possible on both sides and the associated high data quality achieved through an absence of media fragmentation and a continuous electronic data flow. This facilitates significant efficiency improvements with a high savings potential for invoice issuers and recipients.
The PostFinance e-bill solution is constantly developed in line with customer requirements and extended to include additional functions. PostFinance has entered into partnerships with various e-invoice providers for networking and will continually expand these.

Biller	PostFinance	Bill recipient
Bill creation and dispatch	**E-bill** — Payment data / Bill details / PDF / Additional data	**Automated bill processing and archiving without media fragmentation**
Booking, payment entry and archiving	**PostFinance/ Bank** — **Payment transfer**	
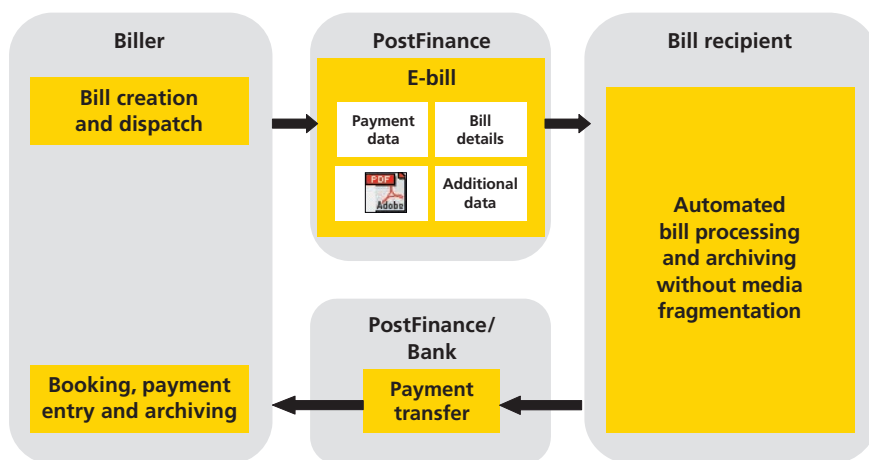
With the PostFinance e-bill solution, billers and recipients can automate their invoice processing.

The following sections are of particular interest to **billers:**
Section 1:   Service description
Section 2:   Registration and activation process for billers
Section 4:   Biller processes
Section 5:   PostFinance Ltd processes
Sections 7 to 11: Description of technical aspects
Section 12:   Data formats

Invoice **recipients** can consult the following sections:
Section 1:   Service description
Section 3:   Registration and activation process for invoice recipients
Section 5:   PostFinance Ltd processes
Section 6:   Invoice recipient processes
Section 11:   Communication
Section 12.4:   Invoice data

1.2   E-bill process in brief

1. For an invoice recipient to be able to receive electronic invoices via PostFinance, he must register with the biller, i.e. he provides his subscriber number as for a change of address. To this end, PostFinance offers billers appropriate tools that can be used in e-finance or the e-invoicing portal.
2. As soon as the biller has stored the subscriber number in his customer database, he can send the electronic invoice to PostFinance.

3. Provision of data to the invoice recipient
   Via e-finance or e-banking (via eBill portal): the invoice recipient can view the invoices via e-finance or e-banking, issue a payment instruction or reject the invoice. On the due date, PostFinance makes the payment.
   Via data transfer: the invoice recipient downloads the invoice data from a defined communication channel and, after processing it, issues a payment order using his finance software.
   Via partners (see section 1.6)
4. The credits are entered in accordance with the process defined by the biller.

1.3 Scope

The functions of the PostFinance e-invoice solution begin when invoice data are sent from a biller's billing solution or accounts receivable system to PostFinance and end when an invoice recipient issues a payment instruction in e-banking or if the data are included in an accounts payable solution or when PostFinance has forwarded the invoice to a partner. The main functions of the e-invoice solution of PostFinance are:
– Conversion of the data into the format desired/required by the recipient,
– Data transport.

The PostFinance e-invoice solution is:
– not a billing solution,
– not an accounts receivable system,
– not an accounts payable system,
– not a payment transaction system.

1.4 Service for billers

The service for billers includes the following:
– Customer administration, in particular the registration of invoice recipients via the eBill portal of the Swiss Banks.
– Receipt of the data delivered by the biller or submitted online and provision of processing messages.
– The option of automated data delivery.
– Option to receive registration, de-registration and processing records.
– Processing of data provided in accordance with the e-invoice manual.
– Digital signing of invoices.
– Provision of invoice data to the invoice recipient in accordance with the separate agreement with the latter.
– Data transfer to eBill for the eBill portal of the Swiss banks.
– Data transfer to other partners (see section 1.6).

1.5 Service for invoice recipients

1.5.1 Processing of e-bills via e-finance (eBill)
The service range includes access to the Swiss banks' eBill portal, which enables provision of the payment-relevant data and invoice details in PDF format. Structured user data from the bill is also integrated into the PDF, which enables partially automated further processing.

1.5.2 Delivery of e-bills via data transfer
Depending on the chosen channel, the service for invoice recipients includes the following points:
– Function enabling invoice recipients to register or cancel their registrations with billers.
– Invoice data are made available in accordance with the recipient's instructions
– The option of automating data delivery via web services.

1.6 Data transfer to partners

PostFinance works together with partners that offer equivalent e-bill solutions. An up-to-date partner list is available at www.postfinance.ch/e-bill.

Thanks to the connection between PostFinance and various partner systems, users of one system can exchange digitally signed invoices with users of another system.

Billers and invoice recipients only need to have a connection to the PostFinance system and thus benefit from the expanded group of participants thanks to the system links, without requiring any additional agreements with the partner (single point of contact).

1.7 Roles
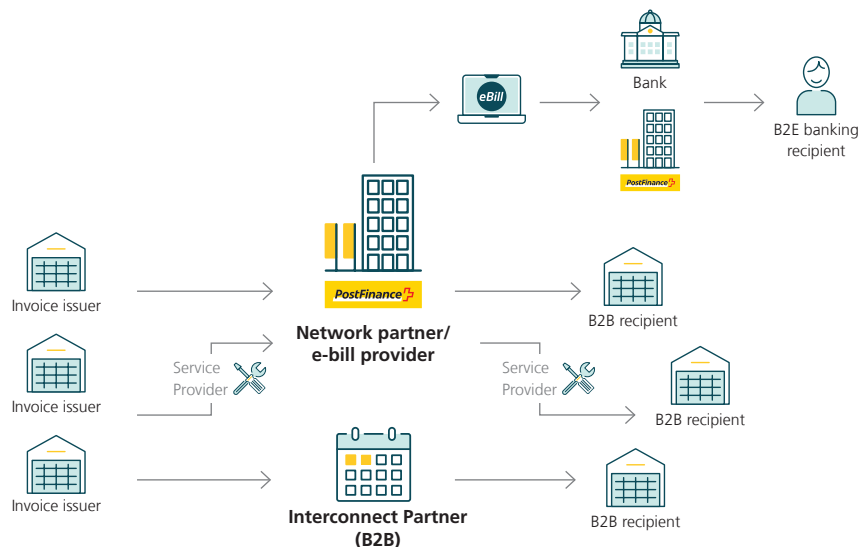
Overview of role allocations

1.7.1 PostFinance Ltd
PostFinance is responsible for strategy and marketing as well as development, operation and support of the electronic invoice solution. PostFinance is the contractual partner for billers, invoice recipients and the eBill portal, for service providers (biller service providers and customer service providers) and partners who use the e-bill solution.

PostFinance is also responsible for process and system operations of the e-finance application and its functions.

1.7.2 Swiss banks' eBill (SIX BBS Ltd)
eBill is the standardized system of Swiss banks for electronically transferring invoices between billers and e-banking users.

1.7.3 Biller
A biller is the provider of services for which invoices are issued. Billers create the source data of the invoices delivered to PostFinance. These can be transmitted either directly by the biller or via a service provider.

1.7.4 Biller service provider (BSP)
A BSP is a contractual partner for billers who use the e-invoice solution via a BSP. The BSP offers its own billing services and can send electronic invoice data to PostFinance. The BSP is responsible for product management, marketing, consulting and sales of its billing services, as well as for the system operation and first-level support for BSP billers.

Alternatively, the BSP can also act as data provider on behalf of a biller who has a contract with PostFinance.

1.7.5 Customer service provider (CSP)
A CSP is a contractual partner for invoice recipients who use the e-invoice solution via a CSP. The CSP is responsible for product management, marketing, consulting and sales of its e-billing services, as well as for the system operation and first-level support for CSP customers.

1.7.6 Invoice recipient

Invoice recipients have made use of the biller's services and receive an invoice from the biller in return. They can download the invoice either via eBill, a service provider or via a channel supported by PostFinance.

1.7.7 Interconnect partners

PostFinance works together with partners that offer equivalent e-billing services. The latter forward invoice data of their customers, destined for recipients at PostFinance, to PostFinance. At the same time, the recipient identification shows PostFinance with which partner the recipient is registered and forwards the billing data to the corresponding partner system.

1.8 Transmission of electronic orders

With the PostFinance e-invoice solution it is also possible to transmit electronic orders. The order data can be submitted to PostFinance in a structured format. They can be converted into the desired format for the recipient and delivered to the supplier either by data transfer or via e-mail (see section 13).

2. Registration and activation process for billers

2.1 Preconditions for participants

In order to use the PostFinance e-invoice solution as a biller, the following points must be satisfied/addressed:
– Biller's handling process (section 4)
– Registration and cancellation of invoice recipient (section 7)
– Visualization of invoice details (section 8)
– Receipt of processing report (section 9)
– Credit account (section 10)
– Communications to/from PostFinance (section 11)
– Generation of the required data (section 12)

So that invoices can be made available across the entire network, all invoice data including invoice details must be provided in a structured format. If invoices are only send to e-finance and e-banking customers (eBill), the data relevant to payment must be provided in a structured format together with a PDF file of the invoice.

If the PostFinance e-invoice solution is used, some of the biller's other internal processes may have to be adjusted. Points to be taken into consideration include prioritization of different delivery methods, communications measures and internal training of people involved in customer support.

2.2 Registration for billers

With registration, the e-bill subscriber conditions for business customers and the e-bill manual are accepted.

2.2.1 Registration via the eInvoicing portal
The eInvoicing portal provides online access to our e-billing services.
New customers can register here directly and create and manage users.
The eInvoicing portal is accessed via
www.postfinance.ch/e-bill

2.3 Activation of biller using a software tested for e-invoice solution of PostFinance

If the biller uses a software program with a standardized and tested interface to the PostFinance e-invoice solution, the setup process includes the following services:
– Sending of log-in details for web services and parameterization of the SFTP server for invoice issuers.
– Parameterization of the e-mail servers if feedback is provided by e-mail.
– Parameterization of the biller on the PostFinance eBill system.
– Configuration of the registration screen in four languages in accordance with the standard layout (see sections 12.2 and 12.3).

