



EUROPEAN COMMITTEE FOR BANKING STANDARDS

ELECTRONIC PAYMENT INITIATOR (ePI)

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1 INTRODUCTION

1.1 BACKGROUND

In recent years financial institutions have been making major investments in automation, striving for greater efficiency and cost reduction in their processes. Many businesses, however, have few practical alternatives to issuing invoices and associated payment details on paper, which inhibits automated processing. Electronic banking systems, including internet banking, have not entirely resolved the problems caused by issuance of paper as there is limited capability for electronic data capture from paper. Errors due to missing or invalid information (especially common in international trade transactions) and manual data entry from paper source documents, either by the payment originator or the originator's financial institution, cause delay, require investigation, generate correspondence, necessitate payment repairs and increase costs.

Whereas interbank communication for making and receiving payments has been standardised and electronic communication between financial institutions and their customers is well established, no universally accepted payment-related electronic standards exist for use between businesses and their customers.

ECBS and SWIFT, took the initiative to develop a suitable electronic standard that is compatible with the most recent financial industry developments and standards (e.g. SWIFT's MT103+), facilitates straight through processing and takes account of current legislation. The standard also recognises the requirements of those bodies responsible for promoting the single European market. This ePI (electronic Payment Initiator) standard is intended to increase the ease and efficiency of originating payments and to reduce costs, by enabling the supply in electronic form of those items of data necessary to initiate and execute a domestic or cross-border credit payment. Provision has also been made for the inclusion of additional, optional electronic data to assist businesses in automated reconciling of accounts payable and accounts receivable.

1.2 THE ELECTRONIC PAYMENT INITIATOR (ePI)

This European standard describes the characteristics of a simple electronic document to be created by or on behalf of the ultimate beneficiary of a credit transfer.

An ePI may be considered as a standard data container, which is made available electronically to a potential ordering customer by a potential beneficiary. It is not restricted to any particular data representation syntax.

The ePI will contain all the essential information about the ultimate beneficiary that is required by an ordering customer who wishes to instruct his/her financial institution to effect a fully automated domestic or cross-border credit transfer in favour of that ultimate beneficiary. It may also contain additional information to allow the beneficiary to identify and reconcile the transaction when it is credited to the beneficiary's account.

The ePI is not a 'product', but part of a process. Data elements from the ePI are intended to be used by the ordering customer's financial institution in its own system(s), together with additional relevant information about the ordering customer, in order to effect an STP (straight through processing) funds transfer.

Although the ePI may be linked to commercial documents it is independent of them. Guidelines on implementing this ePI standard, are the subject of a Standard Implementation Guide (SIG605).

2 SCOPE

The ePI standard has been developed for use in originating, both domestic and cross-border, credit transfers.

The ePI is made available electronically to an ordering customer by the beneficiary (or a third party on behalf of the beneficiary).

In addition it can be used as a basis for more comprehensive scenarios, such as payment assurance schemes, Electronic Bill Presentment and Payment (EBPP) and others.

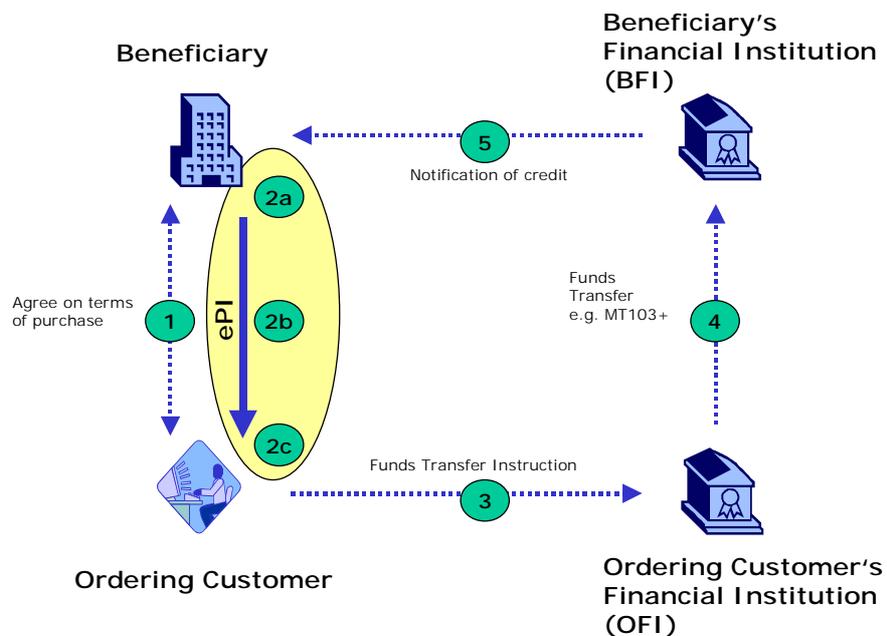
The ultimate beneficiary would normally be a "business" of some kind e.g. a firm, a sole-trader, a charity or a public utility; the potential ordering customer could be another business (B2B) or a consumer/private individual (B2C). As it is a generic standard the ePI should be useable in many different scenarios; the standard does not seek to restrict the applications in which it may be used.

