

DETAILED ISO8583 MESSAGE SPECIFICATIONS

FOR

NPSB

v2.8



Version History

Version	Description
2.0	<p>Restructured document with TakaPay project. This document is a consolidation of existing NPSB specifications:</p> <ul style="list-style-type: none">• Detailed ISO8583 Message v1.19,• MFS Detailed ISO8583 Message v1.09,• Bangla QR Detailed ISO8583 Message v1.04. <p>There are additional fields to be in place in card-based transactions:</p> <ul style="list-style-type: none">• DE05, Settlement Amount,• DE19, Acquiring Country Code,• DE25, POS Condition Code,• DE38, Authorization Code. <p>There new transaction types defined in the specification:</p> <ul style="list-style-type: none">• Purchase with Cashout,• Purchase refund,• Preauthorization and Its Completion.
2.1	Added TakaPay logo
2.2	<p>Added Timeout and Reversal Handling section.</p> <p>Added POS PreAuthorization and POS PreAuthorization Completion diagram</p> <p>Readjustment based to structure and contents.</p>
2.3	<p>Added 2 New Transactions:</p> <ul style="list-style-type: none">• Transaction Status Inquiry• Request to Pay Transaction
2.4	<p>Added DE46 for Key Exchange</p> <p>Added explanation of ATMFT03 and KIOSKFT03 transaction scenario explanation</p>
2.5	<p>Updated specification of Transaction Status Inquiry and Request to Pay Transaction.</p> <p>Fixed duplicated DE38.</p> <p>Added new sub-elements on DE47 with field sub-elements section:</p> <ul style="list-style-type: none">• PDS925 External Network Reference• PDS962 Original Credit Response Code• PDS963 Original Acquiring Institution ID <p>Added DE50 specification for all transaction types.</p> <p>Updated tag D3 on DE112 with field sub-elements section with Transaction Status Inquiry and Request to Pay transaction values.</p>
2.6	<p>Added NPSB logo.</p> <p>Updated some of the "C" for "conditional" to "O" for "optional" in the message tables.</p> <p>Updated DE46, DE47, and DE48 in message tables by breaking down the data elements into main fields and subfields in the message tables.</p> <p>Added explanation on DE46 in Key Exchange Message table.</p> <p>Updated the Transaction Status Inquiry flow by removing the new credit financial record flow for successful credit transaction and adding reversal document flow for unsuccessful credit transaction.</p> <p>Updated the specification of POS Preauthorization and POS Preauthorization Completion message specifications.</p> <p>Updated DE5 and DE50 field option in message specifications.</p>



	<p>Updated DE18 sample value in message specifications.</p> <p>Updated DE35 field option and sample value in message specifications.</p> <p>Updated DE112 sample data in ATMFT03 Credit message.</p> <p>Updated DE112 sample data in POS Purchase Refund message.</p> <p>Updated DE128 (MAC) to use 16-digits MAC from HSM.</p> <p>Added new field presentation options, "/" and its explanation.</p>
2.7	<p>Added DE19 specification in message response specifications.</p> <p>Added DE46.60 (tag 760) for Request to Pay's sender name.</p> <p>Added DE48.32 (tag 832) in private fields explanation.</p>
2.8	<p>Added "Common Fields in NPSB" section.</p> <p>Added "Fields For Matching to Request/Original Message" section.</p> <p>Modified Inter Bank (via Over the Counter) Funds Transfer (Credit) message specification</p> <p>Modified DE3.1 of POS PreAuthorization from 51 to 00.</p> <p>Modified POS Purchase Refund sample and explanation.</p> <p>Removed DE47 specification in ATMFT02 message response specification.</p> <p>Added DE38 and DE48.48 to MFS message specification.</p> <p>Modified the explanation of Transaction Status Inquiry.</p> <p>Modified Request To Pay specification to be able to support card to card, card to account, account to card, and account to account transaction.</p> <p>Modified DE5, DE50, and DE103 specification.</p> <p>Added DE48.48 specification to transaction with DE103.</p>

Contents

I.	INTRODUCTION	9
A.	About this Document	9
B.	Audience.....	9
C.	The Structure of This Document.....	9
II.	HIGH LEVEL ARCHITECTURE OF NPSB.....	10
III.	ISO8583 MESSAGE FORMAT DESCRIPTION	11
A.	Message Format Structure.....	11
B.	Message Header.....	11
C.	MTI.....	11
D.	Bitmap.....	11
E.	Data Element Value Format	12
F.	Processing Code of Transaction Type	13
G.	Field Presentation Options.....	14
H.	Common Fields In NPSB.....	14
1.	Field Value of DE22.....	14
2.	Field Value of DE25.....	15
3.	Response Code Value of DE39.....	16
4.	Additional Amount Information Structure of DE54.....	16
5.	Message Authentication Code (MAC) in DE128	17
I.	Proprietary Fields In NPSB	17
1.	DE46 With Field Sub-elements	17
2.	DE47 With Field Sub-elements.....	18
3.	DE48 With Field Sub-elements.....	19
4.	DE112 With Field Sub-elements	19
5.	DE125 Mini Statement Information.....	22
J.	Fields For Matching to Request/Original Message	22
IV.	KEY MANAGEMENT	22
	Key Exchange Process of ZAK/ZPK	23
1.	Solicitation Message.....	23
2.	Key Exchange Message	24
V.	NETWORK MANAGEMENT MESSAGE	25
A.	Network Management Message – Sign On.....	25
1.	Network Management Sign On Flow.....	25
2.	Sign On Message.....	25
B.	Network Management Message – Sign Off	26
1.	Network Management Sign Off Flow	26
2.	Sign Off Message	26



C.	Network Management Message – Echo Test.....	27
1.	Network Management Echo Test Flow	27
2.	Echo Test Message	27
VI.	TRANSACTION MESSAGE FLOW AND DEFINITION.....	28
A.	Inter Bank (via Over the Counter) Funds Transfer (Credit).....	28
1.	Funds Transfer Transaction via OTC Flow.....	28
2.	Credit Message to NPSB	28
B.	ATM Funds Transfer (ATMFT01).....	31
1.	ATM Funds Transfer Debit Transaction Flow	31
2.	Debit Message to NPSB.....	31
C.	ATM Funds Transfer (ATMFT02).....	33
1.	ATM Funds Transfer Credit Transaction Flow	33
2.	Credit Message to NPSB	33
D.	ATM Funds Transfer (ATMFT03).....	36
1.	ATM Funds Transfer Debit and Credit (Sent Separately) Transaction Flow	36
2.	Debit Message to NPSB	36
3.	Credit Message to NPSB	38
E.	ATM Cash Withdrawal.....	40
1.	ATM Cash Withdrawal Transaction Flow.....	40
2.	Debit Message to NPSB	40
F.	ATM Cash Deposit	42
1.	ATM Cash Deposit Transaction Flow	42
2.	Credit Message to NPSB	42
G.	ATM Mini Statements.....	44
1.	ATM Mini Statements Transaction Flow	44
2.	Mini Statements Message to NPSB	44
H.	ATM Balance Inquiry.....	46
1.	ATM Balance Inquiry Transaction Flow	46
2.	Balance Inquiry Message to NPSB	46
I.	ATM Bill Payment (ATMBP01).....	48
1.	ATM Bill Payment Transaction Flow	48
2.	Credit Message to NPSB	48
J.	ATM Bill Payment (ATMBP02).....	51
1.	ATM Bill Payment Transaction Flow	51
2.	Debit Message to NPSB	51
K.	POS Cash Advance (Cashout)	53
1.	POS Cash Advance Transaction Flow	53
2.	Debit Message to NPSB	53
L.	POS Bill Payment	55
1.	POS Bill Payment Transaction Flow	55
2.	Debit Message to NPSB	55
M.	POS Preauthorization	57
1.	POS Preauthorization Transaction Flow	57
2.	POS Preauthorization Message to Block Funds of Cardholder.....	57



N.	POS Preauthorization Completion	60
1.	POS Preauthorization Completion Transaction Flow	60
2.	Debit Message to NPSB (Completion of Preauthorization transaction)	60
O.	POS Retail Purchase.....	63
1.	POS Retail Purchase Transaction Flow	63
2.	Debit Message to NPSB	63
P.	POS Retail Purchase with Cashout.....	65
1.	POS Retail Purchase with Cashout Transaction Flow	65
2.	Debit Message to NPSB	65
Q.	POS Purchase Refund	67
1.	Purchase Refund Transaction Flow	67
2.	Credit Message to NPSB	67
R.	Kiosk Funds Transfer (KIOSKFT01)	69
1.	Kiosk Funds Transfer Transaction Flow	69
2.	Debit Message to NPSB	69
S.	Kiosk Funds Transfer (KIOSKFT02)	71
1.	Kiosk Funds Transfer Transaction Flow	71
2.	Credit Message to NPSB.....	71
T.	Kiosk Funds Transfer (KIOSKFT03)	74
1.	Kiosk Funds Transfer Debit and Credit (Sent Separately) Transaction Flow	74
2.	Debit Message to NPSB.....	74
3.	Credit Message to NPSB.....	76
U.	Kiosk Mini Statement	78
1.	Kiosk Mini Statement Transaction Flow	78
2.	Mini Statement Message to NPSB	78
V.	Kiosk Balance Inquiry.....	80
1.	Kiosk Balance Inquiry Transaction Flow	80
2.	Balance Inquiry Message to NPSB	80
W.	Kiosk Bill Payment (KIOSKBP01)	82
1.	Kiosk Bill Payment Transaction Flow	82
2.	Credit Message to NPSB	82
X.	Kiosk Bill Payment (KIOSKBP02)	85
1.	Kiosk Bill Payment Transaction Flow	85
2.	Debit Message to NPSB	85
Y.	Mobile Banking Funds Transfer	87
1.	Mobile Banking Funds Transfer Transaction Flow	87
2.	Credit Message to NPSB.....	87
Z.	Mobile Banking Bill Payment	90
1.	Mobile Banking Bill Payment Transaction Flow	90
2.	Credit Message to NPSB.....	90
AA.	Mobile Banking Retail Purchase	92
1.	Mobile Banking Retail Purchase Transaction Flow	92
2.	Credit Message to NPSB.....	92
BB.	E-Commerce Bill Payment.....	94



1.	E-Commerce Bill Payment Transaction Flow	94
2.	Debit Message to NPSB.....	94
CC.	E-Commerce Retail Purchase.....	97
1.	E-Commerce Retail Purchase Transaction Flow	97
2.	Debit Message to NPSB.....	97
DD.	Internet Banking Funds Transfer (Credit)	100
1.	Internet Banking Funds Transfer Transaction Flow.....	100
2.	Credit Message to NPSB.....	100
EE.	Internet Banking Bill Payment.....	103
1.	Internet Banking Bill Payment Transaction Flow.....	103
2.	Credit Message to NPSB.....	103
FF.	MFS Funds Transfer – MFS Account to MFS Account/Wallet-to-Wallet (Credit Message Only) .	105
1.	MFS Funds Transfer Account/Wallet-to-Wallet Transaction Flow	105
2.	Credit Message to NPSB	106
GG.	MFS Funds Transfer – Cards to MFS Wallet Account (Credit Message Only).....	108
1.	MFS Funds Transfer Card-to-Wallet Transaction Flow.....	108
2.	Credit Message to NPSB	108
HH.	MFS Funds Transfer – MFS Wallet Account to Cards (Credit Message Only).....	111
1.	MFS Fund Transfer - Wallet to Card Transaction Flow	111
2.	Credit Message to NPSB	111
II.	MFS Funds Transfer – Bank Account to MFS Wallet Account (Credit Message Only)	113
1.	MFS Funds Transfer - Bank Account to Wallet Transaction Flow	113
2.	Credit Message to NPSB	113
JJ.	MFS Funds Transfer – MFS Wallet Account to Bank Account (Credit Message Only)	116
1.	MFS Funds Transfer - Wallet to Bank Account	116
2.	Credit Message to NPSB	116
KK.	MFS Merchant Payment (Credit Message Only)	119
1.	MFS Merchant Payment Transaction Flow.....	119
2.	Credit Message to NPSB	120
LL.	Bangla QR Merchant Payment (Credit Message Only)	122
1.	Bangla QR Merchant Payment Transaction Flow	122
2.	Credit Message to NPSB	122
MM.	Transaction Status Inquiry (TSI)	125
1.	Transaction Status Inquiry Flow	125
2.	Inquiry Status Message to NPSB.....	126
NN.	Request to Pay (RTP) Transaction	128
1.	Request to Pay Transaction Flow	128
2.	Order Request Message to NPSB (Flow No. 1 to No. 6)	129
3.	Credit Message to NPSB (Flow No. 7 to No. 12).....	130
VII.	TRANSACTION TIMEOUT AND REVERSAL HANDLING	133
A.	TIMEOUT PARAMETER	133
B.	ISSUER SIDE TIMEOUT	133
1.	NPSB Failed to Forward Request Message	133



2. Issuer Message Validation Failure at NPSB	134
3. No Response Message from Issuer.....	134
C. ACQUIRER SIDE TIMEOUT	135
1. Failure To Send Request Message to NPSB	135
2. Failure in Message Validation at NPSB	135
3. NPSB Has Not Receive Request Message	136
4. NPSB Failed to Forward the Response Message	136
5. Acquirer Has Not Received Response Message Forwarded by NPSB	137
6. Failure at Acquirer Side to Process Approved Response Message in Front End Device.....	137
VIII. APPENDIX.....	138
A. Appendix A: DE112 Format	138
B. Appendix B: Sample Message of DE112 for Bill Payment by Transaction Type	139
C. Appendix C: Product Code.....	141
D. Appendix D: Income Tax	142
E. Appendix E: VAT Tax.....	143
F. Appendix F: Custom Duty.....	144
G. Appendix G: Flow of Reversal and Guidelines	145
H. Appendix H: Chip Transactions Related Data	146



I. INTRODUCTION

A. About this Document

This document contains the technical specifications for the National Payment Switch of Bangladesh (NPSB) interface to be followed by the member banks. These technical specifications document explains the message formatting in ISO8583 protocol and its field description, the flow of transactions, and some additional notes for certain cases such as timeout and reversal handling mechanisms.

This document is intended to describe the details of online ISO8583 interface only.

B. Audience

This document is intended for technical staff of Bangladesh Bank and Member Banks to guide them in implementing transactions features via NPSB ISO8583 interface.

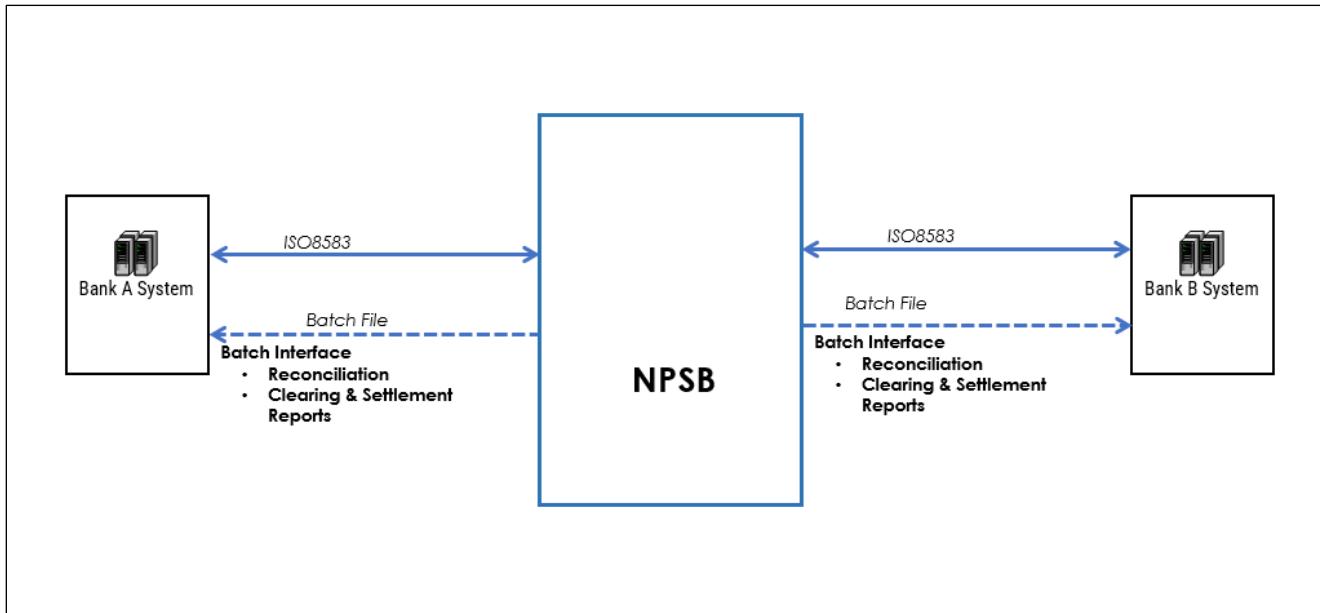
C. The Structure of This Document

Below is the structure of this document:

- **High Level Architecture of NPSB** - Provides a brief explanation about interconnection between banks and NPSB.
- **ISO8583 Message Format Description** - Provides necessary information about the use of ISO8583 to be aware by banks' technical staff to understand the message structure used in NPSB ISO8583 Interface.
- **Key Management** - Provides information about transaction security in NPSB and how the key is being managed.
- **Transaction Message Flow and Definition** - Provides detailed explanation about transaction features that can be implemented in NPSB, along with the detail message type and fields needed and the transaction flow.

II. HIGH LEVEL ARCHITECTURE OF NPSB

Following is the high-level architecture diagram which represents interconnection between banks and NPSB.



There are two types of interface connection,

- Online ISO8583 for transactions between banks,
- Offline Batch File Interface for file sharing such as reconciliation file and reports file.

Each member of the NPSB can act as both Acquirer and Issuer or Beneficiary of Funds Transfer/ Receiving any Payments.

The Front-End channels of Acquiring bank can be:

- ATM Terminal
- Kiosk
- POS Terminal
- Internet Banking
- Mobile Banking Application
- E-Commerce Merchant



III. ISO8583 MESSAGE FORMAT DESCRIPTION

NPSB is using ISO 8583 version 1987 with some proprietary field used for specific purposes as mentioned in the section of this NPSB specification document.

Following is the detail message format used for NPSB ISO8583 interface with member bank:

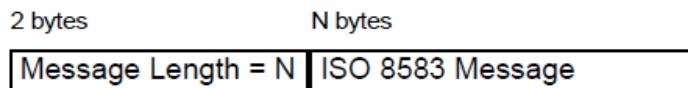
A. Message Format Structure

Following is the Message Format structure of ISO8583 used in NPSB:

COMPONENT	DESCRIPTION
Message length header size	Two bytes, high byte first
Length of "message length header"	Not included in calculation for "message length header"
MTI coding	Message Type Identifier. 4 Digits ASCII-coded
Bitmap coding	Binary-coded
Data Element	Contains field's value of each existed field number mentioned in Bitmap

B. Message Header

Each ISO 8583 message is sent in a separate frame. A frame consists of a 2-byte header and a message body. A header contains the length of the following message. The high byte of value is transmitted first, and the low byte of value is transmitted second.