2.4 Activation of biller not using a software tested for e-invoice solution of PostFinance

If the biller's software does not yet have an interface that has been tested for the PostFinance e-invoice solution, the following processes must be analyzed and defined separately. PostFinance assists the biller via the e-bill helpdesk (see SLA in the annex).

The following points are of particular interest to billers:

Points	Description
Registration and cancellation processes	Add new "subscriber number" field to database and indicate that the invoice is to be sent electronically. (see section 7).
Invoice details	Preparation of the invoice details using PDF (see section 8).
Data transmission	Choice of channel for data transmission (see section 11).
Data format	Selection of the required data format (see section 12).
	In the event that a format other than yellowbill invoice is delivered, this shall be analysed as a priority.
	The time required for reconciliation and creation of an individual data conversion is approximately 8–12 weeks. The costs for creating individual data mapping for data conversion are set out in the eBill price list.

The invoice delivery interface is configured according to the defined parameters. The relevant data exchange process and the defined requirements are configured in the system.

The interface is tested in collaboration with the biller on the customer-integration system and prepared for transfer to the production systems. Tests must be announced in advance at the e-bill help desk.

After mutual acceptance, the interface goes live and the biller receives the definitive login elements.

2.5 Registration and activation for the Swiss banks' eBill system

eBill is a central platform for receiving e-bills via e-banking. It is operated on behalf of the participating Swiss banks by SIX BBS Ltd, a subsidiary of SIX Group Holding.

Invoice issuers who want to send e-bills to eBill can commission PostFinance to register them with eBill. The commissioning must be made in writing, either with a specification on the registration form or via mail.

Upon registration of the invoice issuer with eBill, the following details are transferred to eBill:
– Company name
– Name to be displayed on the e-bill
– Address
– Credit account (see section 10)
– Sector
– Company identification number (UID)

PostFinance has obliged SIX BBS Ltd to use these data exclusively for the provision of the eBill service.

This enables e-bills to be sent to customers who process their invoices via a bank affiliated with eBill (see section 5.6 and annex).

2.6 Software developers

Software developers who want to develop a standard PostFinance e-invoice interface can contact **billing-solutions@postfinance.ch** for further information.

A list of software companies which have been tested for the PostFinance e-bill solution is available at www.postfinance.ch/software.

3. Registration and activation process for invoice recipients

3.1 Preconditions for participants

Requirements for the use of the PostFinance e-invoice solution by an invoice recipient:
– Access to e-finance from PostFinance is required for eBill
– Infrastructure for receiving e-invoices in a structured format and via a channel supported by PostFinance and further processing in the recipient's own financial software.

3.2 Registration for invoice recipients

With registration, the e-bill subscriber conditions for business customers and the e-bill manual are accepted.

3.2.1 Registration via eInvoicing portal
The eInvoicing portal provides online access to our e-billing services.
New customers can register here directly and create and manage users.
The eInvoicing portal is accessed via
www.postfinance.ch/e-bill

3.3 Registration for eBill via e-finance

Registration for eBill of Swiss banks is carried out solely via e-finance for private and business customers. Its use is governed in the subscriber conditions for use of e-finance.

3.4 Activation invoice recipient with software tested for the PostFinance e-bill solution

If the invoice recipient works with software that has a standardized and tested interface for receiving e-invoices from the PostFinance invoice solution, the registration process includes the following services:
– Sending of log-in details for web services and parameterization of the SFTP server for invoice recipients.
– Parameterization of the biller on the PostFinance eBill system.

3.5 Activation invoice recipient without software tested for the PostFinance e-bill solution

If the invoice recipient's software does not yet have an interface tested for the PostFinance e-invoice solution, the receipt and further processing of signed e-invoices must be facilitated in the recipient's own infrastructure. PostFinance will support the invoice recipient through the e-invoice help desk (see SLA in Annex). Upon request, appropriate test files can be provided.

The following points are particularly important for the invoice recipient:
Meaning:

Points	Description
Data transmission	Choice of channel for data transmission (see section 11).
Data format	Selection of the required data format (see section 12).
	In the event that a format other than yellowbill invoice is requested, this shall be analysed as a priority.
	The time required for reconciliation and creation of an individual data conversion is approximately 8–12 weeks. PostFinance also reserves the right to invoice the costs for creating the mapping for data conversion.
	PostFinance also reserves the right to invoice the costs for creating the mapping for data conversion.

3.6 Registration for billers via e-banking (eBill)

The invoice recipient can view the available billers in the eBill portal and add it to their billers.

Upon registering, invoice recipients can inform billers that they wish to receive their invoices in electronic form in future. In addition to the information provided by eBill, they may also need to provide additional information defined by the biller to assist with customer identification. Details of the options are described in sections 7 and 12.2.

3.7 Software developers

Software developers who want to develop a standard PostFinance e-invoice interface can contact **billing-solutions@postfinance.ch** for further information.

A list of software companies which have been tested for the PostFinance e-invoice solution is available at www.postfinance.ch/software.

4. Billers' handling processes

4.1 Invoice data preparation

Invoice data are prepared in the biller's billing system or by a biller service provider.

4.2 Sorting of invoices, creation and delivery of invoice data

Based on the subscriber number entered in the customer database, the biller puts the electronic invoices through a separate billing run and transmits them in a data format supported by PostFinance to PostFinance (see section 12).

Invoices can only be delivered if a contractual relationship, a participation, a membership or a comparable relationship exists between the invoice issuer and the invoice recipient.

If invoices are delivered that are to be forwarded to an Interconnect partner (see section 5.7), the different addressing specifications must be observed. Details on this are set out in the technical specifications (see annex).

4.3 Visualization of electronic invoice details

The invoice details can be visualized with a delivered PDF document or one created by PostFinance (see sections 8.1 and 8.2).

4.4 Invoice attachments

With the submission of invoice data to PostFinance, it is possible to send invoice annexes in various formats along with invoice details in a PDF file, provided the delivery format supports this. Annexes of this kind that relate to an individual invoice can be delivered only to recipients who are connected directly to the PostFinance e-bill (excluding eBill recipients) and via Interconnect.

4.5 Instalment invoices

The biller can offer its customers the option of paying invoices in instalments. To this end, it is possible to form multiple instalment groups. The recipient can select one of the instalment groups in the eBill portal. If an invoice can be paid in instalments, the following details must be confirmed per instalment:
– instalment amount where the sum of the instalments does not need to correspond to the total amount of the invoice
– due date of the instalment
– CreditorReference of the instalment

Instalments may be used only in combination with the IBAN and the currencies CHF or EUR.

4.6 Checking data transmission

Transmitted data are processed within 24 hours. Directly after processing is completed, it is possible to check via the eInvoicing portal if the invoices have been processed correctly. Defective invoices are marked with the status "Invalid" and with the corresponding reason code, according to the processing report (see section 9). With normal system capacity utilization, this can take place approximately 2–4 hours after delivery of the data.

PostFinance generates at least once per processing day a processing report log for each billerID, which has to be checked by the biller. The processing report log shows whether the delivered invoices were able to be processed correctly and forwarded.

If invoices have been delivered to an Interconnect partner, (see section 5.7), it must be noted that invoices can be sent back by the partner as being undeliverable. This is notified in the processing log under "Rejected bills" (see section 9) provided the interconnect partner reports this back to us.

4.7 Searching for invoices

Billers can use the eInvoicing portal (see section 11.2.1) to view the status of the transmitted invoices in the "Search for invoices" menu item – taking the valid storage times into consideration. A cumulative selection can be made on the basis of the following criteria:
– Invoice recipient
– Due date
– Submission date
– Document number
– Document type
– Transaction number
– Creditor / QR reference
– Status
– Amount

The delivered file, the PDF, the sent file and the invoice status can be seen in the details.

4.8 Changes

4.8.1 Changes to invoice data transmitted
Electronic invoices can only be withdrawn or overwritten if they feature the status invalid. The following options are available for invoices which have already been processed by PostFinance.

4.8.2 Correction/cancellation of invoices by credit notes

The invoice has already been paid and is completely or partially credited using a reimbursement document. In this case, the following must be observed:

– Mark credit note in "PaymentType" field as "CREDIT" and in the "DocumentType" field as "CREDITADVICE".
– DocumentID and TransactionID must be different to the original invoice.
– Show amount in the "Summary" element in the "TotalAmountDue" field as zero or negative (not positive).
– Insert reference (e.g. invoice number) to the original invoice in the "FixedReference" field with ReferenceType "BillNumber".

4.8.3 Replace/roll over submitted invoices

Replacing or rolling over an invoice is possible via eBill only for e-invoices sent to e-banking customers and only as long as their status is open. Once an invoice has been approved for payment by the recipient, it can no longer be replaced. In this case, the following must be observed:

– The new invoice's DocumentID and TransactionID must be different to the original invoice.
– The original invoice's TransactionID must be added to the "FixedReference" field using the "BillNumber" reference type.

This information then replaces the original invoice in the eBill platform's archive with the new invoice.

4.8.4 Reminders

Invoices can be set as reminders (REMINDER) via the DocumentType field. In this case, the TransactionID of the original invoice must always be entered in the "FixedReference" field with the "BillNumber" ReferenceType.

In the case of eBill, this results in both the reminder and the referenced invoice being displayed. The recipient decides on which of the annexes to approve. As soon as one of the annexes is approved, the other is also marked as approved.

4.9 Booking of incoming payments and accounts receivable management

Booking and notification of payment receipts takes place via the credit account specified in the invoice data (see section 10) in accordance with the regulations of the credit bank. Insofar as a special credit account is not used or a specific reference is not made for electronic invoices, no distinction between these and payment receipts from paper invoices is possible.

The entire accounts receivable management process including reminders is performed according to processes defined by the biller. The biller decides whether payment reminders for invoices originally issued in electronic form are to be issued electronically or on paper.

4.10 Storage of invoices

According to the legal provisions, the invoice issuer is responsible for storing invoices and acknowledges that the invoice data is, in principle, not archived by PostFinance.

5. Processing operations at PostFinance Ltd

5.1 Receipt of invoice data

The biller can deliver data 24/7. It must be possible to process the data without manual intervention.

PostFinance processes the delivered data in the steps described below in accordance with the processing and delivery time limits in the service level agreement (see Annex) within 24 hours of receipt by PostFinance.

PostFinance maintains a transaction log for the purpose of transaction traceability.

5.2 Plausibility check and data conversion

The invoice data undergo a plausibility check in which the syntax (see yellowbill Invoice XSD format annex) and other checkable elements such as the Credit Reference, date plausibility etc. are checked.

The biller is responsible for ensuring that the invoice data are correct. PostFinance does not check the business relationship or that the data are correct or complete, unless this is necessary to execute the order.

