

E.D.I. - PAYMENT

User Guide

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INTRODUCTION

The present guide provides solutions allowing you to improve the management of your company's payments.

You will find all the necessary requirements to implement and maximize the use of this service.

DESCRIPTION OF THE SERVICE

What is E.D.I.? E.D.I. is an Electronic Data Interchange based on a standard format between your computer system and those of your business partners.

This exchange of information is carried out through a TCP/IP network that links you to your business partners and to the National Bank. This enables you to make your payments electronically on time and error-free, with confidentiality and security.

The National Bank takes in charge your payments regardless of whether your suppliers are computerized or not, National Bank customers or not.

PAYMENTS TYPES

This service is designed especially, but in a nonexclusive way, for the companies wishing to issue high dollar amount payments whose effective date is the very same day, for example to a supplier.

You will be able to also carry out your government remittances such as GST, PST and taxes deducted at source. It should be noted that an E.D.I. electronic advice is mandatory for each government remittance.

ADVANTAGES

There are several advantages to implementing the E.D.I. Payment service:

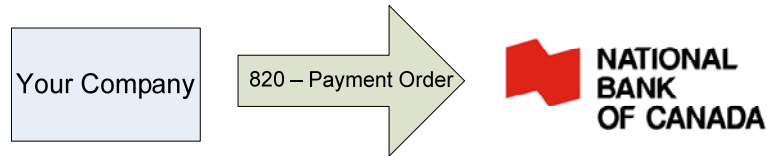
- Reduction of cost related to errors since the quality of the information transmitted between the business partners is improved. The information is exchanged electronically throughout the entire process.
- Reduction of efforts by eliminating data manipulation because your E.D.I. file can be extracted directly from your management system.
- Eliminating lost/fraudulent cheques and tracing requests means improved security.
- Reconciliation can be done immediately upon receipt of the Bank's electronic acknowledgement. A unique payment number is attributed to each payment during the creation of your file.
- A better control of inventory levels by reducing the timeframe for the exchange of documents.
- Use of an internationally recognized standard – ANSI ASC X12.

1. SERVICE OPERATION

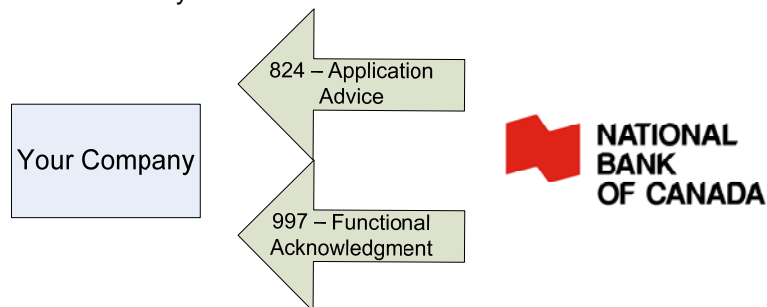
1.1 PAYMENT ORDER

There are three steps involved in the process of sending an 820-PAYMENT ORDER transaction:

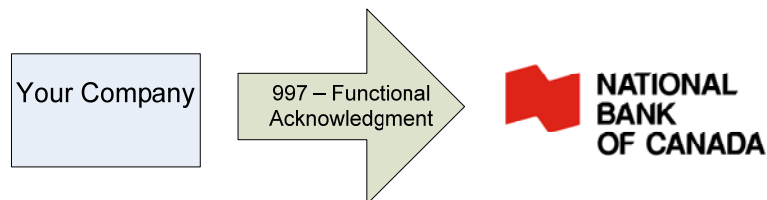
- a) The first step is sending the initial transaction from your company to the National Bank.



- b) Once the Bank has received your 820-PAYMENT ORDER transaction, it will return a 997-FUNCTIONAL ACKNOWLEDGEMENT transaction to you along with an 824-APPLICATION ADVICE. The latter confirms that the Bank has taken charge of your transaction (accepts or rejects). From this point on, your transaction is irrevocable unless your bank account is closed or does not contain the sufficient funds.



- c) Finally, your company must respond with a 997-FUNCTIONAL ACKNOWLEDGEMENT transaction to the 824-APPLICATION ADVICE received from the Bank.



1.2 SECURITY

820-PAYMENT ORDER transactions must be secured during the transmission of data. Since they are monetary transactions, security eliminates any possibility of fraud. The National Bank offers (2) levels of security for your E.D.I. transactions.

AUTHENTICATION (MANDATORY)

This procedure assures the authentication of your company and the integrity of your messages. This technique uses a DES algorithm. Secret keys shared by your company and the Bank are used to establish authentication.

After the message has been analyzed by the DES algorithm and the shared keys, your security software adds a code called a MAC (Message Authentication Code) to the transaction.

Upon receipt of this message, the Bank carries out the same analysis on it. Since it uses the same algorithm and shared keys as your company, the analysis by our security software should produce the same MAC contained in the message.

Authentication of your 820-PAYMENT ORDER transactions can be applied at the functional group level (GS) and/or the transaction set level (ST).

ENCRYPTION (OPTIONAL)

Encryption ensures the confidentiality of the transmitted message by making it illegible to anyone who does not have the key required to decode it.

The algorithm used for encryption is the same as the one used for Authentication, namely, the DES calculation. Again, your company and the Bank must also exchange shared keys.

With encryption, all the characters in the original message are modified by the security software, making them completely illegible. Upon receipt, the Bank will decipher the message using the same algorithm and shared keys as the sender.