C. MTI

Each ISO 8583 message starts with a Message Type Identifier (MTI), which is a four-digit numeric field identifying the message version, class, function, and originator, as defined by ISO 8583. The MTI field consists of 4 ASCII coded bytes with MTI value. The NPSB interface uses the following values:

- First digit – **Version Number**, 0: ISO 8583: 1987
- Second digit – **Message Class**, 1: Authorization, 4: Reversal, 8: Network Management
- Third digit – **Message Function**: 0: Request, 1: Request Response, 2: Advice, 3: Advice Response
- Fourth digit – **Transaction Repeat**: 0: Not Repeated Transaction

D. Bitmap

The second component of an ISO 8583 message is one or two "bit maps" referred to as the "Primary Bit Map" and "Secondary Bit Map". Each consists of 8 bytes and is interpreted as 64 individual bits. For the Primary Bit Map, the bits are numbered from the left starting with "1", up to "64". Each bit signifies the presence (1) or the absence (0) in the message of the data element associated with that particular bit, according to its position (i.e. number) within the bit map. The Primary Bit Map must always be present. The first bit of the bit map indicates the presence (1) or the absence (0) of the next bit map. For the Secondary Bit Map, the bits are numbered starting with "65", up to "128". The Secondary Bit Map must be



present in a message if the message contains a data element numbered 65 or higher.

E. Data Element Value Format

Following are the fields and its format of ISO8583 message that are used in NPSB:

FIELD	NAME OF THE FIELD	FORMAT	CHARS	LENGTH	CODING
	Message Type Indicator	FIXED	N	4	ASCII
	Bit Map	FIXED	B	64	BIT
2	Primary Account Number	HLVAR	n	16..19	BCD
3	Processing Code	FIXED	n	6	BCD
4	Amount, Transaction	FIXED	n	12	BCD
5	Amount, Settlement	FIXED	n	12	BCD
6	Amount, Cardholder Billing	FIXED	n	12	BCD
7	Transmission Date & Time	FIXED	n	10	BCD
10	Conversion Rate, Cardholder Billing	FIXED	n	8	BCD
11	System Trace Audit Number	FIXED	n	6	BCD
12	Local Transaction Time	FIXED	n	6	BCD
13	Local Transaction Date	FIXED	n	4	BCD
14	Date, Expiration	FIXED	n	4	BCD
18	Merchant's Type	FIXED	n	4	BCD
19	Acquiring Institution Country Code	FIXED	n	3	BCD
20	Primary Account Number Country Code	FIXED	n	3	BCD
22	Point of Service Entry Mode	FIXED	n	3	BCD
23	Card Sequence Number	FIXED	n	3	BCD
25	POS Condition Code	FIXED	n	2	BCD
26	POS PIN Captured Code	FIXED	n	2	BCD
28	Amount, Transaction Fee	FIXED	an	9	ASCII
32	Acquiring Institution ID, Code	HLVAR	n	6..11	BCD
33	Forwarding Institution Code	HLVAR	n	6..11	BCD
35	Track 2 Data	HLVAR	z	..37	BCD
37	Retrieval Reference Number	FIXED	an	12	ASCII
38	Authorization Code Response	FIXED	an	6	ASCII
39	Response Code	FIXED	an	2	ASCII
41	Card Acceptor Terminal Id.	FIXED	ans	8	ASCII



FIELD	NAME OF THE FIELD	FORMAT	CHARS	LENGTH	CODING
42	Card Acceptor Identification Code	FIXED	ans	15	ASCII
43	Card Acceptor Name/Location	FIXED	ans	40	ASCII
45	Track 1 Data	HLVAR	ans	..76	ASCII
46	Proprietary Field 46	HLLVAR	ans	0..999	ASCII
47	Proprietary Field 47	HLLVAR	ans	0..999	ASCII
48	Proprietary Field 48	HLLVAR	ans	0..999	ASCII
49	Transaction Currency Code	FIXED	n	3	BCD
50	Settlement Currency Code	FIXED	n	3	BCD
51	Cardholder Billing Currency Code	FIXED	n	3	BCD
54	Additional Amounts	HLLVAR	ans	20..120	ASCII
55	ICC Sys Related Data	HLLVAR	b	..255	BIN
70	Network Management Information Code	FIXED	n	3	BCD
100	Receiving Institution Identification Code	HLVAR	n	..11	BCD
102	Account Identification-1	HLVAR	ans	0..99	ASCII
103	Account Identification-2	HLVAR	ans	0..99	ASCII
104	Transaction Description	HLVAR	ans	0..99	ASCII
112	Additional Info	HLLVAR	an	..999	BIN
125	Mini Statement Information	HLLVAR	ans	999	ASCII
128	Message Authentication Code	FIXED	an	64	BIT

Character information:

- a – Alphabet
- n – Numeric
- s – Symbol
- z – symbols that can be encoded on Track II

Coding information:

- BCD – Binary Coded Decimals, left padding for odd length data.
- ASCII – ASCII coded data.
- BIN – Binary data, length specified in bytes.
- BIT – Binary data, length specified in bits.

F. Processing Code of Transaction Type

Following are the processing codes of transaction type (DE3 Subfield 1) that are used in NPSB:



VALUE	DESCRIPTION
00	Used for Purchase, Preauthorization, or Completion of Preauthorization
01	Used for ATM Cash Withdrawal or POS Cash Advance
09	Used for Purchase with Cashout
10	Used for Bill Payment Debit or Funds Transfer Debit
20	Used for POS Purchase Refund
28	Used for QR Merchant Payment Credit, Bill Payment Credit, or Funds Transfer Credit
30	Used for Balance Inquiry
32	Used for Mini Statement

G. Field Presentation Options

The following are the field presentations code in NPSB transaction specification:

FIELD PRESENTATION	DESCRIPTION
C	The field is conditional, may or may not be present, depends on certain condition of the transaction
CR	The field should be present with the value inherited from Request message if the field is present in the Request message.
M	The field must be present.
MR	The field must be present with the value inherited from Request message.
C1	The field will be processed according to the related bank security specification.
O	The field is optional
<FieldPresentationofMessageagetoNPSB>/<FieldPresentationofMessagefromNPPB>	"/" sign to give more information regarding the field presentation of incoming message to NPSB and outgoing message from NPSB. For example, field presentation "/M" means the field is not necessary if the message is coming to NPSB and the field will present if the message is outgoing from NPSB. Field presentation "MR/M" means the field must present with the value inherited from Request message if the message is coming to NPSB and the field will present if the message is outgoing from NPPB

H. Common Fields In NPSB

The following are the common fields that are used in NPSB:

1. Field Value of DE22

There are two sets of the following subfields:

Positions 1–2, PAN and Date Entry Mode: A 2-digit code that identifies the actual method used to enter the cardholder



account number. Valid codes are:

- "00" Unknown or terminal not used,
- "01" Manual (key entry),
- "02" Magnetic stripe read,
- "03" PAN or Track Read via QR or bar code reader,
- "05" Integrated circuit card read; card data reliable,
- "07" PAN auto-entry via contactless M/Chip,
- "09" PAN entry via electronic commerce, including remote chip,
- "79" Chip card at chip-capable terminal was unable to process the transaction using chip technology,
- "80" PAN auto-entry via magnetic stripe – the full track data has been read and transmitted in Track-2 Data (Data elements) without alteration or truncation. This mode is used as fallback to PAN auto-entry via ICC when the IC could not be used,
- "81" PAN auto-entry via electronic commerce,
- "82" PAN Auto Entry via Server (issuer, acquirer, or third party vendor system),
- "90" Magnetic stripe read and exact content of Track 1 or Track 2 included (CVV check is possible),
- "91" PAN auto-entry with contactless Magnetic Stripe - The full Track data has been read from the data on the card and transmitted within the authorization request in Track 2 Data (DE35) or Track 1 (DE45) without alteration or truncation.,
- "95" Integrated circuit card; card data may be unreliable.

Positions 3, PIN Entry Capability: A 1-digit code that identifies the terminal's capability of capturing PINs. Valid codes are:

- "0" Unknown,
- "1" Terminal can accept PINs,
- "2" Terminal cannot accept PINs,
- "3" Software-based PIN Entry Capability,
- "8" The terminal PIN pad is down,
- "9" Reserved for future use.

2. Field Value of DE25

Following is the list of possible Point of Service Condition Code (DE25) in NPSB:

Code	Description
00	Normal transaction of this type
01	Cardholder not present
02	Unattended acceptance terminal, customer operated (for example, ATM, Automated Dispensing Machine)
03	Merchant suspicious of transaction (or card)
05	Customer present, Card Not Present
08	Mail/telephone order
10	Customer identity verified (used for Check Acceptance only)
51	Request for account number verification without authorisation, or request for account number verification and address verification without authorisation
55	Request for telecode verification without authorisation

Code	Description
59	E-commerce request (through public network)
71	Card present, magnetic stripe cannot be read (key-entered)

3. Response Code Value of DE39

Following is the list of possible response code (DE39) in NPSB:

RC	Description	Category
00	Approved	Approve
01	Refer to Card Issuer	Decline
03	Invalid Merchant	Decline
04	Pick up card	Decline
05	Do not honour	Decline
07	Pick up card, special condition	Decline
12	Invalid Transaction	Decline
13	Invalid Amount	Decline
14	Invalid card number	Decline
17	Customer cancellation	Information in Reversal
30	Format Error	Decline
41	Lost card, pick up	Decline
43	Stolen card, pick up	Decline
51	Not sufficient funds	Decline
52	No checking account	Decline
53	No savings account	Decline
54	Expired card	Decline
55	PIN incorrect	Decline
57	Transaction not allowed for cardholder	Decline
61	Exceeds withdrawal amount limit	Decline
62	Restricted card	Decline
68	Response received too late or Timeout	Decline
75	PIN tries exceeded	Decline
78	No account	Decline
86	Cannot verify PIN	Decline
91	Issuer unavailable	Decline
94	Duplicate transaction	Decline
96	System malfunction	Decline

4. Additional Amount Information Structure of DE54

After the length subfield, there are six possible sets of the following subfields:

Positions 1–2, Account Type: A 2-digit code identifying the account type affected by the balance inquiry. Valid codes are:

"00" Not Applicable or Not Specified,

"10" Savings Account,

"20" Checking Account.

Positions 3–4, Amount Type: A 2-digit code describing the use of the amount. Valid codes are:

"01" Current ledger (posted) balance,



"02" Current available balance (typically, ledger balance minus outstanding authorisations),
"40" Cashback amount,
"90" Available Credit "91" Credit Limit.

Positions 5–7, Currency Code: A 3-digit code that defines the currency used in Positions 9–20.

Position 8, Amount, Sign: A 1-digit code that defines the value of the amount as either positive or negative. "C" Positive balance,
"D" Negative balance (also used for cashout amounts).

Positions 9–20, Amount: A twelve-character amount that is right-justified and contains leading zeros. The amount also includes an implied decimal relative to the currency code specified in positions 5–7.

5. Message Authentication Code (MAC) in DE128

This data element consists of 16 digits of Message Authentication Code generated by HSM which is used to check the authenticity of the message.

I. Proprietary Fields In NPSB

The following are the proprietary fields that are used in NPSB:

1. DE46 With Field Sub-elements

There are a set of sub-elements of DE46 for e-commerce transactions and key exchange.

Tag ID	Tag Length	Description
704	1-40	<p>Tag for DS Transaction ID. Sample values are: '6da0005c-288b-484f-b5b9-022750c069ce' 'c7c0148e-9b6f-4e7d-bc77-0469d459c8d9' '56d27617-7a8a-4a63-a1d5-08be80593de0' '56d27617-7a8a-4a63-a1d5-08be80593de0'</p> <p>(applied for e-commerce transaction)</p>
705	1-40	<p>Tag for CAVV Data in Base64 string. Sample values are: 'AAIBBjmCFAAAAABkBQFdAAAAAA=' 'AAIBB1J5cwAAAABkBQFdAAAAAA=' 'AAIBBpdPnwAAAABkBQFdAAAAAA=' 'AAIBBnZogQAAAABkBQFdAAAAAA='</p> <p>(applied for e-commerce transaction)</p>
740	32	<p>Tag for requesting a new key in a key exchange process. Sample value: 5612616D45BE88A912BE1C95A6BA476A</p>



741	1	<p>Tag for the key type being exchanged. Possible value:</p> <ul style="list-style-type: none"> • 2 - ZPK • 3 - ZAK <p>Sample value: 3.</p> <p>If this field does not exist in the message, the key that will be exchanged is ZPK.</p>
742	6	<p>Tag for the Key Check Value of the newly generated key in key exchange process.</p> <p>Sample value: A33EDD</p>
746	4	<p>Tag for the key ID of the newly generated key in key exchange process.</p> <p>Sample value: 0002</p>
760	1-73	<p>Tag for sender's name in the request of Request to Pay transaction.</p> <p>Sample value: FIRSTNAME LASTNAME</p>

2. DE47 With Field Sub-elements

There are a set of sub-elements of DE47 for P2P processing. Tags are applicable for request messages and may be present in response messages.

Tag ID	Tag Length	Description
909	2	<p>Tag for Electronic Commerce Indicator (ECI).</p> <p>Possible values are:</p> <p>'05' – 3DS authentication was successful; transaction is secured by 3DS. '06' – Authentication was attempted but was not or could not be completed. '07' – 3DS authentication is either failed or could not be attempted.</p> <p>(applied for e-commerce transaction)</p>
910	1	<p>Tag for Card Authentication Results (chip transactions related, please see Appendix H for more details).</p> <p>'1': The ARQC was checked but failed verification. '2': The ARQC was checked and passed verification.</p>
914	3-4	<p>Tag for CVV2/4CSC Value in clear text.</p> <p>(applied for e-commerce transaction)</p>
915	1	<p>Tag for CVV2 Result Code. Possible values are:</p> <p>'M' – Valid or "matched" CVV2/4CSC code</p>



Tag ID	Tag Length	Description
		'N' – Invalid CVV2/4CSC code 'P' – Not processed. 'U' – User is unregistered. 'Y' – No match when only CVC1 was present in the message. 'S' – The CVV2 should be on the card but the merchant indicates it is not. (applied for e-commerce transaction)
925	6-32	External Network Reference (applied for Transaction Status Inquiry and Credit of Request to Pay Transaction)
927	Variable up to 99	Counterpart Account ID (Source Card Number) in Funds Transfer Transaction (applied for Bill Payment and Funds Transfer Transaction)
929	1	Tag for CAVV Results Code. Possible values are: '1' – Invalid. '2' – Valid. (applied for e-commerce transaction)
962	2	Original Credit Response Code (applied for Transaction Status Inquiry)
963	5-11	Original Acquiring Institution ID (applied for Credit of Request to Pay Transaction)

3. DE48 With Field Sub-elements

There is a set of sub-elements of DE48 for payment or funds transfer processing.

Tag ID	Tag Length	Description
832	1-6	The duration in minute of how long the blocked amount stays active.
848	Variable	Beneficiary account number. This tag will exist on beneficiary side if acquirer/issuer sends DE103. Beneficiary will get this tag even if the acquirer/issuer doesn't send it in request message. Acquirer/issuer will also receive it even if beneficiary doesn't send it in response message.

4. DE112 With Field Sub-elements

Field 112 is a private-use field (BER-TLV). The field contains multiple items of additional transaction information. This section contains some specific DE112 tags and values.

Specifically for bill payment, the subelements of DE112 that are used for bill payment are as follows.



Tag Name	Length (Hex)	Sample Data in Hex	Description
F0	Varied	N/A	Top level constructed tag
F0.D2	09	54574841545F545258	To determine type of transaction
F0.D3	Varied	5441544D42503031 544B494F534B42503031 544D42414E4B4250 5449424250	ATMBP01 KIOSKBP01 Mobile banking bill payment Internet banking bill payment
F0.D4	03	543031 543032 543033	Income Tax VAT Tax Custom Duty
F0.D5	Variable	Income Tax: 546B6875727368656420202020202020202020 020203030313131303233534239393931343 1323135333431313433373832333343334333 331343231323334333233343332303030303 0303033353135 VAT Tax: 546B68757273686564202020202020202020 020203030313130323353423939393134313 23135333430393135363537383837313132313 2313537363738383737383838303030303 0303031353030 Custom Duty: 546B687572736865642020202020202020 020203030313130323353423939393134313 23135333430393135363537383837313132313 2313132333435363738393939393931303 1303232320313233343230313530313031	For Income Tax, please see Appendix D for details regarding the required and sample data components. For VAT Tax, please see Appendix E for details regarding the required and sample data components. For Custom Duty, please see Appendix F for details regarding the required and sample data components.

Note: please see Appendix B for sample data details.

Specifically for Bangla QR, the sub-elements of DE112 that are used for QR payment data as follows, representing QR data object ID 62, sub-ID 01 – 11:

Tag Name	Length (Hex)	Text Data	Description
F0	Varied	N/A	Top level constructed tag
F0.D2	09	54574841545F545258	To determine type of transaction
F0.D3	05	5451524D50	Bangla QR merchant payment



Tag Name	Length (Hex)	Text Data	Description
F0.E0	Varied	N/A	Optional constructed tag, only present if any of below tags is present
F0.E0.CO	Up to 1A (26 bytes)	'T' + [Bill Number, BanglaQR data object ID 62, sub-ID 01]	Optional
F0.E0.C1	Up to 1A (26 bytes)	'T' + [Mobile Number, BanglaQR data object ID 62, sub-ID 02]	Optional
F0.E0.C2	Up to 1A (26 bytes)	'T' + [Store Label, BanglaQR data object ID 62, sub-ID 03]	Optional
F0.E0.C3	Up to 1A (26 bytes)	'T' + [Loyalty Number, BanglaQR data object ID 62, sub-ID 04]	Optional
F0.E0.C4	Up to 1A (26 bytes)	'T' + [Reference Label, BanglaQR data object ID 62, sub-ID 05]	Optional
F0.E0.C5	Up to 1A (26 bytes)	'T' + [Sender Name, BanglaQR data object ID 62, sub-ID 06]	Optional
F0.E0.C6	Up to 1A (26 bytes)	'T' + [Terminal Label, BanglaQR data object ID 62, sub-ID 07]	Optional
F0.E0.C7	Up to 1A (26 bytes)	'T' + [Purpose of Transaction, BanglaQR data object ID 62, sub-ID 08]	Optional
F0.E0.C8	Up to 04 (4 bytes)	'T' + [Additional Consumer Data Request, BanglaQR data object ID 62, sub-ID 09]	Optional
F0.E0.C9	Up to 15 (21 bytes)	'T' + [Merchant Tax ID, BanglaQR data object ID 62, sub-ID 10]	Optional
F0.E0.CA	04 (4 bytes)	'T' + [Merchant Channel, BanglaQR data object ID 62, sub-ID 11]	Optional

Specifically for Transaction Inquiry and Request to Pay transaction, there are some sub elements from DE112 that are used as follow:

Tag Name	Length (Hex)	Text Data	Description
F0.E0	Varied	N/A	Optional constructed tag, only present if any of below tags is present
F0.E0.CB	Up to 1A (26 bytes)	'T' + [Original DE37 of Credit Transaction]	Optional

Tag Name	Length (Hex)	Text Data	Description
F0.E0.CC	Up to 1A (26 bytes)	'T' + [Mobile Number, BanglaQR data object ID 62, sub-ID 02]	Optional

5. DE125 Mini Statement Information

Data element 125 is a private-use field. In Mini-Statement response messages it is used for statement information. The field contains up to 10 repeated group of transaction information:

- **Positions 1–6, Transaction Date:** Transaction date in “YYMMDD” format.
- **Positions 7, Transaction Type:** Specify if it is a financial transaction or 28uthorization: ‘A’ 28uthorization ‘F’ financial transaction.
- **Positions 8–10, Currency Code:** A 3-digit code that defines the currency used in Positions 12–23.
- **Positions 11, Transaction sign:** A 1-digit code that defines the amount of the transaction as either positive or negative ('C' Positive amount, 'D' Negative amount).
- **Positions 12–23, Amount:** A twelve-character amount that is right-justified and contains leading zeros. The amount also includes an implied decimal relative to the currency code specified in positions 8–10.

