Bangladesh Bank

Head Office, Dhaka Payment Systems Division

PSD Circular No. 04/2009 Date: $\frac{18 \text{ Jaisntna}, 1416}{01 \text{ June}, 2009}$

Managing Director/Chief Executive Officers All scheduled banks in Bangladesh

Dear Sir,

Bangladesh Automated Clearing House (BACH) at the expanded Dhaka Clearing Region.

Further to PSD circular No-02/2009 dated 16th February 2009, we forward the functional specification for the Bangladesh Electronic Funds Transfer Network (BEFTN), the second component of the Automated Clearing House, which is attached herewith (Annexure-I) for necessary action at your end. Considering the request from State Owned Bank (SOB)s for an extension of time for implementation of the cheque processing system, the implementation timelines have been revised with a target to go live in and around Dhaka by early November, 2009.

- **2. EFT Specifications:** BEFTN will operate as a processing and delivery centre for distribution and settlement of electronic credits and debits among all participating banks. Initially, EFT will start with credit transactions and eventually move towards debit transactions. This Network will operate in a real-time batch processing mode. Transaction files received from the banks during the day will be processed as they are received and items for receiving banks will be distributed. All payment instructions will be calculated into a single multilateral netting figure for each individual bank. Final settlement will take place using accounts maintained with Bangladesh Bank. It may be mentioned that the National Automated Clearing House Association (NACHA), USA prescribed application and file formats will be adopted for BEFTN.
- **3. Revised Timeline:** The project implementation timeframe has been rescheduled as under:

	Activity	Dead-line	Dead-lines (Dates)		
	110011103	BACPS	BEFTN		
a.	Issuing MICR encoded standard cheque and phasing out non-standard cheques.	30-06-2009			
b.	Select connectivity Vendor and inform Bangladesh	30-06-2009	30-06-2009		
	Bank				
c.	Communication links to be installed between banks and	15-09-2009	15-09-2009		
	the Bangladesh Automated Clearing House				
d.	Installing necessary hardware and software	06-09-2009	19-10-2009		
e.	Supply PBM and train participating Banks from:	27-09-2009	27-09-2009		
f.	PILOT	06-10-2009 to	20-10-2009 to		
		07-11-2009	31-12-2009		
g.	Go LIVE	08-11-2009	04-01-2010		

4. Roll out to Regional Clearing Houses: After the successful implementation at Dhaka the automation process will move to the regional clearing houses, including Bangladesh Bank offices in Chittagong, Khulna, Rajshahi, Bogra, Sylhet, Barisal and Rangpur respectively. All these offices will have their ACH installed within 2009. In the mean time, the roll out plan in these regional offices has been taken to go live in the first half of 2010 and the specific dates for ACH roll out in these regional offices will be notified in due course. The banks are requested to take

necessary preparations to issue MICR encoded cheques in all regions and install Hardware and Software and establish connectivity within this timeframe.

5. Automated Clearing House Timing: The operating hours of the Automated Clearing House is an important factor as far as better service is concerned. So, to enhance banks' ability to serve their customers better, the following operating timeframe for BACPS has been set:

		Cut Offs			
	Clearing Window	Presentment	Return	Settlement	
01.	Regular Clearing	12:00 Hrs	17:00 Hrs	17:01 Hrs	
02.	High Value Clearing	11:00 Hrs	13:00 Hrs	13:01 Hrs	

Operating sessions for EFT will be informed in due course.

6. Inter Branch Connectivity: Banks which do not have their inter-branch connectivity are advised to build communication links among themselves as the Electronic Funds Transfer and the Automated Cheque Processing System are designed to perform better in an interconnected environment. All participating banks are also advised to adopt Centralized Core Banking Systems.

It is, therefore, advised that member banks will update their preparations to be in line with the progress of BACH. The relevant rules and operating procedures will be released and forwarded to you in due course.

Please acknowledge receipt.

(Chowdhury Mohidul Haque)

Executive Director
Tel: 7167988, Fax: 7164233
Email: edcmhbb@hotmail.com

Annexure - I

Functional Specification

Of

Bangladesh Electronic Funds Transfer Network

Version 1.0



BEFTN

Payment Systems Division
Bangladesh Bank, Head Office
Dhaka

May 21,2009





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0.2 DOCUMENT APPROVALS VERSION 1.0

For and on Behalf of:	Name and Position	Date	Signed
Bangladesh Bank	Randy Khan	21 Feb 09	
	Project Manager		
Data Edge, Testonic,	Nigel Cherry	21 Feb 09	
Aperta	Implementation		
	Project Manager		





0.3 CHANGE CONTROL

After approval of the specification between the parties, it will be placed under change control; any subsequent changes will be subject to formal change control procedures.

The custodian of the document, after approval, for the duration of the project will be the Implementation Project Manager, who will ensure that any requested changes are evaluated using agreed procedures and that the specification is updated accordingly for approved changes.

0.4 CHANGE HISTORY

Document Title	BEFTN-IP Functional Specification	
Author	Jim Murray Aperta	
To Be Approved By	Nayeni Fernando	Nigel Cherry
	Development Manager	Implementation Project Manager Data Edge, Testonic, Aperta
Comments	This is the BEFTN Functional Specification for the Bangladesh BACH Project	
File Name	BEFTN Fsd 0-2	

0.5 COMMENTS AND REVISION REQUESTS

All comments and revision requests should addressed to the Implementation Project Manager for the BACH Project, in writing.

0.5.1 REVISION HISTORY

Rev	Section	Туре	Date	Author	Remarks
				Details	
0-2	All	New	25th Mar 2009	J. Murray	Initial Draft
0-3	Various	Modified	5th May 2009	J. Murray	Revision
			General typogra	phic, spelling	, and nomenclature
			changes.		
	0.7	Deleted	0b Binary (Bang	gladesh Bank)	
	0.7	Deleted	0x Hexadecimal	(Bangladesh	Bank)
	0.7	Added	Alphanumeric(Bangladesh Bank)		
	0.7	Deleted	AIA (Banglades)	h Bank)	
	0.7	Deleted	AICS (Banglade:	sh Bank)	





Rev	Section	Туре	Date Author Remarks
			Details
	0.7	Added	BCA (Bangladesh Bank)
	0.7	Deleted	Byte (Bangladesh Bank)
	0.7	Reworded	Clearing (Bangladesh Bank)
	0.7	Replaced	"Collecting Bank" replaced by "Originating Bank"
			(Bangladesh Bank)
	0.7	Deleted	DIN (Bangladesh Bank)
	0.7	Deleted	ECH (Bangladesh Bank)
	0.7	Reworded	EFT Transaction (Bangladesh Bank)
	0.7	Deleted	Fph
	0.7	Deleted	Inward Clearing
	0.7	Reworded	OB (Bangladesh Bank)
	0.7	Deleted	ODFI (Bangladesh Bank)
	0.7	Reworded	"Off-us item" (Bangladesh Bank)
	0.7	Inserted	"On-us Item" inserted "or credit" (Bangladesh Bank)
	0.7	Reworded	" Originator" (Bangladesh Bank)
	0.7	Deleted	"Outclearing" (Bangladesh Bank)
	0.7	Deleted	"Outward Clearing" (Bangladesh Bank)
	0.7	Inserted	"Origination Clearing" (Bangladesh Bank)
	0.7	Inserted	"Originating Bank" (Bangladesh Bank)
	0.7	Modified	"Participant Bank Module" (Bangladesh Bank)
	0.7	Deleted	"Payee", "Payer", "Paying Bank" (Bangladesh
			Bank)
	0.7	Deleted	"Presenting Bank" (Bangladesh Bank)
	0.7	Inserted	"Receiving Bank" (Bangladesh Bank)
	0.7	Deleted	"RB" (Bangladesh Bank)
	0.7	Deleted	"RDFI" (Bangladesh Bank)
	0.7	Reworded	"Receiver" (Bangladesh Bank)
	0.7	Reworded	"Transaction" (Bangladesh Bank)
	0.7	Deleted	"Transit Item", "Unknown Item" (Bangladesh Bank)
	0.8.3.1	Deleted	Rules Clarification
	1.1	Reworded	Paragraph two reworded. (Bangladesh Bank)
	1.2	Reworded	Wording clarification.
			Removal of references to AICS. (Bangladesh Bank)
	2.1.1	Clarification	Reworded for clarification (Bangladesh Bank)
	3.1	Correction	a. CIE NACHA.(Bangladesh Bank)
	3.2.3	Clarification	internationaligiaucsii balik)
	3.2.5	Deleted	General Validation
	3.4.3	Deteten	"An Exception Threshold".(Bangladesh Bank)
	3.2.5	Inserted	"An invalid routing number".(Bangladesh
	3.4.3	inscreted	Bank)





Rev	Section	Туре	Date	Author	Remarks
				Details	
	General	Corrected	ODFI replaced by OB(Bangladesh Bank)		ndesh Bank)
	General	Corrected	RDFI replaced b	y RB (Banglad	desh Bank)
	3.6.4	Reworded	Item 3 – Reword Bank)	ded for clarific	cation. (Bangladesh
	3.10	Clarified	Comment regar removed. (Jim M	0	erpretation
	4	Reworded	AIA replaced wi	ith BCA. (Bang	gladesh Bank)
0-4		Modified	8th May 2009	J. Murray	Revision
	Various		Minor typograp	hic changes.	
	5	Added	File Reject Repo	ort	
	5	Added	Batch Reject Re	port	
	5	Added	File Distribution	n Report	
	5	Added	Settlement Rep	ort	
0-5		Modified	11 th May '09	J. Murray	Revision
	Various	Clarified	Use of Company	/ ID.	
	Various	Clarified	Use of Trace Nu	mber	
		Added	File Reject Repo	ort	

0.6 OTHER RELATED DOCUMENTATION

0.6.1 RELATED DOCUMENT CROSS REFERENCE

Reference	Document Title	Version
1	Business Requirements	V 1.1
		Oct 9, 2008
2	Bangladesh Electronic Funds Transfer Network	V 7.0
	Operating Rules	
3	Participant Bank Module Functional	V 1.0
	Specification	

0.7 TERMS, ABBREVIATIONS, AND CONVENTIONS

<u>Term</u>	<u>Meaning</u>
Addenda Record	A BEFTN record type that carries the supplemental data needed to
	provide information concerning a payment to the Receiving
	Depository Financial Institution and the Receiver.
Alpha Fill Character	The alpha fill character is Blank.
	Non-numeric fields with unused bytes have those bytes filled with
	the Alpha Fill Character.





<u>Term</u>	<u>Meaning</u>					
Alphanumeric	Alphanumeric means any character 0 - 9, A - Z, a-z, blank, and printable special characters which have an ASCII value greater than hexadecimal "1F". Fields defined in these Rules as "alphanumeric" may contain any of these allowable characters.					
BACH	Bangladesh Automated Clearinghouse					
Batch	A grouping of payment transactions or funds transfer instructions that are collected together for convenience in a single unit for processing and reconciliation.					
BCA	BEFTN Central Archive. This is the long-term storage and retrieval component of the BEFTN system.					
BEFTN	BEFTN is the central clearing facility, operated by Bangladesh Bank that receives entries from OBs, distributes the entries to appropriate RBs, and facilitates the settlement functions for the participating banking institutions					
Byte	A sequence of 8 bits (enough to represent one character of ASCII data).					
Category	Each transaction processed by the BEFTN system is assigned a specific category based on the detailed validation it undergoes. The category of an item determines how it is processed.					
CBS	Core Banking System.					
Clearing	The process of transmitting, reconciling and in some cases, confirming					
CSV	payment instructions or security transfer instructions prior to settlement, possibly including the netting of instructions and the establishment of final positions for settlement. Sometimes the term is used (imprecisely) to include settlement. Comma Separated Values file format.					
	The CSV file format saves the text and values as they are used in the application. The data elements of each record in the CSV file are ASCII text separated by commas, and each record of data ends in a carriage return/line-feed combination, <cr><lf>.</lf></cr>					
Data Justification	The alignment of data in a field with reference to the field's rightmost or leftmost character position.					
EFT	Electronic Funds Transfer					
EFT Transaction	An EFT transaction is a monetary item that is routed through the BEFTN network for settlement on a specified date. In an EFT transaction, Originator and Receiver refer to the participants that initiate and receive the EFT entries rather than the funds. Unlike a check, which is always a debit instrument, an EFT entry may either be a credit or a debit entry. By examining what happens to the receiver's account, one can distinguish between an EFT Credit and EFT Debit transaction. If the receiver's account is debited, then the entry is an EFT debit. If the receiver's account is credited, then the entry is an EFT credit. Conversely, the offset of an EFT debit is a credit to the originator's account and the offset to an EFT credit is a debit to the Originator's account.					





