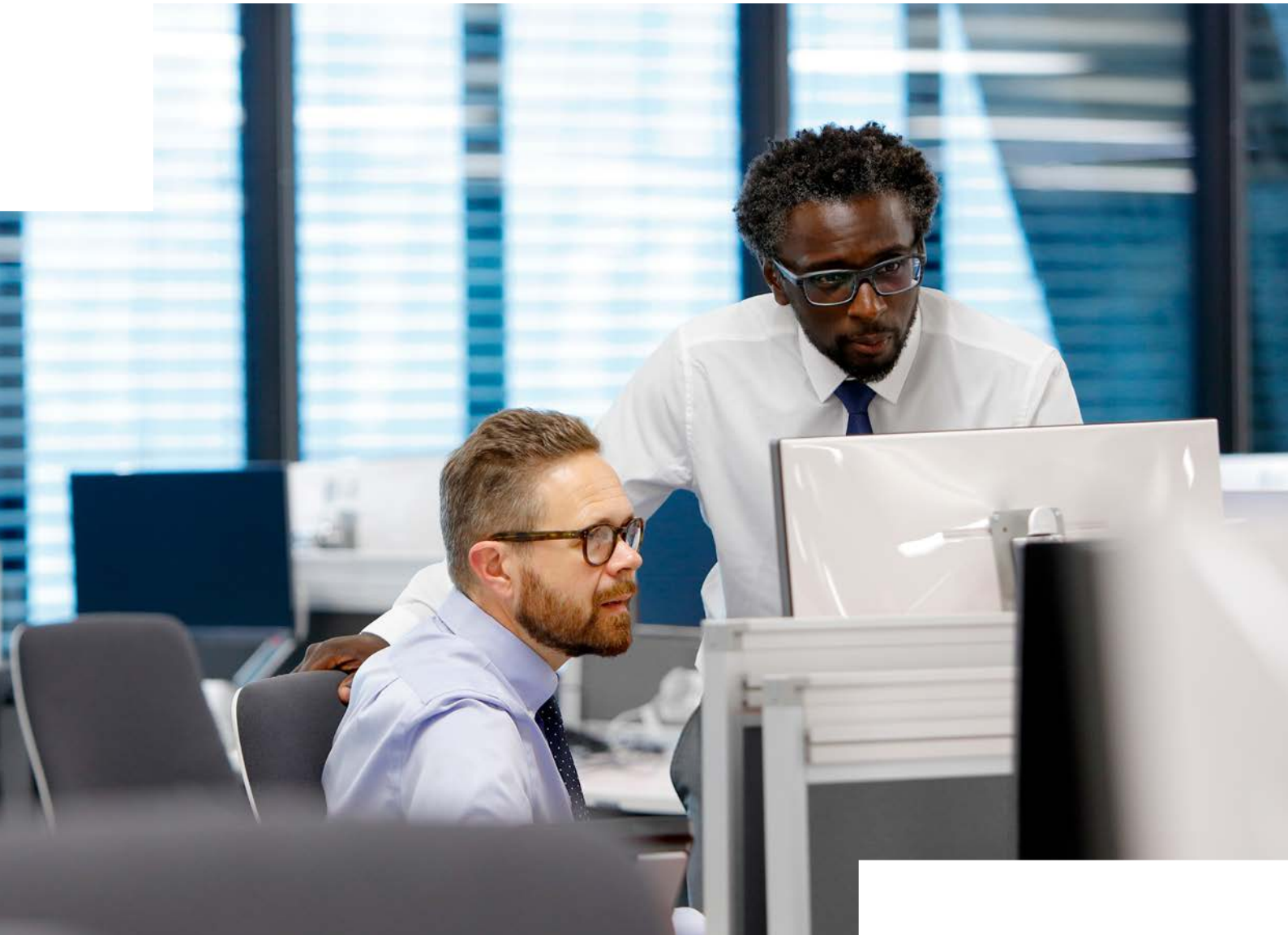


Direct Exchange: Interface to the ERP system



1. Introduction

Direct Exchange is the electronic interface for connecting large systems to the Credit Suisse payment transaction infrastructure. Clients can use Direct Exchange to automatically execute payments from their ERP system, as well as LSV+ incoming payments.

They receive the necessary data for reconciliation in bookkeeping and can retrieve information about account administration and e-documents.

The PDF-format e-documents contain structured additional information that makes it easier for the client to assign individual banking services such as MT940 and EDOC.

This brochure outlines the technical requirements of the client system. It also provides an overview of the process for setting up Direct Exchange for new clients and processing messages in Direct Exchange.