This standard does not define or imply any terms of trade between buyer and seller, or consumer and biller, nor attempt to impose any conditions or restrictions affecting the relationships between these parties and their respective financial institutions, which are free to provide added value services allied with use of an ePI.

3 REFERENCES

ISO 3166	Codes for the representation of countries
ISO 4217	Currency codes
ISO 9362	BIC: Bank Identifier Code
EBS 200	European Banking Standard and Implementation Guide for Credit Transfers
EBS 204	IBAN: International Bank Account Number
EBS 206	International Payment Instruction (IPI) Standard
EBS 207	European Cross Border Credit Transfer, Basic Level
ORG 9003	ECBS Terminology
SWIFT MT103+	Single Customer Credit Transfer
SWIFT MT103	Single Customer Credit Transfer
SIG605	ePI: Standard Implementation Guidelines
TR607	Country specific texts for the electronic payment initiator (ePI)

4 SCHEME OVERVIEW



- 1** Parties agree on terms of purchase (out of scope)
- 2a** Generation of ePI: the creation of an ePI by, or on behalf of, the beneficiary.
- 2b** Transfer of the ePI: transport of the ePI via electronic means from, or on behalf of, the beneficiary to the ordering customer
- 2c** Initiation of a funds transfer instruction: the creation of a funds transfer instruction by the ordering customer based on the ePI data
- 3** Funds transfer instruction (out of scope)
- 4** Funds transfer (out of scope)
- 5** Notification of credit (out of scope)

5 DEFINITIONS

Beneficiary

The beneficiary is the ultimate party to be credited as a result of a funds transfer. An ePI is created by, or on behalf of, the beneficiary.

Ordering customer

The ordering customer receives the ePI and initiates a funds transfer instruction.

Beneficiary's Financial Institution (BFI)

The BFI holds the account of the beneficiary

Ordering Customer's Financial Institution (OFI)

The OFI holds the account of the ordering customer and executes an initiated payment on behalf of the ordering customer.

Generation of ePI

The process of creating an ePI. An ePI is created by, or on behalf of, the beneficiary.

Transfer of ePI

Transport of the ePI via electronic means from or on behalf of the beneficiary to the ordering customer.

Initiation of Funds Transfer Instruction

The creation of a funds transfer instruction by the ordering customer based on the ePI data e.g. importation of ePI data elements at the ordering customer's site into an electronic payment order, such as a cross-border payment template in an electronic banking application.

Transfer of Payment Order

Sending the completed payment order from the ordering customer to the OFI.