<u>Term</u>	<u>Meaning</u>
Endpoint	A logical grouping that represents the destination to which an item is to be delivered.
Extraction	A process that selects specified elements from the captured database of data to use as input data to another process; for example, to select and extract information for transmission to the BACH Accounting System, CBS.
Fill Data	These are the characters used to fill unused bytes in a field.
Left justified	A field is left justified when the leftmost byte of the data it contains is aligned on the leftmost byte of the field.
Mandatory	For BEFTN Processing a "Mandatory" field is necessary to ensure
	the proper routing and/or posting of an BEFTN entry. Any "Mandatory" field not included in an BEFTN record will cause that entry, batch, or file to be rejected by the EFT Operator. A rejected entry will be returned to the OB by the EFT Operator. A rejected batch or rejected file will be reported to the OB or Bureau Service by the EFT Operator.
Numeric Fill	The numeric fill character is Zero.
Character	Numeric fields with unused bytes have those bytes filled with the Numeric Fill Character.
ОВ	Originating Bank is the bank that originates and sends BEFTN items to BEFTN for clearing and settlement.
Off-us item	See origination item.
On-Line Enquiry	Online Enquiry is an application that allows the operator to view details of items processed on a limited number of business dates not yet deleted from the system.
On-Us Items	Debit or credit items that are drawn on the given bank's own accounts.
Optional	The inclusion or omission of an "Optional" data field is at the discretion of the Originator and OB. However, if a BANK does originate files using Optional data fields, these fields must be returned to the OB if the entry is returned.
Originatiing Bank (OB)	The originating bank is the bank which receives payment instructions from its client (the originator) and forwards the entry to the EFT operator. A bank may participate in the EFT system as a receiving bank without acting as an originating bank; however, if a Bank chooses to originate EFT entries, it must also agree to act as a receiving bank.
Originating Bank	The originating bank is the bank, which receives payment instructions from its client (the originator) and forwards the entry to the EFT operator. A bank may participate in the EFT system as a receiving bank without acting as an originating bank; however, if a Bank chooses to originate EFT entries, it must also agree to act as a receiving bank.
Origination Clearing	The deposit transactions received from Bangladesh Bank customers are processed through Origination clearing, a process that captures the associated payment data from the submitted electronic transfers to the BEFTN Clearing System. The Origination clearing process sorts and batches electronic items that have to settled into Origination EFT Files for transfer to the central BEFTN clearing system via the PBM.





<u>Term</u>	<u>Meaning</u>
Originator	The Originator is the entity that agrees to initiate EFT entries into the network. The originator is usually a company, government agency or an individual directing a transfer of funds to or from a consumer's or a company's account. The originator executes an EFT fund transfer entry through an Originating Bank (OB).
Participant Bank	A suite of components installed at participant banks that provides
Module	for the delivery of origination EFT Files to the BEFTN and the receipt of EFT Files from the BEFTN.
	The PBM also provides for ad hoc enquiries to be issued by the
	participant and the presentation of the associated responses.
PBM	See Participant Bank Module
Receiver	A receiver is a person/organization who has authorized an Originator to receive an EFT entry to the account maintained with the Receiving Bank (RB).
Receiving Bank	The receiving bank is the bank that will receive EFT entries from
(RB)	BEFTN and post the entries to the account of its depositors
	(Receivers).
Required	The omission of a "Required" field will not cause an entry reject at the EFT Operator, but may cause a reject at the RB. An example is the BANK Account Number field in the Entry Detail Record. If this field is omitted by an OB, the RB may return the entry as unable to be posted. Data classified as "Required" should be included by the Originator and OB to avoid processing and control problems at the RB.
Return	A return is a transaction intended to debit or credit a receiver's account but which was not posted to the account. Instead, it was returned to the originator. For a complete list of Return Reason Codes, refer to the BEFTN Rules.
Reversal	Any BEFTN entries or files sent to "correct" or reverse any
	previously sent erroneous entries or files.
Right justified	A field is right justified when the rightmost byte of the data it contains is aligned on the rightmost byte of the field.
Rules	The Bangladesh Electronic Funds Transfer Network Operating Rules[2].
SEC	Standard Entry Class.
	SEC Codes identify the payment type.
TBC	To be confirmed
TBD	To be defined.





<u>Term</u>	<u>Meaning</u>					
Transaction (EFT)	In EFT terminology, Originator and Receiver refer to the participants that initiate and receive the EFT entries rather than the funds. Unlike a check, which is always a debit instrument, an EFT entry may either be a credit or a debit entry. By examining what happens to the receiver's account, one can distinguish between an EFT Credit and EFT Debit transaction. If the receiver's account is debited, then the entry is an EFT debit. If the receiver's account is credited, then the entry is an EFT credit. Conversely, the offset of an EFT debit is a credit to the originator's account and the offset to an EFT credit is a debit to the Originator's account.					
Work Source	A work source is a grouping of batch schemes usually associated with a particular type of processing, for example processing for a specific bank.					
XML	eXtensible Mark-up Language					
XML schema	XML Schemas express shared vocabularies and allow machines to carry out rules made by people. They provide a means for defining the structure, content, and semantics of XML documents.					
Zero	'0'. The ASCII representation of the number zero (0).					

0.8 ASSUMPTIONS, RISKS, AND ISSUES

Outstanding issues, risks, or problems will be recorded in the Issues Register administered and maintained by the Development Project Manager.

0.8.1 Assumptions

0.8.1.1 SINGLE CURRENCY PROCESSING

Processing is only required for items in local currency, Bangladesh Taka and Poisha.

0.8.2 RISKS

0.8.2.1 CORE BANKING SYSTEM

The selected Core Banking System may affect the anticipated interfaces specified in this document or place additional requirements on the proposed solution.

Initially the BEFTN system will provide both printed reports, to allow manual update of ledger systems, and an extract to a specified-format file that will contain the information typically required for account posting.





0.8.3 Issues

0.8.3.1 ARCHIVE KEY FIELDS

The required key fields to be used by archive for EFT transactions is to be agreed and specified [4.1].

.





1 GENERAL

1.1 PURPOSE

This document is the functional specification for the new, BEFTN interbank Electronic Funds Transfer clearing and settlement system. It describes the application interfaces between the central BEFTN clearing and settlement system and the processing systems at the participant banks.

It defines the functionality of the BEFTN Clearing System as customised to interface with the origination and receipt BEFTN clearing solutions of the participant banks.

This document should be read in conjunction with the BEFTN Rules, which define the use of the BEFTN system.

1.2 Introduction

The Bangladesh Electronic Funds Transfer Network (BEFTN) will operate as a processing and delivery centre providing for the distribution and settlement of electronic credit and debit transactions among all participating banks. BEFTN will operate in a real-time, batch processing mode. Transaction files are delivered to the BEFTN clearing system via the bank's PBM. The PBM processes the EFT files received from the bank in order to detect any duplicate or stale files at the earliest opportunity. This is to allow the originating bank sufficient time to fix the errors and resubmit the file.

Items processed by BEFTN will be distributed to their receiving banks. All transactions will be calculated into a single multilateral netting figure for each individual bank. Final settlement will take place using accounts that are maintained with Bangladesh Bank.

Participating banks in the EFT Network and the BEFTN processing centre will be inter-connected via communication lines.

In addition to the clearing facilities provided by BEFTN, long-term storage in the Central Archive and the subsequent retrieval of stored EFT item information from the Central Archive will be provided. The BEFTN Clearing System and BEFTN Central Archive (BCA) are parameterised to provide for the processing of each type of work in accordance with the requirements of the BACH.

BEFTN processing of EFT transactions at the BACH is based on the member banks using suitable software components to generate the transaction data for originating EFT transactions; and, to receive, validate, and make pay / no-pay decisions for EFT transactions that are received in accordance with The Rules.

The originated EFT transactions are consolidated and presented to the PBM in EFT Files for submission to the BEFTN system for processing and continued delivery to the receiving bank.





This document describes the functionality and processing of the BACH for BEFTN processing. as two discrete components: BEFTN; and, BEFTN Central Archive, which will be described with respect to the long-term storage and retrieval of payment information.





2 BEFTN FUNCTIONAL OVERVIEW

2.1 Major Functions

2.1.1 GENERAL

BEFTN provides for a variety of EFT payment applications. Each EFT application is identified by a specific three-character code, the Standard Entry Class (SEC) Code, which appear in the EFT batch record used to carry the payment and payment-related information relevant to the application. The following is the list of valid SEC codes and the different products each code supports.

I. <u>Consumer Applications</u>

- a. CIE Customer Initiated Entry: Customer initiated entries are limited to credit applications where the consumer initiates the transfer of funds to a company or another person for payment of funds owed to that company or person, typical example of these entries are utility bill and other Internet banking product payments.
- b. **PPD** Prearranged Payment and Deposit Entry
 - Direct Deposit: Direct deposit is a credit application that transfers funds into a consumer's account at the receiving bank. The funds being deposited can represent a variety of products such as payroll, remittances, interest, pension, dividends and/or refunds, etc.
 - ii. Preauthorized Bill Payment: A preauthorized payment is a debit application. Companies with billing operations may participate in the EFT through the electronic transfer (direct debit) of bill payment entries. Through standing authorizations, the consumer grants the company authority to initiate periodic charges to his or her account as bills become due. This concept is especially applicable in situations where the recurring bills are regular and do not vary in amount such insurance premiums, loan instalments, etc. Standing authorization may also used for bills where the amount does vary, such as utility payments.

II. Corporate Applications

a. CCD – Corporate Credit or Debit: This application can be either a credit or a debit application where funds are either distributed or consolidated between corporate entities. This application can serve as a stand-alone fund transfer between corporate entities, or it can support a limited disclosure of information when the funds are being transferred between organizations (i.e. sister concerns) under the same group.





b. CTX - Corporate Trade Exchange: This application supports the transfer of funds (debit or credit) within a trading partner relationship in which funds are transferred with business remittance information. The parties and BEFTN place the payment-related information in multiple addenda records in a format agreed to.

III. Other Applications

a. ADV – Automated Accounting Advice: This SEC Code represents an optional service to be provided by EFT Operators that identifies automated accounting advices of EFT accounting information in machine-readable format to facilitate the automation of accounting information for Participating Banks.





3 THE GENERIC EFT FILE FORMAT

3.1 General

The Generic EFT file format is, in accordance with the requirements of BACH, derived from the U.S. National Automated Clearing House Association (NACHA) file format as specified in the Rules. In keeping with the agreed approach for the BACPS solution, the NACHA file specification, as adapted for use in BEFTN, is specified as an XML file with an associated XML schema. The EFT File is the file used to interchange information between the member banks and the BEFTN via the PBM.

The Generic EFT File specifies all possible record types that may be used for EFT transactions.

3.2 EFT FILE

3.2.1 OVERVIEW

The EFT file is an electronic file that complies with the structure specified in the Rules. The structure and content of the EFT file is specified in this document in the functionally equivalent XML format that is to be used for the EFT files processed by BEFTN.

The Generic EFT File comprises a number of record types required to support the different payment requirements of the member banks and the BEFTN.

In the following specification of record types, the record name is followed by an indication of its use in parentheses. The usage indicator is either 'M' for Mandatory, 'R' for Required, or 'O' for Optional.

3.2.2 EFT DATA

EFT data uses the 8-bit ASCII unless otherwise stated, for example, binary or hexadecimal.

3.2.3 DUPLICATE EFT FILES

Any duplicate EFT File that is detected is rejected in its entirety. An EFT File is considered a duplicate if the content of the following File Header fields match a previously processed EFT File and the file totals for records and amount as specified in the File Control Record matches the previously processed file:

3.2.4 GENERIC EFT FILE STRUCTURE

All EFT Files are bounded by File Control Records. The character included with the record type indicates the requirement for the record: 'M' Mandatory; 'O' Optional; 'R' Required.





- File Header Record <FHR> (M)
 - o Corporate/Batch Header Record < BHR > Batch #1 (M)
 - Entry Detail Records or Corporate Entry Detail Records <EDR> (M)
 - Addenda Records <AR> (0)
 - Corporate/Batch Control Record **<BCR>** Batch #1 (M)
 - Corporate/Batch Header Record < BHR>- Batch #2 (M)
 - Entry Detail Records or Corporate Entry Detail Records <EDR> (M)
 - Addenda Records <ADR> (0)
 - Corporate/Batch Control Record <BCR> Batch #2 (M)
 - o ₽ Batch #3
 - o ₽ Batch #4
 - ☐ Batch #5 to Batch n-3
 - o ₽ Batch #n-2
 - o ₽ Batch #n-1
 - Corporate/Batch Header Record <BHR> Batch #n (M)
 - Entry Detail Records or Corporate Entry Detail Records <EDR> (M)
 - Addenda Records <ADR> (0)
 - Corporate/Batch Control Record <BCR> Batch #n (M)
- File Control Record **<FCR>** (M)

An EFT File shall contain one or more batches.