Instead of logging in manually via e-banking, clients can conveniently transfer their payment files from their own software to Credit Suisse via a secure connection. The technical basis for Direct Exchange is an SFTP connection with folder structure. Credit Suisse checks the client authorization on the basis of the agreed rights and executes the orders.

Direct Exchange is suitable for clients who do not use a standard interface (EBICS).

2. Overview of available banking services

Depending on the type of client connection involved, Direct Exchange allows access to a wide range of banking services. An overview of these services is shown in the following table.

Identifier	Direction	Banking service
PAIN001_CH	Client sends	Payment orders in ISO 20022 format (CH)
PAIN001_CGI	Client sends	Payment orders in ISO 20022 format (CGI)
PAIN001_BIL	Client sends	Payment orders in ISO 20022 format per agreement
LSVS	Client sends	Direct debit in LSV+ format
SDDE	Client sends	Direct debit (SDD) in ISO 20022 format (SPS)
MT940	Client receives	Account statements in SWIFT format
MT942	Client receives	Provisional bookings in SWIFT format
BESR	Client receives	ZED/BESR credit advice
EDOCS	Client receives	Electronic documents
PAIN002	Client receives	Payment status report for payment orders and direct debits (CH)
PAIN002_CGI	Client receives	Payment status report for payment orders and direct debits (CGI)
CAMT052_CH	Client receives	Provisional bookings in ISO 20022 format
CAMT053_CH	Client receives	Account statements in ISO 20022 format
CAMT054_CH	Client receives	QR/BESR credit files in ISO 20022 format

3. Folders and naming conventions

3.1. Folders and naming conventions upon delivery by the client

Files must always be received into the relevant folder within the "/upload/" folder. No file name is specified:

Identifier	Folder to use
PAIN001_CH	PAIN001_CH
PAIN001_CGI	PAIN001_CGI
PAIN001_BIL	PAIN001_BIL
LSVS	LSVS
SDDE	SDDE

3.2. Naming conventions for prepared data

Credit Suisse places the retrieval-ready data in the folder allocated to the banking service within the "/download/" folder, in line with the following naming conventions.

Folders	Identifier	Naming convention
MT940	MT940	MT940.txt
MT942	MT942	MT942.txt
BESR	BESR	BESR.txt
EDOCS	EDOC	EDOC_<contract>_<date>_<time>_<seqno>_<DIT number>_<account>.pdf
PAIN002	PAIN002	PAIN002_CH_<version>_<purpose>_<contract>_<date>_<time>_<seqno>.xml
PAIN002_CGI	PAIN002_CGI	PAIN002_CGI_<version>_<purpose>_<contract>_<date>_<time>_<seqno>.xml
C52	CAMT052_CH	CAMT052_CH_<version>_<purpose>_<contract>_<account>_<date>_<time>_<seqno>.xml
C53	CAMT053_CH	CAMT053_CH_<version>_<purpose>_<contract>_<account>_<date>_<time>_<seqno>.xml
Z54	CAMT054_CH	CAMT054_CH_<version>_<purpose>_<contract>_<account> ¹ _<date>_<time>_<seqno>.xml

3.3. Variables used

The above variables are defined as follows.

Variable	Description
<version>	Version of the ISO 20022 notification, e.g. "160" for CH PAIN.001 or "81" for EPC
<purpose>	Type of ISO 20022 message, e.g. "DEB," "CRE," or "ISR" in CAMT.054 or "WDS" or "NDS," or "NDR" in CAMT.053, and "BAR" or "ITR" in CAMT.052
<contract>	Credit Suisse contract number
<account>	IBAN if available; otherwise, proprietary account number
<date>	Date in format "YYYYMMDD" (ISO 8601 CET)
<time>	Time in format "hhmmss" (ISO 8601 CET)
<seqno>	Sequential number, freely disposable, designed to make the file name unique
<DIT number>	Type of PDF document based on current list of DIT numbers (per separately published list)

3.4. Container naming

To simplify downloads via SFTP, the files listed below are grouped as a container. They are named as follows:

Identifier	Naming convention
EDOCS	EDOCS.ZIP
PAIN002	PAIN002.ZIP
PAIN002_CGI	PAIN002_CGI.ZIP
CAMT052_CH	C52.ZIP
CAMT053_CH	C53.ZIP
CAMT054_CH	Z54.ZIP

¹ Not yet available as of July 2021; will be added by the end of 2021.