If necessary, PostFinance converts the delivered invoice data into the yellow-bill invoice format or the format requested/required by the recipient (see sections 12.4.5 to 12.4.7).

5.3 Digital signature of the invoice

The e-bills are signed digitally by PostFinance or its partner, unless the recipient opts out of this. In particular, the signature guarantees the integrity of e-bills sent by PostFinance. Immediately after delivery, a plausibility check and any necessary conversion, the invoice data provided are used to generate individual invoices in the format requested by the recipient. This generated data and the PDF invoice detail are digitally signed on an individual basis with an advanced certificate in the name of PostFinance, according to the W3C standard.

5.4 Provision of the processing report

The processing report which informs the biller of receipt and processing of the delivered invoice data includes information on the delivered, processed, signed, incorrect and forwarded invoices as well as invoices which have been rejected by the invoice recipient (for details, see section 9).

5.5 Provision of invoices intended for invoice recipients

PostFinance supplies invoice recipients connected directly to the e-invoice solution of PostFinance with the signed invoice data in the agreed delivery channel within 24 hours, or forwards the invoices on to the corresponding network partners.

5.6 Delivery to Swiss banks' eBill

PostFinance forwards invoices to eBill for recipients who received them via a bank affiliated with eBill in accordance with eBill's network partner interface. These can be viewed there directly once processing is complete.

From the format version yellowbill Invoice 2.0.3 onwards, it is possible to enter an e-mail address or a Swiss company identification number in the format CHE123456789 in the "AlternativeRecipientID" field for delivery to eBill, as an alternative to the eBillAccountID.

Further details are provided in the annex to this manual.

5.7 Delivery of invoices to Interconnect partners

PostFinance works with partners who offer equivalent e-bill solutions (see section 1.6). Data intended for invoice recipients with a connection to an Interconnect partner system is forwarded to the relevant partner.

PostFinance provides the partner with the invoices within 24 hours, using the delivery method arranged with the partner. Remember: clicking OK in the processing log confirms that the invoice has been successfully delivered to the partner. Partners do not normally inform us whether they were able to deliver the invoice to their customer effectively.

If the partner is unable to deliver the invoice, they can report this back to us. It is possible that an invoice that was originally marked as OK is later rejected by the partner as undeliverable. Provided an interconnect partner reports this back to us, reason code 50 is stated in a subsequent processing report with the corresponding original report by the partner.

Two addressing processes are supported for delivery to Interconnect partners.

5.7.1 One-stage addressing process
The invoice recipient's ID at its e-bill provider can be entered directly in the "eBillAccountID" field, provided that it is a 17-digit ID from a Swiss provider. The invoice is allocated to the correct provider via the prefix.

The process can currently be used for the following Swiss Interconnect partners:

– Prefix 4109 for Abacus Research AG, Abanet
– Prefix 4130 for Swisscom (Switzerland) Ltd, Conextrade trading platform
– Prefix 4150 for PENTAG Informatik AG

From the format version yellowbill Invoice 2.0.3 onwards, a different ID can be entered in the "AlternativeRecipientID" as an alternative. The invoice is allocated to the correct provider according to the pattern of the ID. Further details, in particular which patterns are supported, are provided in the technical specifications (see annex).

IMPORTANT NOTE: An eBillAccountID with prefix 4101 can either be an eBill recipient or a PostFinance customer. If we do not identify the recipient as a PostFinance customer, or if the pattern of the AlternativeRecipientID corresponds to an e-mail address or a company ID no., delivery is always made to the Swiss banks' eBill (see section 5.6).

5.7.2   Two-stage addressing process

The subscriber number which PostFinance has assigned to the provider is entered in the eBillAccountID field. This ID always has the prefix 4110.

The following information must also be entered:

Bill/Header/ReceiverParty/Network/NetworkName	Name of the recipient's provider
Bill/Header/ReceiverParty/Network/NetworkID	Recipient's subscriber number with his/her provider

Further details, in particular which ID is required for which partner, are provided in the technical specifications (see annex).

5.8   Data storage at PostFinance

PostFinance does not store invoices for longer than required for processing, mainly for data protection reasons. If the invoice data is forwarded to the eBill portal (see annex for details) or an Interconnect partner, the storage regulations of the partner system apply. Billers and invoice recipients are responsible for correct and complete long-term archiving of invoices (see sections 1.4, 4.10 and 6.4).

5.8.1 Processing data

Processing data and invoice details are irretrievably deleted from PostFinance's database 120 calendar days after the invoice due date or the last status change.

The deletion time is when the last status is changed **before** the invoice's term to maturity.
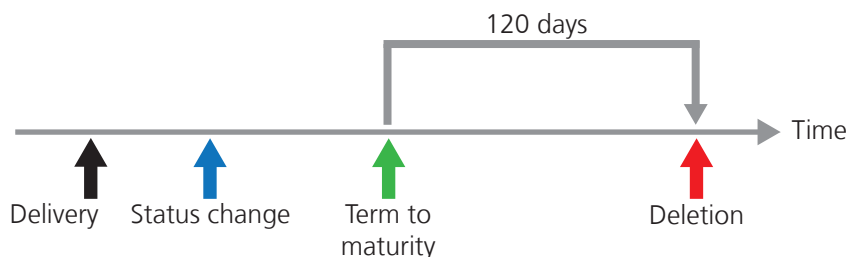
Status change deletion process before term to maturity

The deletion time is when the last status is changed **after** the invoice's term to maturity.
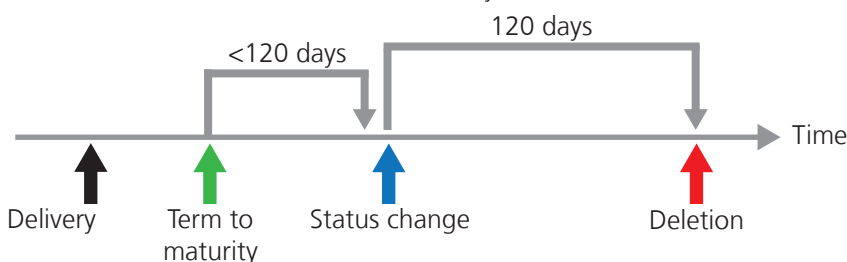
Status change deletion process after term to maturity

5.8.2 Data downloaded via eInvoicing portal, web services or e-finance

The data are available for up to 120 calendar days after the invoice due date or the date on which the data were created. They are available for a further 40 calendar days after download. The associated processing data are deleted as per section 5.8.1.

5.8.3 Data downloaded via SFTP or AS2

For data made available via SFTP or AS2, the same statements apply regarding storage or deletion for PostFinance as in section 5.8.1.

5.8.4 PostFinance business data

The data in the transaction journal (see section 5.1) is considered to be PostFinance business data and is thus archived according to PostFinance internal directives.

6. Invoice recipient's handling processes

6.1 Processing of electronic invoices via the eBill portal

For a more detailed explanation of the eBill functions, you can find a demo version and comprehensive FAQ at www.ebill.ch.

For details on accessing this via e-finance, go to the e-finance help pages.

6.2 Receiving electronic invoices via file transfer

The e-bills are provided by one of the following channels supported by PostFinance (see section 11 for details).

Channel	Characteristic
eInvoicing portal	Web portal for downloading individual invoices manually. Suitable only for small data quantities.
Web services	Method for automatically downloading e-invoices.
SFTP	Channel for automatically downloading e-invoices. Suitable for large data volumes.
AS2	Specific channel for delivering EDIFACT files.

6.3 Invoice processing

The downloaded invoice data can be scanned into the invoice recipient's ERP system for further processing, such as account assignment, approval, booking and storage. With the help of the financial software, a payment order can be prepared using existing payment methods.

6.4 Archiving digitally signed invoices

In accordance with legal requirements, invoice recipients are responsible for the storage of their own e-invoices delivered and further corresponding data (see section 1.5). Billers acknowledge that invoice details in particular will not be archived by PostFinance.

7. Registering and deregistering invoice recipients

In order to receive invoices electronically, the invoice recipient must register with the biller, i.e. he must notify the biller of his subscriber number (EBillAccountID), as for a change of address, which the biller enters into his customer database.

To register, the invoice recipient can call up a list of available billers on the eBill portal and register/cancel.

Direct registration via e-finance or e-banking can also be used as a simple means of acquiring invoice recipients as well as options for the biller to initiate registration themselves (see sections 7.1, 7.3 and 7.4).

Details on the delivery of the registration and cancellation data to the biller is described in section 12.4.

7.1 Direct registration

Using account numbers stored in the biller's master data, an information text is displayed after the manual entry of a payment in e-banking in favour of this account provided that this function is supported by the corresponding financial institution:

> You are also able to receive and easily settle invoices from (name of biller) as eBills in e-finance.
> Register for eBill for (name of biller)

Example: Information text in e-finance

When the e-banking customer clicks on register, one of the following actions is triggered:

Condition	Action
A structured reference is in the payment instruction (QR reference or SCOR reference).	Direct registration is activated. The biller automatically receives the relevant registration information with status 2 (direct registration) and specification of the credit account and the structured reference of the payment which was previously entered by the customer.
There is no reference or there is an unstructured reference.	The customer is shown the biller's registration page.

The credit accounts specified upon registration and activation are also used to access the aforementioned information text (see section 10).

In order to promote the use of e-bill among invoice recipients, PostFinance recommends that all billers use this form of registration as it is by far the most efficient solution.

7.2 Registration using the standard eBill registration screen

The standard eBill registration screen is available in German, French, Italian and English.

If the invoice recipient clicks on "Add" in the eBill portal next to a biller, the eBill system opens a standard registration screen. All the data required according to the biller's specifications is received here, then transferred to it.

A detailed description of the standard eBill registration screen is provided in section 12.2.

7.3 Look-up function
The invoice issuer can use the look-up function to initiate the registration for eBill himself/herself.

With eBill for private individuals, the unique identifier of the invoice recipient is the e-mail address, while with eBill for business, it is the company identification number (UID). To ensure that the look-up function for invoice recipients can be used in full, the invoice issuer is recommended to obtain customers' e-mail addresses or UIDs in advance and to declare when doing so that this information may be used for eBill.

A check can be carried out to determine whether delivery to eBill is possible for this customer using the mail address or the UID either manually via the eInvoicing portal (see section 11.2.1) or automatically via the web service (see section 11.2.2).

7.4 Registration with the invoice issuer

eBill recipients can register directly with the invoice issuer, e.g. on their web portal for eBill. The function can be integrated as follows using two web services (see section 11.2.2).

1. The invoice issuer asks the customer on its web portal for their mail address and whether they wish to use eBill.
2. The invoice issuer sends the first web service with the customer's mail address.
3. The customer receives an activation code in their mail and enters it in the invoice issuer's web portal.
4. The invoice issuer sends the second web service with the activation code that the customer entered.
5. The invoice issuer receives the confirmation with the details as a response to the web service.