3.2.5 GENERAL VALIDATION

EFT Files will have their structure and content validated in accordance with the Rules. This document outlines the Rules; however, if there is any inconsistency between this document and the Rules, the Rules have precedence.

Validation is as specified in the Rules and is generally as and is generally as follows:

- Records or fields specified as "Mandatory" must be present and contain valid information.
- Records and fields specified as "Required", if present, must contain valid information.
- Structural or control record-level exceptions will cause the EFT File to be rejected in its entirety and excluded from clearing and settlement.





- Item-level exceptions will result in rejection of the item.
- EFT File Control Totals must reconcile with the calculated totals for the batches they encapsulate. If one or more batches in an EFT File do not balance, by definition the EFT File itself does not balance.
- Any EFT File that does not balance against its control totals is rejected in its entirety and is excluded from clearing and settlement.
- Any future-dated EFT File, whose date is outside the acceptable, specified window, is rejected in its entirety, and is excluded from clearing and settlement.
- An invalid routing number will cause the file to be rejected in its entirety.
- Item-level validation is specified in the following sections that describe record contents.
- Any unrecognised record type that is encountered will cause all
 processing of the EFT File to be terminated and the EFT File to be rejected
 in its entirety.

3.2.6 GENERIC RECORD STRUCTURE

The BEFTN EFT File is specified as an XML interface later in this document. On final agreement of the interface and its detailed contents, this XML interface will be published as an XML schema that can be used to validate BEFTN interface files using third-party validation tools.

3.2.7 GENERIC DATA TYPES

There a number of data types that can occur in an Entry Detail Record, which, unless otherwise stated, are specified to be ASCII characters; these are as follows:

Type	Description	Values and Meaning
A	Alphabetic	• 'A'-'Z'; 'a'-'z'
		Upper and lowercase characters are not distinguished between:
		for example 'AbcDe' is processed identically to 'aBCde'. • Blank.
AN	Alphanumeric	Comprise any of the characters specified as type A or Type N.
ANS	Alphanumeric /	Any of the characters specified as type AN or Type S.
	Special	
В	Blank	Represented as ASCII 0x20.
Bi	Binary	Binary data types comprise one or more bytes that may range
		in value from 0b00000000 - 0b11111111.
N	Numeric	The numeric characters '0' - '9'.
NB	Numeric / Blank	Any of the characters specified as type N or Type B.
NS	Numeric / Special	Any of the characters specified as type N or Type S.
S	Special	Special characters are the printable ASCII characters with a value greater than 0x1F, excluding data types A,N, and B.





3.2.8 GENERIC FIELD TYPES

Type	Description	Data Fill and Justification
A	Alphabetic	Alpha fill character. Left justified.
N	Numeric	Numeric fill character. Right justified.
AN	Alphanumeric	Alpha fill character. Left justified.
ANS	Alphanumeric /	Alpha fill character. Left justified.
	Special	
NB	Numeric / Blank	Alpha fill character. Left justified.
NS	Numeric / Special	Alpha fill character. Left justified.





3.3 EFT FILE STRUCTURE AND CONTENTS

The following sections describe the different record types that are valid in an EFT File. On agreement of the EFT File interface, sample XML files and a supporting XML Schema will be provided.

In the following tables, the main XML element is shown in bold text: for example, **<EHR>**, in the Elements column, for example EHR Elements contains the XML element name in **bold** and enclosed in chevron brackets: for example, **<FieldName>**. Sub-elements also have their name in **bold** and enclosed in chevron brackets. However, they also have a leading bullet, for example: • **<SubElement>**.

3.3.1 XML HEADER

The document type declaration MUST appear before the first element in the document.

<?xml version="1.0" encoding="UTF-8" ?>

3.3.2 FILE RECORDS

3.3.2.1 EFT FILE HEADER RECORD <FHR>

The above is common to all EFT files processed by BEFTN.

The FHR shall be the first record in the EFT File.

Field	XML Element	Req	Type	Size	Description
1.	<fhr></fhr>	М			This is the opening element of the header record. The closing tag for this element will be at the end of the header record. Note: This tag is required in the XML document; however, it contains no data. This header element should only occur once per file.
2.	<prioritycode></prioritycode>	R	N	2	Shall contain '01'.
	• <immediatedestination></immediatedestination>	M	N	9	Routing Number of the immediate receiving point for the file.
4.	• <immediateorigin></immediateorigin>	M	N	9	Routing Number of the immediate sending point for the file.
5.	• <creationdate></creationdate>	M	N	6	ISO standard six-digit date YYMMDD.
6.	• <creationtime></creationtime>	0	N	4	ISO standard four digit time HHMM.
7.	<fileidmodifier></fileidmodifier>	M	AN	1	As specified in The Rules
8.	<formatcode></formatcode>	M	N	1	Shall contain '1'.
9.	• <immediatedestinationnam e=""></immediatedestinationnam>	0	AN	<=30	The name of the receiving point for the file
10	.• <immediateoriginname></immediateoriginname>	0	AN	<=30	The name of the sending point for the file





Field XML Element	Req	Type	Size	Description
11. ◆ < ReferenceCode >	0	AN	8	Information pertinent to the
				Originator.

3.3.2.2 EFT FILE CONTROL RECORD < FCR>

The FCR is common to all EFT files processed by BEFTN.

The FCR shall be the final record in an EFT File.

Field XML Element	Req	Type	Size	Description
1. <fcr></fcr>	М			This is the opening element of the batch control record. The closing tag for this element will be at the end of the control record. Note: This tag is required in the XML document; however, it contains no data. This element should only occur once per file.
2. • <batchcount></batchcount>	M	N	<=6	Equal to the number of BHR records in the file
3. • <entryaddendacount></entryaddendacount>	M	N	<=8	Count of each entry or Addenda record in the file
4. • <entryhash></entryhash>	М	N	10	This field is the sum of all the entry hash fields in all batch control records within the file. Add leading zeros as needed and ignore the overflow out of the high order (leftmost) position if the sum is more than 10 digits.
5. • <debitamount></debitamount>	M	N	<=20	Total Entry debit value
6. • <creditamount></creditamount>	M	N	<=20	Total Entry credit value

3.3.3 BATCH RECORDS

Their associated batch records, the Batch Header Record (BHR) and the Batch Control Record (BCR), delimit batches.

Their application type as determined by the SEC in the BHR identifies batches.

3.3.3.1 BATCH HEADER RECORD <BHR>

The BHR is common to all EFT files processed by BEFTN.





A BHR must follow a FHR or a BCR.

Field XML Element 1. <bhr></bhr>	Req M	Type	Size	Description This is the opening element of the batch header record. The closing tag for this element will be at the end of the batch header record. Note: This tag is required in the XML document; however, it contains no data.
		N	0	This header element should only occur once per batch.
2. • <serviceclasscode></serviceclasscode>	M	N	3	As in BEFTN Rules
3. • <companyname></companyname>	M	AN	16	Entered by originator
4. • <companydiscretionarydat< li="">a></companydiscretionarydat<>	U	AN	20	Entered by originator
5. ◆ <companyid></companyid>	M	AN	10	A unique identifier assigned by the OB to identify the originating company.
6. • <secc></secc>	M	AN	3	Standard Entry Class Code
7. • <companyentrydesc></companyentrydesc>	M	AN	10	Originator-specified description. As in BEFTN Rules for Reversals, Reclaims, and Non-settled batches.
8. • <companydescdate></companydescdate>	0	AN	6	Originator-specified descriptive date.
9. • <effectiveentrydate></effectiveentrydate>	R	N	6	Originator-specified date that the originator expects the batch to be settled.
10• <settlementjdate></settlementjdate>	M	N	3	Julian settlement date entered by BEFTN Operator
11• <origstatuscode></origstatuscode>	M	AN	1	As in BEFTN Rules
12• <origbank></origbank>	M	RT	8	Originating bank RT without the check digit
13• <batchnumber></batchnumber>	M	N	7	Ascending number assigned by OB





3.3.3.2 BATCH CONTROL RECORD < BCR>

There must be one BCR per batch corresponding to the BHR for that batch. The BCR must follow a Detail Record or an Addenda Record.

3.3.3.2.1 Standard Batch Control Record

This BCR applies to all batch types except ADV.

	• •		•		
Field	XML Element	Req	Type	Size	Description
1.	<bcr></bcr>	М			This is the opening element of the batch control record. The closing tag for this element will be at the end of the batch control record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per batch.
2.	 <serviceclasscode></serviceclasscode> 	M	N	3	As in BEFTN Rules
3.	 <entryaddendacoun< li=""> </entryaddendacoun<>	M	N	6	Number of Addenda entries
	t>				
4.	• <entryhash></entryhash>	M	N	10	This field is the sum of all the 8 digit R&T numbers in the entry detail records (EDR) within the batch. Add leading zeros as needed and ignore the overflow out of the high order (leftmost) position if the sum is more than 10 digits.
5.	<totaldebitamount></totaldebitamount>	M	N	12	Total debit amount in Poisha
6.	<totalcreditamount< li=""></totalcreditamount<>	M	N	12	Total credit amount in Poisha
7.	• <companyid></companyid>	R	AN	10	A unique identifier assigned by the OB to identify the originating company.
8.	<msgauthcode></msgauthcode>	0	AN	20	As in BEFTN Rules
9.	<originbank></originbank>	M	RT	9	Originating bank RT
10.	• <batchnumber></batchnumber>	M	N	7	Ascending number assigned by OB. Same as in BHR





3.3.3.2.2 ADV Batch Control Record

Field	XML Element	Req	Type	Size	Description
1.	<advbcr></advbcr>	M			This is the opening element of the batch control record. The closing tag for this element will be at the end of the batch control record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per batch.
2.	<serviceclasscode></serviceclasscode>	M	N	3	As in BEFTN Rules
3.	• <entryaddendacount></entryaddendacount>	M	N	6	Count of associated Addenda records
4.	• <entryhash></entryhash>	M	N	10	Hash of all the Receiving RT codes in the EDR records
5.	<totaldebitamount></totaldebitamount>	M	N	20	Total debit amount in Poisha
6.	<totalcreditamount></totalcreditamount>	M	N	20	Total credit amount in Poisha
7.	<beftndata></beftndata>	0	AN	20	For use by BEFTN
8.	• <0riginBank>	M	RT	8	Originating bank RT without the check digit
9.	<batchnumber></batchnumber>	M	N	7	-

3.3.4 ENTRY RECORDS

The fundamental entry record is the Entry Detail Record <EDR>. These may be accompanied by optional Addenda Records <ADR> when required.

There must be one EDR per EFT entry. The EDR must follow a Batch Header Record (BHR), Entry Detail Record (EDR), or an Addenda Record (ADR).

3.3.4.1 ADV ENTRY DETAIL RECORD < EDR>

Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	M	-, P -		This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should
					only occur once per entry.
2.	<transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules. See 6.1 for information.
3.	<receivingbank></receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	<checkdigit></checkdigit>	M	N	1	RT Check-digit
5.	• <dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer identification
6.	<amount></amount>	M	N	12	Amount in Poisha





Field XML Element	Req	Type	Size	Description
7. • <advicert></advicert>	M	N	9	As specified in BEFTN Rules.
				RT of the DFI.
8. • <fileid></fileid>	0	AN	5	As specified in BEFTN Rules
9. • <beftndata></beftndata>	0	AN	1	BEFTN-specified information
10. • <receivername></receivername>	R	AN	22	Originator-entered information As specified in BEFTN Rules
11. • < Discretionary Data >	0	AN	2	Originator-entered information
12 • <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules
				0 – No Addenda Records
				present
				1 – Addenda Records are present
13. • <beftn_rt></beftn_rt>	M	RT	8	The RT number of the BEFTN
14. • <creationjdate></creationjdate>	M	N	3	Julian date that the entry was created.
15. • <seqnum></seqnum>	M	N	4	Sequence number of the entry within the batch

3.3.4.1.1 ADV Addenda Record <ADR>

Field	VMI Flowent	Dog	Trmo	Cino	Decarintion
Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	M			This is the opening element of
					the Addenda Record.
					The closing tag for this element
					will be at the end of the
					Addenda Record.
					Note: This tag is required in the
					XML document; however, it
					contains no data.
					This control element should
					only occur once per Addenda
					Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '05'
3.	<paymentinfo></paymentinfo>	0	ANS	80	Payment-related information as
	•				specified in the BEFTN Rules
4.	<addendaseqnum></addendaseqnum>	M	N	4	Sequence number of the ADR
	•				for the associated EDR.
					Assigned sequentially from 1.
5.	<entrydetailseqnum></entrydetailseqnum>	M	N	7	As specified in the BEFTN
	•				Rules.
					The rightmost 7 digits of the
					EDR trace number.