1.3 BANKING COORDINATES VALIDATION

For your beneficiaries with an account at National Bank:

- We verify that the institution and transit number exist in the Financial Institution File (F.I.F.)
- We verify that the account number:
 - respects the modulus 11 of National Bank;
 - contains seven (7) digits;
 - does not contain dashes (-);
 - is a commercial account.

For your beneficiaries with an account at another financial institution:

- We verify that the institution and transit number exist in the Financial Institution File (F.I.F.)

1.4 REJECT OF A PAYMENT

Certain situations can result in the reject of your 820-PAYMENT ORDER transaction. Your company will be notified in the following manner:

997-FUNCTIONAL ACKNOWLEDGEMENT negative (Appendix 5) / 824-APPLICATION ADVICE negative (Appendix 4)

- The Bank is unable to authenticate or decrypt your transaction.
- Your transaction does not respect the standard ANSI ASC X12 format.

997- FUNCTIONAL ACKNOWLEDGEMENT positive (Appendix 5) / 824- APPLICATION ADVICE negative (Appendix 4)

- If you include RMR (or RMT) segments in your transaction, the sum of the segments must equal the total amount indicated in the BPR (or BPS) segment, unless you asked the National Bank to disregard this validation.
- The banking coordinates of the beneficiary are invalid.
- An error in a field does not permit the Bank to send the transaction to the receiver.

TELEPHONE CALL FROM THE BANK (even if a positive 997- FUNCTIONAL ACKNOWLEDGEMENT and positive 824- APPLICATION ADVICE has been sent by the Bank):

(This type of reject occurs during the execution of the payment order on the effective date)

- There are not sufficient funds in your bank account to cover the payment.
- Your bank account is closed.
- The bank account of the beneficiary is closed or does not exist.

Please note: In the case of an E.D.I. payment destined to another institution, a reject file can be generated 24 hours after the effective date of the payment, depending on the lapse of time required by the other financial institution to advise the National Bank. It is possible that an E.D.I. payment destined to another institution could be rejected manually. The other financial institution will issue a settlement by mail.

1.5 STOP PAYMENT

You cannot place a stop payment on a transaction whose effective date is the current day's date because transactions are processed by the banking system immediately.

However, all postdated transactions may be the object of a stop payment using one of the following two (2) methods:

- By sending an 829-PAYMENT CANCELLATION REQUEST transaction. (see Appendix 6)
- By contacting our customer service (see Appendix 1). You must send a payment cancellation request form (see Appendix 2) to the Bank prior to 1h00 p.m. (Eastern Time) the day preceding the effective date.

1.6 DATA TRANSMISSION SCHEDULE

EDI payment transactions can be transmitted 24 hours a day, seven days a week.

All transactions received by the National Bank's before 4:00 p.m. (Eastern Time) on a business day and that are due that same day will be processed under the day's date.

Please note that all transactions received on a non-business day or after 4:00 p.m. (Eastern time) will be processed under the date of the next business day.

Postdated transactions will be warehoused and processed only on effective date (provided it is a business day). It is possible to send to the Bank postdated payments up to thirty (30) days in advance.

1.7 ENTRIES TO YOUR BANK ACCOUNT

Each payment is debited individually from your bank account on effective date. If a transaction where the beneficiary has an NBC account is rejected, no entry will appear in your bank account. If a transaction where the beneficiary has an account at another institution is rejected, a "credit" entry will appear in your bank account to reverse the debit already applied.

Please note: Postdated payments destined to a non-EDI financial institution will be debited 48hrs prior to the effective date and will be processed through E.F.T. – Electronic Funds Transfer.

2. IMPLEMENTATION OF THE SERVICE

Allow a minimum of one month for the implementation of this service.

2.1 TECHNICAL SPECIFICATIONS

Develop the 820-PAYMENT ORDER transaction file in accordance with the technical specifications (« mapping ») provided by the Bank based on the ANSI ASC X12 international standard. (see Appendix 3)

The Bank currently supports **version 4010**.

It is important that you respect the rules indicated in the technical specifications of Appendix 3 of this guide. These conventions are based on the document **E3 Rules Applicable to Electronic Data Interchange (EDI) Transactions** of the Canadian Payment Association.

- **ICN** (Interchange Control Number): Found in the ISA13 segment. This number must be unique to every transmission sent to the National Bank.
- **DICN or GCN** (Group Control Number): Found in the GS06 segment. This number must be unique to every functional group and every transmission sent to the National Bank.
- **TSCN** (Transaction Set Control Number): Found in the ST02 segment. This number must be unique to every transaction set contained in a single functional group.

EXAMPLE :

FIRST FILE	ICN 001	DICN 001	TSCN 001 TSCN 002 TSCN 003
SECOND FILE	ICN 002	DICN 002 DICN 003	TSCN 004 TSCN 005 TSCN 006
THIRD FILE	ICN 003	DICN 004	TSCN 001 TSCN 002

Once your development is completed, contact us at one of the numbers below to schedule an appointment for the exchange of a test transaction, be sure to give us the address of your test mailbox and your production mailbox:

514-394-2057 option 3, Montreal
1-800-910-4001 option 3, everywhere in Canada
(Ask for the integration representative)

2.2 NON-SECURED TEST

At the time agreed upon, send a non-secured test transaction to the test mailbox of the National Bank.

You will receive the results of the test at the latest five (5) business days after sending.

If the non-secured test is successful, another appointment will be scheduled for a secured transaction test.