7.5 Deregistration

If the invoice recipient clicks on "remove" for an invoice issuer in the eBill portal, PostFinance sends the deregistration details to the invoice issuer.

A deregistration will also be sent to the invoice issuer in the following cases:
– If no invoice has been sent by the invoice issuer within 15 months of registration.
– If the eBill user cancels their e-banking with their bank and does not reactivate their eBill mailbox with another bank within 60 days.

8. Visualization of invoice details

There is always a 1:1 relationship between the invoice data and the invoice details.

8.1 Visualization of invoice details using PDF provided

The biller can design the layout of the PDF files as he wishes but it may not contain any active elements, e.g. Java Script, ActiveX.

To ensure optimum performance for the invoice recipient, PostFinance recommends that the individual PDF files should not exceed 150 KB.

PDF files are assigned to the invoice data via the BillerID and the TransactionID which together form a unique bill identifier. Thus the naming convention for PDF files is as follows:
<BillerID>_<TransactionID>.PDF

Because PostFinance cannot check definitely whether the details in the invoice data correspond to those of the PDF file, it is the biller's responsibility to ensure the correctness of the PDF file and to adhere to this naming convention.

The PDF files can either be delivered separately or integrated in the element "Appendix" in yellowbill Invoice as a referenced object as Base64 string with MimeType=x-application/pdfappendix. If the PDF files are delivered separately, the order in which they are delivered makes no difference. Ideally, however, all invoices and their corresponding PDF files should be delivered on the same day. For further details concerning data delivery, please refer to section 11.

8.2 Visualization of invoice details using PDF generated by PostFinance

The biller can ask PostFinance to generate the invoice details. For this purpose, PostFinance generates a PDF from the submitted data exclusively by using a standard style sheet.

They contain the information required by law (including the addresses of the biller and invoice recipient, VAT number of the biller, invoice items, summary for each VAT set, etc.) but do not include the biller's logo.

It is not possible to make individual adjustments to the style sheet.

9. Processing report

The data delivery and processing is supported by a monitoring process. After processing is completed, PostFinance creates a processing log per billerID and processing day, which gives information about the processing.

9.1 Contents

The processing report contains the the following information:

OK_Signed	Contains the number of bills which have been processed without errors. Processed means: – Signed and sent to the recipient (see section 5.5) – Signed and forwarded to the eBill portal (see section 5.6) – Forwarded signed or unsigned to the Interconnect partner (see section 5.7) Please note that OK_Signed may also include non-signed bills. The name has been kept the same deliberately to avoid making any changes to the existing schema.
OK_Result	Optional choice, standard = no Contains the TransactionID for each invoice mentioned above (OK_Signed)
NOK_Result	Contains detailed information, including reason code for each NOK invoice (see reason code list in the technical scheme description).
RejectedBills	Contains all subsequently rejected bills. These might be: – Bills rejected by e-finance or e-banking customer via eBill – An invoice returned by an interconnect partner provided the interconnect partner has reported this to us.

9.2 Creation and delivery

As standard, the processing log is created and delivered for each calendar day in the night following the processing. Alternatively, it can be created and delivered per processed transaction, after its processing.

With the generation per calendar day, all invoices processed by the daily cut-off point (approximately 11 p.m.) are listed. If several status messages have been generated within the same processing day, only the last message will be displayed in the processing report, with the exception of refusal by the recipient (ReasonCode 25).

The processing log is created in XML format UTF-8-coded (www.utf-8.com). Further details on the layout, as well as on the individual processing messages (reason codes), can be found in the Annex.

The name of the protocol is as follows:

Report per calendar day
Name: Process_Protocol_[DDMMYYYYhhmm]_[BillerID].xml
Example: Process_Protocol_260220160220_41101000000225324.xml

Report per transaction
Name: Process_Protocol_[DDMMYYYYhhmm]_[BillerID]_[TransactionID].xml
Example: Process_Protocol_130420161920_41101000000225324_156333.xml

10. Credit account

In order to deliver e-invoices to PostFinance, at least one valid credit account should be registered. The following credit account types can be used:
– Postal account or bank account, the account number is specified using the IBAN number (all account currencies)
– QR-IBAN, data are provided via IBAN with IID (digits 5–9) between 30000 and 31999 (CHF or EUR)

The biller has the opportunity to use up to n credit accounts for the e-bill. E-bills can only be delivered if the credit details on the invoice correspond to one of the stored credit accounts.

Please note: the credit accounts specified when opening are also automatically used for accessing the information text for direct registration (see section 7.1).

IMPORTANT: If the invoice issuer and the account holder of the credit account are *identical,* the invoice issuer's name and address will, in case of e-bills to eBill recipients, be used for the execution of payments via eBill. If these are *not identical,* the details of the account holder, including the address, must either be stored or provided in full when the invoices are sent. These details can be stored via the eInvoicing portal or by contacting Support. When using yellowbill Invoice 3.0, these details can be submitted in full, including the address.
If a different account holder is stored or complete account holder details including address are submitted, these will be used for the execution of payments via eBill.
Information entered in the Header/PaymentInformation/IBAN/CreditorName field in the yellowbill Invoice 1.2 and 2.0 format versions can no longer be used from November 2024.

10.1 Postal account or bank account

For e-bill, the following data are required:
IBAN   e.g. CH6309000000250097798
Fixed bank name   e.g. Swiss Bank Ltd
Currency   e.g. CHF

When using IBAN, the PaymentType within the invoice must be indicated with IBAN.

10.2 QR-IBAN

For e-bill, the following data are required:
IBAN: e.g. CH5130000001250090342
Bank name   e.g. PostFinance Ltd
Currency   CHF or EUR

When using the QR-IBAN, the PaymentType within the invoice must be indicated with IBAN and a QR reference (27 digits) must be provided in the CreditorReference field.

11. Communication

11.1 Overview of communications methods

11.1.1 Overview of biller channels and formats

The table below shows the formats and channels through which data can be sent to PostFinance by the biller and vice versa.

	Data					
Channel	XML format, e.g. yellowbill Invoice, eBill-SIX_v3	QR-bill (PDF)	SAP IDoc Invoice 01	EDIFACT	Registration and deregistration data	Processing report
eInvoicing portal	S	S	S	S	R	R
Web services	S	S	S	S	R	R
SFTP	S	S	S	S	R	R
AS2	S	–	S	S	–	R
E-mail	–	–	–	–	R	R

S = send; R = receive

11.1.2 Overview of invoice recipient channels and formats

The table below shows the formats and channels through which data can be transmitted to invoice recipients.

	Data					
Channel	PDF with eBill XML	yellowbill invoice XML	SAP IDoc in XML	EDIFACT	PDF	Letter bill X ZUGFeRD
eInvoicing portal	–	R	R	R	R	R
Web services	–	R	R	R	R	R
SFTP	–	R	R	R	R	R
AS2	–	–	–	R	R	R
eBill Portal	R	–	–	–	R	–

R = receive

11.2 Communication methods

11.2.1 eInvoicing portal (posting and delivery)
The eInvoicing portal is a secure web application (https) via which settings can be configured and invoice data received/delivered to PostFinance.

The following functions are available on the eInvoicing portal:
– Manage master data
– Manage users
– Add BillerID/PayerID
– Configure settings, e.g. for eBill
– Set up registration screen for eBill
– Send invoices
– Download invoices
– Search for invoices
– Receive registration and de-registration data
– Download processing records
– Search for and contact invoice issuers and recipients
– Manage invoice recipients
– Collection of eBill payment report

When using the eInvoicing portal **(login via www.postfinance.ch/e-bill),** identification and authentication of the subscriber are carried out by a PostFinance login generated by the user themselves. If the user is also an e-finance user, they can also use their login details for e-finance.

The eInvoicing portal is designed to be multi-client capable, which means that several EBillAccountID or BillerID numbers can be processed per user.

There are two user roles: administrator and standard Users with an administrator role have automatic access to all BillerIDs and PayerIDs for the selected customer. They can use the following functions:
– User administration
– Change invoice address
– Add or delete credit account
– Add BillerID/PayerID

Users with a standard role only have access to BillerID and PayerID, as authorized by the administrator. They can use all functions excluding the administrator functions outlined above.

Invoices can be sent as follows:
– Upload of structured files (XML, EDI) and the corresponding PDF. Several files can be uploaded in a ZIP file (max. 5 MB).
– Upload of individual PDF invoices. PostFinance immediately checks whether all the information required for electronic mailing has been recognized. Any missing information can then be entered.
– Manual entry of individual invoices or credits.

The maximum file size for uploads via the eInvoicing portal is 5 MB per file or 10 MB for a ZIP file (files within a ZIP file may have a maximum size of 5 MB).

With the search function, it is possible to check after termination of processing (within max. 24 hours, with normal system capacity utilization after a few minutes) whether the invoices were processed correctly. The following invoice statuses are shown in the "Search for invoices" function:

Status	Description
Open	The invoice is available for the invoice recipient but has not yet been downloaded or approved in the eBill portal.
In progress	The invoice processing is not yet complete.
Rejected	The invoice has been rejected in the eBill portal by the invoice recipient.
Completed	The invoice has either been downloaded by the invoice recipient, approved for payment in the eBill portal or forwarded to an Interconnect Partner.
Missing invoice detail	The invoice's PDF could not be assigned or has not yet been delivered.
Invalid	There were errors when delivering the invoice. Please note the indicated error code. Further details can be found in the reason code list (see reason code table in the technical scheme description).
Comparison test failed	PDF does ev. not match with structured data

Data for download are always compressed into ZIP files for each delivery date. A data package is limited to 100 invoices, i.e. several data packages may be prepared for the same delivery date if there are large quantities of invoice data. The invoices can be downloaded at the latest as from the next Swiss Post working day after delivery, for a maximum of 120 days after payment due date. Invoice data downloaded via the eInvoicing portal are marked "Processed". Once downloaded, the files are still available for another 40 calendar days (see section 5.8.2).

11.2.2 Web services (posting and delivery)
Web services enable communication between different software systems, e.g. for automated data exchange.

The maximum file size for uploading via web services is 5 MB per file. For delivery of several files in the same request, a maximum of 10 MB per request can be delivered.

There are currently two solutions for using web services.
– PostFinance B2BService, based on SOAP (Simple Object Access Protocol), a protocol managed by the World Wide Web Consortium (W3C).
– PostFinance Billing Solutions REST API, a RESTful API, i.e. a programming interface that uses HTTPS queries to access and use data.

11.2.2.1 PostFinance B2BService (SOAP)
The PostFinance B2BService supports the SOAP methods listed below. They can be implemented in various program-ming languages, such as C# and Java. A detailed description of the SOAP services and integration instructions can be downloaded from **www.postfinance.ch/e-bill**.