3.3.4.2 CCD ENTRY DETAIL RECORD < EDR>

Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	М			This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	<transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules See 6.1 for information.
3.	• <receivingbank></receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	<checkdigit></checkdigit>	M	N	1	RT Check-digit
5.	• <dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer identification
6.	<amount></amount>	M	N	12	Amount in Poisha
7.	• <idnumber></idnumber>	0	AN	15	Originator-specified information
8.	• <receivername></receivername>	R	AN	22	Identity of the receiving company
9.	<discretionarydata></discretionarydata>	0	AN	2	OB-specified code.
10.	• <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
11.	• <tracenumber></tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.

3.3.4.3 CCD ADDENDA RECORD <ADR>

3.3.4.3.1 CCD Addenda Record <ADR>

Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	M			This is the opening element of the Addenda Record. The closing tag for this element will be at the end of the Addenda Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per Addenda Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '05'
3.	<paymentinfo></paymentinfo>	0	ANS	80	Payment-related information as specified in the BEFTN Rules





Field	XML Element	Req	Type	Size	Description
4.	• <addendaseqnum></addendaseqnum>	M	N	4	Sequence number of the ADR for the associated EDR. Assigned sequentially from 1.
5.	• <entrydetailseqnum></entrydetailseqnum>	M	N	7	As specified in the BEFTN Rules. The rightmost 7 digits of the EDR trace number.

3.3.4.4 CIE ENTRY DETAIL RECORD < EDR>

Field	XML Element	Req	Type	Size	Description
1.	< EDR>	М	•		This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	• <transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules. See 6.1 for information.
3.	• <receivingbank></receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	<checkdigit></checkdigit>	M	N	1	RT Check-digit
5.	• <dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer identification
6.	<amount></amount>	M	N	12	Amount in Poisha
7.	<receivername></receivername>	R	AN	15	
8.	<individualid></individualid>	M	AN	22	
9.	• <discretionarydata></discretionarydata>	0	AN	2	Originator-specified information
10.	• <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
11.	• <tracenumber></tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.





3.3.4.4.1 CIE Addenda Record <ADR>

Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	M	•		This is the opening element of the Addenda Record. The closing tag for this element will be at the end of the Addenda Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per Addenda Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '05'
3.	<paymentinfo></paymentinfo>	0	ANS	80	Payment-related information as specified in the BEFTN Rules
4.	• <addendaseqnum></addendaseqnum>	M	N	4	Sequence number of the ADR for the associated EDR. Assigned sequentially from 1.
5.	• <entrydetailseqnum></entrydetailseqnum>	M	N	7	As specified in the BEFTN Rules. The rightmost 7 digits of the EDR trace number.

3.3.4.5 CTX CORPORATE ENTRY DETAIL RECORD < EDR>

Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	М			This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	<transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules. See 6.1 for information.
3.	<receivingbank></receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	<checkdigit></checkdigit>	M	N	1	RT Check-digit
5.	• <dfiaccountnum></dfiaccountnum>	R	AN	17	The RB's customer identification
6.	<amount></amount>	M	N	12	Amount in Poisha
7.	• <idnumber></idnumber>	0	AN	15	Originator-specified information
8.	<adrcount></adrcount>	M	N	4	Number of Addenda Records
9.	<beftndata></beftndata>	0	AN	1	BEFTN-specified information
10	 <receivingcompanyid></receivingcompanyid>	R	AN	16	Receiving company identification
11	<discretionarydata></discretionarydata>	0	AN	2	Originator-entered information





Field XML Element	Req	Type	Size	Description
12 • <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
13 • <tracenumber></tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.

3.3.4.5.1 CTX Addenda Record <ADR>

Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	М	•		This is the opening element of the Addenda Record. The closing tag for this element will be at the end of the Addenda Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per Addenda Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '05'
3.	<paymentinfo></paymentinfo>	0	ANS	80	Payment-related information as specified in the BEFTN Rules
4.	• <addendaseqnum></addendaseqnum>	M	N	4	Sequence number of the ADR for the associated EDR. Assigned sequentially from 1.
5.	• <entrydetailseqnum></entrydetailseqnum>	M	N	7	As specified in the BEFTN Rules. The rightmost 7 digits of the EDR trace number.

3.3.4.6 PPD ENTRY DETAIL RECORD < EDR>

Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	M	••		This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data.
2	«Tuon oo shi on Co do»	М	N	2	This control element should only occur once per entry.
۷.	<transactioncode></transactioncode>	IVI	N	2	As specified in BEFTN Rules. See 6.1 for information.
3.	<receivingbank></receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	<checkdigit></checkdigit>	M	N	1	RT Check-digit





Field	XML Element	Req	Type	Size	Description
5.	<dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer
					identification
6.	<amount></amount>	M	N	12	Amount in Poisha
7.	<individualid></individualid>	0	AN	15	As specified in BEFTN Rules.
8.	<individualname></individualname>	R	AN	22	Entered by originator to
					identify the receiver.
9.	<discretionarydata></discretionarydata>	0	AN	2	Originator-entered information
10	<adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules
					0 – No Addenda Records
					present
					1 – Addenda Records are
					present
11	• <tracenumber></tracenumber>	M	N	15	The first 8 digits are the first 8
					digits of the OB routing
					number, the next 7 digits are
					assigned by the OB in
					ascending sequence.

3.3.4.6.1 PPD Addenda Record <ADR>

Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	M	71		This is the opening element of the Addenda Record. The closing tag for this element will be at the end of the Addenda Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per Addenda Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '05'
3.	<paymentinfo></paymentinfo>	0	ANS	80	Payment-related information as specified in the BEFTN Rules
4.	• <addendaseqnum></addendaseqnum>	M	N	4	Sequence number of the ADR for the associated EDR. Assigned sequentially from 1.
5.	• <entrydetailseqnum></entrydetailseqnum>	M	N	7	As specified in the BEFTN Rules. The rightmost 7 digits of the EDR trace number.

3.3.4.7 TRX ENTRY DETAIL RECORD < EDR>

Field XML Element Req Type Size Description





Field	XML Element	Req	Type	Size	Description
	<edr></edr>	M	Турс	Sille	This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	• <transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules. See 6.1 for information.
3.	• <receivingbank></receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	<checkdigit></checkdigit>	M	N	1	RT Check-digit
5.	<dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer identification
6.	<amount></amount>	M	N	12	Amount in Poisha
7.	<idnumber></idnumber>	0	AN	15	Originator-entered receiver ID
8.	<adrcount></adrcount>	M	N	4	Count of associated ADRs.
9.	• <receivingcompany></receivingcompany>	R	AN	16	Identity of the receiving company.
10	. • <itemtypeind></itemtypeind>	0	AN	2	Originator-entered information
11	• <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
12	.• <tracenumber></tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.

3.3.4.7.1 TRX Addenda Record <ADR>

Field	XML Element	Req	Type	Size	Description
6.	<adr></adr>	М	•		This is the opening element of the Addenda Record. The closing tag for this element will be at the end of the Addenda Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per Addenda Record.
7.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '05'
8.	<paymentinfo></paymentinfo>	0	ANS	80	Payment-related information as specified in the BEFTN Rules
9.	• <addendaseqnum></addendaseqnum>	M	N	4	Sequence number of the ADR for the associated EDR. Assigned sequentially from 1.
10	• <entrydetailseqnum></entrydetailseqnum>	M	N	7	As specified in the BEFTN Rules. The rightmost 7 digits of the EDR trace number.





3.4 FILE ACKNOWLEDGEMENT

Every file submitted to the BEFTN for processing is acknowledged by the BEFTN.

Files that are detected with problems may be rejected in their entirety or may have just the problem batches rejected.

The OB can select to have File Level Rejection, or Batch Level Rejection.

3.4.1 FILE LEVEL REJECTION

Any condition that would require only a batch to be rejected will cause the file to be rejected in its entirety.

3.4.2 BATCH LEVEL REJECTION

Any condition that would require only one or more batches to be rejected will cause only those batches to be rejected.

3.4.3 AUTOMATIC FILE REJECTION

The following error conditions will always cause the entire file to be rejected:

- The file cannot be successfully read; for example, data read failures hardware/software error checks indicated.
- The file fails XML validation.
- The File Header Record contains the number of an invalid Bureau Service (a point defined on the EFT Operator routing table file).
- The file is "out-of-balance," i.e., one or more of the following conditions exist:
 - The summation of the counts, hash totals, and total amount on Company/Batch Control Records does not agree with the File Control Record.
 - the actual number of batches in the file does not agree with the File Control counts.
- Mandatory fields in the File Header Record are not valid:
- File ID Modifier is not uppercase A-Z or 0-9.
- Format Code is not 1.
- The sequence of records in the file is incorrect.
- The Immediate Origin, File Creation Date, File Creation Time, and File ID Modifier are equal to that of a previously accepted file.





3.4.4 AUTOMATIC BATCH REJECTION

The following error conditions will cause the batch to be rejected if batch level rejection has been specified, or will cause the entire file to be rejected if file level rejection has been specified:

- The batch contains invalid characters as defined in the BEFTN Rules.
- The OB Identification in the Company/Batch Header Record is not the routing number of a valid OB.
- The Service Class Code in a Company/Batch Header Record is other than a currently valid code.
- The Trace Numbers on the file are not in ascending sequence within a batch.
- The Transaction Codes in Entry Detail Records are invalid.
- The Amount field in an Entry Detail Record is non-numeric.
- The sequence of records in the batch is incorrect.
- The batch is "out-of-balance," i.e., the counts, hash totals, or dollars in the Company/Batch Control Records do not agree with the summation of the entries for the batch.
- The Company Name is all spaces or all zeros.
- The Company Entry Description is all spaces or all zeros.
- The Company Identification is all spaces or all zeros.
- The Standard Entry Class Code in the Company/Batch Header Record is other than a currently valid code.
- The Service Class Code in the Company/Batch Control Record is not the same as that in the Company/Batch Header Record.
- The first eight positions of the Trace Number in an Entry Detail Record are not the same as the OB Routing Number in the corresponding (immediately preceding) Company/Batch Header Record.
- The Transaction Code in an Entry Detail Record is not valid for the Service Class Code in the Company/Batch Header Record. Either a debit Transaction Code is in a credit batch, or a credit Transaction Code is in a debit batch.
- The Transaction Code in an Entry Detail Record is not valid for the Standard Entry Class Code in the Company/Batch Header Record. For Standard Entry Class Code COR or RET, the Transaction Code must be 21, 26, 31, or 36.
- Return and non-return transactions are in the same batch.
- Return, dishonoured return, and/or contested dishonoured return transactions are in the same batch.
- The Batch Number in the Company/Batch Header Record is non-numeric.





- The Batch Number in the Company/Batch Control Record is non-numeric.
- The Batch Number in the Company/Batch Control Record is not the same as the Batch Number in the Company/Batch Header Record.

3.4.5 AUTOMATIC ENTRY DETAIL RECORD RETURN

BEFTN Rules specify return reason codes for the following error conditions.

- RB Not Qualified to Participate
- Improper Effective Entry Date
- Amount Field Error
- Addenda Error
- Mandatory Field Error
- Trace Number Error
- Routing Number Check Digit Error
- RB Not Participant in Check Truncation Program
- Non-Settlement
- Return of Improper Debit Entry
- Return of Improper Credit Entry

These error conditions will never cause the entire file to be rejected but will always cause the entry detail record to be returned using an Addenda Record with an Addenda Type Code of "99".

Creation of the resulting automated return entries shall be in accordance with the specifications in Appendix Five (Return Entries).

3.4.6 ACKNOWLEDGEMENT FILE HEADER < AFH >

Each Acknowledgement File will contain at a minimum an AFH. If a file is rejected in part, that is one or more batches are rejected, the AFH will be followed by a Acknowledgement Batch Record <ABR> for each batch rejected.

Field	XML Element	Req	Type	Size	Description
1.	<ack></ack>	M			This is the opening element of
					the Acknowledgement Record.
					The closing tag for this element
					will be at the end of the
					Acknowledgement Record.
					Note: This tag is required in the
					XML document; however, it
					contains no data.
					This control element should
					only occur once per entry.
2.	<immediateorigin></immediateorigin>	M	N	9	Origin RT number
3.	 <immediateoriginna< li=""> </immediateoriginna<>	0	ANS	20	Name of OB
	me>				
4.	<filecreationdate></filecreationdate>	M	N	7	





Field	XML Element	Req	Type	Size	Description
5.	<filecreationtime></filecreationtime>	0	N		
6.	<fileidmodifier></fileidmodifier>	M	1	AN	
7.	 <fileentryaddendaco< li=""> </fileentryaddendaco<>	M	N	8	Count of EDRs and ARDs in the
	unt>				file.
8.	<totaldebitamount></totaldebitamount>	M	N	16	Total debit amount of file
9.	<totalcreditamount></totalcreditamount>	M	N	16	Total credit amount of file
10.	<batchcount></batchcount>	M	N	7	Number of batches in the file
11.	• <processdate></processdate>	M	N	6	Date on which the file was processed – YYMMDD
12.	• <processtime></processtime>	M	N	4	ISO time at which the file was processed – HHMM
13.	• <filerejectstatus></filerejectstatus>	M	N	1	 0 - File accepted in entirety 1 - File rejected in entirety 2 - One or more batches rejected. ABR records follow.
14.	• <rejectreason></rejectreason>	0	AN	3	Reject Reason
15.	• <abrcount></abrcount>	0	N	7	Number of ABRs to follow

3.4.6.1 ACKNOWLEDGEMENT BATCH RECORD < ABR>

An ABR is included in the Acknowledgement File for each batch rejected in the file.