2.3 SECURED TEST

You will receive the results of the second test at the latest five (5) business days after sending.

If the secured test is successful, we will provide the address of our production mailbox, which shall replace our test mailbox in your system.

We recommend you select one of your business partners to send a penny test in production mode to ensure that the process works correctly.

CUSTOMER SERVICE

Our Customer Service representatives will be pleased to answer all your questions regarding E.D.I. payments.

**Customer Service
E.D.I.**

National Bank of Canada (Transit 4176-1)
600, De La Gauchetière West, 12th floor
Montreal (Quebec) H3B 4L2

514 394-2057, option 3, Montreal
1 800 910-4001, option 3, everywhere in Canada

Fax: 514 394-6341

PAYMENT CANCELLATION REQUEST FORM

You must send this form to the Bank before 1h00 p.m. (Eastern Time) the business day preceding the effective date of the payment.

E.D.I. PAYMENT CANCELLATION REQUEST

To : National
of Canada

From: _____

Contact: _____

Corporate Electronic Services (4176-1)
600 De La Gauchetière West, 12th floor
Montreal Quebec, H3B 4L2
Tel.: (514) 394-2057 or 1 800 910-4001 option # 3
Fax: (514) 394-6341

Date: _____

Tel no: _____

Fax no: _____

This Section to be completed by Originating Direct Participant:

Interchange date	ISA09 =	Payee account number	BPR15 =
Amount	BPR02 =	Effective date	BPR16 =
Trans Handling code	BPR01 =	Reference number	REF 02 RR =
Financial Inst. ID	BPR13 =		

Signature of Originating Direct Participant : _____

This section reserved to Corporate Electronic Services

Action taken:

Payment cancellation accepted

Payment cancellation rejected

Comments:

Completed by _____

E.D.I. FILE SPECIFICATIONS 820-PAYMENT ORDER/REMITTANCE ADVICE (Version 4010)

It falls entirely to the sender of the payment information to make sure that the produced messages satisfy with descriptions and the requirements described in this document.

File format - Segments

- ISA** Interchange control header (Mandatory) (Occurrences= 1)
- GS** Functional group header (Mandatory) (Occurrences= 1 ou +)
- S1S** Security header level 1 (Mandatory*) (Occurrences= 0 ou +)
- ST** Transaction set header (Mandatory) (Occurrences= 1 ou +)
- S2S** Security header level 2 (Mandatory*) (Occurrences= 0 ou +)
- BPR** Beginning segment for payment Order/Remittance Advice (Mandatory) (Occurrences= 1)
- TRN** Trace (Mandatory) (Occurrences= 1)
- REF** Reference identification (Optional) (Occurrences= 0 ou +)
- DTM** Date/time reference (Optional) (Occurrences= 0 ou +)
- N1** Name (Payor) (Mandatory) (Occurrences= 1)
- N1** Name (Beneficiary) (Mandatory) (Occurrences= 1)
- ENT** Entity (Mandatory) (Occurrences= 1 ou +)
- RMR** Remittance advice (Optional) (Occurrences= 0 ou +)
- S2E** Security trailer level 2 (Mandatory*) (Occurrences= 0 ou +)
- SE** Transaction set trailer (Mandatory) (Occurrences= 1 ou +)
- S1E** Security trailer level 1 (Mandatory*) (Occurrences= 0 ou +)
- GE** Functional group trailer (Mandatory) (Occurrences= 1 ou +)
- IEA** Interchange control trailer (Mandatory) (Occurrences= 1)

*Authentication is mandatory on at least one level.

ISA – Interchange control header						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ISA01	I01	Authentication information qualifier	ID	2/2	M	00
ISA02	I02	Authorization information	AN	10/10	M	10 spaces
ISA03	I03	Security information qualifier	ID	2/2	M	00
ISA04	I04	Security information	AN	10/10	M	10 spaces
ISA05	I05	Interchange ID qualifier	ID	2/2	M	in accordance with the sender's network
ISA06	I06	Interchange sender ID	AN	15/15	M	in accordance with the sender's network
ISA07	I05	Interchange ID qualifier	ID	2/2	M	in accordance with the receiver's network
ISA08	I07	Interchange receiver ID	AN	15/15	M	in accordance with the receiver's network
ISA09	I08	Interchange date	DT	8/8	M	YYYYMMDD
ISA10	I09	Interchange time	TM	4/4	M	HHMM
ISA11	I10	Interchange control standards identifier	ID	1/1	M	U
ISA12	I11	Interchange control version number	ID	5/5	M	00401
ISA13	I12	Interchange control number	NO	9/9	M	unique number for a transmission
ISA14	I13	Acknowledgment requested	ID	1/1	M	0
ISA15	I14	Usage indicator	ID	1/1	M	T = Test and P= Production
ISA16	I15	Component element separator	AN	1/1	M	:

GS – Functional group header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
GS01	479	Functional identifier code	ID	2/2	M	RA
GS02	142	Application sender's code	AN	2/15	M	to be determined by the sender
GS03	124	Application receiver's code	AN	2/15	M	to be determined by the receiver
GS04	373	Date	DT	8/8	M	YYYYMMDD
GS05	337	Time	TM	4/4	M	HHMM
GS06	28	Group control number	NO	1/9	M	unique number of the functional group
GS07	455	Responsible agency code	ID	1/1	M	X
GS08	480	Version/Release/Industry identifier code	AN	6/6	M	004010