J. Fields For Matching to Request/Original Message

One of the steps that needs to be taken while processing a Response message is finding the matching Request message. The same also applies to processing a Reversal message, where the matching Original message needs to be found. The matching mechanism in processing ISO 8583 messages utilizes the values in the fields or Data Elements.

On the previous implementation, the matching mechanism will use DE90 to find the Original message of a Reversal. However, though DE90 is still accepted in some messages, it will not be used for matching in the current implementation. Instead, some fields from the ISO message will be used to construct DE129. This DE129 is constructed internally in WAY4 and will not be received from and by member banks sending and receiving the messages. Below is the list of fields that will be used to construct DE129 for matching Response to Request messages and Reversal to Original messages:

- DE32 – Acquiring Institution ID
- DE37 – Retrieval Reference Number
- DE41 – Card Acceptor Terminal ID
- DE42 – Card Acceptor Identification Code

The fields above need to exist in Response messages and Reversal messages in order for message matching to be done.

IV. KEY MANAGEMENT

There are two keys used for transaction in NPSB for security purposes:

1. Zone PIN Key (ZPK) – to be used to encrypt the PIN Block
2. Zone Authentication Key (ZAK) – to be used to generate Message Authentication Code which is stored in DE128.

In ISO8583 Host to Host connection, those two key types can be set up in two ways:

1. Static Key

In this setup, the ZPK and ZAK used always the same until the hosts do the changes manually. The clear component key will be generated in each host and shared with each other. Next, the clear component keys will be formed in

each host's HSM with its key type respectively and put in host interface configuration.

2. Dynamic Key Exchange

In dynamic key exchange setup, the ZPK and ZAK will always be changed whenever one host initiated the exchange. The changes of the keys use the master key named as Zone Master Key (ZMK) to encrypt and decrypt ZPK and ZAK. The ZMK key components must be generated and shared by the newly joined member bank of NPSB and NPSB to form the ZMK key. The formed ZMK key then set in each interface host between member bank and NPSB.

In NPSB, those keys are setup in dynamic mode, in which the keys will be changed when member bank initiates the key exchange network management message (MTI 0800, DE 70 = 162). If there is an incoming request for key exchange, NPSB will generate the respective key requested identified by value in DE46 Sub element 741. The new key will be sent under ZMK encryption.

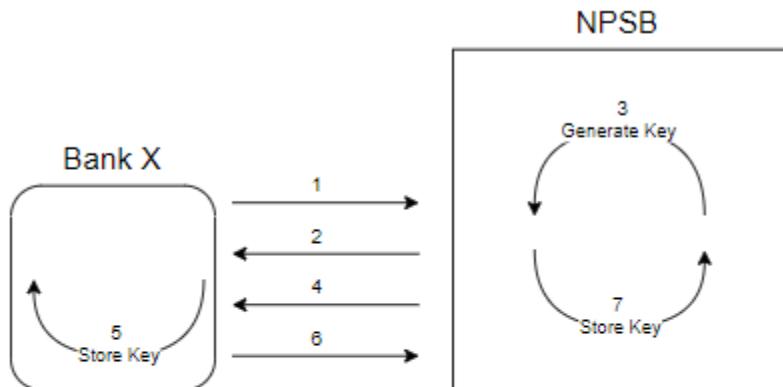
Each member bank is required to initiate the key exchange, especially if there is any maintenance happening at the member bank's side. The key exchange request can be initiated at any time by the member banks of NPSB.

During the transaction, NPSB will handle the encryption translation between member bank's keys. The process requires HSM to translate the encrypted data like PIN from 1 bank's key (ZPK) to another bank's key (ZPK).

Key Exchange Process of ZAK/ZPK

Key Exchange Process in NPSB is done in two stages:

1. Solicitation Message, which is initiated by the member bank, and,
2. Key Exchange Message, which is initiated by NPSB to generate the key and send it to the respective bank.



1. Bank X will send solicitation for key exchange message
2. NPSB will send the response of solicitation for key exchange message
3. NPSB will generate the key (ZPK/ZAK)
4. NPSB will send the key (ZPK/ZAK which encrypted under ZMK) to NPSB
5. Bank X will store the key (ZPK/ZAK)
6. Bank X will send the response of key exchange result
7. NPSB will store the recent generated new key (ZPK/ZAK) which is just sent to Bank X

1. Solicitation Message

The request is initiated by Bank X (Flow no. 1 and no. 2).

FIELD	NAME OF THE FIELD	0800	0810	SAMPLE DATA
7	Transmission Date & Time	M	MR	1015112900



FIELD	NAME OF THE FIELD	0800	0810	SAMPLE DATA
11	System Trace Audit Number	M	MR	100003
39	Response Code		M	00
46	Proprietary Field 46	O		7410013
46.41	PDS741 Key Type: • 2 - ZPK • 3 - ZAK If this field does not exist in the message, the key that will be exchanged is ZPK.	O		7410013
70	Network Management Information Code	M	MR	162 (Key Solicitation Code)

2. Key Exchange Message

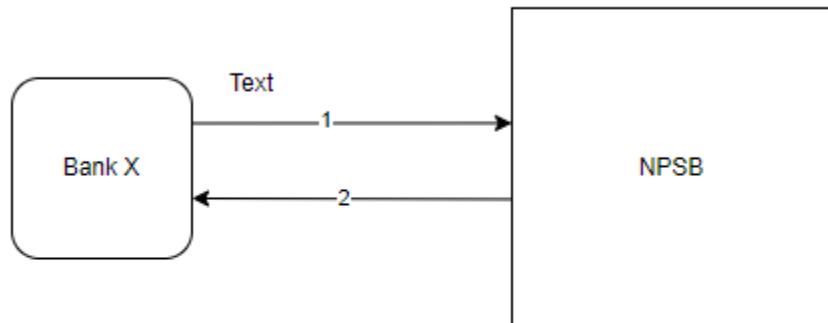
The request is initiated by NPSB (Flow no. 4 and no. 6)

FIELD	NAME OF THE FIELD	0800	0810	SAMPLE DATA
7	Transmission Date & Time	M	MR	1015112900
11	System Trace Audit Number	M	MR	100003
39	Response Code		M	00
46	Proprietary Field 46	M	MR	7400325612616D45BE88A912BE1C95A6BA476A7 410013742006A33EDD7460040002 (New Zone Authentication Key)
46.40	PDS740 New Key	M		7400325612616D45BE88A912BE1C95A6BA476A
46.41	PDS741 - Key Type: • 2-ZPK • 3-ZAK In the key exchange message, tag PDS741 should be filled.	M		7410013
46.42	PDS742 Key Check Value	M		742006A33EDD
46.46	PDS746 Key Id	M		7460040002
70	Network Management Information Code	M	MR	161 (Key Exchange Code)

V. NETWORK MANAGEMENT MESSAGE

A. Network Management Message – Sign On

1. Network Management Sign On Flow



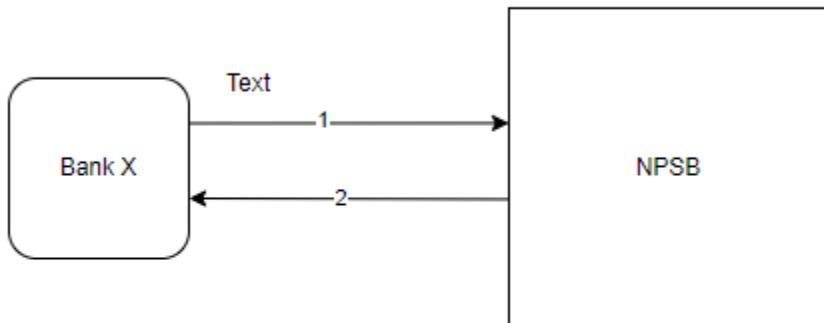
1. Host Bank X sends Sign-On request message with MTI 0800 to NPSB
2. NPSB sends Sign-On response message with MTI 0810 to Bank X

2. Sign On Message

FIELD	NAME OF THE FIELD	0800	0810	SAMPLE DATA
7	Transmission Date & Time	M	MR	1015112900
11	System Trace Audit Number	M	MR	100001
39	Response Code		M	00
70	Network Management Information Code	M	MR	001

B. Network Management Message – Sign Off

1. Network Management Sign Off Flow



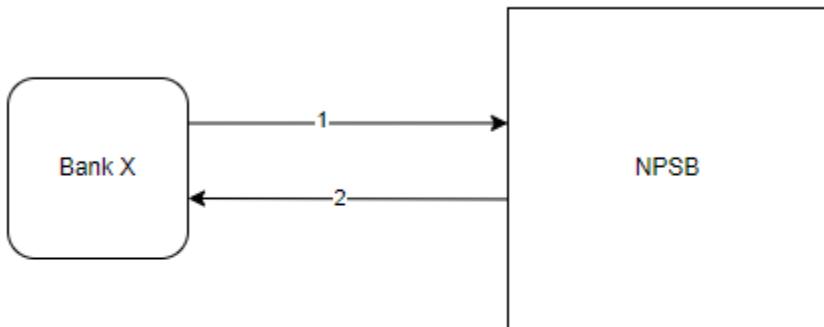
1. Host Bank X sends Sign-Off request message with MTI 0800 to NPSB
2. NPSB sends Sign-Off response message with MTI 0810 to Bank X

2. Sign Off Message

FIELD	NAME OF THE FIELD	0800	0810	SAMPLE DATA
7	Transmission Date & Time	M	MR	1015112900
11	System Trace Audit Number	M	MR	100002
39	Response Code		M	00
70	Network Management Information Code	M	MR	002

c. Network Management Message – Echo Test

1. Network Management Echo Test Flow



1. Host Bank X sends Echo Test request message with MTI 0800 to NPSB
2. NPSB sends Echo Test response message with MTI 0810 to Bank X

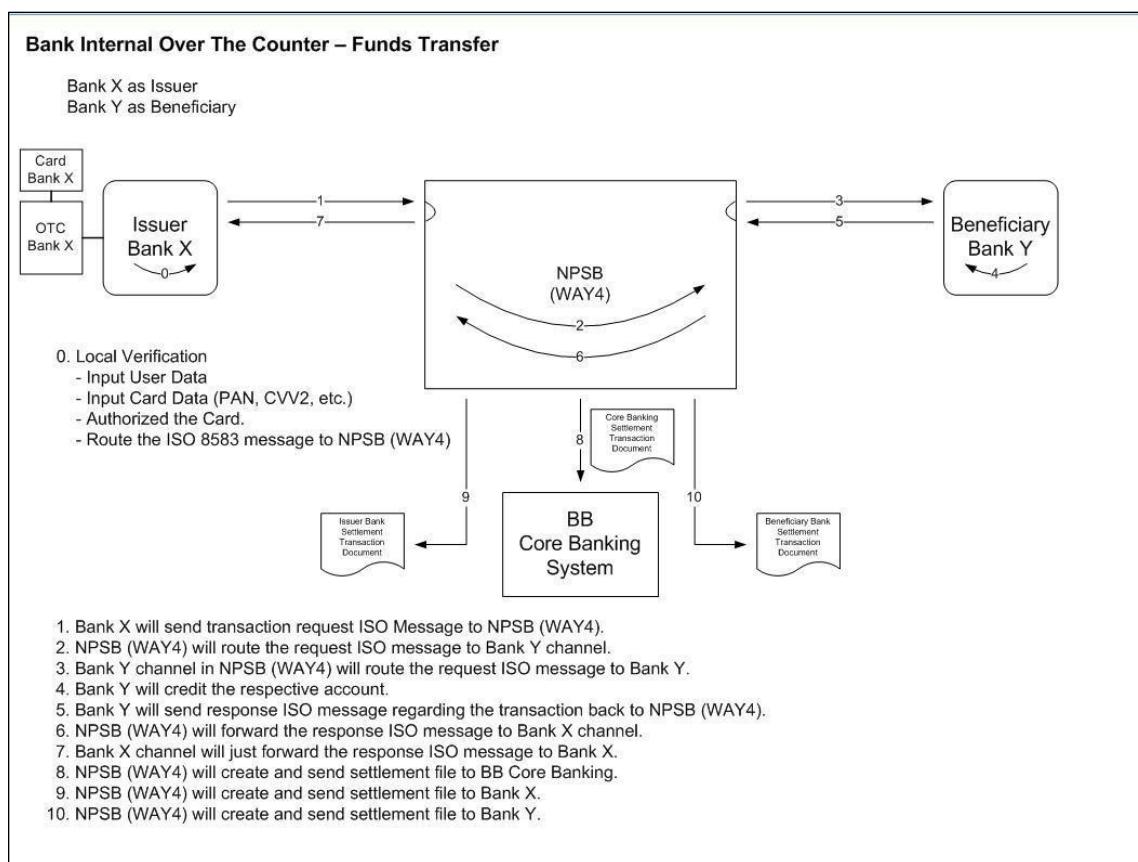
2. Echo Test Message

FIELD	NAME OF THE FIELD	0800	0810	SAMPLE DATA
7	Transmission Date & Time	M	MR	1015112900
11	System Trace Audit Number	M	MR	100003
39	Response Code		M	00
70	Network Management Information Code	M	MR	301

VI. TRANSACTION MESSAGE FLOW AND DEFINITION

A. Inter Bank (via Over the Counter) Funds Transfer (Credit)

1. Funds Transfer Transaction via OTC Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0008881912109099
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Cardholder Billing Amount	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015113000
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	M	153001



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
12	Local Transaction Time	M		113000
13	Local Transaction Date	M		1015
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	111111
37	Retrieval Reference Number	M	MR	211015113000
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270162000004444555560
47.27	PDS927 Counterpart Account ID	M		9270162000004444555560
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		For Card to Card: F019D20954574841545F545258D30C5454454C4 C4552465443243 For Card to Account: F019D20954574841545F545258D30C5454454C4 C4552465443241 For Account to Account: F019D20954574841545F545258D30C5454454C4 C45524654413241 For Account to Card: F019D20954574841545F545258D30C5454454C4 C45524654413243
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Issuer Bank will receive DE112 on 0110 message even if the Beneficiary Bank does not response with DE112.



**Beneficiary Bank will receive DE47 on 0100 message even if the Issuer Bank does not send DE47.

DE2 Primary Account Number

This field consists of 6 digits BIN which is Bank Code and followed by first 10 digits of account number if the destination is Account.

This field consists of beneficiary's PAN if the destination is Card.

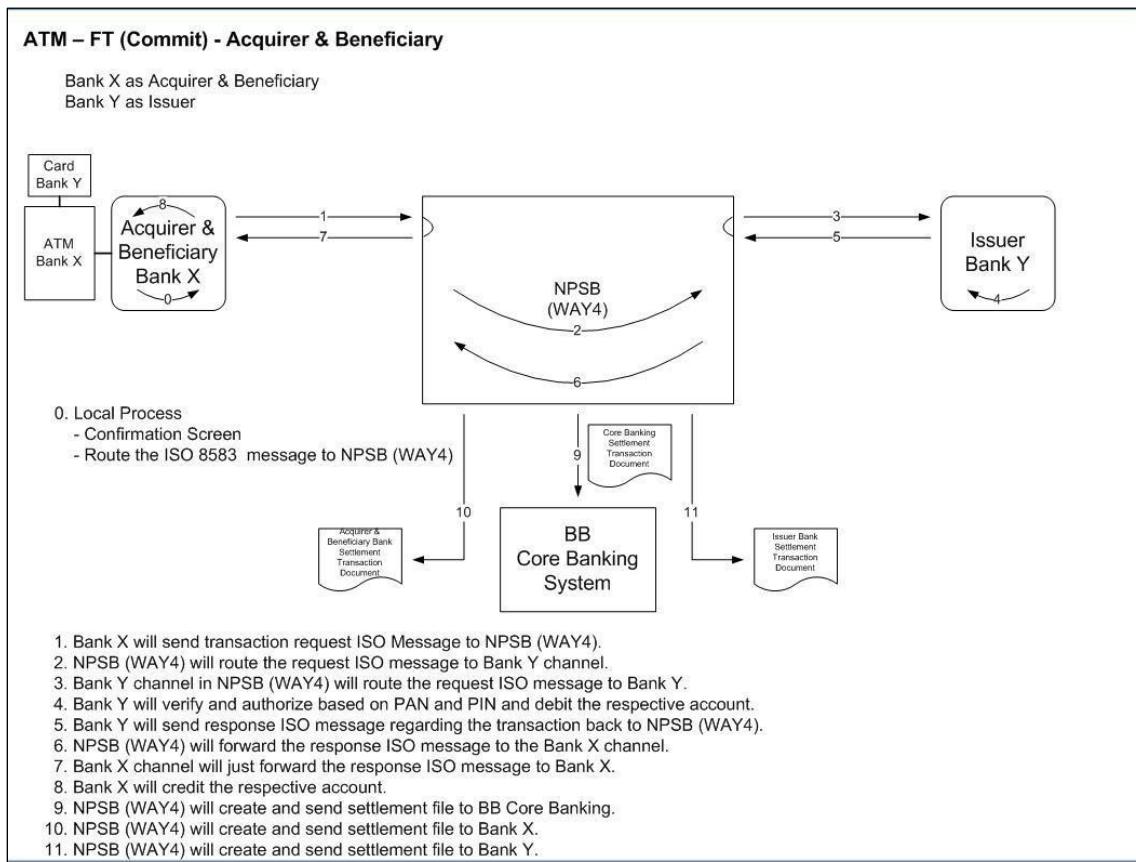
DE103 Account Identification-2

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

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B. ATM Funds Transfer (ATMFT01)

1. ATM Funds Transfer Debit Transaction Flow



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230
3	Processing Code	M	MR	M	MR	100000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Cardholder Billing Amount	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015110900
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	150901
12	Local Transaction Time	M		M		110900
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
18	Merchant's Type	M		M		4829
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID	M	MR	M	MR	111111
35	Track-2 Data	M				2000001111222230=3209221
37	Retrieval Reference Number	M	MR	M	MR	211015110900
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor ID Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	O	O	O		91000129270161000004444555560
47.10	PDS910 Card Authentication Results		O			9100012
47.27	PDS927 Counterpart Account ID	O		O		9270161000004444555560
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	M				F181203815FDC121
53	Security Related Control Information	M				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	01001509011015110900000011111100000000000
112	Additional Info	M				F015D20954574841545F545258D3085441544D46543031
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

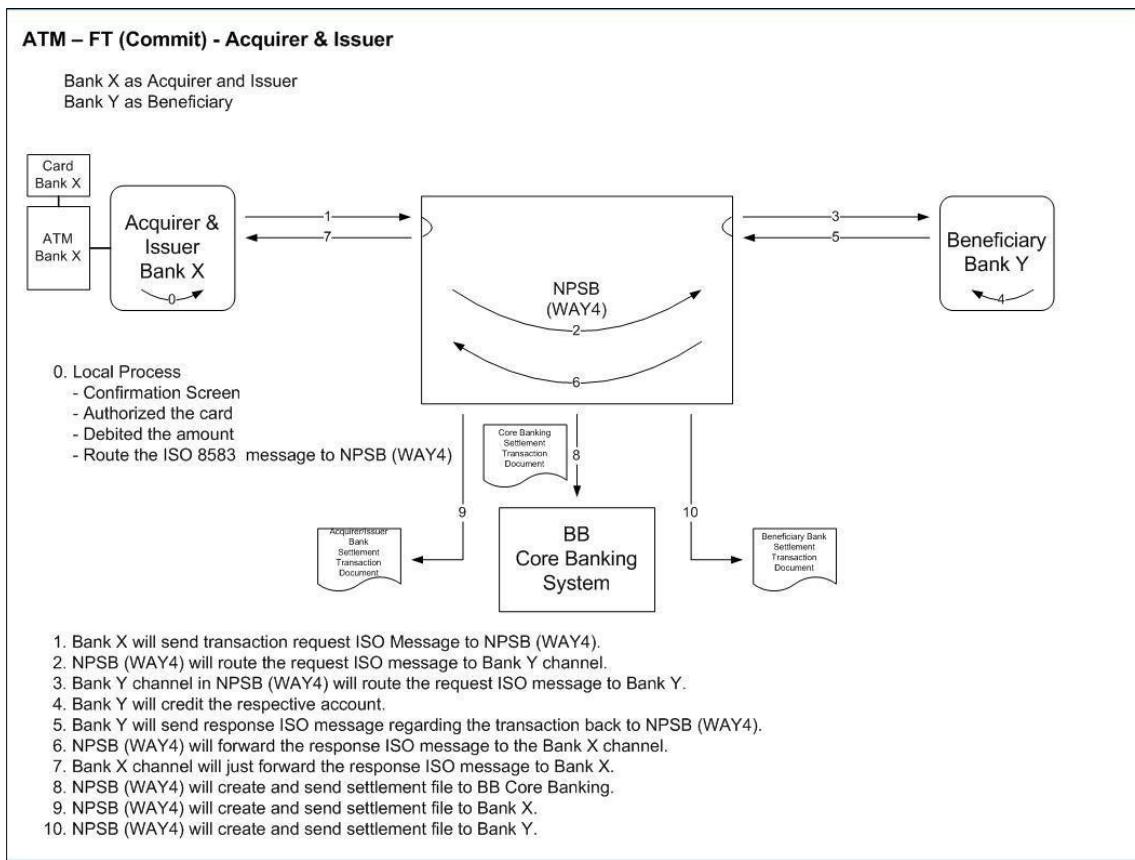
Note:

*Acquirer/Beneficiary Bank will receive DE112 on 0110 message even if the Issuer Bank does not response with DE112.