Field	XML Element	Req	Type	Size	Description
1.	<abr></abr>	М			This is the opening element of the ABR. The closing tag for this element will be at the end of the ABR. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	<originbankid></originbankid>	M	N	9	Origin RT number
3.	<originbankname></originbankname>	0	ANS	20	Name of OB
4.	<companyname></companyname>	M	ANS	20	Name of originating company
5.	• <companyid></companyid>	M	AN	10	A unique identifier assigned by the OB to identify the originating company.
6.	• <batchnumber></batchnumber>	M	7	N	Batch number assigned by originator
7.	<effectiveentrydate></effectiveentrydate>	M	N	8	Entry date of original batch.
8.	<entryaddendacount< li=""></entryaddendacount<>	M	N	8	Total number of entries and addenda records
9.	<totaldebitamount></totaldebitamount>	M	N	16	Total debit amount of batch
10.	<totalcreditamount></totalcreditamount>	M	N	16	Total credit amount of batch
16.	<rejectreason></rejectreason>	0	AN	3	Batch Reject Reason





3.5 RETURN ENTRY

An RB may return entries for any reason, provided it does so in accordance with the BEFTN Rules and uses an appropriate Return Reason Code as specified in The Rules.

3.5.1 AUTOMATED RETURN ENTRY

The OB is the bank that initially prepared the original entry, and which will eventually have the Automated Return Entry delivered to it. The RB is the bank that was to receive the original entry and will usually prepare the Automated Return Entry.

In some cases an Automated Return Entry may be prepared by the BEFTN if the entry cannot be delivered or if it contains an erroneous condition.

When an Automated Return Entry is prepared, the original Company/Batch Header Record, the original Entry Detail Record, and the Company/Batch Control Record are copied for return to the Originator. (NOTE: This includes the original SEC code of the Company Batch Header record.) The SEC code "RET" is used by the EFT Operator only.

The Automated Return Entry is regarded as a new entry, generated because the original entry failed to accomplish its intended purpose. Thus, these entries should be assigned new batch and trace numbers, new identification numbers for the returning institution, appropriate transaction codes, and so on.

The File Creation Date is of use to the OB when the entry is being returned by the EFT Operator. Otherwise, this data element is for a file created outside the organization of the OB and the information is not helpful. The OB can determine if the date is from its own file by looking at Field 12 of the Company/Batch Header Record, which now carries the identification of the institution preparing the return entry.

There is nothing required in the format that limits the number of Entry Detail Record/Addenda Record pairs to one for each batch. Multiple-entry return entry batches may be generated from one original batch.

3.5.2 RETURN ENTRY DETAIL RECORD < ERD>

NOTE: For Return Entries, each field of the Entry Detail Record remains unchanged from the original entry, unless otherwise noted.





Field XML Element	Req	Type	Size	Description
12. <edr></edr>	M			This is the opening element of
				the Entry Detail Record.
				The closing tag for this element
				will be at the end of the Entry
				Detail Record.
				Note: This tag is required in the
				XML document; however, it
				contains no data.
				This control element should
12	M	N	2	only occur once per entry.
13. • <transactioncode> 1</transactioncode>	M	N	2	As specified in BEFTN Rules See 6.1 for information.
14 a DoggivingDonly 2	M	RT	8	
14. • <receivingbank> ²</receivingbank>	IVI	ΚI	0	Receiving bank RT without the check digit
15. • <checkdigit></checkdigit> ³	M	N	1	RT Check-digit
16. • CHECKDIGIT	R	AN	15	The RB's customer
10. • \Driaccountnum>	K	AIN	13	identification
17. • <amount></amount>	M	N	12	Amount in Poisha
18. • <idnumber></idnumber> ⁴	0	AN	15	Originator-specified
10. 1 ADIMINDEL	Ü	1111	10	information
19. • <receivername> ⁴</receivername>	R	AN	22	Identity of the receiving
				company
20. • < Discretionary Data >	0	AN	2	OB-specified code.
21. • <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules
				0 – No Addenda Records
				present
				1 – Addenda Records are
				present
22. • <tracenumber> 5</tracenumber>	M	N	15	The first 8 digits are the first 8
				digits of the OB routing
				number, the next 7 digits are
				assigned by the OB in
				ascending sequence.

- Changed to the appropriate Return Entry Transaction Code. (See Transaction Codes under currently assigned "Code Values" in Appendix Two.)
- 2. Changed to the Routing Number of the institution receiving the Return Entry (i.e., the OB of the original entry).
- 3. Changed to the Check Digit calculated according to BEFTN standards and based on the Routing Number contained in positions 04-11.
- 4. For CIE entries, positions 40-54 are used for a 15-character Individual Name, and positions 55-76 are used for a 22-character Individual Identification Number.
- 5. Changed to the Trace Number assigned by the institution preparing the Automated Return Entry.





3.5.3 RETURN CORPORATE ENTRY DETAIL RECORD < CTX>

NOTE: For Return Entries, each field of the Corporate Entry Detail Record remains unchanged from the original entry, unless otherwise noted.

				-	
Field	XML Element	Req	Type	Size	Description
1.		M	Туре	Size	This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data.
					This control element should only
					occur once per entry.
2.	• <transactioncode> 1</transactioncode>	M	N	2	As specified in BEFTN Rules.
3.	• <receivingbank> 2</receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	 <checkdigit>³</checkdigit> 	M	N	1	RT Check-digit
5.	<dfiaccountnum></dfiaccountnum>	R	AN	17	The RB's customer identification
6.	<amount></amount>	M	N	12	Amount in Poisha
7.	<idnumber></idnumber>	0	AN	15	Originator-specified information
8.	<adrcount></adrcount>	M	N	4	Number of Addenda Records
9.	<beftndata></beftndata>	0	AN	1	BEFTN-specified information
10	. • <receivingcompanyid></receivingcompanyid>	R	AN	16	Receiving company identification
11	<discretionarydata></discretionarydata>	0	AN	2	Originator-entered information
	.• <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
13	. ● <tracenumber> ⁴</tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.

- 1. Changed to the appropriate Return Entry Transaction Code. (See Transaction Codes under currently assigned "Code Values" in The Rules Appendix Two.)
- 2. Changed to the Routing Number of the institution receiving the Return Entry (i.e., the OB of the original entry).
- 3. Changed to the Check Digit calculated according to BEFTN standards and based on the Routing Number contained in <ReceivingBank>.
- 4. Changed to the Trace Number assigned by the returning institution





3.5.4 RETURN ADDENDA RECORD

Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	М	· .		This is the opening element of the Addenda Record. The closing tag for this element will be at the end of the Addenda Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per Addenda Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '99'
3.	• <returnreason></returnreason>	M	AN	3	Return Reason as specified in the BEFTN Rules (See Appendix 6.2)
4.	• <originaltracenumbe r=""> 1</originaltracenumbe>	M	N	15	Trace number of the original entry.
5.	 <dateofdeath>²</dateofdeath> 	M	N	6	Date YYMMDD
6.	• <originalreceivingba nk> 3</originalreceivingba 	0	N	8	Original Receiving Bank RT number.
7.	<addendainformation< li=""></addendainformation<>	M	ANS	80	Additional addenda detail
8.	<tracenumber></tracenumber>	M	N	15	Trace number of Entry

- 1. Copy data from <TraceNumber> Entry Detail Record
- 2. To be used only with Return Code R14 or R15.
- 3. Copy data from <ReceivingBank> of the original Entry Detail Record.

3.6 DISHONOURED RETURN ENTRIES

Dishonoured Return Entries are to be compliant with the BEFTN Rules.

The following extracted specifications apply to Dishonoured Return Entries:

- Each Dishonoured Return Entry initiated by an OB must be in the automated format and sequence set forth in The Rules.
- Terms used in the format shall have the meanings set forth in The Rules.
- The Batch Header Record, Entry Detail Record, and Addenda Record format described in this section must be used.
- The Transaction Code used in the Entry Detail Record must be either 21
 or 26 for Demand Accounts, 31 or 36 for Savings Accounts, 41 or 46 for
 General Ledger Accounts, or 51 or 56 for Loan Accounts.
- Addenda Type Code "99" must be used to indicate that the addenda record contains automated return information.
- The following fields of the Addenda Record must be filled when originating an Automated Dishonoured Return Entry:
 - Positions 39 53 containing the Return Trace Number





- Positions 54 56 containing the Return Settlement Date
- Positions 57 58 containing the Return Reason Code

3.6.1 DISHONOURED RETURN BATCH HEADER RECORD <BHR>

NOTE: For Dishonored Return Entries, each field of the Batch Header Record remains unchanged from the Return Entry, unless otherwise noted.

Field XML Element	Req	Type	Size	Description
1. <bhr></bhr>	M			This is the opening element of the batch header record. The closing tag for this element will be at the end of the batch header record. Note: This tag is required in the XML document; however, it contains no data. This header element should only occur once per batch.
2. • <serviceclasscode></serviceclasscode>	M	N	3	As in BEFTN Rules
3. • <companyname></companyname>	M	AN	16	Entered by originator
4. • <companydiscretionaryda< td=""><td>it O</td><td>AN</td><td>20</td><td>Entered by originator</td></companydiscretionaryda<>	it O	AN	20	Entered by originator
5. ● <companyid></companyid>	M	AN	10	A unique identifier assigned by the OB to identify the originating company.
6. • <secc></secc>	M	AN	3	Standard Entry Class Code
7. ● <companyentrydesc></companyentrydesc>	M	AN	10	Originator-specified description. As in BEFTN Rules for Reversals, Reclaims, and Non-settled batches.
8. • <companydescdate></companydescdate>	0	AN	6	Originator-specified descriptive date.
9. • <effectiveentrydate></effectiveentrydate>	R	N	6	Originator-specified date that the originator expects the batch to be settled.
10• <settlementjdate></settlementjdate>	M	N	3	Julian settlement date entered by BEFTN Operator
11• <origstatuscode> 1</origstatuscode>	M	AN	1	As in BEFTN Rules
12• < 0rigBank> ²	M	RT	8	Originating bank RT without the check digit
13• <batchnumber></batchnumber> ³	M	N	7	Ascending number assigned by OB

- 1. Changed to reflect the Originator Status Code of the institution initiating the Dishonored Return Entry (i.e., the RB of the Return Entry).
- 2. Changed to reflect the Routing Number of the institution initiating the Dishonored Return Entry (i.e., the RB of the Return Entry).
- 3. Changed to a Batch Number assigned by the institution preparing the Dishonored Return Entry.





3.6.2 DISHONOURED RETURN CORPORATE ENTRY DETAIL RECORD < EDR>

NOTE: For Dishonored Return Entries, each field of the Corporate Entry Detail Record remains unchanged from the Return entry, unless otherwise noted.

	3				J,
Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	M			This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	<transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules See 6.1 for information.
3.	• <receivingbank> 1</receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	 <checkdigit>²</checkdigit> 	M	N	1	RT Check-digit
5.	<dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer
					identification
6.	<amount></amount>	M	N	12	Amount in Poisha
7.	<idnumber></idnumber>	0	AN	15	Originator-specified
					information
8.	<receivername></receivername>	R	AN	22	Identity of the receiving
					company
9.	<discretionarydata></discretionarydata>	0	AN	2	OB-specified code.
10.	<adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules
11.	• <tracenumber> 3</tracenumber>	M	N	15	0 - No Addenda Records present 1 - Addenda Records are present The first 8 digits are the first 8 digits of the OB routing
					number, the next 7 digits are assigned by the OB in ascending sequence.

- 1. Changed to the Routing Number of the institution receiving the Dishonored Return Entry (i.e., the OB of the Return Entry).
- 2. Changed to the Check Digit calculated according to BEFTN Standards and based on the Routing Number contained in positions 04-11.
- 3. Changed to the Trace Number assigned by the institution preparing the Dishonored Return Entry (i.e., the RB of the Return Entry).