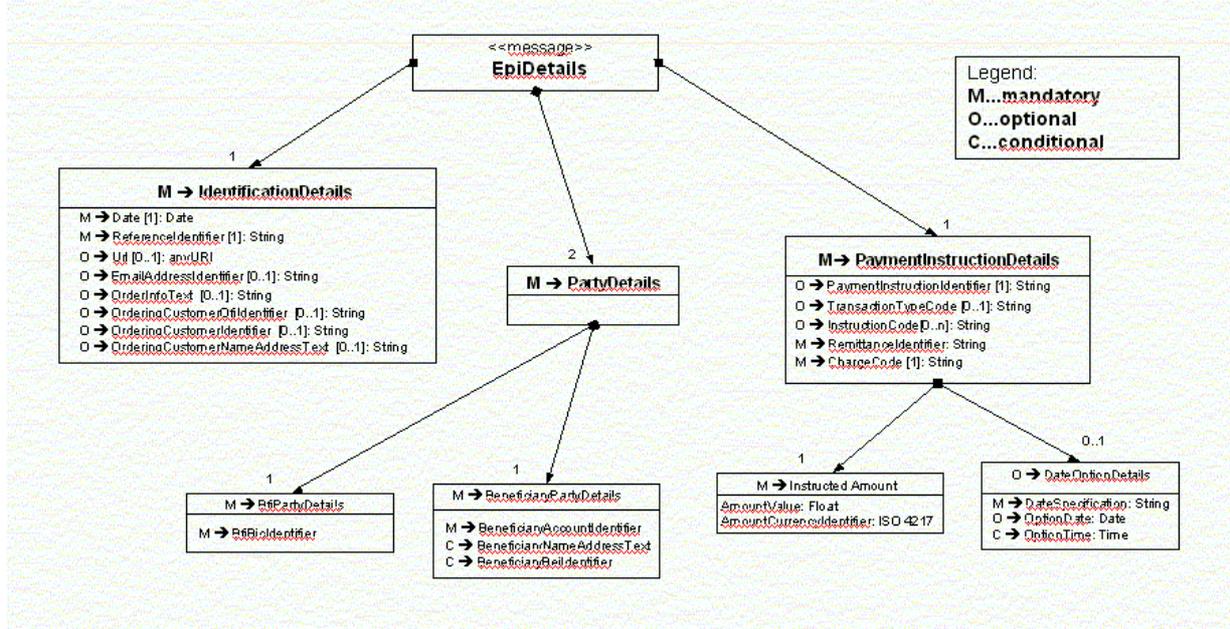
Transfer of Funds

Processing and payment execution

Notification of Credit

Reporting to the beneficiary of incoming funds by the BFI with or without additional remittance information

6 The ePI MODEL



7 THE EPI DATA ITEMS

On the following pages are the items of data which comprise the ePI arranged in classes together with their attributes.

The ePI data container has a set of data elements, mandatory, optional or conditional.

7.1 CLASS: IDENTIFICATIONDETAILS

Date

The date on which the ePI was created, or was made available to the ordering customer, by or on behalf of the beneficiary.

Status: MANDATORY

Data type: n 10 (SWIFT notation: none)

ReferenceIdentifier

The reference assigned to the document by or on behalf of the beneficiary.

Status: MANDATORY

Data type: an..35 (SWIFT notation: none)

Url

Beneficiary's URL (Uniform Resource Locator); information to the web-site of the beneficiary, or on behalf, a third party service provider.

Status: OPTIONAL

Data type: x..512 (SWIFT notation: none)

EmailAddressIdentifier

eMail address of the beneficiary, or on behalf, a third party service provider.

Status: OPTIONAL

Data type: x..512 (SWIFT notation: none)

OrderInfoText

Free text information between beneficiary and ordering customer which will not be part of the payment instruction!

Status: OPTIONAL

Data type: 5*an..70 (SWIFT notation: none)

OrderingCustomerOfiIdentifier

Identification of ordering customer's financial institution by a BIC, routing information for use in more complex scenarios

Status: OPTIONAL

Data type: an 11 (SWIFT notation: 4!a2!a2!c[3!c])

OrderingCustomerIdentifier

Ordering customer's account identification, routing information for use in more complex scenarios

Status: OPTIONAL

Data type: an 34

OrderingCustomerNameAddressText

Identification of ordering customer in non-coded form, routing information for use in more complex scenarios

Status: OPTIONAL

Data type: 4*an..35 (SWIFT notation: 4*35x)

7.2 CLASS: PARTYDETAILS

A person or organisation involved in or impacted by a business process.

Status: MANDATORY

The identification of a party in coded or non-coded form

7.2.1 Class: BfiPartyDetails

Attribute: BfiBicIdentifier

An 8 or 11 character ISO code assigned by SWIFT and used to identify a financial institution in financial transactions.

Alteration by the ordering customer is not permitted!

Data type: an 11 (SWIFT notation: 4!a2!a2!c[3!c])

7.2.2 Class: BeneficiaryPartyDetails

Attribute: BeneficiaryAccountIdentifier

An account is a record maintained by the account servicing financial institution of monetary amounts due to and due from the account owner as the result of an agreement between these two parties. An account is characterised by its account identification assigned by the account servicer, its account owner and the currency in which it is held. The account comprises any resulting bookings from the transactions (debit and credit entries).

Status: MANDATORY

The unique and unambiguous identification of the account for the account owner and the account servicer. **This must be an IBAN** (International Bank Account Number).

Data type: an..34 (SWIFT notation: 2!a2!n30c)

Conditional identification of the beneficiary:

either

Attribute: BeneficiaryBeiIdentifier

the Business Entity Identifier registered for the beneficiary.

Data type: an 11 (SWIFT notation: 4!a2!a2!c[3!c])

or

Attribute: BeneficiaryNameAddressText

identification of the beneficiary in non-coded form.

Data type: 4*an..35 (SWIFT notation: 4*35x)

7.3 CLASS: PAYMENTINSTRUCTIONDETAILS

An instruction to place at the disposal of an ultimate beneficiary a fixed or determinable amount of money on behalf of the ordering customer.

Attribute: PaymentInstructionIdentifier

String of characters that serves as an identification of the particular payment instruction provided by the beneficiary for optional use by the ordering customer.

Status: OPTIONAL

Data type: an..35 (SWIFT notation: -)

Attribute: TransactionTypeCode

Specification in coded form of the underlying reason for the transfer of funds.