General
– ExecutePing

For billers
– UploadFilesReport
– SearchInvoices
– GetInvoiceListbiller
– GetInvoicebiller
– GetProcessProtocolList
– GetProcessProtocol
– GetRegistrationProtocolList
– GetRegistrationProtocol
– GetEBillRecipientSubscriptionStatusBulk
– InitiateEBillRecipientSubscription
– ConfirmEBillRecipientSubscription

For invoice recipients
– GetInvoiceListPayer
– GerInvoicePayer

Please note: the methods published prior to 2016 are no longer listed in this manual. These are still supported by the system for the time being. However, they are no longer in line with today's security standards and will therefore no longer be supported.

When downloading data, the "List" method must be used before calling up the corresponding "Get" method with the values returned by the "List" method.

Required data for billers	1. Method List data	2. Method Download data
Registration and cancellation data	GetRegistrationProtocol**List**	**Get**RegistrationProtocol
Query processing status	SearchInvoices	-
Processing log	GetProcessProtocol**List**	**Get**ProcessProtocol
Registration status of an eBill recipient (look-up as per section 7.3)	GetEBillRecipientSubscriptionStatus	-
Initiate eBill registration (as per section 7.4, step 2)	InitiateEBillRecipientSubscription	-
Confirm eBill registration (as per section 7.4, step 4)	ConfirmEBillRecipientSubscription	-

Required data for invoice recipients	1. Method List data	2. Method Download data
Invoices for invoice recipients	GetInvoice**List**Payer	**Get**InvoicePayer

Transport and security
Communication for the SOAP interface takes place via HTTPS, based on TLS encryption version 1.2 or higher.

Authentication
A client/server certificate or username/password can be used for authentication for the SOAP interface.

11.2.2.2 PostFinance Billing Solutions REST API (RESTful API)

The PostFinance Billing Solutions REST API enables simple and secure connection to PostFinance's billing solutions. Data can be submitted and delivered, queries can be executed, sender information can be changed and new, addi-tional SenderIDs can be entered.

Transport and security

Communication for the PostFinance Billing Solutions REST API takes place via HTTPS, based on mTLS encryption ver-sion 1.2 or higher. Transport encryption is based on a user certificate.

Authentication

Keys are required for authentication (client secret, refresh token and private key). E-finance users with administrator rights can create the keys themselves in e-finance. They are valid for two years. Instructions for this can be found in the technical specifications at www.postfinance.ch/e-bill.

Major version upgrades

When major changes are introduced, it is essential to upgrade to the new major version. PostFinance ensures paral-lel operation of two major versions for two years, starting from the launch date of the new version. This means that an upgrade to the new major version must be carried out within two years. PostFinance will inform the relevant cus-tomers of any mandatory version upgrades in good time.

Methods

The table below provides a simplified overview of the methods offered by the PostFinance Billing Solutions REST API. Additional information for implementation can be found in the specification (YAML file), which is available in the technical specifications at www.postfinance.ch/e-bill.

Category	Method [1]	Description
BusinessCase	**POST:** /vx/businessCases/files	Submits documents, e.g. invoices, in various formats, e.g. XML.
BusinessCase	**GET:** /vx/businessCases	Searches for documents by defined search criteria.
BusinessCase	**PATCH:** /vx/businessCases/{businessCaseId}	If you no longer want to retrieve a document in the query "GET: /vx/businessCases/{businessCaseId}/files", you can set its status to "retrieved". If you want it to be retrieved again, you can set its status back to "open". **Access restriction:** The status may be changed only by the transaction recip-ient's authorized users.
BusinessCase	**GET:** /vx/businessCases/{businessCaseId}/reasons	Reads the potential Reason Codes that have been assigned to the relevant documents, including descriptive text. A table containing all Reason Codes can also be found in the technical specifications at www.postfinance.ch/e-bill.
BusinessCase	**GET:** /vx/businessCases/{businessCaseId}/files	Reads the FileIDs of the files contained in the available documents.
BusinessCase	**GET:** /vx/files/{fileId}	Downloads files, including the documents they contain, based on the FileID.
Sender	**POST:** /vx/senders	Creates a new/additional sender.
Sender	**GET:** /vx/senders/{senderId}	Searches for a sender based on SenderID.
Sender	**PUT:** /vx/senders/{senderId}	Changes an existing sender's data and information.
Sender	**POST:** /vx/senders/{senderId}/accounts	Adds a new bank account to a sender.

Category	Method [1]	Description
Sender	**DELETE:** /vx/senders/{senderId}/accounts/ {accountId}	Removes a bank account from a sender. Please note: there must be at least one bank account for each sender.
Report	**GET:** /vx/reports	Reads reports or reportIDs based on specific search criteria.
Report	**GET:** /vx/reports/{reportId}	Downloads a specific report (e.g. payment report) based on the reportID. The reports can be downloaded in .json or .csv formats.
Report	**PATCH:** /vx/reports/{reportId}	If you no longer want to retrieve a report in the query "GET: /vx/reports/{reportId}", you can set its status to "retrieved". If you want it to be retrieved again, you can set its status back to "open". **Access restriction:** The status may be changed only by the report recipient's authorized users.
eBill SIX	**POST:** /vx/ebill/recipients-search	This method can be used to check whether document delivery via eBill is possible for a specific customer. See also section 7.3.
eBill SIX	**POST:** /vx/ebill/subscription-initiations	Initiates a customer's eBill registration as per section 7.4, step 2.
eBill SIX	**POST:** /vx/ebill/subscription-confirmations	Confirms a customer's eBill registration as per section 7.4, step 4.
eBill SIX	**GET:** /vx/ebill/subscriptions	This method enables search by eBill registration and deregistration events. The reply contains all relevant events and the associated subscriptionID.
eBill SIX	**GET:** /vx/ebill/subscriptions/{subscriptionId}	Retrieves details on eBill registration and deregistration events based on the subscriptionID. For details, see section 7.
eBill SIX	**PATCH:** /vx/ebill/subscriptions/{subscriptionId}	If you no longer want to retrieve an eBill registration or deregistration event under "GET: /vx/ebill/subscriptions", you can set its status to "retrieved". If you want the regis-tration to be retrieved again, you can set its status back to "open". **Access restriction:** The status may be changed only by the eBill registration or deregistration event recipient's authorized users.
eBill SIX	**GET:** /vx/sectors	Retrieves the sector list for display in eBill.
Various	**GET:** /vx/ping	Tests the connection with PostFinance via the RESTful API.

[1] vx stands for the version, e.g. v2.

11.2.3 Secure File Transfer SFTP (posting and delivery)

The SFTP channel is suitable for large data quantities, and the following functions are available:

Biller	Invoice recipient
Upload invoices/credits	Download signed invoices/credits
Download registration and cancellation data	

The maximum file size for uploading via SFTP is 15 GB per file.

With large data quantities, the following requirements must be noted:
– Large files must be transmitted in compressed form as a .zip file.
– A large number of files must be transmitted using a correspondingly large number of file transfers (put/get) for each SFTP login session. For example, with 1,200 files, run 10 FTP connections/logins each for 120 file transfers. If the number of logins during a given time unit is too big, the Intrusion Prevention System will automatically block the offending username for 15 minutes.

The maximum size per ZIP file is 15 GB, and the individual files in the ZIP file may not be larger than 5 MB.

There are currently two solutions for using SFTP.
– Managed File Transfer PostFinance (MFTPF) from PostFinance
– FDS (File Delivery Service) from Post CH Ltd, Informatics/Technology

From 2026, only MFTPF can be used. Only MFTPF is available for new customers.

The following directories are used on MFTPF for the e-bill:

Phase	Folder for incoming delivery	Folder for outgoing delivery
Integration/test	billing-in-t	billing-out-t
Production	billing-in	billing-out

The following directories are used on FDS for the e-bill:

Phase	Folder for incoming delivery	Folder for outgoing delivery
Integration/test	ebill-outbox-t	ebill-inbox-t
Production	ebill-outbox	ebill-inbox

The SFTP UserID is ordered when the user is set up by PostFinance.

For more information about SFTP, the Managed File Transfer PostFinance (MFTPF) manual and the File Delivery Services (FDS) manual can be downloaded from **www.postfinance.ch/manuals.**

11.2.4 Swiss banks' eBill portal (delivery)
E-invoices can be viewed and processed in the eBill portal via e-finance or e-banking.

11.2.5 AS2 (posting and delivery)
Specific channel for e-invoices in EDIFACT format.

11.2.6 E-mail (delivery)
Registration and cancellation data and processing reports can be delivered to the biller by e-mail.

12. Data formats

12.1 BillerID and EBillAccountID

In the eBill system from PostFinance, the **BillerID** is the unique identification number of a biller and the **EBillAccountID** is the unique identification number of a invoice recipient. These are issued by the relevant e-bill system.

Number structure: numeric, 17 digits
Structure: 41100000000872849

The first four digits identify the e-bill system which issued the ID. For the PostFinance eBill system, this is set to 4110. The last two digits are check digits that are calculated according to Modulo 97-10 (ISO 7064).

From the format version yellowbill Invoice 2.0.3 onwards, a different ID can be entered in the "AlternativeRecipientID" as an alternative. The invoice is allocated to the correct provider according to the pattern of the ID. Further details, in particular which patterns are supported, are provided in the technical specifications (see annex).

12.2 Standard eBill registration screen

For billers that are registered with eBill, the standard registration screen will be prepared by SIX eBill in German, French, Italian and English and displayed within the eBill portal as shown in the following.

Example of standard registration screen without additional fields

When registering and activating a biller with eBill (see section 2.5), a standard registration screen without additional fields in accordance with section 12.2 will be provided there automatically.

With one click, eBill customers can complete the registration with the biller using this screen and the biller will be sent the standard registration information which is available (see section 12.4).

Billers can expand the eBill registration screen via their primary network partners as follows:
1. Add additional information to the existing standard text.
2. Add additional fields that the customer has to complete.
3. Add descriptions to the additional fields

The eBill registration screen will look as follows with these additions:

Example of a registration screen with customized additional information and one additional field with description and one additional field without description.

To configure the registration screen, the settings described below can be made in the PostFinance eInvoicing portal, provided PostFinance is the primary network partner. A preview of how the screen will look on the eBill portal and a sample file with the corresponding registration and cancellation data can be generated and downloaded for test purposes. The e-bill help-desk will provided support if required.

12.2.1 Additional information

Additional information is customizable supplementary text with additional notes from the biller to their customers regarding registration with eBill.

Additional information must always be available in four languages to ensure that this will be shown to e-finance and e-banking users in the correct language every time.

12.2.2 Additional fields

Additional fields are for additional information required by the biller for assigning the registration to the correct customer.