3.6.3 DISHONOURED RETURN ENTRY DETAIL RECORD <EDR>

NOTE: For Dishonoured Return Entries, each field of the Entry Detail Record remains unchanged from the Return Entry, unless otherwise noted.

Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	М	•		This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should
2.	• <transactioncode></transactioncode>	M	N	2	only occur once per entry. As specified in BEFTN Rules See 6.1 for information.
3.	• <receivingbank> 1</receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	 <checkdigit>²</checkdigit> 	M	N	1	RT Check-digit
5.	• <dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer identification
6.	• <amount></amount>	M	N	12	Amount in Poisha
7.	• <idnumber></idnumber>	0	AN	15	Originator-specified information
8.	<receivername></receivername>	R	AN	22	Identity of the receiver
9.	<discretionarydata></discretionarydata>	0	AN	2	OB-specified code.
10.		M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
11.	• <tracenumber> 3</tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.

- 1. Changed to the Routing Number of the institution receiving the Dishonoured Return Entry (that is, the OB of the Return Entry).
- 2. Changed to the Check Digit calculated according to BEFTN standards and based on the Routing Number contained in <ReceivingBank>.
- 3. Changed to the Trace Number assigned by the institution preparing the Dishonoured Return Entry (that is, the RB of the Return Entry).





3.6.4 DISHONOURED RETURN ENTRY ADDENDA RECORD <ADR>

Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	M	•		This is the opening element of the Addenda Record. The closing tag for this element will be at the end of the Addenda Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per Addenda Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '99'
3.	<dishonouredreturnrea son></dishonouredreturnrea 	M	AN	3	Return Reason as specified in the BEFTN Rules (See Appendix 6.2)
4.	• <0riginalTraceNumber>	M	N	15	Trace number of the original entry.
5.	• <0riginalReceivingBank > 2	R	N	8	Original Receiving Bank RT number.
6.	<returntracenumber></returntracenumber>	M	ANS	15	
7.	• <returnsettlementdate></returnsettlementdate>	M	N	3	
8.	• <returnreason></returnreason>	M	AN	2	Return Reason as specified in the BEFTN Rules (See Appendix 6.2)
9.	• <addendainformation> 3</addendainformation>	M	AN	30	Additional addenda detail
10	• <tracenumber> 4</tracenumber>	M	N	15	Trace number of Entry

- 1. Copy data from <TraceNumber> of the Addenda Record of the return entry.
- 2. Copy data from <ReceivingBank> of the Addenda Record of the return entry.
- 3. The Addenda Information Field of a Dishonored Return Entry is a mandatory field when the Dishonoured Return bears Return Reason Code R69 (Field Errors). When using Return Reason Code R69, the OB must insert the appropriate code(s) from the list below, separated by an asterisk (*), within the Addenda Information Field of the Addenda Record Format for Automated Dishonoured Returns to indicate the field(s) in which the errors occur:
 - 01. Return Contains Incorrect DFI Account Number
 - 02. Return Contains Incorrect Original Entry Trace Number
 - 03. Return Contains Incorrect Dollar Amount
 - 04. Return Contains Incorrect Individual Identification Number/Identification Number
 - 05. Return Contains Incorrect Transaction Code
 - 06. Return Contains Incorrect Company Identification Number
 - 07. Return Contains an Invalid Effective Entry Date For example: 01*03*06





4. For Automated Dishonoured Returns, changed to reflect the new Trace Number found in <TraceNumber> of the Entry Detail Record or Corporate Entry Detail Record.

3.7 AUTOMATED CONTESTED DISHONOURED RETURN ENTRIES

3.7.1 BATCH HEADER RECORD

NOTE: For Contested Dishonoured Return Entries, each field of the Company/Batch Header Record remains unchanged from the Dishonoured Return Entry, unless otherwise noted.

Field XML Element	Req	Type	Size	Description
Field XML Element 1. <bhr></bhr>	Req M	Туре	Size	This is the opening element of the batch header record. The closing tag for this element will be at the end of the batch header record. Note: This tag is required in the XML document; however, it contains no data. This header element should only occur once per batch.
2. • <serviceclasscode></serviceclasscode>	M	N	3	As in BEFTN Rules
3. • <companyname></companyname>	M	AN	16	Entered by originator
4. • <companydiscretionarydat a></companydiscretionarydat 	0	AN	20	Entered by originator
5. ● <companyid></companyid>	M	AN	10	A unique identifier assigned by the OB to identify the originating company.
6. • <secc></secc>	M	AN	3	Standard Entry Class Code
7. • <companyentrydesc></companyentrydesc>	M	AN	10	Originator-specified description. As in BEFTN Rules for Reversals, Reclaims, and Non-settled batches.
8. • <companydescdate></companydescdate>	0	AN	6	Originator-specified descriptive date.
9. • <effectiveentrydate></effectiveentrydate>	R	N	6	Originator-specified date that the originator expects the batch to be settled.
10• <settlementjdate></settlementjdate>	M	N	3	Julian settlement date entered by BEFTN Operator
11• <origstatuscode> 1</origstatuscode>	M	AN	1	As in BEFTN Rules
12• <origbank> ²</origbank>	M	RT	8	Originating bank RT without the check digit
13• <batchnumber></batchnumber> ³	M	N	7	Ascending number assigned by OB

1. Changed to reflect the Originator Status Code of the institution initiating the Contested Dishonoured Return Entry (that is, the RB of the Dishonoured Return Entry).





- 2. Changed to reflect the Routing Number of the institution initiating the Contested Dishonoured Return Entry (that is, the RB of the Dishonoured Return Entry).
- 3. Changed to a Batch Number assigned by the institution preparing the Contested Dishonoured Return Entry.

3.7.2 CONTESTED DISHONOURED RETURN CORPORATE ENTRY DETAIL RECORD

NOTE: For Contested Dishonoured Return Entries, each field of the Corporate Entry Detail Record remains unchanged from the Dishonoured Return entry, unless otherwise noted.

Field	XML Element	Req	Type	Size	Description
	<edr></edr>	M	7.		This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
13.	• <transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules See 6.1 for information.
14.	• <receivingbank> 1</receivingbank>	M	RT	8	Receiving bank RT without the check digit
15.	 <checkdigit>²</checkdigit> 	M	N	1	RT Check-digit
16.	• <dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer identification
17.	<amount></amount>	M	N	12	Amount in Poisha
18.	• <idnumber></idnumber>	0	AN	15	Originator-specified information
19.	<receivername></receivername>	R	AN	22	Identity of the receiving company
20.	<discretionarydata></discretionarydata>	0	AN	2	OB-specified code.
	• <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
22.	• <tracenumber> 3</tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.

- 1. Changed to the Routing Number of the institution receiving the Contested Dishonored Return Entry (that is, the OB of the Dishonoured Return Entry).
- 2. Changed to the Check Digit calculated according to BEFTN Standards and based on the Routing Number contained in <ReceivingBank>.





3. Changed to the Trace Number assigned by the institution preparing the Contested Dishonoured Return Entry (that is, the RB of the Dishonoured Return Entry).

3.7.3 CONTESTED DISHONOURED RETURN ENTRY DETAIL RECORD

NOTE: For Contested Dishonoured Return Entries, each field of the Entry Detail Record remains unchanged from the Dishonoured Return Entry, unless otherwise noted.

Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	М	•		This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	• <transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules See 6.1 for information.
3.	• <receivingbank> 1</receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	 <checkdigit>²</checkdigit> 	M	N	1	RT Check-digit
5.	• <dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer identification
6.	<amount></amount>	M	N	12	Amount in Poisha
7.	• <idnumber></idnumber>	0	AN	15	Originator-specified information
8.	• <receivername></receivername>	R	AN	22	Identity of the receiving company
9.	<discretionarydata></discretionarydata>	0	AN	2	OB-specified code.
10.	 <adrindicator></adrindicator> <tracenumber> ³</tracenumber> 	M M	N N	1 15	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present The first 8 digits are the first 8
					digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.

- 1. Changed to the Routing Number of the institution receiving the Contested Dishonored Return Entry (i.e., the OB of the Dishonored Return Entry).
- 2. Changed to the Check Digit calculated according to BEFTN Standards and based on the Routing Number contained in positions 04-11.
- 3. Changed to the Trace Number assigned by the institution preparing the Contested Dishonored Return Entry (i.e., the RB of the Dishonored Return Entry).





3.7.4 CONTESTED DISHONOURED RETURN ADDENDA RECORD

Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	М	••		This is the opening element of the Addenda Record. The closing tag for this element will be at the end of the Addenda Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per Addenda Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '99'
	<contesteddishouner edRRC></contesteddishouner 	M	AN	3	Contested Dishonoured Return Reason Code as specified in the BEFTN Rules
4.	• <originaltracenumbe r=""> 1</originaltracenumbe>	M	N	15	Trace number of the original entry.
5.	<originalreturndate></originalreturndate>	0	N	6	YYMMDD
6.	• <originalreceivingba nk> ²</originalreceivingba 	R	N	8	Original receiving bank RT number.
7.	• <originalsettlementd ate=""></originalsettlementd>	M	N	3	Julian date of original settlement
8.	<returntracenumber< li=""></returntracenumber<>	M	ANS	15	Return Trace Number
9.	<returnsettlementdat< li="">e></returnsettlementdat<>	M	N	3	Julian date of settlement
10.	• <returnreasoncode></returnreasoncode>	M	AN	2	Return Reason as specified in the BEFTN Rules (See Appendix 6.2)
11.	• <dishonouredrtn></dishonouredrtn>	M	N	15	Dishonoured Return Trace Number
12.	<dishonouredrsd></dishonouredrsd>	M	N	3	Dishonoured Return Settlement Date
13.	• <dishonouredrrc></dishonouredrrc>	M	AN	2	Dishonoured Return Reason Code
14.	• <tracenumber> 3</tracenumber>	M	N	15	Trace number of Entry

- 1. Copy data from <TraceNumber> of the Addenda Record of the Dishonoured Return Entry.
- 2. Copy data from <ReceivingBank> of the Addenda Record of the Dishonoured Return Entry.
- 3. For Automated Contested Dishonoured Returns, changed to reflect the new Trace Number found in <TraceNumber> of the Entry Detail Record or Corporate Entry Detail Record.





3.8 Corrected Return Entries

As specified in The Rules, a RB may generate a Corrected Return by creating a Contested Dishonoured Return with reason code "R74." The format is the same as that for other Contested Dishonoured Returns.

3.9 Adjustment Entry

Adjustment entries are utilized by a RB when, upon receiving notice from its Receiver that a debit entry was, in whole or part, unauthorized. The RB returns the erroneous entry to the OB.

Adjustment entries shall comply with the format and specifications for Return Entries, as specified in The Rules.

3.10 REVERSING FILE

File reversals can include an entire file or selected batches from a file. A reversing file shall only reverse the batches that were duplicate or erroneous.

The sub-element <CompanyEntryDesc> of each reversing Batch Header Record, <BHR>, must contain the word "REVERSAL" when the batch contains reversing entries.

3.10.1 REVERSING ENTRY

Reversing entries are provided for by returning the entry with an appropriate Return Reason Code.

3.11 NOTIFICATION OF CHANGE (NOC)

3.11.1 AUTOMATED NOTIFICATION OF CHANGE

3.11.1.1 BATCH HEADER RECORD < BHR>

NOTE: For Notification of Change Entries, each field of the Company/Batch Header Record remains unchanged from the original entry, unless otherwise noted.

Field	XML Element	Req	Type	Size	Description
1.	<bhr></bhr>	М	•		This is the opening element of the batch header record. The closing tag for this element will be at the end of the batch header record. Note: This tag is required in the XML document; however, it contains no data. This header element should only
2.	<serviceclasscode></serviceclasscode>	M	N	3	occur once per batch. As in BEFTN Rules





Field	XML Element	Req	Type	Size	Description
3.	<companyname></companyname>	M	AN	16	Entered by originator
4.	 <companydiscretionarydat< li=""> </companydiscretionarydat<>	0	AN	20	Entered by originator
5.	a> • <companyid></companyid>	M	AN	10	A unique identifier assigned by the OB to identify the originating company.
6.	• <secc> 1</secc>	M	AN	3	Standard Entry Class Code
7.	• <companyentrydesc> ²</companyentrydesc>	M	AN	10	Originator-specified description. As in BEFTN Rules for Reversals, Reclaims, and Non-settled batches.
8.	<companydescdate></companydescdate>	0	AN	6	Originator-specified descriptive date.
9.	• <effectiveentrydate></effectiveentrydate>	R	N	6	Originator-specified date that the originator expects the batch to be settled.
10.	<settlementjdate></settlementjdate>	M	N	3	Julian settlement date entered by BEFTN Operator
11.	 <origstatuscode> 3</origstatuscode> 	M	AN	1	As in BEFTN Rules
12.	• <0rigBank> ⁴	M	RT	8	Originating bank RT without the check digit
13.	• <batchnumber> 5</batchnumber>	M	N	7	Ascending number assigned by OB

- 1. Contains 'COR' for all Notification of Change Entries.
- 2. May contain the identification of the BEFTN converting the entry.
- 3. Changed to reflect the Originator Status Code of the institution initiating the Notification of Change Entry (i.e., the RB of the original entry).
- 4. Changed to reflect the Routing Number of the institution initiating the Notification of Change Entry.
- 5. Changed to the batch number assigned by the institution preparing the Automated Notification of Change Entry.