S1S – Security header level 1

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S1S01	990	Security type code	ID	2/2	M	AA for an authenticated transaction and BB for an encrypted and authenticated transaction
S1S02	824	Security originator name	AN	4/16	M	to be determined by the sender
S1S03	825	Security recipient name	AN	4/16	M	to be determined by the receiver
S1S04	991	Authentication key name	AN	16/16	M	EDIAxxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S1S05	992	Authentication service code	ID	1/1	M	1
S1S06	C031	Encryption key information	AN	16/16	O	EDIExxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S1S07	C032	Encryption service information	ID	2/2	O	20
S1S08	995	Length of data	N	1/18	O	calculated by the security software
S1S09	996	Initialization vector	AN	16/16	O	calculated by the security software

ST – Transaction set header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ST01	143	Transaction set identifier code	ID	3/3	M	820
ST02	329	Transaction set control number	AN	4/9	M	unique number

S2S – Security header level 2

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S2S01	990	Security type code	ID	2/2	M	AA for an authenticated transaction and BB for an encrypted and authenticated transaction
S2S02	824	Security originator name	AN	4/16	M	to be determined by the sender
S2S03	825	Security recipient name	AN	4/16	M	to be determined by the receiver
S2S04	991	Authentication key name	AN	16/16	M	EDIAxxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S2S05	992	Authentication service code	ID	1/1	M	1
S2S06	C031	Encryption key information	AN	16/16	O	EDIExxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S2S07	C032	Encryption service information	ID	2/2	O	20
S2S08	995	Length of data	N	1/18	O	calculated by the security software
S2S09	996	Initialization vector	AN	16/16	O	calculated by the security software

BPR – Beginning segment for payment Order/Remittance Advice

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
BPR01	305	Transaction handling code	ID	1/1	M	C for « Payment and advice », D for « Payment only » and I for « Remittance advice only »
BPR02	782	Amount	R	1/18	M	Amount of the payment (with a period and 2 decimals)
BPR03	478	Credit/Debit flag code	ID	1/1	M	C
BPR04	591	Payment method code	ID	3/3	M	X12
BPR05	812	Payment format code	ID	1/10	O	not used
BPR06	506	(DFI) ID number qualifier	ID	2/2	M	04
BPR07	507	(DFI) Identification number	AN	9/9	M	institution number (4) + transit (5) of the payor branch
BPR08	569	Account number qualifier	ID	1/3	O	not used
BPR09	508	Account number	AN	1/12	M	Account number of the payor
BPR10	509	Originating company identifier	AN	10/10	O	not used
BPR11	510	Originating company supplemental code	AN	9/9	O	not used
BPR12	506	(DFI) ID number qualifier	ID	2/2	M	04
BPR13	507	(DFI) Identification number	AN	9/9	M	institution number (4) + transit (5) of the beneficiary's branch
BPR14	569	Account number qualifier	ID	1/3	O	not used
BPR15	508	Account number	AN	1/12	M	Account number of the beneficiary
BPR16	373	Date	DT	8/8	M	YYYYMMDD
BPR17	1048	Business function code	ID	1/3	O	not used

TRN – Trace						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
TRN01	481	Trace type code	ID	1/1	M	1
TRN02	127	Reference identification	AN	1/30	M	to be determined by the sender
TRN03	509	Originating company identifier	AN	10/10	O	to be determined by the sender
TRN04	127	Reference identification	AN	1/30	O	to be determined by the sender

REF – Reference identification						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
REF01	128	Reference identification qualifier	ID	2/2	M	RR
REF02	127	Reference identification	AN	5/30	M	to be determined by the sender
REF03	352	Description	AN	1/80	O	not used

DTM – Date/time reference						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
DTM01	374	Date/Time qualifier	ID	3/3	M	097
DTM02	373	Date	DT	8/8	M	YYYYMMDD
DTM03	337	Time	TM	4/4	O	HHMM
DTM04	623	Time code	ID	2/2	O	not used

N1 – Name						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
N101	98	Entity identifier code	ID	2/2	M	PR = payor PE = beneficiary
N102	93	Name	AN	1/60	M	name
N103	66	Identification code qualifier	ID	1/2	O	not used
N104	67	Identification code	AN	2/80	O	not used
N105	706	Entity relationship code	ID	2/2	O	not used
N106	98	Entity identifier code code	ID	2/3	O	not used

ENT – Entity

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ENT01	554	Assigned number	N0	1/6	M	to be determined by the sender (1)
ENT02	98	Entity identifier code	ID	2/3	O	to be determined by the sender

RMR – Remittance advice

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
RMR01	128	Reference identification qualifier	ID	2/2	M	CR
RMR02	127	Reference identification	AN	1/30	M	to be determined by the sender
RMR03	482	Payment action code	ID	2/2	O	to be determined by the sender
RMR04	782	Amount	R	1/18	M	
RMR05	782	Total amount	R	1/18	O	
RMR06	782	Discount amount	R	1/18	O	

S2E – Security trailer level 2

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S2E01	997	Authentication code	AN	9/9	M	calculated by the security software

SE – Transaction set trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
SE01	96	Number of included segments	N0	1/10	M	
SE02	329	Transaction set control number	AN	4/9	M	same as ST02

S1E – Security trailer level 1

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S1E01	997	Authentication code	AN	9/9	M	calculated by the security software

GE – Functional group trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
GE01	97	Number of transaction sets included	N0	1/6	M	
GE02	28	Group control number	N0	1/9	M	same as GS06