**Issuer Bank will receive DE47 on 0100 and 0420 message even if the Acquirer/Beneficiary Bank does not send DE47.

C. ATM Funds Transfer (ATMFT02)

1. ATM Funds Transfer Credit Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000004444555560
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Cardholder Billing Amount	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015110100
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	150101
12	Local Transaction Time	M		110100
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	111111
37	Retrieval Reference Number	M	MR	211015110100
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	O		9270161000001111222230
47.27	PDS927 Counterpart Account ID	O		9270161000001111222230
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
55	ICC Related Data	O	O	"Please see Appendix H for more details".
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		For Card to Card: F018D20954574841545F545258D30B5441544 D46543032433243 For Card to Account: F018D20954574841545F545258D30B5441544 D46543032433241
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if the Beneficiary Bank does not response with DE112.

**Beneficiary Bank will receive DE47 on 0100 message even if the Acquirer/Issuer Bank does not send DE47.

DE2 Primary Account Number

This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account.

This field consists of beneficiary's PAN if the destination is Card.



DE103 Account Identification-2

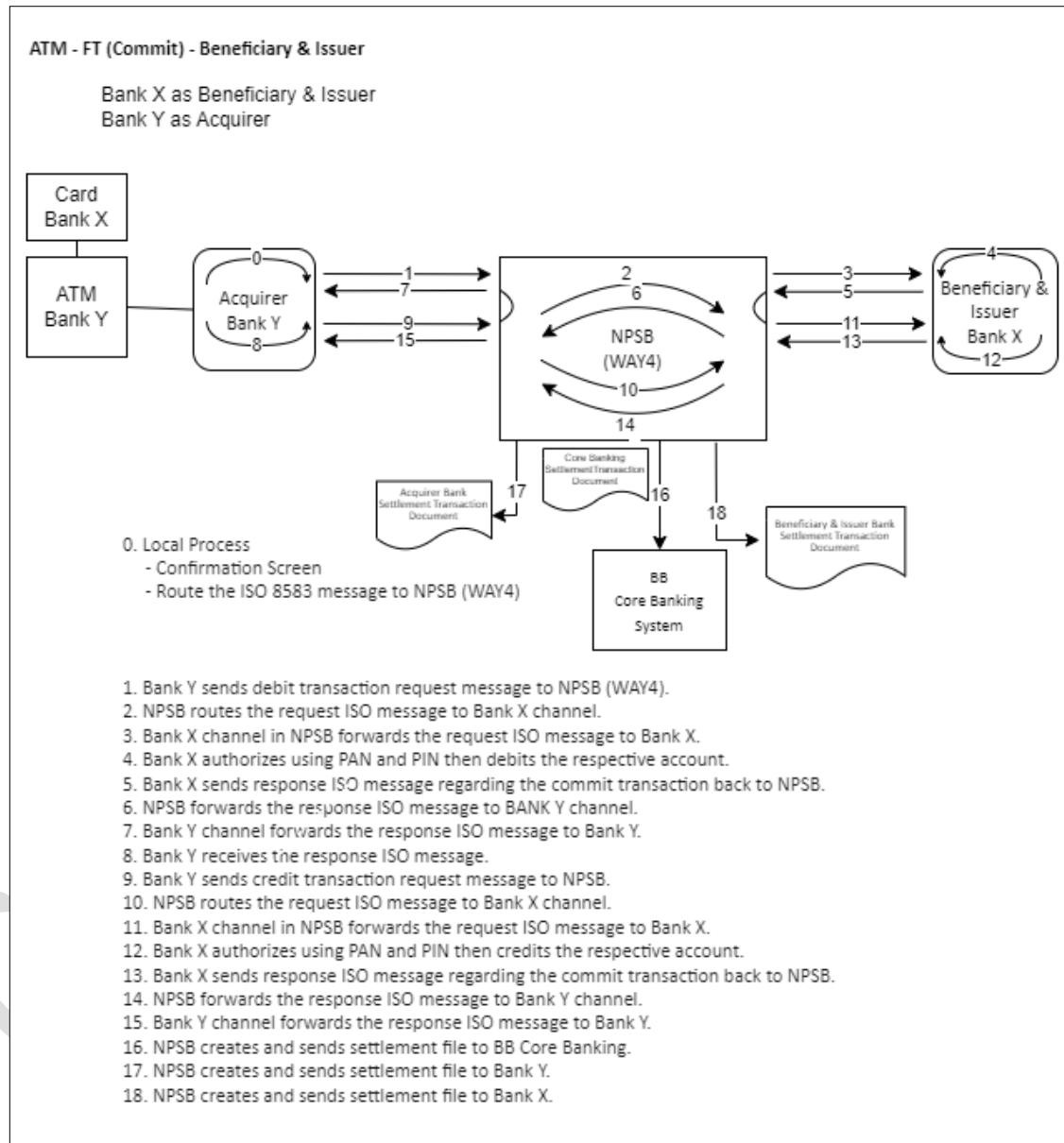
This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

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D. ATM Funds Transfer (ATMFT03)

1. ATM Funds Transfer Debit and Credit (Sent Separately) Transaction Flow

This scenario of transaction is initiated by NPSB member bank's cardholder using ATM terminal belonging to acquirer bank of NPSB. The destination account of this funds transfer belongs to the same issuer bank as the cardholder's bank. The message for debit and credit are sent separately by the acquiring bank with the same flow.



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
3	Processing Code	M	MR	M	MR	100000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Cardholder Billing Amount	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015110900
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	150901
12	Local Transaction Time	M		M		110900
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209
18	Merchant's Type	M		M		4829
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID	M	MR	M	MR	111111
35	Track-2 Data	M				2000001111222230=3209221
37	Retrieval Reference Number	M	MR	M	MR	211015110900
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor ID Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	O	O	O		91000129270161000004444555560
47.10	PDS910 Card Authentication Results		O			9100012
47.27	PDS927 Counterpart Account ID	O		O		9270161000004444555560
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	M				F181203815FDC121
53	Security Related Control Information	M				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
90	Original Data Element			O	OR	0100150901101511090000000111 1110 0000000000
112	Additional Info	M				For Card to Card: F018D20954574841545F545258D 30B5441544D46543033433243 For Card to Account: F018D20954574841545F545258D 30B5441544D46543033433241
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/ Beneficiary Bank does not response with DE112.

**Issuer/Beneficiary Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

3. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000004444555560
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Cardholder Billing Amount	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015110100
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	150101
12	Local Transaction Time	M		110100
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	111111
37	Retrieval Reference Number	M	MR	211015110100
38	Authorization Code Response		O	000001
39	Response Code		M	00



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	O	OR	9270161000001111222230
47.27	PDS927 Counterpart Account ID	O	OR	9270161000001111222230
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
55	ICC Related Data	O	O	"Please see Appendix H for more details".
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		For Card to Card: F018D20954574841545F545258D30B5441544D4 6543033433243 For Card to Account: F018D20954574841545F545258D30B5441544D4 6543033433241
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/ Beneficiary Bank does not response with DE112.

**Issuer/Beneficiary Bank will receive DE47 on 0100 message even if the Acquirer Bank does not send DE47.

DE2 Primary Account Number

This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account.

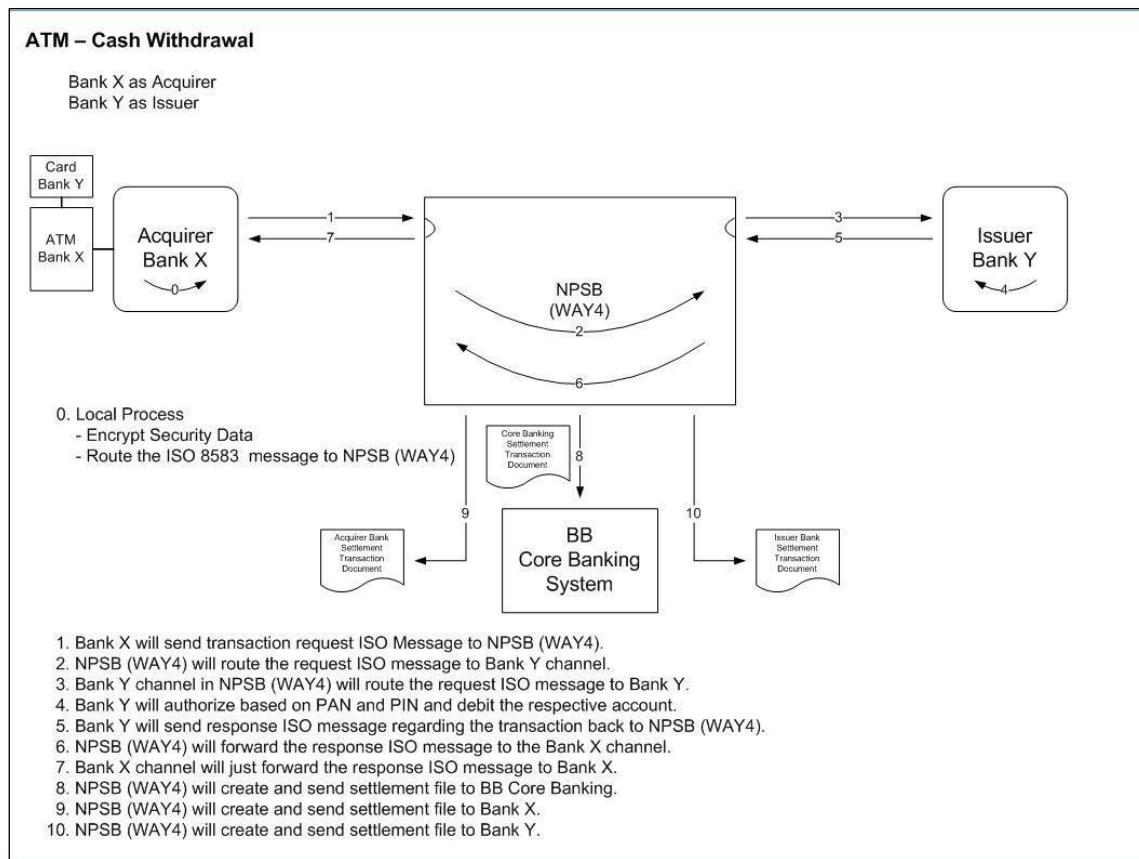
This field consists of beneficiary's PAN if the destination is Card.

DE103 Account Identification-2

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

E. ATM Cash Withdrawal

1. ATM Cash Withdrawal Transaction Flow



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230
3	Processing Code	M	MR	M	MR	010000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Cardholder Billing Amount	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015110900
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	150901
12	Local Transaction Time	M		M		110900
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
18	Merchant's Type	M		M		6011
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID	M	MR	M	MR	111111
35	Track-2 Data	M				2000001111222230=3209221
37	Retrieval Reference Number	M	MR	M	MR	211015110900
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor ID Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47		O			9100012
47.10	PDS910 Card Authentication Results		O			9100012
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	M				F181203815FDC121
53	Security Related Control Information	M				9801010000000000
54	Additional Amounts		O			1002050C000000100000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	0100150901101511090000000111 1110 0000000000
112	Additional Info	M				F013D20954574841545F545258D 3065441544D4357
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

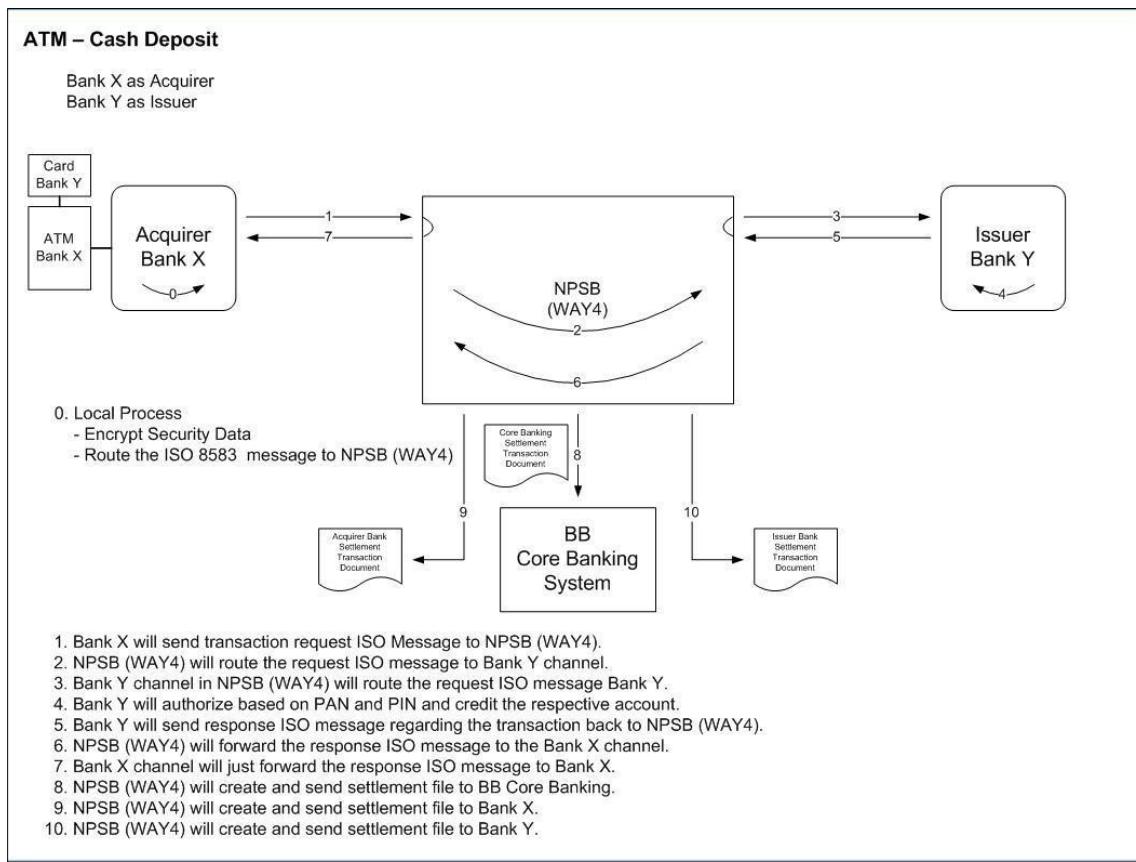
Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

**Issuer/Destination Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

F. ATM Cash Deposit

1. ATM Cash Deposit Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000001111222230
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Cardholder Billing Amount	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015110600
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	150601
12	Local Transaction Time	M		110600
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		6011
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
35	Track-2 Data	C		2000001111222230=3209221
37	Retrieval Reference Number	M	MR	231015110600
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270162000001111222230
47.27	PDS927 Counterpart Account ID	M		9270162000001111222230
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
52	Personal Identification Number (PIN)	M		F181203815FDC121
53	Security Related Control Information	M		9801010000000000
55	ICC Related Data	O	O	"Please see Appendix H for more details".
112	Additional Info	M		F013D20954574841545F545258D3065441544D4 344
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

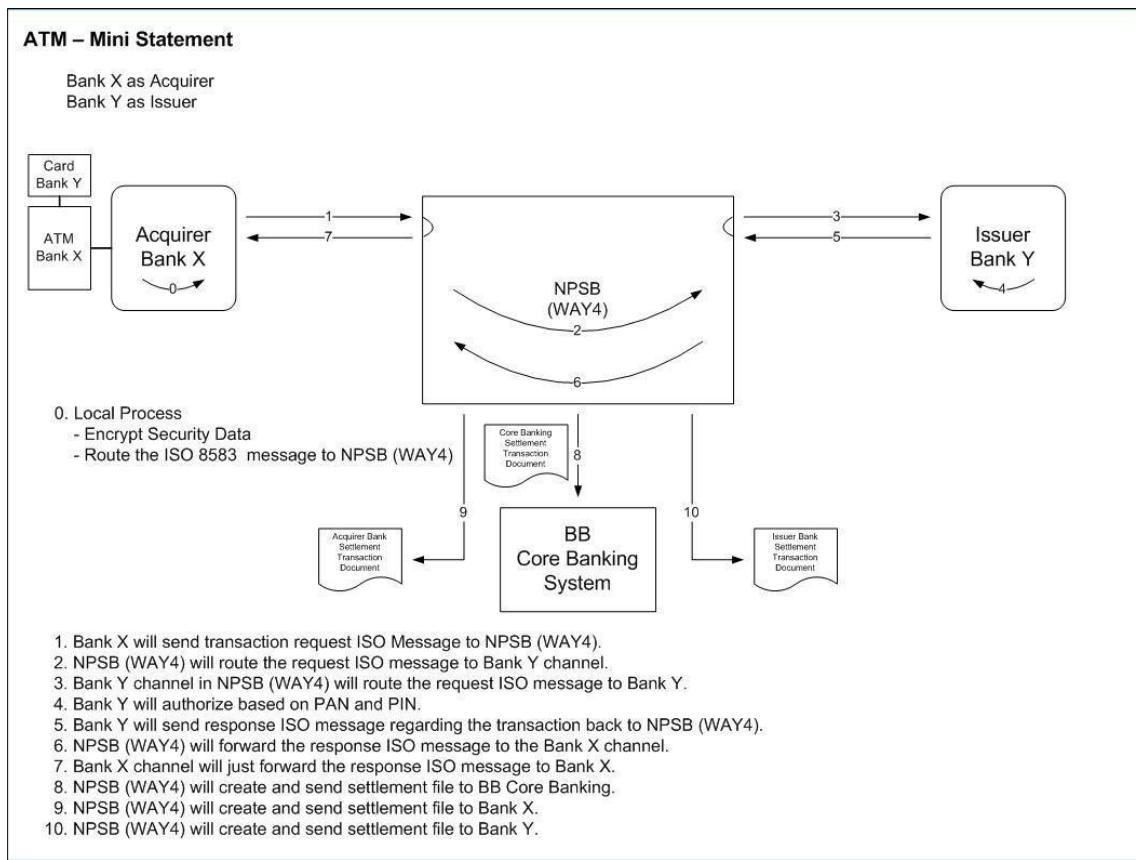
**Issuer/Destination Bank will receive DE47 on 0100 message even if the Acquirer Bank does not send DE47.