Status: OPTIONAL

Data type: an 3 (SWIFT notation: 3!c)

Attribute: InstructionCode

Further stipulates instruction related to the processing of the payment instruction. This can relate to a level of service between the financial institution and the customer, or give instruction for the next parties in the payment chain (e.g. intermediaries)

Status: OPTIONAL

Data type: an..35 (SWIFT notation: 4!c[/30x])

Attribute: RemittanceIdentifier

A string of characters, to be forwarded with the payment throughout the payment chain in order to identify and reconcile the credit transfer upon receipt by the ultimate beneficiary.

Status: MANDATORY

Data type: an..35 (SWIFT notation: 4*35x)

Attribute: ChargeCode

Stipulation, in coded form, of which party(ies) will bear the charges for the performance of a/several business processes.

Values must be either OUR, SHA or BEN

Status: MANDATORY

Data type: a 3 (SWIFT notation: 3!a)

7.3.1 Class: InstructedAmount

Attribute: AmountValue

Associated with the Class PaymentInstructionDetails, a monetary amount as specified by the beneficiary

Status: MANDATORY

Data type: n..15 (SWIFT notation: 15d)

Attribute: AmountCurrencyCode

Status: MANDATORY

Data type: a 3 (SWIFT notation: 3!a)

7.3.2 Class: DateOptionDetails

Associated with the Class PaymentInstructionDetails, the date and time on which a specific process is requested to be performed.

Attribute: DateSpecificationCode

Specifies whether the DateOption is a credit (CRD) or a debit (DBD) date

Values must be either DBD or CRD

Status: MANDATORY

Data type: a 3 (SWIFT notation: none)

Attribute: OptionDate

The date on which the beneficiary would like to have the funds available on his/her account (credit date) or on which the ordering customer's financial institution should initiate the funds transfer by transferring funds from the ordering customer (debit date, for example the date on which the ordering customer's account is debited by the ordering customer's financial institution).

Status: OPTIONAL

Data type: an 10 (SWIFT notation: 6!n)

Attribute: OptionTime

The optional time indication which may be added to the date if the date is present.

Status: CONDITIONAL

Data type: n 4 (SWIFT notation: 4!n)

8 OPERATIONAL RULES & GUIDELINES

The following security features are of interest with regard to sending an ePI (message) from the beneficiary (sender) to the ordering customer (receiver).

- **Data integrity:** the assurance that the content of an ePI has not been altered or destroyed in an unauthorised manner.

At the basic level relevant to this generic standard, it is mandatory to guarantee data integrity of the information exchanged between the beneficiary and the ordering customer. This will enable the ordering customer to initiate a payment with the assurance (subject to technical considerations) that the amount of the payment and any qualifying data and text used for payment initiation are exactly as specified by the beneficiary (or the ePI creator).

- **Message authentication:** an ePI can be assigned to the beneficiary.

The authentication of the beneficiary is not perceived as an issue when comparing an ePI with a paper-based invoice. However, message authentication may be optionally agreed between the beneficiary and ordering customer.

- **Non-repudiation of origin:** the beneficiary cannot deny sending the ePI.

Not mandatory, but may be optionally agreed between the beneficiary and ordering customer.

- **Non-repudiation of receipt:** the ordering customer cannot deny receiving the ePI.

Not mandatory, but may be optionally agreed between the beneficiary and ordering customer.

- **Confidentiality:** the content of an ePI is known only to the beneficiary and the ordering customer.

Not mandatory, but may be optionally agreed between the beneficiary and ordering customer. It may be especially useful in a business-to-business relationship.

Please note that the security features for the message from the ordering customer to the ordering customer's financial institution instructing a funds transfer to be effected will be determined by that financial institution.

ANNEX A: DATA FORMAT NOTATION

The following is based on SWIFT notation:

n	digits only
a	alphabetic letters, upper case only
c	alphabetic letters (upper case) and digits only
x	any character of the permitted character set, upper and lower case
!	fixed length

Examples:

2n	up to 2 digits
3!a	always 3 letters
4*35x	up to 4 lines of up to 35 characters each

ANNEX B: DATA ELEMENT CHARACTER SET

Data elements shall only contain the following characters:

FOR THE PAYMENT RELATED ELEMENTS:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z

0 1 2 3 4 5 6 7 8 9

., - () / ' + : ?

Space

FOR THE EPI HEADER ELEMENTS:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z

0 1 2 3 4 5 6 7 8 9

., - () / = ' + : ? ! " % & * < > ; @

Space

It will not be permitted to use accented characters, i.e. ä, ö, ü, é, Å, à, etc. or any national character sets!