IEA – Interchange control trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
IEA01	I16	Number of included functional groups	N0	1/5	M	
IEA02	I12	Interchange control number	N0	9/9	M	same as ISA13

Example of 820 document (Payment and Remittance Advice)

ISA*00* *00* *01*SENDER ID*02*NBC ID*20100731*1138*U*00401*715106033*0*P*:
 GS*RA*SENDER CODE*NBC CODE*20100731*1138*615106036*UNIQUE NO*X*004010
 ST*820*UNIQUE NO
 BPR*C*1000.00*C*X12**04*057799999**1234567***04*057799999**7654321*20100731
 TRN*1*PAYMENT REF NUMBER
 REF*RR*PAYMENT REF NUMBER
 N1*PR*COMPANY ABC
 N1*PE*BENEF XYZ
 ENT*01
 RMR*XX*012345681**500.00
 DTM*097*20100516
 ENT*02
 RMR*XX*09923333**500.00
 DTM*097*20100615
 SE*13* UNIQUE NO
 GE*1*615106036
 IEA*1*715106033

E.D.I. FILE SPECIFICATIONS 824-APPLICATION ADVICE (Version 4010)

You will find in this section the messages produced by the Bank in the case of an application advice.

File format - Segments

- ISA** Interchange control header (Mandatory) (Occurrences= 1)
- GS** Functional group header (Mandatory) (Occurrences= 1)
- S1S** Security header level 1 (Mandatory*) (Occurrences= 0 ou 1)
- ST** Transaction set header (Mandatory) (Occurrences= 1 ou +)
- S2S** Security header level 2 (Mandatory*) (Occurrences= 0 ou +)
- BGN** Beginning segment (Mandatory) (Occurrences= 1)
- OTI** Original transaction identification (Mandatory) (Occurrences= 1 ou +)
- AMT** Amount (Mandatory) (Occurrences= 1 ou +)
- QTY** Quantity (Optional) (Occurrences= 1 ou +)
- TED** Technical error description (Optional) (Occurrences= 0 ou 1)
- S2E** Security trailer level 2 (Mandatory*) (Occurrences= 0 ou +)
- SE** Transaction set trailer (Mandatory) (Occurrences= 1 ou +)
- S1E** Security trailer level 1 (Mandatory*) (Occurrences= 0 ou 1)
- GE** Functional group trailer (Mandatory) (Occurrences= 1)
- IEA** Interchange control trailer (Mandatory) (Occurrences= 1)

*Authentication is mandatory on at least one level.

ISA – Interchange control header						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ISA01	I01	Authentication information qualifier	ID	2/2	M	00
ISA02	I02	Authorization information	AN	10/10	M	10 spaces
ISA03	I03	Security information qualifier	ID	2/2	M	00
ISA04	I04	Security information	AN	10/10	M	10 spaces
ISA05	I05	Interchange ID qualifier	ID	2/2	M	in accordance with the sender's network
ISA06	I06	Interchange sender ID	ID	15/15	M	in accordance with the sender's network
ISA07	I05	Interchange ID qualifier	ID	2/2	M	in accordance with the receiver's network
ISA08	I07	Interchange receiver ID	ID	15/15	M	in accordance with the receiver's network
ISA09	I08	Interchange date	DT	8/8	M	YYYYMMDD
ISA10	I09	Interchange time	TM	4/4	M	HHMM
ISA11	I10	Interchange control standards identifier	ID	1/1	M	U
ISA12	I11	Interchange control version number	ID	5/5	M	00401
ISA13	I12	Interchange control number	NO	9/9	M	unique number for a transmission
ISA14	I13	Acknowledgment requested	ID	1/1	M	0
ISA15	I14	Usage indicator	ID	1/1	M	T = Test and P= Production
ISA16	I15	Component element separator	AN	1/1	M	:

GS – Functional group header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
GS01	479	Functional identifier code	ID	2/2	M	AG
GS02	142	Application sender's code	AN	2/15	M	to be determined by the sender
GS03	124	Application receiver's code	AN	2/15	M	to be determined by the receiver
GS04	373	Date	DT	8/8	M	YYYYMMDD
GS05	337	Time	TM	4/4	M	HHMM
GS06	28	Group control number	NO	1/9	M	unique number of the functional group
GS07	455	Responsible agency code	ID	1/1	M	X
GS08	480	Version/Release/Industry identifier code	AN	6/6	M	004010

S1S – Security header level 1

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S1S01	990	Security type code	ID	2/2	M	AA for an authenticated transaction and BB for an encrypted and authenticated transaction
S1S02	824	Security originator name	AN	4/16	M	to be determined by the sender
S1S03	825	Security recipient name	AN	4/16	M	to be determined by the receiver
S1S04	991	Authentication key name	AN	16/16	M	EDIAXxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S1S05	992	Authentication service code	ID	1/1	M	1
S1S06	C031	Encryption key information	AN	16/16	O	EDIExxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S1S07	C032	Encryption service information	ID	2/2	O	20
S1S08	995	Length of data	N	1/18	O	calculated by the security software
S1S09	996	Initialization vector	AN	16/16	O	calculated by the security software

ST – Transaction set header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ST01	143	Transaction set identifier code	ID	2/2	M	824
ST02	329	Transaction set control number	AN	4/9	M	unique number