– For each additional field, it is possible to define whether it must be filled in by private customers, by business customers or by both. Different additional fields can be specified for private customers and business customers.
– A maximum of three additional fields can be specified per customer type (private customer or business customer). This means that, theoretically, it is possible to have six additional fields: a maximum of three for private customers and a maximum of three for business customers.
– Additional fields are always mandatory fields. It is not possible to display the fields on the eBill portal as an optional field.
– Additional fields can either be alphanumeric text fields or dropdown menus. The dropdown menu can contain up to 10 text options.
– Additional fields can be limited in length (maximum 35 characters), and it is possible to add validation rules, known as Regex. Regex rules can be set up only via the e-bill helpdesk.
– The title and description of the additional fields must always be in four languages, and it is possible to define a technical title with which the data will be delivered. The technical title of the additional fields must be entered in capital letters without spaces and special characters and may be a maximum of 35 characters long.
– The following commonly used additional fields have been predefined by PostFinance in four languages and with a corresponding technical title:

German	French	Italian	English	Technical title
Geburtsdatum	Date de naissance	Data di nascita	Date of birth	BIRTHDATE
Kundennummer	Numéro de client	Numero di cliente	Customer Number	CUSTOMERNBR
Vertragsnummer	Numéro de contrat	Numero di contratto	Contract Number	CONTRACTNBR
Referenznummer	Numéro de référence	Numero di referenza	Reference Number	REFNR
Telefonnummer	Numéro de téléphone	Numero di telefono	Phone Number	PHONE
Rechnungsnummer	Numéro de facture	Numero di fattura	Invoice Number	INVOICENBR

We recommend using as few additional fields as possible, ideally none at all.

When defining additional fields, always consider whether the information is mandatory for correct assignment and whether the customer has this information available at the time they wish to register. If this in not the case, there is always the risk that the customer will cancel the registration.

12.2.3 Descriptions for additional fields

An optional description (maximum 255 characters) can be added for each additional field. For example, the description can be a note letting the customer know where they can find this information. Descriptions for additional fields must always be in four languages.

12.3 Registration and cancellation data (delivery)

For the delivery of registration and cancellation data of eBill customers, there are the following options:

Delivery type	Format	Channel
Collective message every day (Next-day delivery)	CSV V2.0 CRM XML V2.0	eInvoicing portal Web services SFTP E-mail (with attachment)
Individual message per registration/ cancellation	CSV V2.0 CRM XML V2.0 Mailtext (CSV V2.0)	eInvoicing portal Web services SFTP E-mail (with attachment) E-mail (individual message)

The delivery takes place via the eInvoicing portal as a collective message every day in CSV V2.0 format by default.

Regarding German umlauts and special characters, the two formats CSV V2.0 and CRM XML V2.0 are coded with UTF-8 and their structure is identical in content, as follows:

Standard information	Explanation
SUBSCRPTIONTYPE	1 registration; 2 direct registration; 3 cancellation
BILLERID	ID of the biller
RECIPIENTID	ID of the invoice recipient
RECIPIENTTYPE	PRIVATE;COMPANY
LANGUAGE	de;fr;it;en
GIVENNAME	If PRIVATE: first name
FAMILYNAME	If PRIVATE: last name
COMPANYNAME	If COMPANY: company name
ADDRESS	Address
ZIP	Postcode
CITY	Location
COUNTRY	Country
EMAIL	PRIVATE: always COMPANY: only when present in the eBill system
UID	PRIVATE: never COMPANY: only when present in the eBill system

Standard information	Explanation
CREDITACCOUNT	Credit account, if SUBSCRIPTIONTYPE 2: QR-IBAN, IBAN
CREDITORREFERENCE	Credit reference, if SUBSCRIPTIONTYPE 2: QR reference, SCOR ref.
Additional fields, examples	**Only delivered with SUBSCRIPTIONTYPE 1**
BIRTHDATE	TechnicalID, preset for already predefined fields
CUSTOMERNBR	
TECHNICALID3	Customized TechnicalID
TECHNICALID4	
TECHNICALID5	
TECHNICALID6	
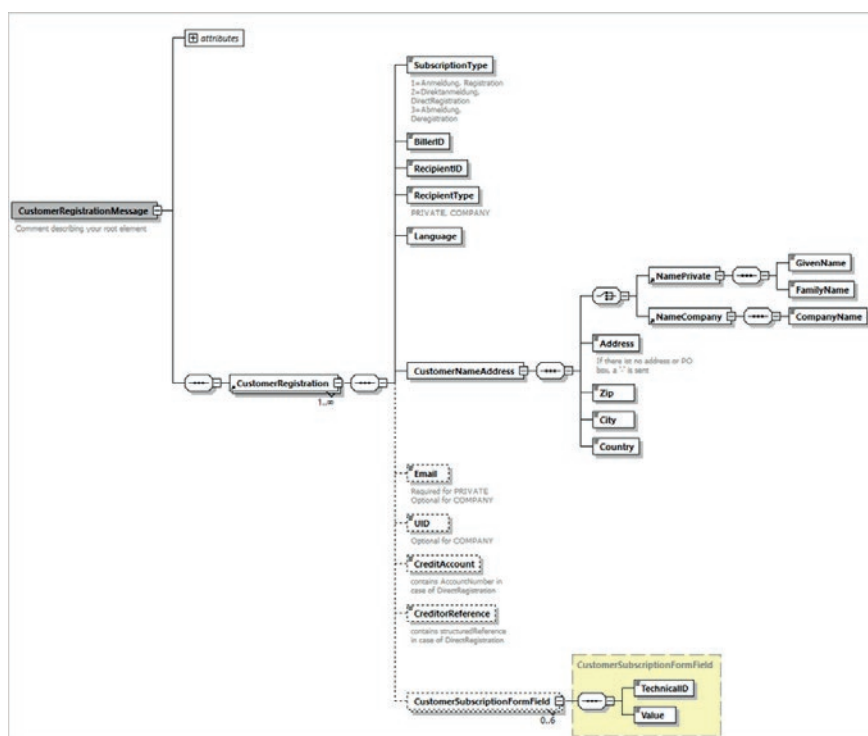
Structure of the XML message CRM XML 2.0 and 1 additional field without description.

The names of the files delivered are as follows:
subsc_BillerId_ddMMyyyyHHmm.csv
subsc_BillerId_ddMMyyyyHHmm.xml

When delivered per login/logout, the filename is as follows:
subsc_[BillerID]{}[DDMMYYYYHHmm]{}[YYYYMMDDHHmmssSSS]-
[eBillAccountID].csv
subsc_[BillerID]{}[DDMMYYYYHHmm]{}[YYYYMMDDHHmmssSSS]-
[eBillAccountID].xml

12.3.1 Status history of registrations in eBill portal

When an eBill customer registers with the invoice issuer, the registration is assigned the status "requested" in the eBill system. The registration changes to the status "active" when the invoice issuer submits its first invoice. Registrations with the status "requested" are deleted from the eBill system after 15 months if the invoice issuer does not submit an invoice during this period. In such cases, the customer needs to re-register with the invoice issuer.

12.4 Invoice data

12.4.1 yellowbill invoice (posted by biller)

yellowbill Invoice is the standard format for structured invoice data and describes both the syntax and structure of electronic invoices (XML files). The format is based on the swissDIGIN standard (see section 12.4.8).

12.4.1.1 General

The XML data in yellowbill Invoice format must be supplied in the UTF-8 character set (www.utf-8.com) without a byte order mark (BOM). In XML messages, only a subset of characters from this is allowed. This includes the characters in the following Unicode blocks:
Basic Latin (Unicodepoint U+0020 – U+007E)
Other codes (Unicodepoint U+0080 – U+00FF)
If other characters are used, they will be removed.

HTML elements and the numerical representation of characters such as ' are not permitted.
In addition, characters that have special meaning in XML syntax cannot be used directly for XML attribute values. The following replacement texts must be used for these:
for < use <
for > use >
for & use &
for " use "
for ' use '

The naming convention of the invoice data is:
<BillerID>_<TransactionID>.XML

One XML file is generated for each invoice/credit note. The maximum file size is 2 MB, taking into account the size limitations depending on the delivery channel (see section 11).
The biller must check the contents of the invoice data before uploading them.

A conformity check against the schema can be performed at any time at the following web page: https://www.corefiling.com/opensource/schemaValidate/ For a detailed description of the yellowbill invoice schema, see the annex.

Older format versions of generation 1.2.x can still be used, provided the Bill node is specified. The limited scope of use of this format generation must be taken into account.

12.4.1.2 yellowbill Invoice 2.0

The main elements when sending the XML file are the "Header" and the "Body" (see diagram below). The "Header" contains mainly internal system control data. The main contents are defined in the "Body".
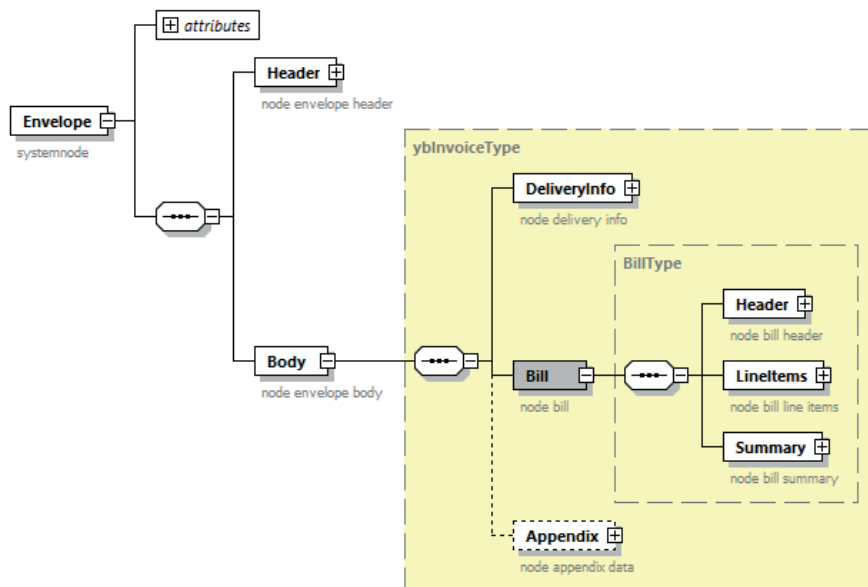
Graphical representation of XML yellowbill Invoice

- The "Body" consists of the elements "DeliveryInfo", "Bill" and "Appendix".
- The element "Delivery" contains specific key data for the system such as the unique number of the biller (BillerID) and of the recipient (eBillAccountID) or control data for bill presentation.
- The main invoice content is in the "Bill" element. This element is divided – similar to a paper bill – into the elements "Header" (address data of invoice recipient and issuer), "LineItems" (bill line items as on a paper bill) and "Summary" (summary per VAT rate).
- "PaymentData". The "PaymentType" field indicates how the invoice shall be paid.