Notes for ATM Cash Deposit:

- The Account supported for ATM Cash Deposit is Beneficiary Card Number.
- The Type of account is the default account of Beneficiary Card Number.
- The Modes of Operation is only Deposit with card.

G. ATM Mini Statements

1. ATM Mini Statements Transaction Flow



2. Mini Statements Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000001111222230
3	Processing Code	M	MR	320000
4	Amount Transaction	M	MR	000000000000
7	Transmission Date & Time	M	MR	1015110700
11	System Trace Audit Number	M	MR	150701
12	Local Transaction Time	M		110700
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209
18	Merchant's Type	M		6011
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
35	Track-2 Data	M		2000001111222230=3209221
37	Retrieval Reference Number	M	MR	121015110700
38	Authorization Code Response		M	A23434
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47		O	9100012
47.10	PDS910 Card Authentication Results		O	9100012
49	Transaction Currency Code	M	MR	050
52	Personal Identification Number (PIN)	M		F181203815FDC121
53	Security Related Control Information	M		9801010000000000
55	ICC Related Data	O	O	"Please see Appendix H for more details".
112	Additional Info*	M		F013D20954574841545F545258D3065441544D4 D53
125	Supporting Information		O	121013F050C000001000000121014F050C000002 500000121015F050C00001500000121016F050C 000007000000121017F050C000008000000
128	Message Authentication Code	C1	C1	E4B76DF300000012

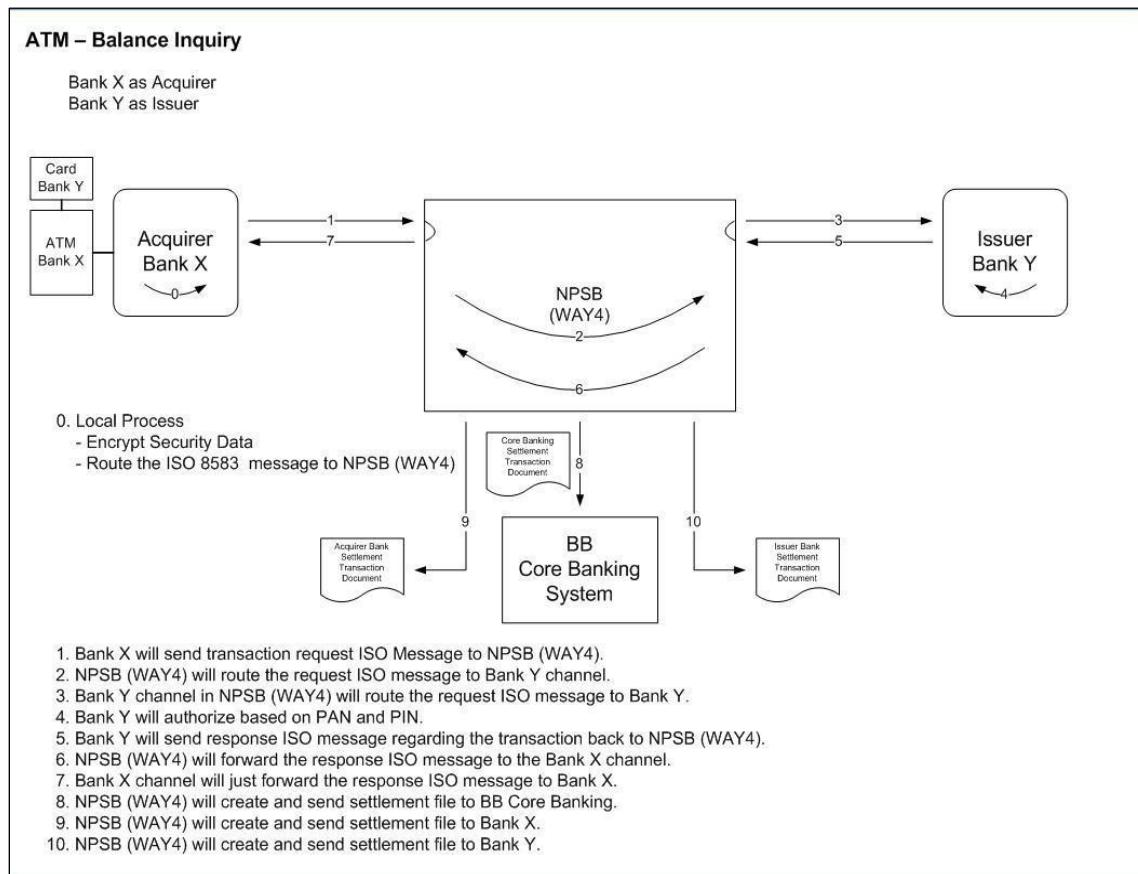
Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

**Issuer/Destination Bank will receive DE47 on 0100 message even if the Acquirer Bank does not send DE47.

H. ATM Balance Inquiry

1. ATM Balance Inquiry Transaction Flow



2. Balance Inquiry Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000001111222230
3	Processing Code	M	MR	300000
4	Amount Transaction	M	MR	000000000000
6	Cardholder Billing Amount	O	OR	000000000000
7	Transmission Date & Time	M	MR	1015110800
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	150801
12	Local Transaction Time	M		110800
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209
18	Merchant's Type	M		6011



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
35	Track-2 Data	M		2000001111222230=3209221
37	Retrieval Reference Number	M	MR	251015110800
38	Authorization Code Response		M	A23434
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47		O	9100012
47.10	PDS910 Card Authentication Results		O	9100012
49	Transaction Currency Code	M	MR	050
51	Cardholder Billing Currency Code	O	OR	050
52	Personal Identification Number (PIN)	M		F181203815FDC121
53	Security Related Control Information	M		9801010000000000
54	Additional Amounts		O	1002050C000001000000
55	ICC Related Data	O	O	"Please see Appendix H for more details".
112	Additional Info	M		F013D20954574841545F545258D3065441544D4249
128	Message Authentication Code	C1	C1	E4B76DF300000012

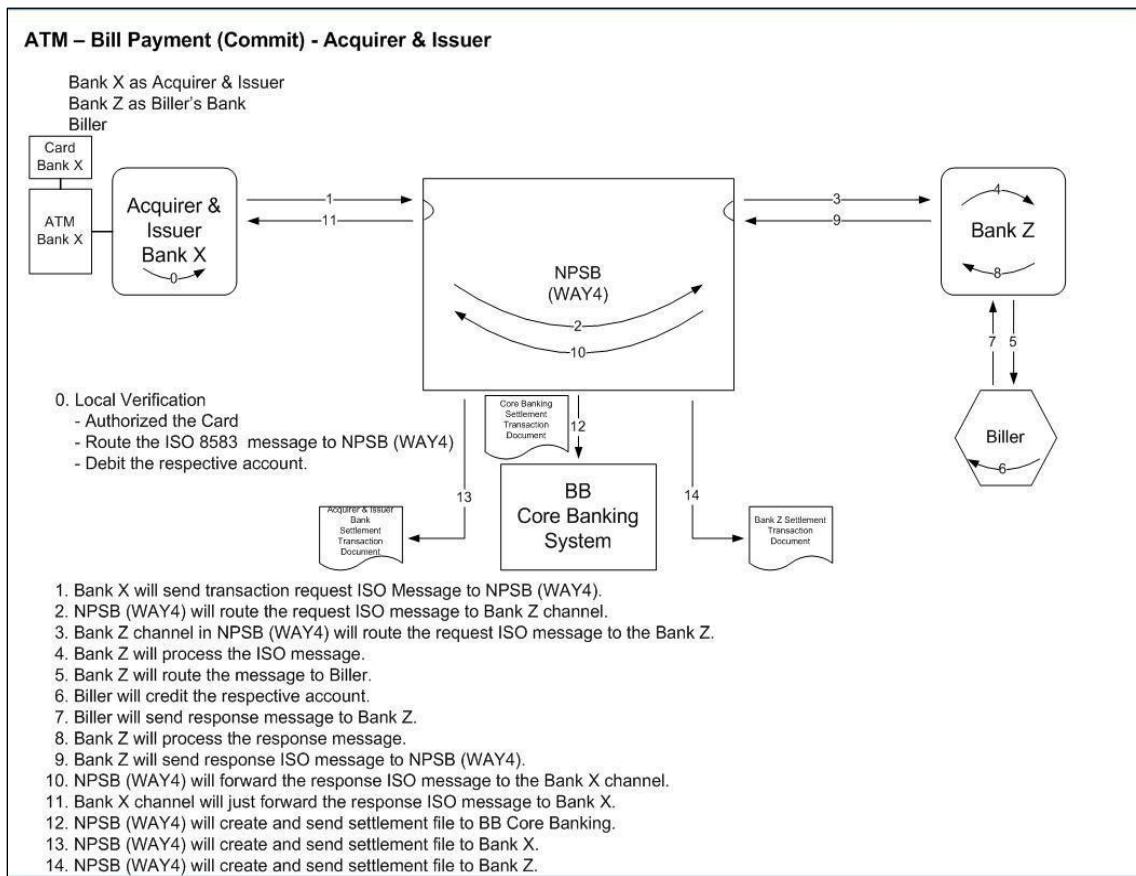
Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

**Issuer/Destination Bank will receive DE47 on 0100 message even if the Acquirer Bank does not send DE47.

I. ATM Bill Payment (ATMBP01)

1. ATM Bill Payment Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	3000004444555560
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Cardholder Billing Amount	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015110900
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	150901
12	Local Transaction Time	M		110900
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		9399
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
37	Retrieval Reference Number	M	MR	261015110900
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270161000001111222230
47.27	PDS927 Counterpart Account ID	M		9270161000001111222230
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
55	ICC Related Data	O	O	"Please see Appendix H for more details".
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		Please see DE112 With Field Sub-elements for detailed description, Appendix A for DE112 message development, and Appendix B for sample data details.
128	Message Authentication Code	C1	C1	E4B76DF300000000

Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if Biller Bank does not response with DE112.

**Biller Bank will receive DE47 on 0100 message even if the Acquirer/Issuer Bank does not send DE47.

DE2 Primary Account Number

This field consists of 6 digits BIN which is Bank Code and followed by first 10 digits of account number if the destination is Account.

This field consists of biller's PAN if the destination is Card.

DE103 Account Identification-2

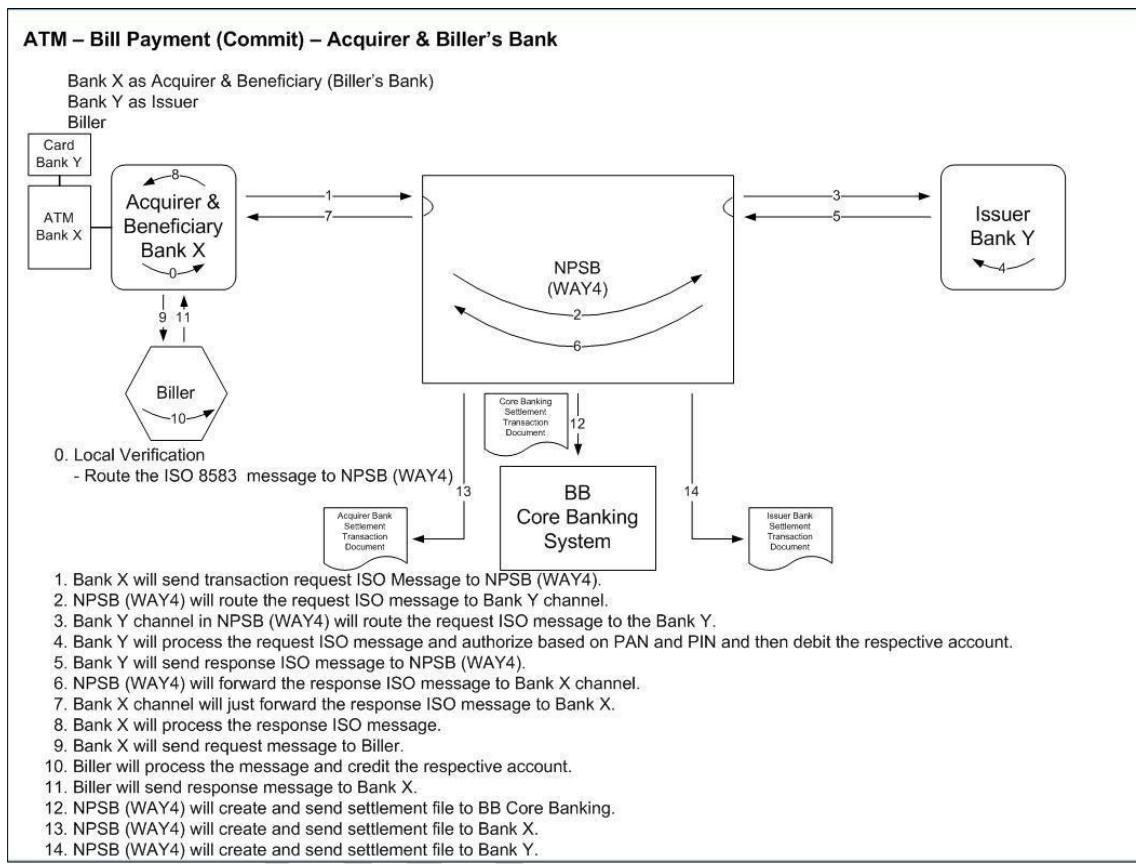


This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

CONFIDENTIAL

J. ATM Bill Payment (ATMBP02)

1. ATM Bill Payment Transaction Flow



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230
3	Processing Code	M	MR	M	MR	100000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Cardholder Billing Amount	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015111700
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	151701
12	Local Transaction Time	M		M		111700
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



18	Merchant's Type	M		M		9399
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
35	Track-2 Data	M				2000001111222230=3209221
37	Retrieval Reference Number	M	MR	M	MR	261015111700
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M	O	O		91000129270101712341234
47.10	PDS910 Card Authentication Results		O			9100012
47.27	PDS927 Counterpart Account ID	M		O		9270101712341234
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	M				F181203815FDC121
53	Security Related Control Information	M				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	O	010015170110151117000000121 212000 00000000
112	Additional Info	M				F015D20954574841545F545258D 3085441544D42503032
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

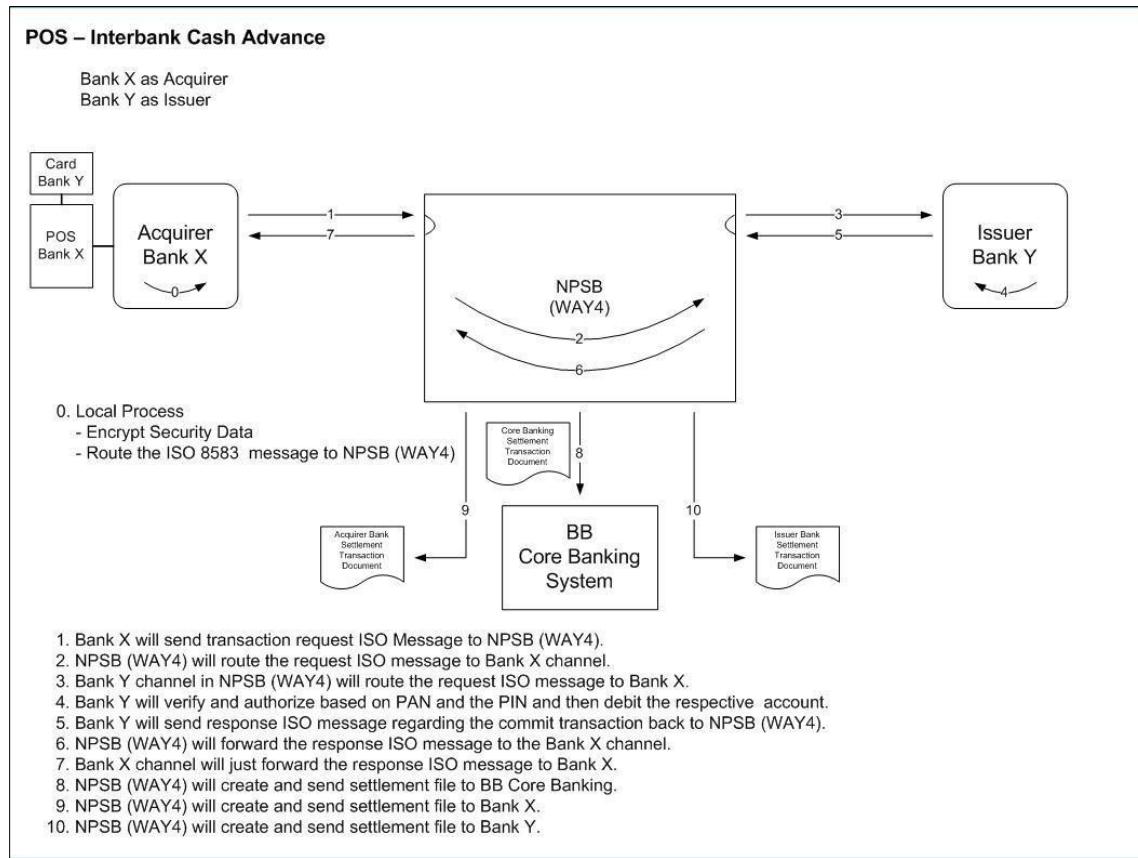
Note:

*Acquirer/Beneficiary Bank will receive DE112 on 0110 message even if the Issuer Bank does not response with DE112.

**Issuer Bank will receive DE47 on 0100 and 0420 message even if the Acquirer/Beneficiary Bank does not send DE47.

K. POS Cash Advance (Cashout)

1. POS Cash Advance Transaction Flow



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222232
3	Processing Code	M	MR	M	MR	010000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Cardholder Billing Amount	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015111800
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	151801
12	Local Transaction Time	M		M		111800
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
18	Merchant's Type	M		M		6010
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
35	Track-2 Data	C				2000001111222232=3209221
37	Retrieval Reference Number	M	MR	M	MR	311015111800
38	Authorization Code Response		M	O		A62382
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	C				F181203815FDC121
53	Security Related Control Information	C				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	010015170110151117000000121 212 000000000000
112	Additional Info	M				F013D20954574841545F545258D 30654504 F534341
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

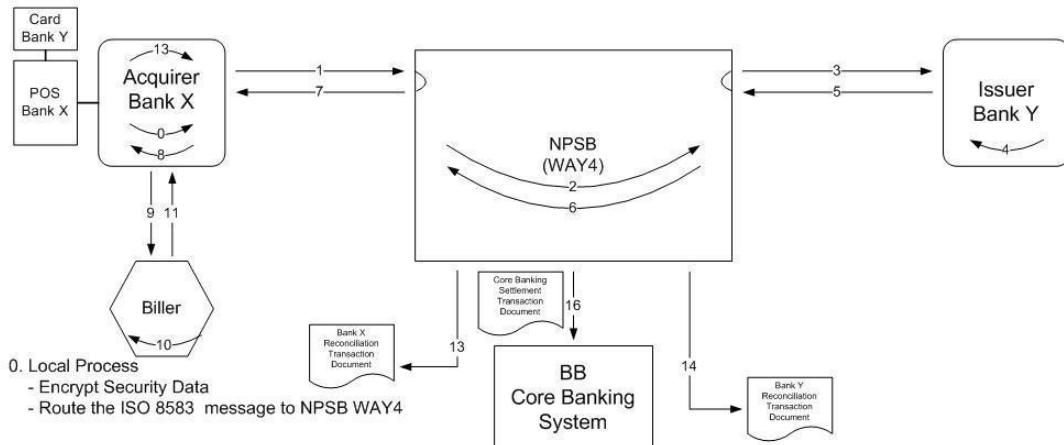
**Issuer/Destination Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

L. POS Bill Payment

1. POS Bill Payment Transaction Flow

POS – Bill Payment (Commit) - Acquirer & Biller's Bank

Bank X as Acquirer & Biller's Bank
 Bank Y as Issuer
 Biller



1. Bank X will send transaction request ISO Message to NPSB (WAY4).
2. NPSB (WAY4) will route the request ISO message to Bank Y channel.
3. Bank Y channel in NPSB (WAY4) will route the request ISO message to the Bank Y.
4. Bank Y will process and authorize the request ISO message and debit the respective account.
5. Bank Y will send response ISO message regarding the transaction back to NPSB (WAY4).
6. NPSB (WAY4) will forward the response ISO message to Bank X channel.
7. Bank X channel will just forward the response ISO message to Bank X.
8. Bank X will process the response ISO message.
9. Bank X will send message to Biller.
10. Biller will process the message and flag the respective account.
11. Biller will send response message to Bank X.
12. NPSB (WAY4) will create and send reconciliation file to Bank X.
13. NPSB (WAY4) will create and send reconciliation file to Bank Y.