S2S – Security header level 2

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S2S01	990	Security type code	ID	2/2	M	AA for an authenticated transaction and BB for an encrypted and authenticated transaction
S2S02	824	Security originator name	AN	4/16	M	to be determined by the sender
S2S03	825	Security recipient name	AN	4/16	M	to be determined by the receiver
S2S04	991	Authentication key name	AN	16/16	M	EDIAxxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S2S05	992	Authentication service code	ID	1/1	M	1
S2S06	C031	Encryption key information	AN	16/16	O	EDIExxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S2S07	C032	Encryption service information	ID	2/2	O	20
S2S08	995	Length of data	N	1/18	O	calculated by the security software
S2S09	996	Initialization vector	AN	16/16	O	calculated by the security software

BGN – Beginning segment

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
BGN01	353	Transaction set purpose code	ID	2/2	M	11
BGN02	127	Reference identification	AN	5/30	M	generated by the bank
BGN03	373	Date	DT	8/8	M	YYYYMMDD

OTI – Original transaction identification

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
OTI01	110	Application acknowledgment code	ID	1/2	M	GA = Functional group accepted GP = Functional group accepted In part GR = Functional group rejected TR = Transaction set rejected
OTI02	128	Reference identification qualifier	ID	2/3	M	RR
OTI03	127	Reference identification	AN	1/30	M	Same as original REF02
OTI04	142	Application sender's code	AN	2/15	O	Same as original GS02
OTI05	124	Application receiver's code	AN	2/15	O	Same as original GS03
OTI06	373	Date	DT	8/8	M	YYYYMMDD
OTI07	337	Time	TM	4/4	M	HHMM
OTI08	28	Group control number	NO	1/9	M	Same as original GS06
OTI09	329	Transaction set control number	AN	4/9	O	Same as original ST02
OTI10	143	Transaction set identifier code	ID	3/3	O	820

AMT – Amount						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
AMT01	522	Amount qualifier code	ID	1/3	M	2 or OP = Original payment total BT = Total rejected by the bank NP = Total accepted
AMT02	782	Amount	R	1/18	M	

QTY – Quantity						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
QTY01	673	Quantity qualifer	ID	2/2	M	46 = Number of payments received 54 = Number of rejects 55 = Number of accepted
QTY02	380	Quantity	R	1/15	M	

TED – Technical error description						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
TED01	647	Application error condition code	ID	1/3	M	see list of X12 standard

S2E – Security trailer level 2						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S2E01	997	Authentication code	AN	9/9	M	calculated by the security software

SE – Transaction set trailer						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
SE01	96	Number of included segments	N0	1/10	M	
SE02	329	Transaction set control number	AN	4/9	M	same as ST02

S1E – Security trailer level 1						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S1E01	997	Authentication code	AN	9/9	M	calculated by the security software

GE – Functional group trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
GE01	97	Number of transaction sets included	N0	1/6	M	
GE02	28	Group control number	N0	1/9	M	same as GS06

IEA – Interchange control trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
IEA01	I16	Number of functional groups included	N0	1/5	M	
IEA02	I12	Interchange control number	N0	9/9	M	same as ISA13

E.D.I. FILE SPECIFICATIONS 997-FUNCTIONAL ACKNOWLEDGMENT (Version 4010)

It falls entirely to the sender of the functional acknowledgment to make sure that the produced messages satisfy with descriptions and the requirements described in this document.

File format - Segments

- ISA** Interchange control header (Mandatory) (Occurrences= 1)
- GS** Functional group header (Mandatory) (Occurrences= 1)
- ST** Transaction set header (Mandatory) (Occurrences= 1)
- AK1** Functional group response header (Mandatory) (Occurrences= 1)
- AK2** Transaction set response header (Mandatory) (Occurrences= 1 ou +)
- AK3** Data segment note (Mandatory) (Occurrences= 1 ou +)
- AK4** Date element note (Optional) (Occurrences= 0 à 99)
- AK5** Transaction set response trailer (Mandatory) (Occurrences= 1 ou +)
- AK9** Functional group response trailer (Mandatory) (Occurrences= 1)
- SE** Transaction set trailer (Mandatory) (Occurrences= 1)
- GE** Functional group trailer (Mandatory) (Occurrences= 1)
- IEA** Interchange control trailer (Mandatory) (Occurrences= 1)

ISA – Interchange control header						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ISA01	I01	Authentication information qualifier	ID	2/2	M	00
ISA02	I02	Authorization information	AN	10/10	M	10 spaces
ISA03	I03	Security information qualifier	ID	2/2	M	00
ISA04	I04	Security information	AN	10/10	M	10 spaces
ISA05	I05	Interchange ID qualifier	ID	2/2	M	in accordance with the sender's network
ISA06	I06	Interchange sender ID	ID	15/15	M	in accordance with the sender's network
ISA07	I05	Interchange ID qualifier	ID	2/2	M	in accordance with the receiver's network
ISA08	I07	Interchange receiver ID	ID	15/15	M	in accordance with the receiver's network
ISA09	I08	Interchange date	DT	8/8	M	YYYYMMDD
ISA10	I09	Interchange time	TM	4/4	M	HHMM
ISA11	I10	Interchange control standards identifier	ID	1/1	M	U
ISA12	I11	Interchange control version number	ID	5/5	M	00401
ISA13	I12	Interchange control number	NO	9/9	M	unique number for a transmission
ISA14	I13	Acknowledgment requested	ID	1/1	M	0
ISA15	I14	Usage indicator	ID	1/1	M	T = Test and P= Production
ISA16	I15	Component element separator	AN	1/1	M	:

GS – Functional group header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
GS01	479	Functional identifier code	ID	2/2	M	FA
GS02	142	Application sender's code	AN	2/15	M	to be determined by the sender
GS03	124	Application receiver's code	AN	2/15	M	to be determined by the receiver
GS04	373	Date	DT	8/8	M	YYYYMMDD
GS05	337	Time	TM	4/4	M	HHMM
GS06	28	Group control number	NO	1/9	M	unique number of the functional group
GS07	455	Responsible agency code	ID	1/1	M	X
GS08	480	Version/Release/Industry identifier code	AN	6/6	M	004010

ST – Transaction set header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ST01	143	Transaction set identifier code	ID	2/2	M	997
ST02	329	Transaction set control number	AN	4/9	M	unique number

AK1 – Functional group response header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
AK101	479	Functional identifier code	ID	2/2	M	RA = response on an 820 AG = response on an 824
AK102	28	Group control number	NO	1/9	M	same as original GS06

AK2 – Transaction set response header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
AK201	143	Transaction set identifier code	ID	3/3	M	820 or 824
AK202	329	Transaction set control number	AN	4/9	M	same as original ST02

AK3 – Data segment note

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
AK301	721	Segment ID code	ID	2/3	M	segment in error Ex : BPR01
AK302	719	Segment position in the transaction set	NO	1/6	M	position of the segment in error ST=1
AK303	447	Loop identifier code	AN	1/6	O	not used
AK304	720	Segment syntax error code	ID	1/3	O	not used

AK4 – Date element note

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
AK401	722	Position in segment	N0	1/2	M	position of the element in error on the segment
AK402	725	Data element reference number	N0	1/4	O	not used
AK403	723	Data element syntax error code	ID	1/3	M	1 = Missing mandatory data element 2 = Missing required conditional data element 3 = Too many date elements 4 = Data element too short 5 = Data element too long 6 = Invalid character in data element 7 = Invalid code value 8 = Invalid date 9 = Invalid time 10 = Exclusion condition violated
AK404	724	Copy of bad data element	AN	1/99	O	not used

AK5 – Transaction set response trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
AK501	717	Transaction set acknowledgment code	ID	1/1	M	A = accepted E = accepted with errors R = rejected
AK502	718	Transaction set syntax error code	ID	1/3	O	1 = Transaction set not supported 2 = Transaction set trailer missing 3 = Transaction set control number in header and trailer do not match 4 = Number of included segments does not match actual count 5 = One or more segments in error 6 = Missing or invalid transaction set identifier 7 = Missing or invalid transaction set control number 8 = Authentication key name unknown
AK503	718	Transaction set syntax error code	ID	1/3	O	see AK502
AK504	718	Transaction set syntax error code	ID	1/3	O	see AK502
AK505	718	Transaction set syntax error code	ID	1/3	O	see AK502
AK506	718	Transaction set syntax error code	ID	1/3	O	see AK502

AK9 – Functional group response trailer						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
AK901	715	Functional group acknowledge code	ID	1/1	M	A = accepted E = accepted with errors P = accepted in part R = rejected
AK902	97	Number of transaction sets included	N0	1/6	M	same as originale GE01
AK903	123	Number of received transaction sets	N0	1/6	M	
AK904	2	Number of accepted transaction sets	N0	1/6	M	
AK905	716	Functional group syntax error code	ID	1/3	O	1 = Functional group not supported 2 = Functional group version not supported 3 = Functional group trailer missing 4 = Functional group control number in header and trailer do not match 5 = Number of included transaction sets does not match actual count 6 = Group control number violates syntax 10 = Authentication key name unknown
AK906	716	Functional group syntax error code	ID	1/3	O	see AK905
AK907	716	Functional group syntax error code	ID	1/3	O	see AK905
AK908	716	Functional group syntax error code	ID	1/3	O	see AK905
AK909	716	Functional group syntax error code	ID	1/3	O	see AK905

SE – Transaction set trailer						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
SE01	96	Number of included segments	N0	1/10	M	
SE02	329	Transaction set control number	AN	4/9	M	same as ST02

GE – Functional group trailer						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
GE01	97	Number of included transaction sets	N0	1/6	M	
GE02	28	Group control number	N0	1/9	M	same as GS06

IEA – Interchange control trailer						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
IEA01	I16	Number of included functional groups	N0	1/5	M	
IEA02	I12	Interchange control number	N0	9/9	M	same as ISA13

E.D.I. FILE SPECIFICATIONS 829-PAYMENT CANCELLATION REQUEST (Version 4010)

It falls entirely to the sender of the payment cancellation request to make sure that the produced messages satisfy with descriptions and the requirements described in this document.

File format - Segments

- ISA** Interchange control header (Mandatory) (Occurrences= 1)
- GS** Functional group header (Mandatory) (Occurrences= 1 ou +)
- S1S** Security header level 1 (Mandatory*) (Occurrences= 0 ou +)
- ST** Transaction set header (Mandatory) (Occurrences= 1 ou +)
- S2S** Security header level 2 (Mandatory*) (Occurrences= 0 ou +)
- PCR** Beginning segment for payment Order/Remittance Advice (Mandatory) (Occurrences= 1)
- TRN** Trace (Mandatory) (Occurrences= 1)
- DTM** Date/time reference (Optional) (Occurrences= 0 ou +)
- S2E** Security trailer level 2 (Mandatory*) (Occurrences= 0 ou +)
- SE** Transaction set trailer (Mandatory) (Occurrences= 1 ou +)
- S1E** Security trailer level 1 (Mandatory*) (Occurrences= 0 ou +)
- GE** Functional group trailer (Mandatory) (Occurrences= 1 ou +)
- IEA** Interchange control trailer (Mandatory) (Occurrences= 1)

*Authentication is mandatory on at least one level.