4. Data retrieval process

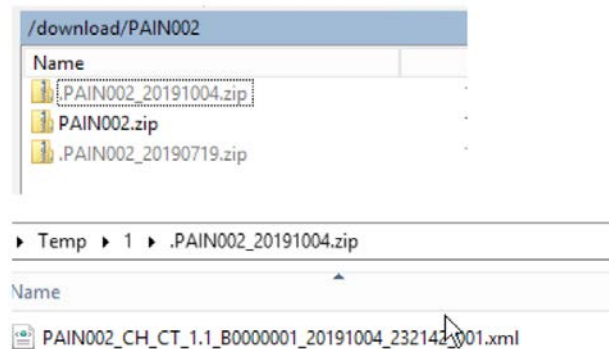
The retrieval process for newly provided data is designed such that the file name for the download always remains unchanged:

- With ".txt" files, new data is continuously concatenated and made available in a generically named text file (e.g. "MT940.txt").
- ".xml" and ".pdf" files are delivered to the aforementioned container (e.g. "pain.002.zip"). If a container file has not yet been retrieved, new documents will be added to the container.

The corresponding generic files/containers are emptied and prepared for new data each time data is retrieved.

Files that have already been retrieved are available as an archive file. These files are marked with a leading dot (".") and the corresponding reference/download date in the file name, e.g. ".PAIN002_CH_20181023.zip."

See screenshot below for illustration:



5. Electronic documents within the ZIP container

5.1. Naming convention

For electronic documents (EDOC identifier), further information is provided by the naming method. The method for electronic documents (EDOC identifier) is as follows:

EDOC_<contract>_<date>_<time>_<seqno>_<DIT number>_<account>.pdf

The above variables are defined as follows.

Variable	Description
<contract>	Credit Suisse contract number
<date>	Date in format "YYYYMMDD" (ISO 8601 CET)
<time>	Time in format "hhmmss" (ISO 8601 CET)
<version>	Version of the ISO 20022 notification, e.g. "160" for CH PAIN.001 or "81" for EPC
<seqno>	Sequential number, freely disposable, designed to make the file name unique
<DIT number>	Type of PDF document based on externally published list of DIT numbers
<account>	IBAN if available

5.2. Mandatory metadata

The electronic documents contain structured information in the metadata fields. These fields are always provided. With the exception of one, they are also always provided in the keywords of the PDF.

Direct Exchange field	PDF keyword	Short description	Potential values/formats
XC101_RECIP_CIFNR	RECIP_CIFNR	Recipient CIF/client number of the document	083501234561
XC101_DOC_TYP	DOC_TYP	Type of document	3006
XC101_DOC_TRG_FRMT	DOC_TRG_FRMT	PDF	PDF
XC101_APPL_ID	APPL_ID	Application ID	BE01, WS80, AIS, etc.
XC101_DATE_BEVENT	DATE_BEVENT	Business event date	23.4.2021
XC101_TS_INREP	-	Time stamp for inserting the document into the EOS storage	2021-09-02-02.29.10.668640
XC101_IS_ORIGINAL	IS_ORIGINAL	Indicates whether the document is an original or a copy.	Y or N
XC101_IS_SIGNED	IS_SIGNED	Indicates whether the document has a digital signature or not.	Y or N
XC101_DOC_LANG_COD	DOC_LANG_COD	Language code of the document	1, 2, 3, 4 for DE, FR, IT, EN
XC101_OWNER_CIFNR	OWNER_CIFNR	CIF/client number of the owner	08359876541
XC101_TYP_RELATION	TYP_RELATION	Type of subsequent field: CIF, safekeeping account, account	65, 66, 67
XC101_TYP_BU_RENUM	TYP_BU_RENUM	Number assigned to the client	0835987654120001
XC101_DOC_FILENAME	DOC_FILENAME	PDF file name, composed of a part of the CIF, document title according to DIT, time stamp	987654-1_money_market_confirmation_2020-12-12_06-38-18329
XC101_IS_IMPORTANT	IS_IMPORTANT	Credit Suisse-internal classification for priority processing	Y or N
XC101_UUID_DOC_C	UUID_DOC	Unique technical document number	93980800-00004604-00659D89-ACF4D800
XC101_PAGES	PAGES	Number of pages	nnn

5.3. Optional metadata

These fields can be provided both in the metadata fields and in the PDF keywords. Many fields are optional due to the number of different document types and the fact that content sometimes varies greatly across documents. They may be added or omitted without prior notification.