2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222232
3	Processing Code	M	MR	M	MR	100000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015111900
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	151901
12	Local Transaction Time	M		M		111900
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
18	Merchant's Type	M		M		9399
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
35	Track-2 Data	C				2000001111222232=3209221
37	Retrieval Reference Number	M	MR	M	MR	331015111900
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M	O	O		91000129270101712341234
47.10	PDS910 Card Authentication Results		O			9100012
47.27	PDS927 Counterpart Account ID	M		O		9270101712341234
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	C				F181203815FDC121
53	Security Related Control Information	C				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	010015170110151117000000121 21200000000000001001517011015 1117000000012121200000000000
112	Additional Info	M				F013D20954574841545F545258D 30654504F534250F013D20954574 841545F545258D30654504F53425 0
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

**Issuer/Destination Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

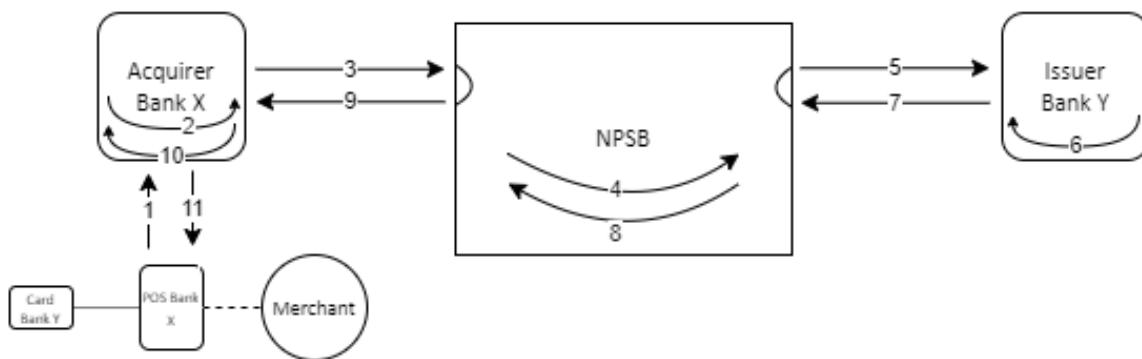
M. POS Preauthorization

POS Preauthorization transactions are usually done in merchant rental business such hotel and transportation rental. The transaction enables issuer to authorize the card and to block the card's balance. In this message there is information about active duration which issuer can use for defining how long the blocked amount stay active.

There is next transaction called Completion transaction to be done to clear the blocked amount and debit the balance of the cardholder.

1. POS Preauthorization Transaction Flow

POS - PreAuthorization - Acquirer & Merchant's Bank



1. Merchant's device sends transaction request message to it's acquiring bank
2. Bank X routes the message to NPSB WAY4
3. Bank X sends transaction request ISO 8583 message to NPSB
4. NPSB routes the request ISO 8583 message to Bank Y
5. NPSB's Bank Y channel interface forwards the request ISO 8583 message to Bank Y
6. Bank Y processes and authorizes the card data and then block the balance of the respective cardholder account
7. Bank Y sends response ISO 8583 message back to NPSB
8. NPSB routes the response ISO 8583 message to Bank X
9. NPSB's Bank X channel interface forwards the response ISO 8583 message back to Bank X
10. Bank X processes the response ISO 8583 message
11. Bank X sends the response message to Merchant's Device

2. POS Preauthorization Message to Block Funds of Cardholder

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222232
3	Processing Code	M	MR	M	MR	000000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015111900
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	151901
12	Local Transaction Time	M		M		111900
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209
18	Merchant's Type	M		M		7011
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
35	Track-2 Data	C				2000001111222232=3209221
37	Retrieval Reference Number	M	MR	M	MR	331015111900
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	O	O			9100012918003101
47.10	PDS910 Card Authentication Results		O			9100012
47.18	PDS918 Function Code	O				918003101
48	Proprietary Field 48	O				83200510080
48.32	PDS832 Duration	O				83200510080 (the duration in minute of how long the blocked amount stays active)
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	C				F181203815FDC121
53	Security Related Control Information	C				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
						details".
90	Original Data Element			O	OR	010015170110151117000000121 212 00000000000
112	Additional Info	M				F013D20954574841545F545258D 30654504F535041
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000000

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

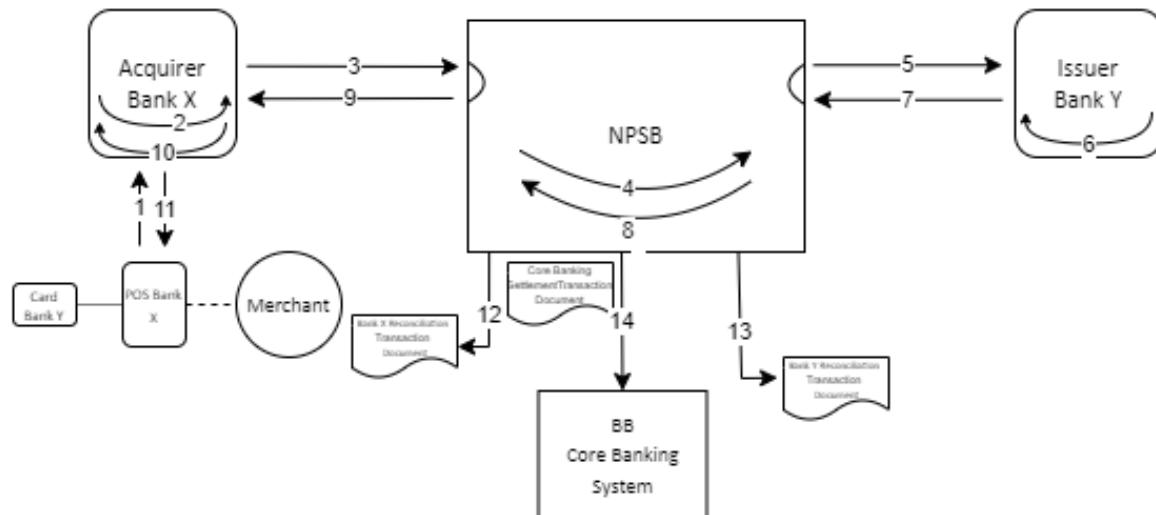
**Issuer/Destination Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

CONFIDENTIAL

N. POS Preauthorization Completion

1. POS Preauthorization Completion Transaction Flow

POS - Completion of PreAuthorization - Acquirer & Merchant's Bank



1. Merchant's device sends transaction request message to it's acquiring bank
2. Bank X routes the message to NPSB WAY4
3. Bank X sends transaction request ISO 8583 message to NPSB
4. NPSB routes the request ISO 8583 message to Bank Y
5. NPSB's Bank Y channel interface forwards the request ISO 8583 message to Bank Y
6. Bank Y processes and authorizes the card data and then settles the transaction to the respective cardholder account
7. Bank Y sends response ISO 8583 message back to NPSB
8. NPSB routes the response ISO 8583 message to Bank X
9. NPSB's Bank X channel interface forwards the response ISO 8583 message back to Bank X
10. Bank X processes the response ISO 8583 message
11. Bank X sends the response message to Merchant's Device
12. NPSB generates the transaction reconciliation file for Bank X
13. NPSB generates the transaction reconciliation file for Bank Y
14. NPSB settles the transaction to Bank X and Bank Y account respectively

2. Debit Message to NPSB (Completion of Preauthorization transaction)

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222232
3	Processing Code	M	MR	M	MR	000000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015112100
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	152101
12	Local Transaction Time	M		M		112100
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209
18	Merchant's Type	M		M		7011
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
35	Track-2 Data	C				2000001111222232=3209221
37	Retrieval Reference Number	M	MR	M	MR	331015112100
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	O	O			9100012918003102
47.10	PDS910 Card Authentication Results		O			9100012
47.18	PDS918 Function Code	O				918003102
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	C				F181203815FDC121
53	Security Related Control Information	C				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	010015170110151117000000121 212000000000000
112	Additional Info	M				F015D20954574841545F545258D 30854504F5352505041



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

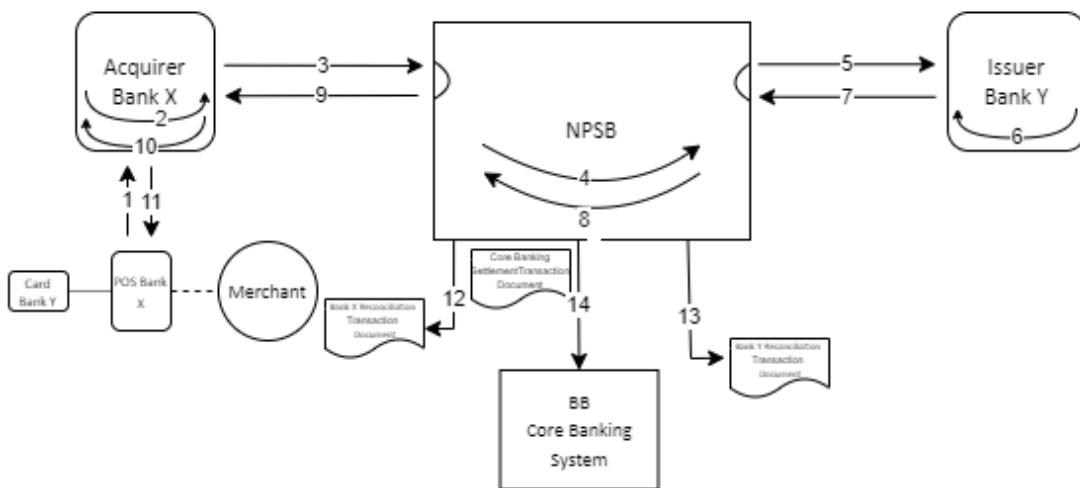
**Issuer/Destination Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

CONFIDENTIAL

O. POS Retail Purchase

1. POS Retail Purchase Transaction Flow

POS - Retail Purchase - Acquirer & Merchant's Bank



1. Merchant's device sends transaction request message to it's acquiring bank
2. Bank X routes the message to NPSB WAY4
3. Bank X sends transaction request ISO 8583 message to NPSB
4. NPSB routes the request ISO 8583 message to Bank Y
5. NPSB's Bank Y channel interface forwards the request ISO 8583 message to Bank Y
6. Bank Y processes and authorizes the card data and then debits the respective cardholder account
7. Bank Y sends response ISO 8583 message back to NPSB
8. NPSB routes the response ISO 8583 message to Bank X
9. NPSB's Bank X channel interface forwards the response ISO 8583 message back to Bank X
10. Bank X processes the response ISO 8583 message
11. Bank X sends the response message to Merchant's Device
12. NPSB generates the transaction reconciliation file for Bank X
13. NPSB generates the transaction reconciliation file for Bank Y
14. NPSB settles the transaction to Bank X and Bank Y account respectively

2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222232
3	Processing Code	M	MR	M	MR	000000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015112100
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
11	System Trace Audit Number	M	MR	M	MR	152101
12	Local Transaction Time	M		M		112100
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209
18	Merchant's Type	M		M		5999 or ISO8583 standard merchant codes
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
35	Track-2 Data	C				2000001111222232=3209221
37	Retrieval Reference Number	M	MR	M	MR	331015112100
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47		O			9100012
47.10	PDS910 Card Authentication Results		O			9100012
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	C				F181203815FDC121
53	Security Related Control Information	C				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	010015170110151117000000121 2120000000000000
112	Additional Information	M				F013D20954574841545F545258D 30654504F535250
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

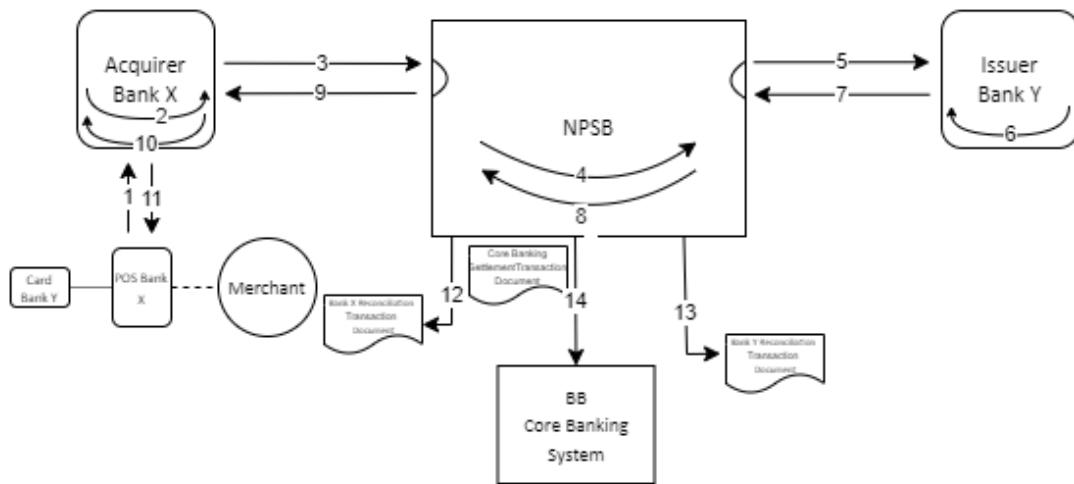
*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

**Issuer/Destination Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

P. POS Retail Purchase with Cashout

1. POS Retail Purchase with Cashout Transaction Flow

POS - Purchase with Cashout - Acquirer & Merchant's Bank



1. Merchant's device sends transaction request message to it's acquiring bank
2. Bank X routes the message to NPSB WAY
3. Bank X sends transaction request ISO 8583 message to NPSB
4. NPSB routes the request ISO 8583 message to Bank Y
5. NPSB's Bank Y channel interface forwards the request ISO 8583 message to Bank Y
6. Bank Y processes and authorizes the card data and then debits the respective cardholder account
7. Bank Y sends response ISO 8583 message back to NPSB
8. NPSB routes the response ISO 8583 message to Bank X
9. NPSB's Bank X channel interface forwards the response ISO 8583 message back to Bank X
10. Bank X processes the response ISO 8583 message
11. Bank X sends the response message to Merchant's Device
12. NPSB generates the transaction reconciliation file for Bank X
13. NPSB generates the transaction reconciliation file for Bank Y
14. NPSB settles the transaction to Bank X and Bank Y account respectively

2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222232
3	Processing Code	M	MR	M	MR	090000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015112100
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
11	System Trace Audit Number	M	MR	M	MR	152101
12	Local Transaction Time	M		M		112100
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209
18	Merchant's Type	M		M		5999 or ISO8583 standard merchant codes
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
35	Track-2 Data	C				2000001111222232=3209221
37	Retrieval Reference Number	M	MR	M	MR	331015112100
38	Authorization Code Response		M	O		A62382
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	C				F181203815FDC121
53	Security Related Control Information	C				9801010000000000
54	Additional Amount	M		M		0040050D000000100000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	010015170110151117000000121 2120000000000000
112	Additional Information	M				F013D20954574841545F545258D 30654504F535250
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

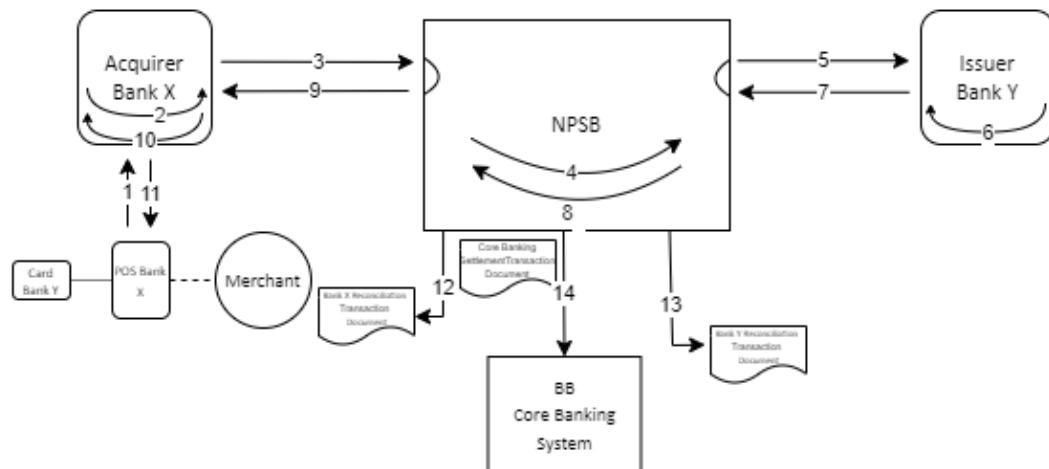
**Issuer/Destination Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

Q. POS Purchase Refund

1. Purchase Refund Transaction Flow

POS - Retail Purchase Refund - Acquirer & Merchant's Bank

Bank X as Acquirer & Merchant's Bank
Bank Y as Issuer



1. Merchant's device sends transaction request message to its acquiring bank
2. Bank X routes The ISO 8583 message to NPSB WAY4
3. Bank X sends transaction request ISO 8583 message to NPSB
4. NPSB routes the request ISO 8583 message to Bank Y channel
5. Bank Y channel interface forwards the request ISO 8583 message to Bank Y
6. Bank Y processes and authorizes the request ISO 8583 message and card data and then credit the respective cardholder account
7. Bank Y sends response ISO 8583 message back to NPSB
8. NPSB routes the response ISO 8583 message to Bank X channel
9. Bank X channel interface forwards the response ISO 8583 message back to Bank X
10. Bank X processes the response ISO 8583 message
11. Bank X sends the response message to Merchant's Device
12. NPSB generates the transaction reconciliation file for Bank X
13. NPSB generates the transaction reconciliation file for Bank Y
14. NPSB settles the transaction to Bank X and Bank Y account respectively

2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000001111222232
3	Processing Code	M	MR	200000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015112300



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152301
12	Local Transaction Time	M		112300
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209
18	Merchant's Type	M		5999 or ISO8583 standard merchant codes
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	111111
35	Track-2 Data	C		2000001111222232=3209221
37	Retrieval Reference Number	M	MR	211015112300
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
52	Personal Identification Number (PIN)	C		F181203815FDC121
53	Security Related Control Information	C		9801010000000000
112	Additional Info	M		F013D20954574841545F545258D30654504F5352 50
128	Message Authentication Code	C1	C1	E4B76DF300000012