ISA – Interchange control header						
Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ISA01	I01	Authentication information qualifier	ID	2/2	M	00
ISA02	I02	Authorization information	AN	10/10	M	10 spaces
ISA03	I03	Security information qualifier	ID	2/2	M	00
ISA04	I04	Security information	AN	10/10	M	10 spaces
ISA05	I05	Interchange ID qualifier	ID	2/2	M	in accordance with the sender's network
ISA06	I06	Interchange sender ID	AN	15/15	M	in accordance with the sender's network
ISA07	I05	Interchange ID qualifier	ID	2/2	M	in accordance with the receiver's network
ISA08	I07	Interchange receiver ID	AN	15/15	M	in accordance with the receiver's network
ISA09	I08	Interchange date	DT	8/8	M	YYYYMMDD
ISA10	I09	Interchange time	TM	4/4	M	HHMM
ISA11	I10	Interchange control standards identifier	ID	1/1	M	U
ISA12	I11	Interchange control version number	ID	5/5	M	00401
ISA13	I12	Interchange control number	NO	9/9	M	unique number for a transmission
ISA14	I13	Acknowledgment requested	ID	1/1	M	0
ISA15	I14	Usage indicator	ID	1/1	M	T = Test and P= Production
ISA16	I15	Component element separator	AN	1/1	M	:

GS – Functional group header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
GS01	479	Functional identifier code	ID	2/2	M	PY
GS02	142	Application sender's code	AN	2/15	M	to be determined by the sender
GS03	124	Application receiver's code	AN	2/15	M	to be determined by the receiver
GS04	373	Date	DT	8/8	M	YYYYMMDD
GS05	337	Time	TM	4/4	M	HHMM
GS06	28	Group control number	NO	1/9	M	unique number of the functional group
GS07	455	Responsible agency code	ID	1/1	M	X
GS08	480	Version/Release/Industry identifier code	AN	6/6	M	004010

S1S – Security header level 1

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S1S01	990	Security type code	ID	2/2	M	AA for an authenticated transaction and BB for an encrypted and authenticated transaction
S1S02	824	Security originator name	AN	4/16	M	to be determined by the sender
S1S03	825	Security recipient name	AN	4/16	M	to be determined by the receiver
S1S04	991	Authentication key name	AN	16/16	M	EDIAXxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S1S05	992	Authentication service code	ID	1/1	M	1
S1S06	C031	Encryption key information	AN	16/16	O	EDIEXxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S1S07	C032	Encryption service information	ID	2/2	O	20
S1S08	995	Length of data	N	1/18	O	calculated by the security software
S1S09	996	Initialization vector	AN	16/16	O	calculated by the security software

ST – Transaction set header

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
ST01	143	Transaction set identifier code	ID	3/3	M	829
ST02	329	Transaction set control number	AN	4/9	M	unique number

S2S – Security header level 2

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S2S01	990	Security type code	ID	2/2	M	AA for an authenticated transaction and BB for an encrypted and authenticated transaction
S2S02	824	Security originator name	AN	4/16	M	to be determined by the sender
S2S03	825	Security recipient name	AN	4/16	M	to be determined by the receiver
S2S04	991	Authentication key name	AN	16/16	M	EDIAxxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S2S05	992	Authentication service code	ID	1/1	M	1
S2S06	C031	Encryption key information	AN	16/16	O	EDIExxx.NBC99999 where xxx represents the sender and 99999 a sequential number of the key
S2S07	C032	Encryption service information	ID	2/2	O	20
S2S08	995	Length of data	N	1/18	O	calculated by the security software
S2S09	996	Initialization vector	AN	16/16	O	calculated by the security software

PCR – Payment cancellation request

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
PCR01	959	Payment cancellation type	ID	3/3	M	IND
PCR02	782	Amount	R	1/18	M	Amount of original payment

TRN – Trace

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
TRN01	481	Trace type code	ID	1/1	M	2
TRN02	127	Reference identification	AN	1/30	M	same as original TRN02
TRN03	509	Originating company identifier	AN	10/10	O	same as original TRN02
TRN04	127	Reference identification	AN	1/30	O	same as original TRN02

DTM – Date/time reference

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
DTM01	374	Date/Time qualifier	ID	3/3	M	097
DTM02	373	Date	DT	8/8	M	YYYYMMDD
DTM03	337	Time	TM	4/4	O	HHMM
DTM04	623	Time code	ID	2/2	O	not used

S2E – Security trailer level 2

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S2E01	997	Authentication code	AN	9/9	M	calculated by the security software

SE – Transaction set trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
SE01	96	Number of included segments	N0	1/10	M	
SE02	329	Transaction set control number	AN	4/9	M	same as ST02

S1E – Security trailer level 1

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
S1E01	997	Authentication code	AN	9/9	M	calculated by the security software

GE – Functional group trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
GE01	97	Number of included transaction sets	N0	1/6	M	
GE02	28	Group control number	N0	1/9	M	same as GS06

IEA – Interchange control trailer

Element	Ele ID	Data description	Type	Length min./max.	Requir. NBC	Value
IEA01	I16	Number of included functional groups	N0	1/5	M	
IEA02	I12	Interchange control number	N0	9/9	M	same as ISA13