3.11.1.2 CORPORATE ENTRY DETAIL RECORD < EDR>

NOTE: For Notification of Change Entries, each field of the Corporate Entry Detail Record remains unchanged from the original entry, unless otherwise noted.

Field	XML Element	Reg	Type	Size	Description
1.	<edr></edr>	M	урс	SIEC	This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	• <transactioncode> 1</transactioncode>	M	N	2	As specified in BEFTN Rules. See 6.1 for information.





Field	XML Element	Req	Type	Size	Description
3.	• <receivingbank> ²</receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	 <checkdigit>³</checkdigit> 	M	N	1	RT Check-digit
5.	• <dfiaccountnum></dfiaccountnum>	R	AN	17	The RB's customer identification
6.	<amount></amount>	M	N	12	Shall be zero-filled.
7.	• <idnumber></idnumber>	0	AN	15	Originator-specified information
8.	<adrcount></adrcount>	M	N	4	Number of Addenda Records
9.	<beftndata></beftndata>	0	AN	1	BEFTN-specified information
10	 <receivingcompanyid></receivingcompanyid>	R	AN	16	Receiving company identification
11	<discretionarydata></discretionarydata>	0	AN	2	Originator-entered information
12	• <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
13	• <tracenumber> 4</tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.

- 1. Changed to the appropriate Transaction Code.
- 2. Changed to the Routing Number of the institution receiving the Notification of Change Entry.
- 3. Changed to the Check Digit calculated according to BEFTN standards and based on the <ReceivingBank> Routing Number.
- 4. Changed to the Trace Number assigned by the institution preparing the Automated Notification of Change Entry.

3.11.1.3 ENTRY DETAIL RECORD < EDR>

NOTE: For Notification of Change Entries, each field of the Entry Detail Record remains unchanged from the original entry, unless otherwise noted.

Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	M			This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it
					contains no data. This control element should only occur once per entry.
2.	• <transactioncode> 1</transactioncode>	M	N	2	As specified in BEFTN Rules. See 6.1 for information.
3.	• <receivingbank> ²</receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	 <checkdigit>³</checkdigit> 	M	N	1	RT Check-digit





Field	XML Element	Req	Type	Size	Description
5.	<dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer
					identification
6.	<amount></amount>	M	N	12	Shall be zero-filled
7.	 <individualid>⁴</individualid> 	0	AN	15	As specified in BEFTN Rules.
8.	 <individualname> ⁴</individualname> 	R	AN	22	Entered by originator to
					identify the receiver.
9.	<discretionarydata></discretionarydata>	0	AN	2	Originator-entered information
10.	<adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules
					0 – No Addenda Records
					present
					1 – Addenda Records are
					present
11.	• <tracenumber> 5</tracenumber>	M	N	15	The first 8 digits are the first
					eight digits of the OB routing
					number, the next 7 digits are
					assigned by the OB in
					ascending sequence.

- 1. Changed to the appropriate Notification of Change Entry Transaction Code. (See Transaction Codes under currently assigned "Code Values" in Appendix Two.)
- 2. Changed to the Routing Number of the institution receiving the Notification of Change Entry (i.e., the OB of the original entry).
- 3. Changed to the Check Digit calculated according to BEFTN standards and based on the Routing Number contained in positions 04-11.
- 4. For CIE entries, <IndividualID> is used for a 15 character Individual Name, and <IndividualName> used for a 22 character Individual Identification Number.
- 5. Changed to the Trace Number assigned by the institution preparing the Automated Notification of Change Entry.

3.11.1.4 ADDENDA RECORD < ADR >

Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	M			This is the opening element of
					the Addenda Record.
					The closing tag for this element
					will be at the end of the
					Addenda Record.
					Note: This tag is required in the
					XML document; however, it
					contains no data.
					This control element should
					only occur once per Addenda
					Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '98'
3.	<changecode></changecode>	M	AN	3	As specified in the BEFTN Rules
4.	 <originalentrytn> ¹</originalentrytn> 	M	N	15	Original Entry Trace Number
5.	 <originalreceivingba< li=""> </originalreceivingba<>	M	N	8	Original bank RT.
	nk> 2				-
6.	<correcteddata></correcteddata>	M	AN	30	As specified in the BEFTN Rules





Field	XML Element	Req	Type	Size	Description
7.	• <addendaseqnum></addendaseqnum>	M	N	4	Sequence number of the ADR for the associated EDR. Assigned sequentially from 1.
8.	• <entrydetailseqnum></entrydetailseqnum>	M	N	7	As specified in the BEFTN Rules. The rightmost 7 digits of the EDR trace number.

- 1. Copy data from <TraceNumber> of the Entry Detail Record or Corporate Entry Detail Record.
- 2. Copy data from <ReceivingBank> of the original Entry Detail Record (the RB's Routing Number).

3.12 REFUSED NOTIFICATION OF CHANGE

3.12.1 BATCH HEADER RECORD < BHR>

NOTE: For Refused NOC Entries, each field of the Company/Batch Header Record remains unchanged from the NOC entry, unless otherwise noted.

Field	XML Element	Req	Type	Size	Description
1.	<bhr></bhr>	М			This is the opening element of the batch header record. The closing tag for this element will be at the end of the batch header record. Note: This tag is required in the XML document; however, it contains no data. This header element should only occur once per batch.
2.	 <serviceclasscode></serviceclasscode> 	M	N	3	As in BEFTN Rules
3.	<companyname></companyname>	M	AN	16	Entered by originator
4.	• <companydiscretionarydat< td=""><td>0</td><td>AN</td><td>20</td><td>Entered by originator</td></companydiscretionarydat<>	0	AN	20	Entered by originator
	a>				
5.	• <companyid></companyid>	M	AN	10	A unique identifier assigned by the OB to identify the originating company.
6.	• <secc></secc>	M	AN	3	Standard Entry Class Code
7.	• <companyentrydesc></companyentrydesc>	M	AN	10	Originator-specified description. As in BEFTN Rules for Reversals, Reclaims, and Non-settled batches.
8.	<companydescdate></companydescdate>	0	AN	6	Originator-specified descriptive date.
9.	• <effectiveentrydate></effectiveentrydate>	R	N	6	Originator-specified date that the originator expects the batch to be settled.
10.	• <settlementjdate></settlementjdate>	M	N	3	Julian settlement date entered by BEFTN Operator
11.	• <origstatuscode> 1</origstatuscode>	M	AN	1	As in BEFTN Rules
12.	• <origbank> ²</origbank>	M	RT	8	Originating bank RT without the check digit





Field	X	ML Element	Req	Type	Size	Description
13.	•	<batchnumber> 3</batchnumber>	M	N	7	Ascending number assigned by
						OB

- 1. Changed to reflect the Originator Status Code of the institution initiating the Refused NOC Entry (i.e., the RB of the NOC Entry).
- 2. Changed to reflect the Routing Number of the institution initiating the Refused NOC Entry (i.e., the RB of the NOC Entry).
- 3. Changed to the Batch Number assigned by the institution preparing the Refused NOC Entry.

3.12.2 CORPORATE ENTRY DETAIL RECORD < EDR>

NOTE: For Refused NOC Entries, each field of the Corporate Entry Detail Record remains unchanged from the NOC entry, unless otherwise noted.

	ilanis unchangeu ironi un				
Fld	XML Element	Req	Type	Size	Description
1.	<edr></edr>	M			This is the opening element of the Entry Detail Record. The closing tag for this element will be at the end of the Entry Detail Record. Note: This tag is required in the XML document; however, it contains no data. This control element should only occur once per entry.
2.	• <transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules. See 6.1 for information.
3.	• <receivingbank> 1</receivingbank>	M	RT	8	Receiving bank RT without the check digit
4.	 <checkdigit>²</checkdigit> 	M	N	1	RT Check-digit
5.	• <dfiaccountnum></dfiaccountnum>	R	AN	17	The RB's customer identification
6.	• <amount></amount>	M	N	12	Shall be zero-filled.
7.	• <idnumber></idnumber>	0	AN	15	Originator-specified information
8.	<adrcount></adrcount>	M	N	4	Number of Addenda Records
9.	<beftndata></beftndata>	0	AN	1	BEFTN-specified information
10	 <receivingcompanyid></receivingcompanyid>	R	AN	16	Receiving company identification
11	<discretionarydata></discretionarydata>	0	AN	2	Originator-entered information
12	• <adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules 0 – No Addenda Records present 1 – Addenda Records are present
13	• <tracenumber> ³</tracenumber>	M	N	15	The first 8 digits are the first 8 digits of the OB routing number, the next 7 digits are assigned by the OB in ascending sequence.





- 1. Changed to the Routing Number of the institution receiving the Refused NOC Entry (i.e., the OB of the NOC Entry).
- 2. Changed to the Check Digit calculated according to BEFTN standards and based on the Routing Number contained in positions 04-11.
- 3. Changed to the Trace Number assigned by the institution preparing the Refused NOC Entry (i.e., the RB of the NOC entry).

3.12.3 ENTRY DETAIL RECORD < EDR>

NOTE: For Refused NOC Entries, each field of the Entry Detail Record remains unchanged from the original entry, unless otherwise noted.

Field	XML Element	Req	Type	Size	Description
1.	<edr></edr>	M			This is the opening element of
					the Entry Detail Record.
					The closing tag for this element
					will be at the end of the Entry
					Detail Record.
					Note: This tag is required in the
					XML document; however, it
					contains no data.
					This control element should
_				_	only occur once per entry.
2.	<transactioncode></transactioncode>	M	N	2	As specified in BEFTN Rules.
			D.M.		See 6.1 for information.
3.	 <receivingbank>¹</receivingbank> 	M	RT	8	Receiving bank RT without the
		3.6	N.T.	4	check digit
	• <checkdigit> ²</checkdigit>	M	N	1	RT Check-digit
5.	<dfiaccountnum></dfiaccountnum>	R	AN	15	The RB's customer
_			NT	10	identification
6.	• <amount></amount>	M	N	12	Shall be zero-filled
7.	• <individualid></individualid>	0	AN	15	As specified in BEFTN Rules.
8.	<individualname></individualname>	R	AN	22	Entered by originator to
0	5 1 .1 5 .	0	4.37	0	identify the receiver.
	 <discretionarydata></discretionarydata> 	0	AN	2	Originator-entered information
10.	<adrindicator></adrindicator>	M	N	1	As specified in BEFTN Rules
					0 – No Addenda Records
					present
					1 – Addenda Records are
11	The New Land	M	NI	1 5	present
11.	• <tracenumber> 3</tracenumber>	M	N	15	The first 8 digits are the first 8
					digits of the OB routing
					number, the next 7 digits are
					assigned by the OB in
					ascending sequence.

- 1. Changed to the Routing Number of the institution receiving the Refused NOC Entry (i.e., the OB of the NOC Entry).
- 2. Changed to the Check Digit calculated according to BEFTN standards and based on the Routing Number contained in positions 04-11.
- 3. Changed to the Trace Number assigned by the institution preparing the Refused NOC Entry (i.e., the RB of the NOC Entry).





3.12.3.1 ADDENDA RECORD < ADR >

NOTE: This record format should only be used in the refusal of a Notification of Change Entry.

r: .l.J	VMI Flores	D	Т	C:	December
Field	XML Element	Req	Type	Size	Description
1.	<adr></adr>	M			This is the opening element of
					the Addenda Record.
					The closing tag for this element
					will be at the end of the
					Addenda Record.
					Note: This tag is required in the
					XML document; however, it
					contains no data.
					This control element should
					only occur once per Addenda
					Record.
2.	<addendatypecode></addendatypecode>	M	N	2	Shall contain '98'
3.	<refusedcorcode></refusedcorcode>	M	AN	3	As specified in the BEFTN Rules
4.	 <originalentrytn>¹</originalentrytn> 	M	N	15	Original Entry Trace Number
5.	• <originalreceivingba< th=""><th>M</th><th>N</th><th>8</th><th>Original bank RT.</th></originalreceivingba<>	M	N	8	Original bank RT.
	nk> 2				-
6.	<correcteddata></correcteddata>	M	AN	30	As specified in the BEFTN Rules
7.	<changecode></changecode>	M	N	3	As specified in the BEFTN Rules
8.	• <cortraceseqnum> 3</cortraceseqnum>	M	N	7	•

The File, Batch, and Entry Detail record formats of an Automated Refused Notification of Change are the same as an Automated Notification of Change with the exception of the Addenda Record.