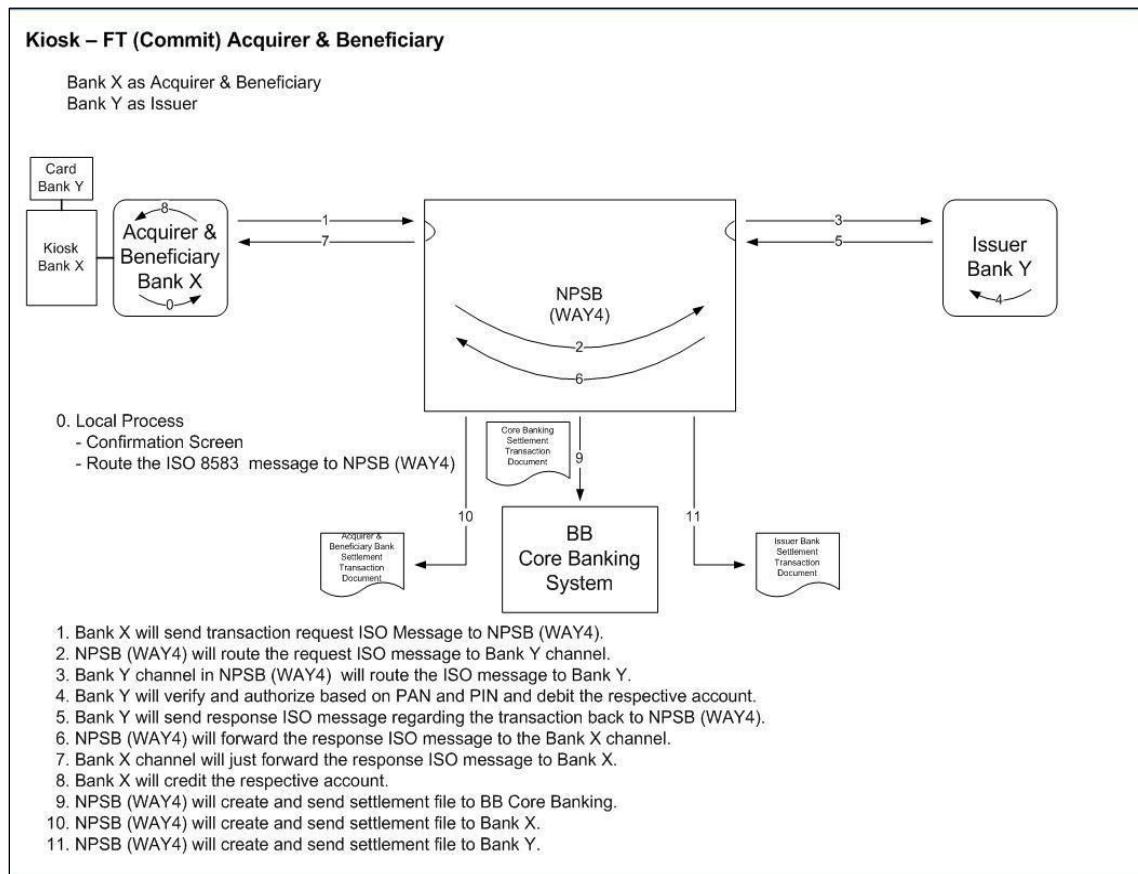
Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if the Beneficiary Bank does not response with DE112.

** Beneficiary Bank will receive DE47 on 0100 message even if the Acquirer/Issuer Bank does not send DE47.

R. Kiosk Funds Transfer (KIOSKFT01)

1. Kiosk Funds Transfer Transaction Flow



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230
3	Processing Code	M	MR	M	MR	100000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015112200
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	152201
12	Local Transaction Time	M		M		112200
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
18	Merchant's Type	M		M		4829
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	111111
35	Track-2 Data	M				2000001111222230=3209221
37	Retrieval Reference Number	M	MR	M	MR	211015112200
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	O	O	O		91000129270161000004444555560
47.10	PDS910 Card Authentication Results		O			9100012
47.27	PDS927 Counterpart Account ID	O		O		9270161000004444555560
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	M				F181203815FDC121
53	Security Related Control Information	M				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	01001517011015111700000012121200000000000
112	Additional Info	M				F017D20954574841545F545258D30A544B494F534B46543031
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

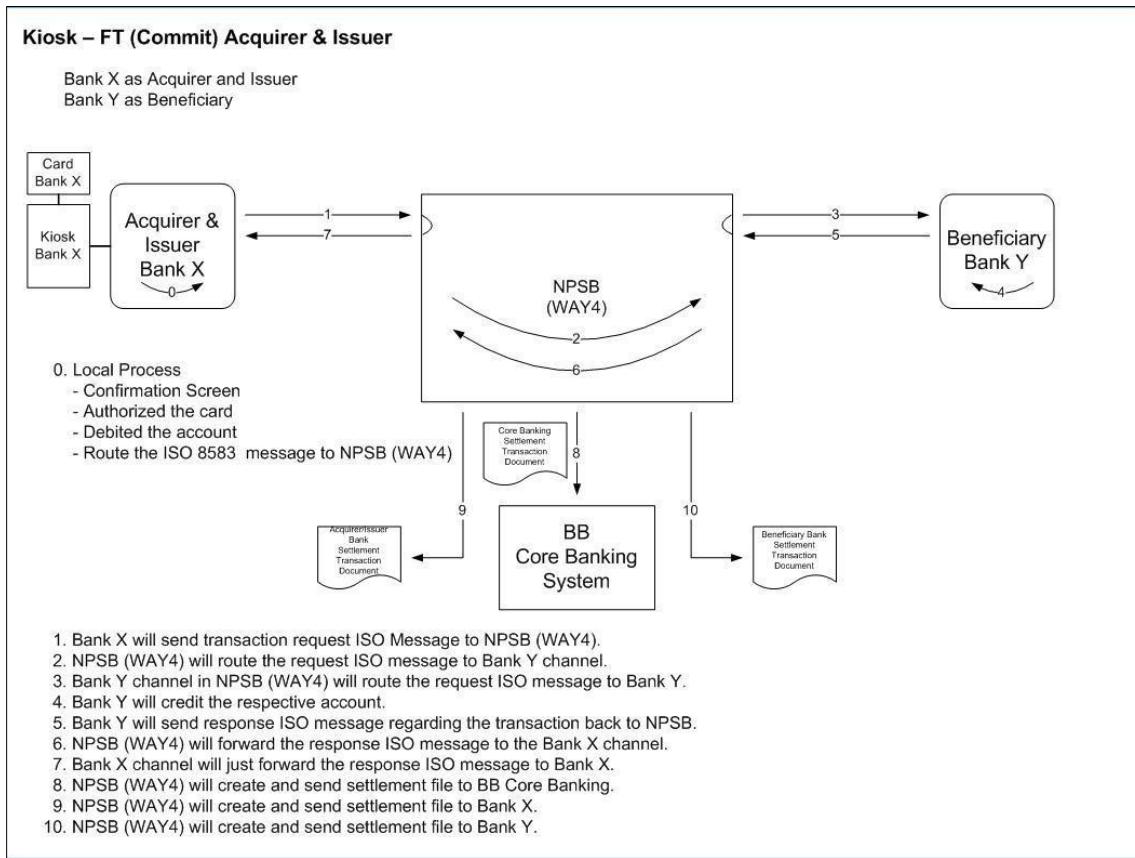
Note:

*Acquirer/Beneficiary Bank will receive DE112 on 0110 message even if the Issuer Bank does not response with DE112.

**Issuer Bank will receive DE47 on 0100 and 0420 message even if the Acquirer/Beneficiary Bank does not send DE47.

S. Kiosk Funds Transfer (KIOSKFT02)

1. Kiosk Funds Transfer Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000004444555560
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015112300
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152301
12	Local Transaction Time	M		112300
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	111111
37	Retrieval Reference Number	M	MR	211015112300
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270161000001111222230
47.27	PDS927 Counterpart Account ID	M		9270161000001111222230
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
55	ICC Related Data	O	O	"Please see Appendix H for more details".
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		For Card to Card: F01AD20954574841545F545258D30D544B494F5 34B46543032433243 For Card to Account: F01AD20954574841545F545258D30D544B494F5 34B46543032433241
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if the Beneficiary Bank does not response with DE112.

** Beneficiary Bank will receive DE47 on 0100 message even if the Acquirer/Issuer Bank does not send DE47.

DE2 Primary Account Number

This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account.

This field consists of beneficiary's PAN if the destination is Card.



DE103 Account Identification-2

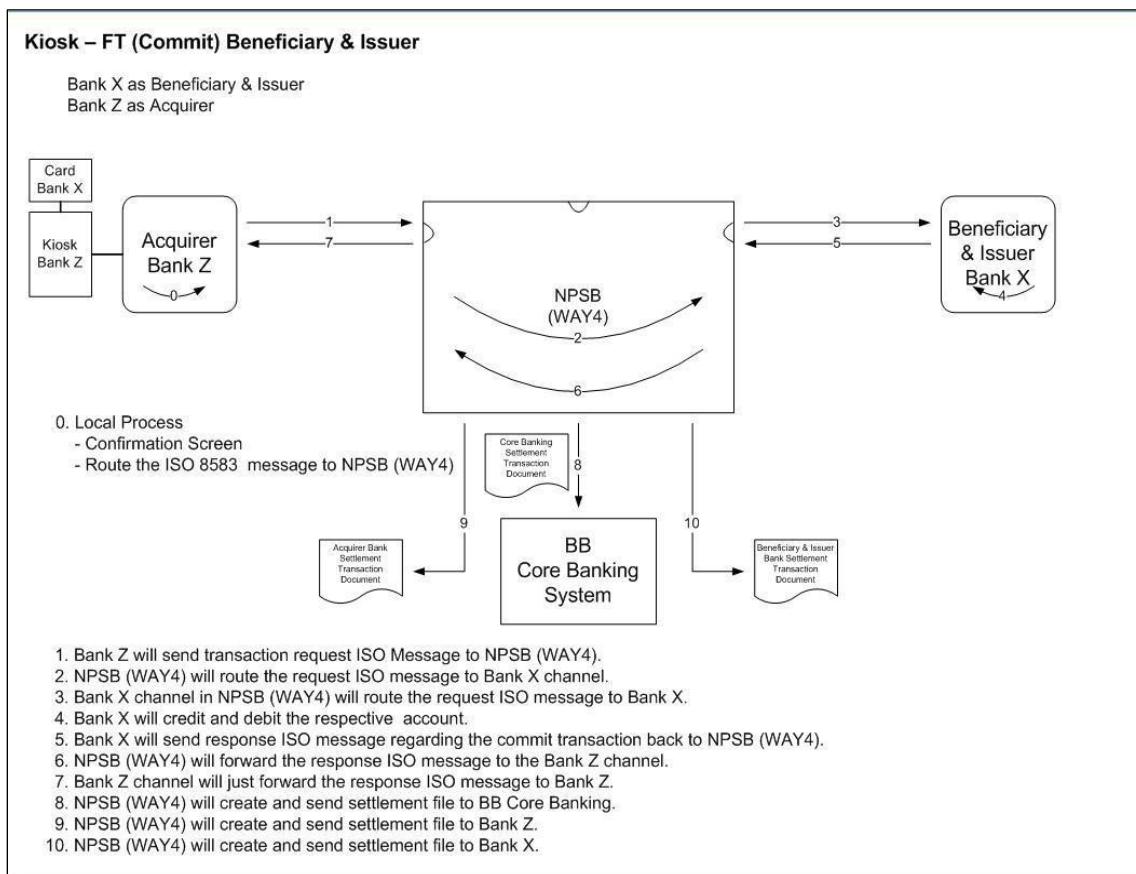
This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

CONFIDENTIAL

T. Kiosk Funds Transfer (KIOSKFT03)

1. Kiosk Funds Transfer Debit and Credit (Sent Separately) Transaction Flow

This scenario of transaction is initiated by NPSB member bank's cardholder using KIOSK terminal belonging to acquirer bank of NPSB. The destination account of this funds transfer belongs to the same issuer bank as the cardholder's bank. The message for debit and credit are sent separately by the acquiring bank with the same flow.



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230
3	Processing Code	M	MR	M	MR	100000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015112200
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	152201



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
12	Local Transaction Time	M		M		112200
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209
18	Merchant's Type	M		M		4829
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	111111
35	Track-2 Data	M				2000001111222230=3209221
37	Retrieval Reference Number	M	MR	M	MR	211015112200
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	O	O	O		91000129270162000004444555560
47.10	PDS910 Card Authentication Results		O			9100012
47.27	PDS927 Counterpart Account ID	O		O		9270162000004444555560
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	M				F181203815FDC121
53	Security Related Control Information	M				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	010015170110151117000000121212000000000000
112	Additional Info	M				<p>For Card to Card: F01AD20954574841545F545258D 30D544B494F534B46543033433243</p> <p>For Card to Account: F01AD20954574841545F545258D 30D544B494F534B465430334332</p>



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
						41
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Beneficiary/Issuer Bank does not response with DE112.

**Beneficiary/Issuer Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

3. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000004444555560
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015112300
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152301
12	Local Transaction Time	M		112300
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	111111
37	Retrieval Reference Number	M	MR	211015112300
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270162000001111222230
47.27	PDS927 Counterpart Account ID	M		9270162000001111222230
48	Proprietary Field 48	O	OR	84801422814215673348



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
55	ICC Related Data	O	O	"Please see Appendix H for more details".
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		For Card to Card: F01AD20954574841545F545258D30D544B494F5 34B46543033433243 For Card to Account: F01AD20954574841545F545258D30D544B494F5 34B46543033433241
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Beneficiary/Issuer Bank does not response with DE112.

** Beneficiary/Issuer Bank will receive DE47 on 0100 message even if the Acquirer Bank does not send DE47.

DE2 Primary Account Number

This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account.

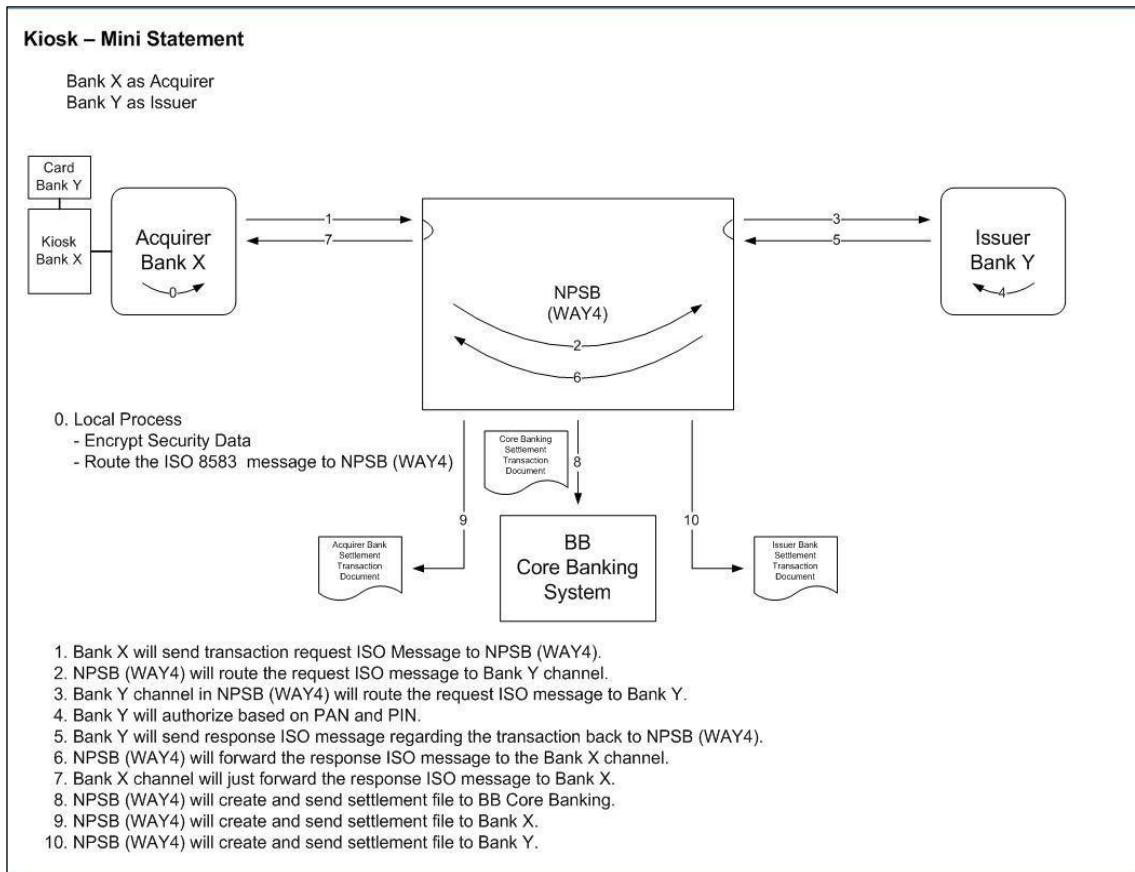
This field consists of beneficiary's PAN if the destination is Card.