IBAN   Invoice with payment to a postal or bank account (red inpayment slip or QR bill, indication of account number using IBAN)
DD   Invoice with payment of the amount by CH-DD Direct Debit or LSV
CREDIT Credit advice, payment is made by separately
OTHER   Invoice, without indication of payment details

Combination options for the amount (positive or negative) and the payment method in the "PaymentType" field and their implications for the displaying of the invoice in the eBill portal:

TotalAmountDue	PaymentType		Display in the eBill portal
Positive	IBAN		Invoice or reminder, depending on the DocumentType
Positive plus additional instalment information	IBAN		Instalment invoice with choice of total amount or instalment amounts
Positive	DD		Notification
Positive	CREDIT		Not possible, triggers error code 17
Positive	OTHER	⟶	Notification
Negative	IBAN		Credit
0.00	IBAN		Notification
Negative or 0.00	DD		Notification
Negative or 0.00	CREDIT		Credit
Negative or 0.00	OTHER		Notification
Not available (NULL)	IBAN		Invoice without amount [1]
Not available (NULL) plus instalment information	IBAN		Instalment invoice only with instalment amounts, without a total amount

[1]   For invoices with no amount, no TotalAmountDue must be specified (NULL) and the fixAmount field must be set to "No". Otherwise, a notification is generated.

In the "Appendix", any information can be provided by the biller. For instance, the invoice detail can be integrated directly into the appendix as a PDF (see section 8.1).

12.4.1.3 yellowbill Invoice 3.0
The yellowbill Invoice 3.0 format generation comprises the following elements in the body area:

– **Interchange**
  This is used by PostFinance for the technical identification of sender and recipient, whereby other types of IDs may be used in addition to the SenderID and RecipientID assigned by PostFinance or the provider of the recipient, such as e-mail address, company ID no., Global Location Number, insofar as this is possible in the individual application.

– **Invoice**
The Invoice node is used to display the following document types. It is essential to specify what type of document is involved:

Slip type	Document type	Additional information
Notification	ADVICE	Information document
Invoice	BILL	Invoice with an amount to be paid. This must be larger than 0.00.
Credit, credit advice	CREDITADVICE	Refund of an invoice or invoice with a negative balance.
Donation request	DONATIONINQUIRY	Can only be used if the conditions for eBill Donations in the Data submission to eBill annex are fulfilled.
Instalment invoice	INSTALMENTBILL	Invoice that can be paid in instalments.
Reminder	REMINDER	Reminder for an invoice

The Invoice node comprises the Header, LineItem and Summary areas, which correspond to the structure of an invoice. Details on how the various document types are processed can be found in the technical documentation.
Please note: for invoices sent to an eBill recipient, the amount to be displayed in the eBill portal must be entered in the Invoice/Header/PaymentTerms/Amount field.

– **Appendix**
This is used to send additional documents, such as invoice details or enclosures, as a PDF.

– **UseCase**
This is used to specify the necessary parameters for certain use cases. The following use cases are currently possible:

UseCase	Purpose
PaperBill	Sending paper invoices

12.4.2 PDF invoice detail (posted by biller)
The PDF invoice detail can be delivered by the biller as a separate PDF or provided as an appendix in the yellowbill Invoice. Another option is for PostFinance to be instructed to create the bill details (see section 8).

The naming convention for the PDF in case of separate posting is:
<BillerID>_<TransactionID>.pdf

With the separate delivery, please note that the status of the invoice remains in "incomplete" status until the corresponding PDF invoice detail can be assigned by the system. This is reported in the processing log with Reason Code 13. If the PDF cannot be allocated within 15 days, the transaction will be deleted in the system and reported in the processing log with Reason Code 24.

12.4.3 QR-bill (delivery by invoice issuer)
A QR-bill can be delivered as a PDF file instead of in XML and PDF format (see 12.4.1 and 12.4.2) . An e-bill is created from the data in the QR code.

The naming convention for the PDF is:
<BillerID>_<TransactionID>.pdf

The following points must be noted:
– The alternative eBill procedure according to the publicly available specification of SIX on the "Use of the alternative eBill procedure in the Swiss QR code" must be shown in the QR code.
– The integration of the "syntax definition of the billing information (S1) in the QR-bill" of Swico is also recommended as this produces better data quality for B2B invoices.
– Only e-bills without invoice items can be created.

12.4.4   eBill-SIX_v3
It is important to consider the following points when sending eBill-SIX_v3:
– eBill-SIX_v3 can only be used by invoice issuers who use eBill.
– All document types can be sent in accordance with SIX's implementation guideline.
– The completion of eBill-SIX_v3 according to the schema and implementation guideline of SIX is mandatory. Details on this are set out in the technical specifications (see annex).
– XML and PDF documents must always be sent separately.
The naming convention of the invoice data is:
<BillerID>_<TransactionID>.XML

The naming convention for the PDF is:
<BillerID>_<TransactionID>.pdf

12.4.5   yellowbill invoice, version 1.2.x or 2.0.x
(delivery to invoice recipient)
When a signed e-bill is delivered, the data are enclosed by the signature envelope. The structure of this "envelope" is XMLdsig according to W3C – the schema of it can be downloaded at www.w3.org/TR/xmldsig-core/xmldsig-core-schema.xsd.

The delivery file is named as follows: <BillerID>_<TransactionID>_sig.xml

Within the core schema, there are various XML objects with own XML schemas:
– The invoice itself is in Object Id = RGXml. The contents are identical to the yellowbill invoice scheme used for submission.
– The PDF of the invoice is contained in Object Id "PDFInvoice" in base64-encoded form.

As standard, the PDF of the invoice is additionally delivered as a separate file. If required, this separate delivery can be omitted.

12.4.6 ZIP container with yellowbill invoice (delivery to invoice recipient)

For the data delivery, a compressed ZIP container is created for each invoice. This can contain the following files. Invoice recipients can define which of these files they intend to receive. As standard, all existing files are delivered.

The name of the ZIP file is: "<BillerID>_<TransactionID>.zip"

Structured data (signed)	The structured files are either yellowbill Invoice 2.0.x signed or another structured and signed data format requested by the recipient (e.g. EDIFACT). In the case of XML, the name of the signed, structured file is: <BillerID>_<TransactionID>.sig.xml The structure of the XML is identical to the direct delivery of the yellowbill invoice (cf. section 12.4.1), i.e. with an envelope of XMLdsig and the object RGXml. The invoice detail (signed PDF) is always included as a separate file in the ZIP container.
Invoice detail (signed PDF)	The signed PDF is also delivered with the structured data. The name of the signed PDF is: <BillerID>_<TransactionID>.PDF It contains the content of the delivered MimeType=x-application/pdfappendix. The signature on the PDF can be verified using Acrobat Reader.
Appendix files	Appendix files contain 0-n attachments The name of the appendix file is: <BillerID>_<TransactionID>_apxNN.<Extension> NN = sequential numbering starting with 01, regardless of the file type. The file type (<Extension>) is set according to the mime type. If this is not possible, no file extension is used. There are no limitations with regard to file types, which can be contained in the appendix. All mime types can be used on the list published under the following address: https://www.iana.org/assignments/media-types/media-types.xhtml

Source data	The delivered source file corresponds to the file originally delivered to PostFinance. The file name is retained from the delivery. The delivered invoice detail as a PDF file is not considered a source file and is therefore not delivered here.
	For the purpose of full traceability of the transaction, the source file can be archived by the invoice recipient with the processed invoice data.

12.4.7 Other input or output formats

Apart from the yellowbill Invoice format, PostFinance also supports the formats SAP IDoc Invoice, Fakture X (ZUGFeRD), EDIFACT (GS1 standard invoice 01B, Ideal Invoice) and eBill-SIX_v3 (XML).

There is also an opportunity to have any data formats that correspond to a machine-readable structure converted by PostFinance for the data delivery. The relevant data format/implementability of the data conversion must be clarified beforehand.

Your PostFinance customer advisor will be pleased to make you an offer that is tailored to your requirements.

12.4.8 swissDIGIN (swiss digital invoice)

The GS1 specialist group, swissDIGIN (swiss Digital Invoice), promotes electronic exchange of invoices between companies and organizations in Switzerland. To this end, it provides companies with expertise from a neutral source. The active community fosters transparency, connects companies and sectors, and exerts an influence to effectively reduce barriers to electronic invoice exchange.

The swissDIGIN standard supports coordination of content between the parties involved in electronic invoice exchange. It defines the mandatory fields required for electronic individual invoices. In addition, optional content fields are listed which, depending on the company and area of application, may be required by invoice recipients or are necessary for mapping collective invoices or credits. The swissDIGIN expert group meets regularly to discuss current market developments and the impact on the content standard. The standard is published on www.ech.ch under the identifier eCH-0069 as an official e-government standard.

You can find more in-depth information on electronic invoices, as well as guidelines and checklists for implementing e-invoicing projects, at www.swissdigin.ch.

13. Sending orders

13.1 Transmission of order to PostFinance

Orders are transferred to PostFinance in an agreed format. PostFinance provides a web service for this.

On receipt, the orders are given the status "Received". By means of a return code, the ordering party can verify that the transfer has been successful. The processing status can be ascertained by querying the order status. If the transfer was not successful, the orderer must resend the data.

PostFinance ensures that an order can be received and forwarded only once. The order number serves as the unique reference for this.

PostFinance temporarily stores the order for seven days. It is possible to check the order status during this period. The orders are then deleted.

13.2 Transmission of order to suppliers

An order is delivered to a supplier using an agreed format and channel, i. e. it is possible for the data to be converted from the orderer's format into the supplier's format.

Order confirmations and other messages cannot be sent via PostFinance.

13.3 Order status

The order status can be checked using a web service. This is made available with the following structure:
– Order number
– Status (received, delivered)
– Time stamp

For further information about sending orders, please contact the specialists at the e-bill helpdesk.

14. Annex

– **Service Level Agreement** (see following pages)
– **Data delivery to Swiss banks' eBill** (see following pages)
– **Terms and abbreviations** (see following pages)

In addition the following technical documentations which can be downloaded at www.postfinance.ch/e-bill.

For billers (delivering the e-bill)
– yellowbill invoice 2.0.5 and 3.0.0 XSD format
– Description of yellowbill invoice 2.0.5 and 3.0.0 in table format (xlsx)
– Description of addressing types and special requirements
– Sample invoices (XML)

For billers (providing the processing report)
– ProcessProtocol XSD format
– Sample processing report
– Reason code table for the processing report

For invoice issuers (delivery of registration/de-registration data)
– Sample file in CSV 2.0 format
– XSD format CustomerRegistrationMessag V2.0
– Sample file in XML 2.0 format

For invoice recipients (providing the e-bill)
– xmldsig core schema and XSD schema yellowbill invoice 2.0.5 and 3.0.0
– Sample invoices with signed yellowbill invoice 2.0.5 and 3.0.0, with and without zip file

Service Level Agreement (SLA)

System availability and maintenance window

Services	Services	Comments
Machine time	7/24 hours	Minus maintenance window
Availability	99.5% per quarter	Only total down-times are included.
Maximal contiguous down-times: – Total down-time – Partial down-time	 max. 12 hours max. 24 hours	

Malfunctions reported during operating hours will be remedied within the agreed down-times for total and partial down-times. The agreed downtimes include the response time and the report that the malfunction has been remedied.