Direct Exchange field	PDF keyword	Short description	Potential values/formats
XC101_CURRENCY	CURRENCY	Currency	CHF
XC101_AMOUNT	AMOUNT	Amount	1021.000000 (up to eight decimal places)
XC101_DATE_VALUE	DATE_VALUE	Value date	44311
XC101_HAS_DOC_SUP	-	Identifier for supplement	Y or N
XC101_ORDER_ID	ORDER_ID	Business transaction ID: Order, settlement, transaction, etc.; catalog: CS_PDF_keyword_formats.xls	Various internal and external formats. Can be different for each document type
XC101_IBAN	IBAN	IBAN	CH95 0483 5987 6541 2000 1
XC101_IBAN_C	IBAN_C	IBAN counterparty	CH95 0483 5987 6541 2000 2
XC101_CUR_C	-	Currency counterparty	USD
XC101_TYPE_ACC_C	ACCOUNT_C_TYPE	Type of subsequent field: safekeeping account, account	66, 67
XC101_ACCOUNT_C	ACCOUNT_C	Counterpart account number	0835987654120002
XC101_FLOW	FLOW	Credit/debit	C, D

5.4. Additional PDF keywords

Many fields are optional due to the number of different document types and the fact that content sometimes varies greatly across documents. They may be added or omitted without prior notification. The following fields can be populated at any time:

PDF keyword	Short description	Potential values/formats
PERIOD_FROM	Period from (e.g. "from value date" or "from").	1.8.2021
PERIOD_TO	Period to (e.g. "to value date" or "to").	31.7.2022
UUID_EVENT	Unique administrative operation ID or reference to child or parent document.	56FC29B1-218F4FA4-B88661B9-B4903966
ORDER_ID_DOC	Business transaction ID: Order, settlement, transaction, etc.; catalog: CS_PDF_keyword_formats.xls	Various internal and external formats. Can be different for each document type
ISIN	International Securities Identification Number.	DE0007472060
SECURITY	Swiss security number.	32837375
TRANS_ID	Transaction ID in Credit Suisse-internal format.	Catalog: CS_PDF_keyword_formats.xls
TRANS_ID_DOC	Transaction ID in the format on the document.	Catalog: CS_PDF_keyword_formats.xls
AMOUNT_RENUM	Amount of the related account.	93061.14
AMOUNT_C	Amount of the counterparty/booking.	608.68
FLOW_C	Debit/credit of the amount of counterparty/booking.	C
PMT_INF_ID	Payment Information ID.	PmtInflD-BP01-POS-01
E_TO_E_ID	End-to-end ID.	TC-12152-E2E354566867040
RMT_INF	Remittance information.	Calculation: 984112-32*+client number: 049332
ORDERER_ADR	Unstructured orderer address with line break flag *+	Mr. Sammy Sample*+Sample Street 13*+1234 Sampleton
U_DBTR_ADR	Unstructured ultimate debtor address with line break flag *+	Mr. Sammy Sample*+Langstrasse 423*+0094 Seldwyla
U_CRTR_ADR	Unstructured ultimate creditor address with line break flag *+	Ms. Sarah Sample*+Weitestrasse 94*+0021 Somewhere

6. Supported public key formats

The client can choose whether authentication is carried out via username and password or via username and certificate (public key). If the procedure with username and certificate is selected, the following formats must be observed.

- **OpenSSH public key format (RFC 4253)**
Direct Exchange directly supports the OpenSSH public key format (RFC 4253). We recommend key lengths from 2048 bit to 4096 bit. At the client's own risk, key lengths of 1024 bit can be accepted on a temporary basis.
The SSH key must be generated using the OpenSSH ssh-keygen tool. Alternatively, it is possible to use PuTTYgen.exe from PuTTY. The key must be sent as a TXT file.
- **Secure Shell (SSH) public key file format (RFC 4716)**
The key is not directly compatible with Direct Exchange but can be converted using Linux in RFC 4253.
- **PKCS#1 PEM public key (RFC 8017)**
The key is not directly compatible with Direct Exchange but can be converted using Linux in RFC 4253.
- **PKCS#8 format**
The key is not directly compatible with Direct Exchange but can be converted using Linux in RFC 4253.
- **Other keys**
Other keys are not compatible.

7. Implementation process

To ensure efficient implementation, the client should appoint a dedicated contact person responsible for technical coordination on the client side. A preliminary meeting together with this IT project manager is used to define the general technical requirements.

8. Technical requirements for use

Direct Exchange is linked to the client's ERP system and serves as a communication channel for payment transaction notifications. The client must have an ERP system that can be adapted for the purposes of Direct Exchange. As such, clients must have the internal resources and skills to implement a payment interface.

9. Support

If you have any questions about Direct Exchange or other payment transaction solutions from Credit Suisse (Switzerland) Ltd., please contact our Electronic Banking Desk specialists, who will be happy to help. They are available Monday to Friday from 08:00–17:00.

Contact

From Switzerland, call 0800 80 87 50* toll free
Call +41 800 80 87 50* from abroad

Email: support.directlink@credit-suisse.com

Visit our website for more information:
credit-suisse.com

* Please note that telephone calls to our numbers may be recorded. By calling us, you accept this business practice.