- 1. Copy data from positions 07-21 of the Addenda Record of the original Notification of Change.
- 2. Copy data from positions 04-06 of the Addenda Record of the original Notification of Change.
- 3. The rightmost seven digits from the <TraceNumber> from the original NOC.





4 ARCHIVE

All EFT transactions processed on behalf of member banks will be sent for long-term storage at the Central Archive of BACH, which is provided by the BEFTN Central Archive (BCA).

Items stored in BCA, are only accessible by the member bank that processed those items and sent them to BEFTN or received them from BEFTN.

BACH will have access to all items in the Central Archive.

4.1 Archive Storage and Retrieval

The information to be stored in the long-term archive will include the information for each EFT entry and any required general information. General information that will also be archived and available for use in retrieval includes:

- Business Date
- Originating Bank Routing Number

The following table summarises the source fields from the ECE for the data to be held in the archive.

4.1.1 FILE

Source	Field Id
<fhr></fhr>	<prioritycode></prioritycode>
<fhr></fhr>	<immediatedestination></immediatedestination>
<fhr></fhr>	<immediateorigin></immediateorigin>
<fhr></fhr>	<creationdate></creationdate>
<fhr></fhr>	<creationtime></creationtime>
<fhr></fhr>	<fileidmodifier></fileidmodifier>
<fhr></fhr>	<formatcode></formatcode>
<fhr></fhr>	<immediatedestinationname></immediatedestinationname>
<fhr></fhr>	<immediateoriginname></immediateoriginname>
<fhr></fhr>	<referencecode></referencecode>
<fcr></fcr>	<batchcount></batchcount>
<fcr></fcr>	<entryaddendacount></entryaddendacount>
<fcr></fcr>	<entryhash></entryhash>
<fcr></fcr>	<debitamount></debitamount>
<fcr></fcr>	<creditamount></creditamount>

4.1.2 BATCH

Source	Field Id
<bhr></bhr>	<serviceclasscode></serviceclasscode>
<bhr></bhr>	<companyname></companyname>
<bhr></bhr>	<companydiscretionarydata></companydiscretionarydata>
<bhr></bhr>	<companyid></companyid>
<bhr></bhr>	<secc></secc>
<bhr></bhr>	<companyentrydesc></companyentrydesc>
<bhr></bhr>	<companydescdate></companydescdate>





Source	Field Id
<bhr></bhr>	<effectiveentrydate></effectiveentrydate>
<bhr></bhr>	<settlementjdate></settlementjdate>
<bhr></bhr>	<origstatuscode></origstatuscode>
<bhr></bhr>	<0rigBank>
<bhr></bhr>	<batchnumber></batchnumber>
<bcr></bcr>	<totaldebitamount></totaldebitamount>
<bcr></bcr>	<totalcreditamount></totalcreditamount>
<bcr></bcr>	<companyid></companyid>
<bhr> <bhr> <bcr> <bcr></bcr></bcr></bhr></bhr>	<0rigBank> <batchnumber> <totaldebitamount> <totalcreditamount></totalcreditamount></totaldebitamount></batchnumber>

4.1.3 Entry

Source	Field Id
<edr></edr>	<transactioncode></transactioncode>
<edr></edr>	<tracenumber></tracenumber>
<edr></edr>	<receivingbank></receivingbank>
<edr></edr>	<checkdigit></checkdigit>
<edr></edr>	<dfiaccountnum></dfiaccountnum>
<edr></edr>	<amount></amount>
<edr></edr>	<advicert></advicert>
<edr></edr>	<fileid></fileid>
<edr></edr>	<beftndata></beftndata>
<edr></edr>	<receivername></receivername>
<edr></edr>	<discretionarydata></discretionarydata>
<edr></edr>	<adrindicator></adrindicator>
<edr></edr>	<beftn_rt></beftn_rt>
<edr></edr>	<creationjdate></creationjdate>
<edr></edr>	<seqnum></seqnum>

4.1.4 ADDENDA RECORD

Source	Field Id
<adr></adr>	<addendatypecode></addendatypecode>
<adr></adr>	<tracenumber></tracenumber>
<adr></adr>	<paymentinfo></paymentinfo>
<adr></adr>	<addendaseqnum></addendaseqnum>
<adr></adr>	<entrydetailseqnum></entrydetailseqnum>
<adr></adr>	<returnreason></returnreason>
<adr></adr>	<dishonouredreturnreason></dishonouredreturnreason>
<adr></adr>	<originaltracenumber> (Returns)</originaltracenumber>
<adr></adr>	<addendainformation> (Returns)</addendainformation>
<adr></adr>	<originalreceivingbank> (Returns)</originalreceivingbank>
<adr></adr>	<returntracenumber> (Returns)</returntracenumber>
<adr></adr>	<returnsettlementdate> (Returns)</returnsettlementdate>
<adr></adr>	<addendainformation> (Returns)</addendainformation>
<adr></adr>	<returntracenumber> (Returns)</returntracenumber>

4.2 STORAGE

The stored information used as key index information for optimal retrieval is as follows:

- Business Date
- Originator Routing Number
- Receiver Routing Number





- Trace Numbers
- Amount
- SEC Code
- Return Reason

4.3 RETRIEVAL

Retrieval of archived information can be done by suitably authorised operators using workstations attached directly to the AIA network or by remote workstations with appropriate authority and operator authorisation to access the archive using standard browsers via the BACH intranet, or via the Internet with BACH authorisation and validation.





5 REPORTS

Operational and management reports will be provided by the BEFTN system at the end of the business day. When appropriate, selected reports may be provided on demand.

Reports will include the following:

Summary of all files received

- Creation Date
- Creation Time
- Origin Routing Number
- Origin Name
- Reference Code
- Batch Count
- Entry / Addenda Count
- Total Debit Amount
- Total Credit Amount

File Detail (Summary of all batches in the file)

- Specific File Details followed by batch summary (per batch)
 - o Batch Number
 - o Service Class Code
 - o Company Name
 - o Company ID
 - o Company Entry Description
 - o Effective Entry Date
 - o Settlement Date
 - o Originator Routing Number
 - o Entry / Addenda Count
 - o Total Debit Amount
 - o Total Credit Amount

Batch Detail

- Specific Batch Summary followed by entry details (per entry)
 - o Trace Number
 - o Transaction Code





- o Receiver Routing Number (including check-digit)
- o Receiver Account Number
- o Receiver Name
- o Receiver ID
- o Amount
- Addenda Details (if any)
 - Addenda Sequence
 - Payment Information (if any)
- o Return Addenda Details (if any)
 - Trace Number
 - Return Reason Code
 - Original Trace Number
 - Original Receiver Routing Number
 - Addenda Information (if any)
- o Dishonoured Return Addenda Details (if any)
 - Return Trace Number
 - Dishonoured Return Reason Code
 - Original Trace Number
 - Original Receiver Routing Number
 - Receiver Account number
 - Return Reason Code
- o Dishonoured Return Addenda Details (if any)
 - Return Trace Number
 - Contested Dishonoured Return Reason Code
 - Original Trace Number
 - Original Receiver Routing Number
 - Receiver Account number
 - Return Reason Code

Summary of all files rejected

- Creation Date
- Creation Time
- Origin Routing Number
- Origin Name
- Reference Code





- Batch Count
- Entry / Addenda Count
- Total Debit Amount
- Total Credit Amount
- Reject Reason

Reject Batch Detail (Summary of all rejected batches in the file)

- Specific File Details followed by batch summary (per batch)
 - o Batch Number
 - o Service Class Code
 - o Company Name
 - o Company ID
 - o Company Entry Description
 - o Effective Entry Date
 - o Settlement Date
 - o Originator Routing Number
 - o Entry / Addenda Count
 - o Total Debit Amount
 - o Total Credit Amount
 - o Reject Reason

Summary of file distribution

- Distribution Date
- Distribution Time
- Origin Routing Number
- Origin Name
- Reference Code
- Batch Count
- Entry / Addenda Count
- Total Debit Amount
- Total Credit Amount

Settlement Report

• Summary settlement position for each bank





6 APPENDICES

6.1 Transaction Codes

The tables of transaction codes are extracted from the compatible version of the Rules [2] and included in this document for convenience.

Record Format Location: Entry Detail Record

- Current Credit Records (Current Deposit Accounts)
- Current Debit Records (Current Deposit Accounts)

Demand Debit Records

25	Reserved
26	Automated Return or Notification of Change for original transaction code 27, 28, or 29
27	Automated Payment
29	Zero dollar with remittance data (for CCD and CTX entries only)

Savings Account Credit Records

30	Reserved
31	Automated Return or Notification of Change for original transaction code 32, 33, or 34
32	Automated Deposit

Savings Account Debit Records

35	Reserved
36	Automated Return or Notification of Change for original transaction code 37, 38, or 39
37	Automated Payment





Financial Institution General Ledger Credit Records

- Automated Return or Notification of Change for original transaction code 42, 43, or 44
- 42 Automated General Ledger Deposit (Credit)

Loan Account Credit Records

- Automated Return or Notification of Change for original transaction code 52, 53, or 54
- 52 Automated Loan Account Deposit (Credit)

Loan Account Debit Records (for Reversals Only)

- Automated Loan Account Debit (Reversals Only)
- Automated Return or Notification of Change for original transaction code 55

Automated Accounting Records (for use in ADV files only)

These transaction codes represent accounting entries and not actual BEFTN transactions.

81	Credit for BEFTN debits originated
82	Debit for BEFTN credits originated
83	Credit for BEFTN credits received
84	Debit for BEFTN debits received
85	Credit for BEFTN credits in rejected batches
86	Debit for BEFTN debits in rejected batches
87	Summary credit for respondent BEFTN activity

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Summary debit for respondent BEFTN activity





6.2 RETURN REASON CODES

The tables of return reason codes are extracted from the compatible version of the Rules [2] and included in this document for convenience.

Codes To Be Used by the RB for Return Entries

R01	Insufficient Funds
R02	Account Closed
R03	No Account/Unable to Locate Account
R04	Invalid Account Number
R05	Unauthorized Debit to Consumer Account Using Corporate SEC Code (adjustment entries)
R06	Returned per OB's Request
R07	Authorization Revoked by Customer (adjustment entries)
R08	Payment Stopped
R09	Uncollected Funds
R10	Customer Advises Not Authorized
R11	Reserved
R12	Branch Sold to Another Bank
R14	Representative Payee Deceased or Unable to Continue in that Capacity
R15	Beneficiary or Account Holder (Other Than a Representative Payee) Deceased
R16	Account Frozen
R17	File Record Edit Criteria (Specify)
R20	Non-Transaction Account
R21	Invalid Company Identification
R22	Invalid Individual ID Number
R23	Credit Entry Refused by Receiver
R24	Duplicate Entry





Codes To Be Used by the RB for Return Entries

R29 Corporate Customer Advises Not Authorized

BEFTN Operator Returns

R13	RB Not Qualified to Participate
R18	Improper Effective Entry Date
R19	Amount Field Error
R25	Addenda Error
R26	Mandatory Field Error
R27	Trace Number Error
R28	Routing Number Check Digit Error
R30	RB Not Participant in Check Truncation Program
R32	RB Non-Settlement
R34	Return of Improper Debit Entry
R35	Return of Improper Credit Entry

6.3 TABLES OF CHANGE CODES

The tables of change codes are extracted from the compatible version of the Rules [2] and included in this document for convenience.

6.3.1 Notification of Change Codes

Code	Meaning
C01	Incorrect Bank Account Number
C02	Incorrect Routing Number
C03	Incorrect Routing Number and Incorrect Bank Account Number
C04	Incorrect Individual Name/Receiving Company Name





Code	Meaning
C05	Incorrect Transaction Code
C06	Incorrect Bank Account Number and Incorrect Transaction Code
C07	Incorrect Routing Number, Incorrect Bank Account Number, and Incorrect Transaction Code
C08	Reserved
C09	Incorrect Individual Identification Number
C13	Addenda Format Error

6.3.2 REFUSED NOTIFICATION OF CHANGE CODES

Change codes C61-C69 are only to be used when refusing a Notification of Change:

Code	Meaning
C61	Misrouted Notification of Change
C62	Incorrect Trace Number
C63	Incorrect Company Identification Number
C64	Incorrect Individual Identification Number/Identification Number
C65	Incorrectly Formatted Corrected Data
C66	Incorrect Discretionary Data
C67	Routing Number Not From Original Entry Detail Record
C68	Bank Account Number Not From Original Entry Detail Record
C69	Incorrect Transaction Code