Maintenance window	Activities	Comments
Server	Back-up of the application and database	Daily
	Back-up of system data	Once a week, each Sunday between 2 a.m, and 6 a.m. The storage period is 30 days. In the event of restoring, the data can only be restored back to the previous back-up.
Maintenance	Maintenance required for technical reasons	Maintenance required for application For maintenance of general IT infrastructure there is a 4-hour service window, usually on Sundays between 2 a.m. and 6 a.m.
	Application-based maintenance	Maintenance required for application-related reasons will be discussed in advance with and announced to the persons concerned.

Processing status and delivery periods

The delivered invoice data are processed within 24 hours after receipt by PostFinance and are then available to the recipient.

The processing log (see section 9) is made available to the biller as follows:
Log per calendar day: It is made available on the day following completed processing log per transaction: The log is made available following completed processing

The registration and cancellation data (see section 12.3) is prepared on a daily basis in the night and made available to the biller for collection.

Billing Support

Support services are free of charge for subscribers in accordance with the present SLA.

Contact unit for support:
Billing Support
Tel.   +41 31 667 99 00
E-mail   billing-support@postfinance.ch

Availability times	Monday to Friday	Saturday and Sunday	Response time
1st-level support	8 a.m. to 12 p.m. and 1.30 p.m. to 5 p.m.	No availability	Immediate

Services	Activities
Call handling	– Receipt of errors, problems and queries – Electronic entry of reports – Solution communicated to subscribers
Problem handling	– Dealing with and solving errors, problems and queries at the various support levels
Coordination	– Appoint problem owner – Set priorities and forward them

Reporting

With the monthly invoice, subscribers receive information on the number and type of data processed.

Data delivery to Swiss banks' eBill

General

PostFinance is a network partner of Swiss banks' eBill. Provided an invoice issuer has commissioned PostFinance to do so, invoices for recipients received via a bank affiliated with eBill are transferred by PostFinance to eBill using the eBill network partner interface.
For a more detailed explanation of the eBill functions, you can find a demo version and comprehensive FAQ at www.ebill.ch.

Choice of primary network partner

eBill enables an invoice issuer to submit e-bills to eBill via any network partner. When the network partner creates a new invoice issuer that does not yet exist in eBill, they become the primary network partner.

If an invoice issuer has more than one network partner, they must define the primary network partner and inform them accordingly. The selected primary network partner transfers this information to eBill. The invoice issuer is responsible for determining the primary network partner independently of the chronological sequence of the connection.

The following functions are executed exclusively via the primary network partner:
– Managing the invoice issuer master data incl. credit account information
– Delivery of registrations and cancellations of invoice recipients
  with an invoice issuer (see section 12.3)

Registration of the invoice recipient with the invoice issuer

To transfer e-bills from an invoice issuer to an invoice recipient, a connection must be established between both parties in eBill. The connection is designated as "Delivery permission" and the operation as "Registration".

Various registration options are supported by PostFinance:
1. Invoice recipient-driven registration
– Direct registration from online banking (see section 7.1)
– Registration via eBill portal (see section 7.2)

2. Invoice issuer-driven registration
– Look-up (see section 7.3)
– Registration with biller (see section 7.4)

Transfer of business case data to SIX eBill

After validation of the invoice data sent from the invoice issuer, PostFinance transfers that data to eBill according to the SIX interface description. Confirmations of the results of the validation and the transfer to eBill are included in the processing log (see section 9). The same applies to any subsequent eBill confirmations.

In the overall interest of the eBill ecosystem, the invoice issuer is required to submit e-bills at least five days before their due date.

Business cases submitted to eBill and their statuses are only visible to the network partners via which they were submitted.

Data storage in eBill

eBill only stores invoice issuer data that is submitted by the network partner via the network partner interface.

Business case data (e-bills) remain available on the eBill portal for 730 days after the due date, or from the creation/document date, if this is more recent.

Logo of the invoice issuer

The invoice issuer can upload and manage its logo for publication on the eBill portal via the eInvoicing portal. PostFinance transfers this to SIX on behalf of the invoice issuer. The invoice issuer thereby authorizes PostFinance and eBill to use the logo for the purpose of publication on the eBill portal. The logo can be published in German, French, Italian and English. The logo must be uploaded in JPEG, GIF or PNG format and must not exceed 100 KB and 1024 × 1024 pixels.

eBill Donations

eBill Donations enables non-profit organizations to send donation requests to eBill. To do so, the organization requires Zewo certification or a cantonal tax exemption for institutions of charitable or public purpose. Postfinance checks the validity of the documents every six months.

The following points are important to consider when sending:
– NPOs have the option of sending a list of donation purposes (e.g. environment, children, project xyz). The payer can select from this list when approving payment. Up to 10 purposes can be listed.
– Up to five amounts can be proposed to payers from which they can select one.
– The minimum amount for a donation payment is CHF 5.
– Any donation confirmation can be sent to the customer via the notification document type.

Payments via eBill

When the eBill recipient authorizes an invoice for payment at their bank, SIX sends a payment instruction to the payer's bank. The credit account specified in the invoice, including the payment reference, is used for this. In the absence of any other information, the name of the invoice issuer registered with eBill, including their address, is indicated as the holder of the credit account in the payment instruction.
If the holder of the credit account and the invoice issuer are *not identical,* the correct details for the account holder must be provided. PostFinance provides two options for this. The details for the account holder can either be stored or submitted with the invoice. Details on this are described in section 10 Credit account.

eBill payment report

An eBill payment report is available for payments made via eBill. This is always generated for donation organizations. All other eBill invoice issuers can subscribe for this option via the e-bill helpdesk. It is generated monthly and can be downloaded via the eInvoicing portal. Please note: the amount indicated in the eBill payment report is the amount approved by the eBill customer in the eBill portal. It may differ from the amount actually paid if the eBill customer subsequently changes the amount in e-banking.

Cancelling and de-registering an invoice issuer

When an invoice issuer is cancelled and de-registered, they are first set to inactive in eBill. They can then no longer submit any business cases and are no longer included in the list of invoice issuers for the eBill portal. However, it remains guaranteed that invoice recipients can still process existing e-bills in eBill.

The invoice issuer data are deleted automatically 366 days after de-registration from eBill. It is possible to change network partner without loss of invoice issuer data for a period of 366 days after de-registration.

Support

Support queries related to the use of eBill must always be directed to the PostFinance Billing Support.

Abbreviations/terms

Abbreviations / terms	Description
AS2	Communication report for EDIFACT messages
Availability	System availability as a percentage during a certain time period. This generally covers the entire year. Only total down-time is taken into account, not partial down-time.
B2B	Business-to-Business
B2C	Business-to-Consumer
Biller	Person or company who has rendered a service and issues an invoice for it; is equivalent to payment recipient.
BillerID	Unique identification number for billers in the PostFinance eBill system
BSP	Biller Service Provider
CSP	Customer Service Provider
CSV	Comma Separated Value CSV is a system-independent file format for exchanging tables between spreadsheet programs and databases (MS Excel, MS Access, etc.).
eBill	Name and brand of the infrastructure of the Swiss financial market for electronic invoices sent to e-banking customers. Name of the portal via which e-banking customers will be able to process their e-bills.
E-bill	Electronic bill
EBillAccountID	Unique identification number for invoice recipients in the eBill system from PostFinance
E-finance	PostFinance's e-banking application **www.postfinance.ch/e-finance**
EDIFACT	Electronic Data Interchange for Administration, Commerce and Transport UN/EDIFACT (ISO 9735) is an international standard for the presentation of business and commercial data for the electronic exchange of data between companies.
eInvoicing portal	https-Portal (Web-GUI) The eInvoicing portal provides invoice issuers and recipients with a central platform for the use of PostFinance's e-bill solution. Login via **www.postfinance.ch/e-bill**
ERP	Enterprise Resource Planning System for planning and control of a company's entire value chain
FDS	File Delivery Services
HTML	HyperText Markup Language Standardized page description language for www sites
HTTPS	HyperText Transfer Protocol Secure (128-bit encrypted) Protocol for secure communication between web servers and web browsers
IBAN	International Bank Account Number
Invoice recipient	Person or company who has received a service and receives an invoice for it; is equivalent to payer.
KB	Kilobyte
Machine time	Time during which the system is in operation after deducting the maintenance window. The following applies: 7×24 – maintenance window = machine time
Maintenance window	The time in which technical, application or similar work is carried out on the system for maintenance or services. The system is unavailable during this period.
MB	Megabyte
MFTPF	Managed File Transfer PostFinance
Network partner / NWP	Partner of SIX that submits e-bills for its customers to eBill based on the eBill role model.
Partial down-time	See down-time
PDF	Portable Document Format

Abbreviations / terms	Description
The PostFinance E-bill system	System description for the PostFinance E-bill solution
RESTful API	Representational State Transfer API An interface that enables various software applications to communicate with each other via the Internet.
SAP IDoc	SAP Intermediate Document Format for transmitting data from a SAP system.
Service provider	A provider that submits e-bills to PostFinance for its customers (biller service provider), or that receives e-bills from PostFinance for its customers (customer service provider).
SFTP	Secure File Transfer Protocol Enables files to be transferred encrypted between different computers or servers via a network.
SIX BBS Ltd	Subsidiary of SIX Group Holding which operates the eBill platform on behalf of Swiss banks.
SOAP	Simple Object Access Protocol
TLS	Transport Layer Security An encryption protocol that is used to send data securely online.
Total down-time	See down-time
TransactionID	Transaction identification number unique to the biller (alphanumeric, max. 50 digits). Together with the BillerID this constitutes a unique bill identification.
URL	Uniform Resource Locator A URL is a generally valid address of a resource (e.g. a file) on the Internet.
UTF-8	Unicode Transformation Format-8 character set **www.utf-8.com**
W3C	World Wide Web Consortium The W3 Consortium is an association of prominent companies, developers and organizations acting on and for the Internet with the goal of simplifying the technologies used online by adopting web standards. **www.w3c.org**
Web services	A service provided to users via the web and which makes use of, for example, XML and https to do this. Web services differ from the classic services on the web in that they are designed for automated use and not use by people.
XML	Extensible Markup Language
XSD	Extensible Schema Definition
yellowbill Invoice	XML format for incoming and outgoing data from the PostFinance e-bill solution.
ZIP	Format for compressed files, which reduces the space requirements on the one hand and functions as a container file on the other hand, in which several related files can be combined.
ZUGFeRD	Submission/delivery method for e-bills. This German acronym stands for "Central User Guide of the Forum for Electronic Invoicing in Germany".