DE103 Account Identification-2

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

U. Kiosk Mini Statement

1. Kiosk Mini Statement Transaction Flow



2. Mini Statement Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000001111222230
3	Processing Code	M	MR	320000
4	Amount Transaction	M	MR	000000000000
7	Transmission Date & Time	M	MR	1015110700
11	System Trace Audit Number	M	MR	150701
12	Local Transaction Time	M		110700
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209
18	Merchant's Type	M		6015
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021



23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
35	Track-2 Data	M		2000001111222230=3209221
37	Retrieval Reference Number	M	MR	121015110700
38	Authorization Code Response		M	A23434
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47		O	9100012
47.10	PDS910 Card Authentication Results		O	9100012
49	Transaction Currency Code	M	MR	050
52	Personal Identification Number (PIN)	M		F181203815FDC121
53	Security Related Control Information	M		9801010000000000
55	ICC Related Data	O	O	"Please see Appendix H for more details".
112	Additional Info	M		F015D20954574841545F545258D308544B494F53 4B4D53
125	Supporting Information		O	121013F050C00000100000121014F050C000002 500000121015F050C00000150000121016F050C 000007000000121017F050C000008000000
128	Message Authentication Code	C1	C1	E4B76DF300000012

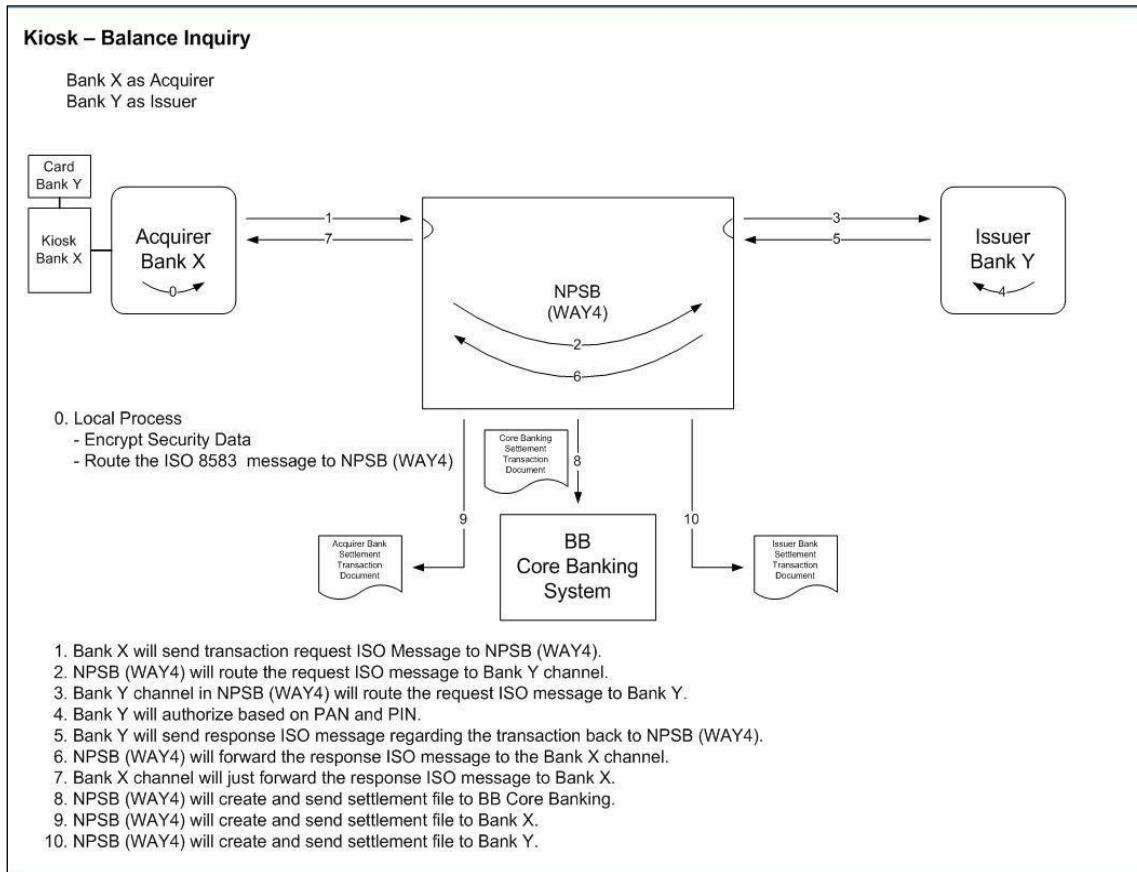
Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

**Issuer/Destination Bank will receive DE47 on 0100 message even if the Acquirer Bank does not send DE47.

V. Kiosk Balance Inquiry

1. Kiosk Balance Inquiry Transaction Flow



2. Balance Inquiry Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000001111222230
3	Processing Code	M	MR	300000
4	Amount Transaction	M	MR	000000000000
6	Cardholder Billing Amount	O	OR	000000000000
7	Transmission Date & Time	M	MR	1015110800
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	150801
12	Local Transaction Time	M		110800
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209
18	Merchant's Type	M		6015



19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
35	Track-2 Data	M		2000001111222230=3209221
37	Retrieval Reference Number	M	MR	251015110800
38	Authorization Code Response		M	A23434
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47		O	9100012
47.10	PDS910 Card Authentication Results		O	9100012
49	Transaction Currency Code	M	MR	050
51	Cardholder Billing Currency Code	O	OR	050
52	Personal Identification Number (PIN)	M		F181203815FDC121
53	Security Related Control Information	M		9801010000000000
54	Additional Amounts		O	1002050C000001000000
55	ICC Related Data	O	O	"Please see Appendix H for more details".
112	Additional Info	M		F015D20954574841545F545258D308544B494F53 4B4249
128	Message Authentication Code	C1	C1	E4B76DF300000012

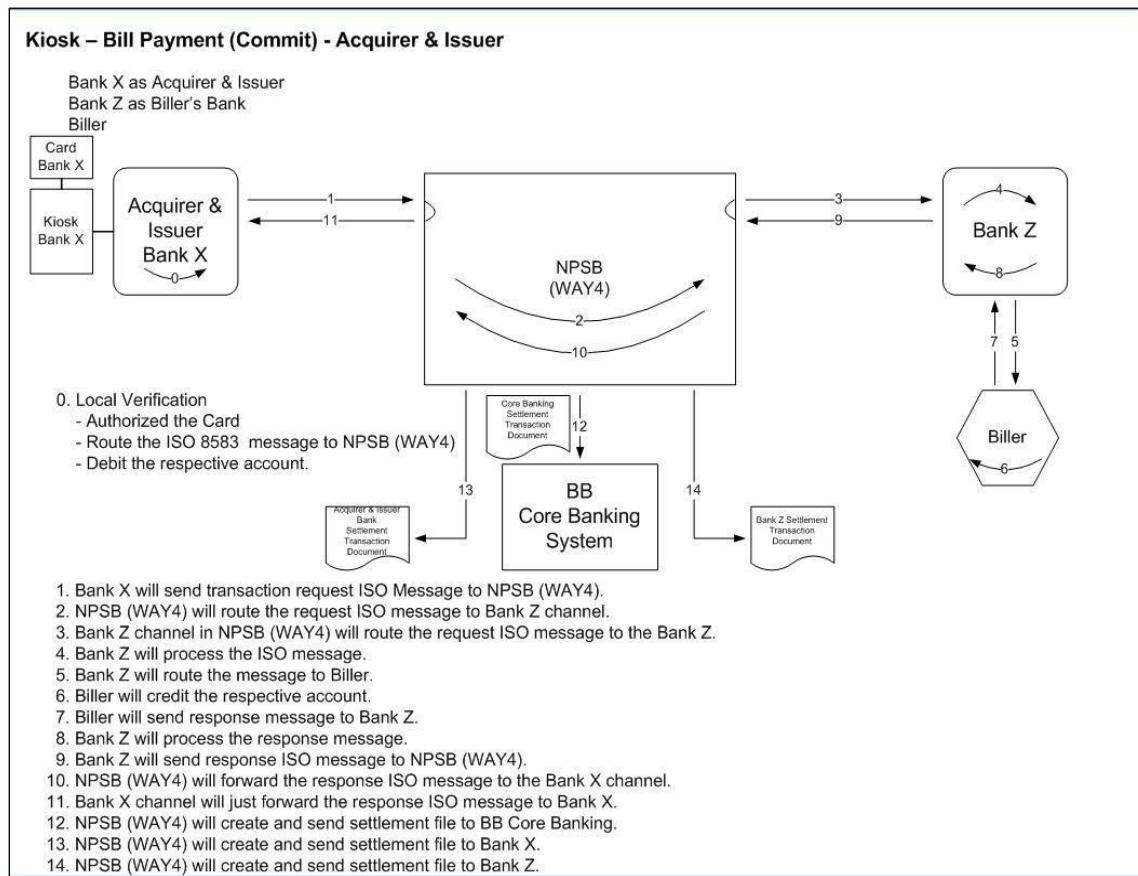
Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

**Issuer/Destination Bank will receive DE47 on 0100 message even if the Acquirer Bank does not send DE47.

W. Kiosk Bill Payment (KIOSKBP01)

1. Kiosk Bill Payment Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	17000001234123460 <customer bill account ID>
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Cardholder Billing Amount	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015110900
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	150901
12	Local Transaction Time	M		110900
13	Local Transaction Date	M		1015



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
14	Expiration Date	O		3209
18	Merchant's Type	M		9399
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		021
23	Card Sequence Number	O	OR	001
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
37	Retrieval Reference Number	M	MR	261015110900
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270161000001111222230
47.27	PDS927 Counterpart Account ID	M		9270161000001111222230
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
55	ICC Related Data	O	O	"Please see Appendix H for more details".
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		Please see DE112 With Field Sub-elements for detailed description, Appendix A for DE112 message development, and Appendix B for sample data details.
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if the Biller Bank does not response with DE112.

** Biller Bank will receive DE47 on 0100 message even if the Acquirer/Issuer Bank does not send DE47.

DE2 Primary Account Number

This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account.

This field consists of biller's PAN if the destination is Card.



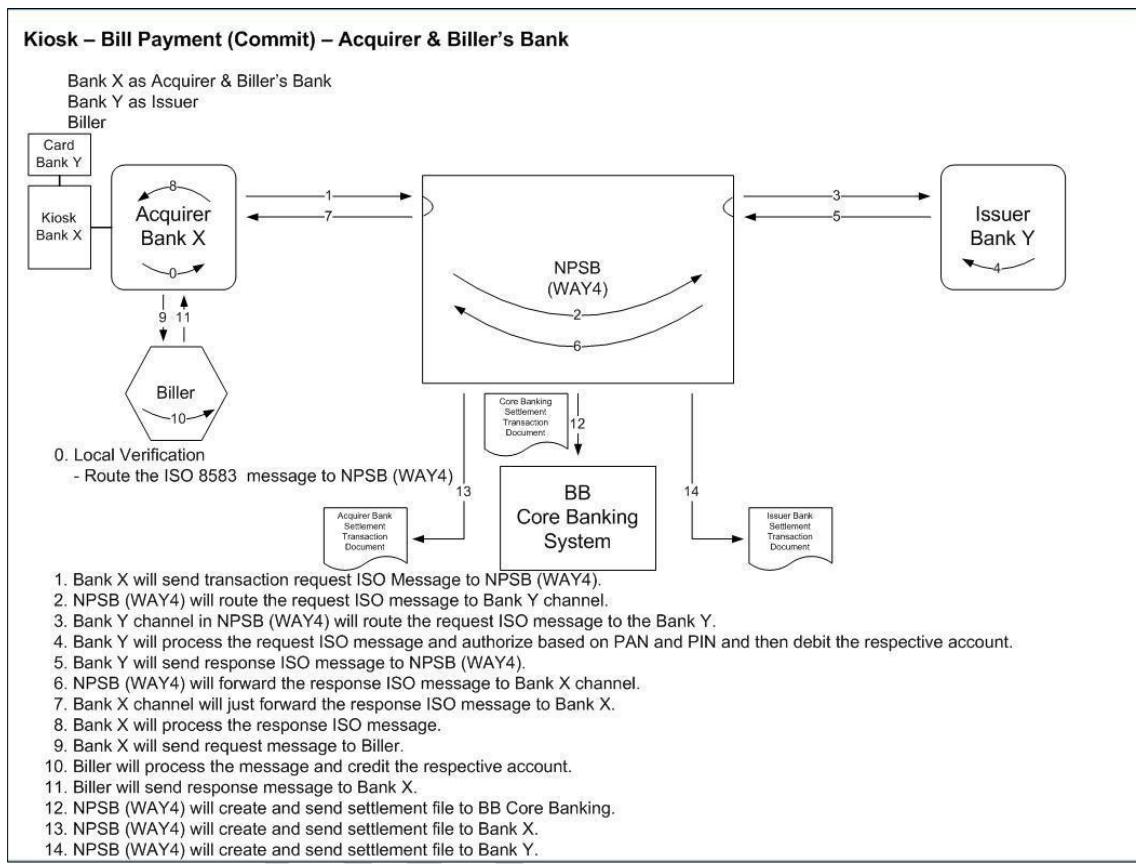
DE103 Account Identification-2

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

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X. Kiosk Bill Payment (KIOSKBP02)

1. Kiosk Bill Payment Transaction Flow



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230
3	Processing Code	M	MR	M	MR	100000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Cardholder Billing Amount	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015111700
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	151701
12	Local Transaction Time	M		M		111700
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
18	Merchant's Type	M		M		9399
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		021
23	Card Sequence Number	O	OR	O	OR	001
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
35	Track-2 Data	M				2000001111222230=3209221
37	Retrieval Reference Number	M	MR	M	MR	261015111700
38	Authorization Code Response		O			000001
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M	O	O		91000129270101712341234
47.10	PDS910 Card Authentication Results		O			9100012
47.27	PDS927 Counterpart Account ID	M		O		9270101712341234
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	C	MR/C			050
51	Cardholder Billing Currency Code	O	OR	O	OR	050
52	Personal Identification Number (PIN)	M				F181203815FDC121
53	Security Related Control Information	M				9801010000000000
55	ICC Related Data	O	O	O	O	"Please see Appendix H for more details".
90	Original Data Element			O	OR	0100151701101511170000000121 2120000000000000
112	Additional Info	M				F017D20954574841545F545258D 30A544B494F534B42503032
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

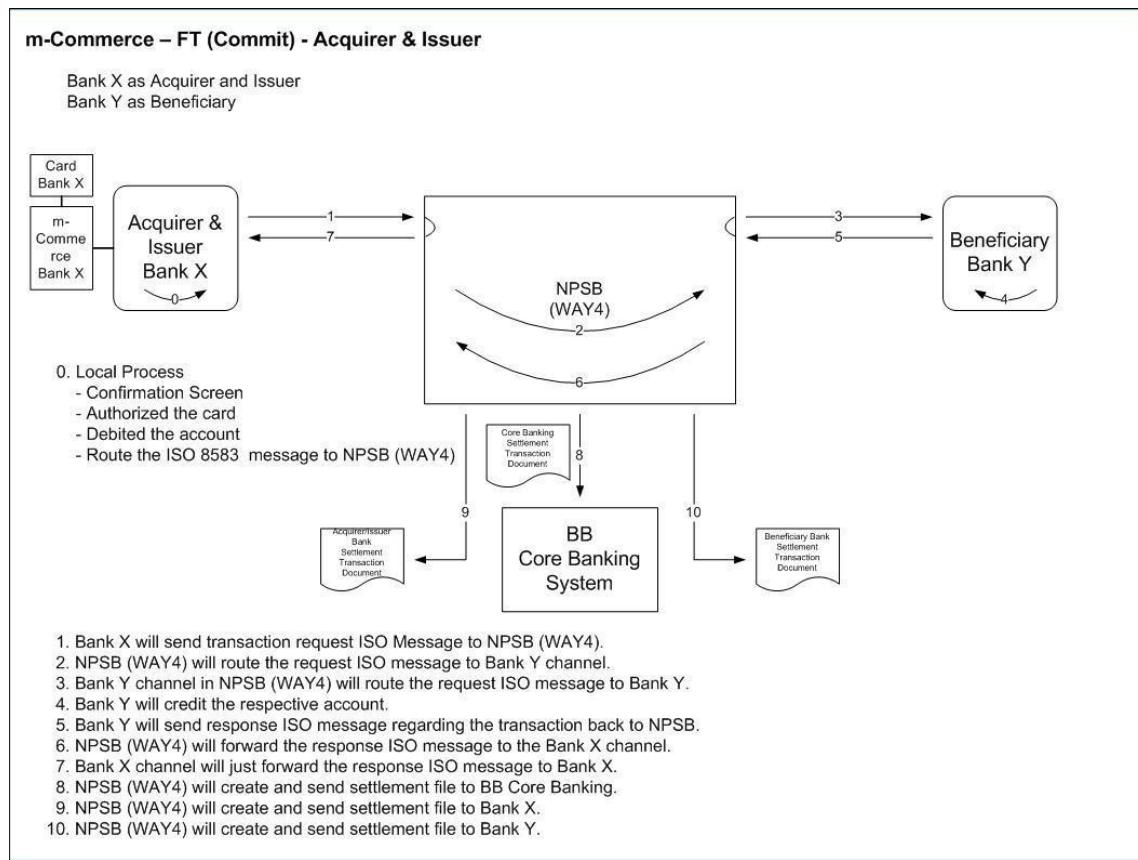
Note:

*Acquirer Bank will receive DE112 on 0110 message even if the Issuer/Destination Bank does not response with DE112.

**Issuer/Destination Bank will receive DE47 on 0100 and 0420 message even if the Acquirer Bank does not send DE47.

Y. Mobile Banking Funds Transfer

1. Mobile Banking Funds Transfer Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000004444555560
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015112900
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152901
12	Local Transaction Time	M		112900
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		812
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	111111
37	Retrieval Reference Number	M	MR	211015112900
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270161000001111222230
47.27	PDS927 Counterpart Account ID	M		9270161000001111222230
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		For Card to Card: F018D20954574841545F545258D30B544D42414 E4B4654433243 For Card to Account: F018D20954574841545F545258D30B544D42414 E4B4654433241 For Account to Account: F018D20954574841545F545258D30B544D42414 E4B4654413241 For Account to Card: F018D20954574841545F545258D30B544D42414 E4B4654413243
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if the Beneficiary Bank does not response with DE112.

** Beneficiary Bank will receive DE47 on 0100 and 0420 message even if the Acquirer/Issuer Bank does not send DE47.

DE2 Primary Account Number



This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account.

This field consists of beneficiary's PAN if the destination is Card.

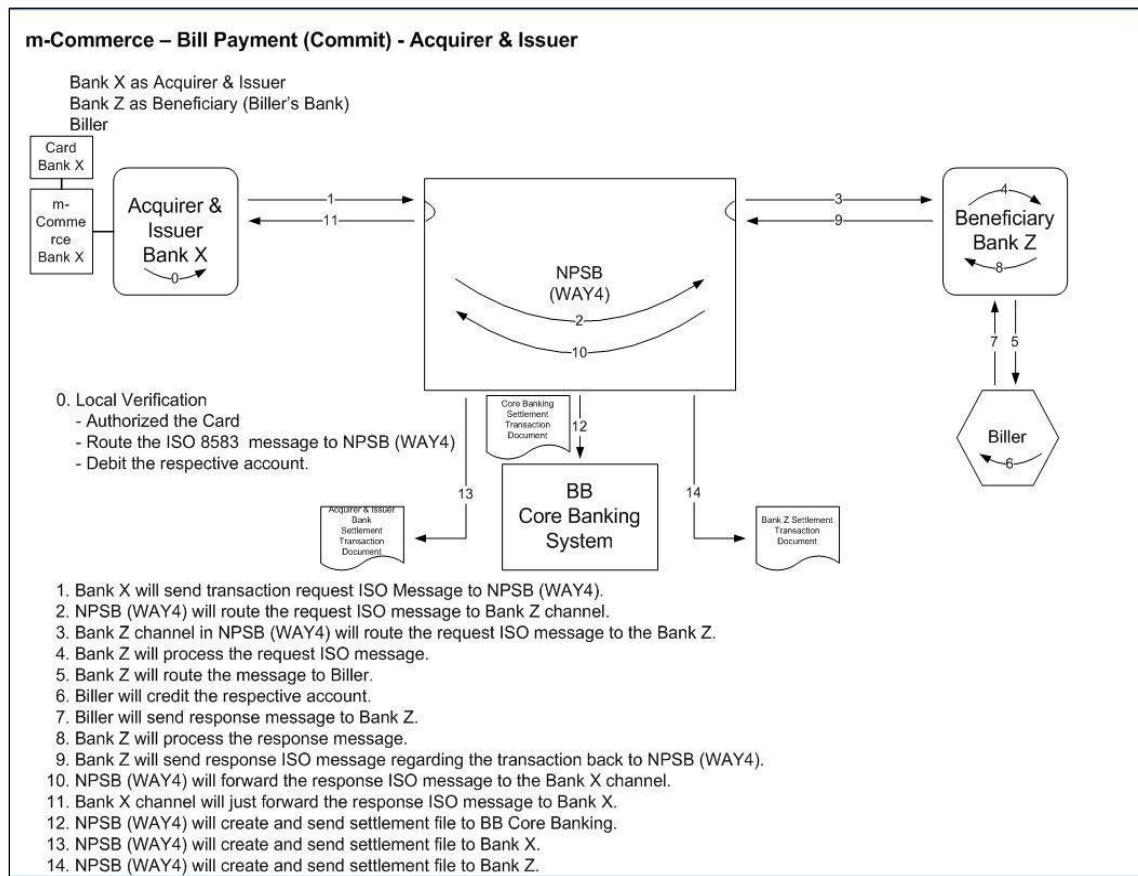
DE103 Account Identification-2

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

CONFIDENTIAL

Z. Mobile Banking Bill Payment

1. Mobile Banking Bill Payment Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	17000001234123460
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015113000
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	153001
12	Local Transaction Time	M		113000
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		9399
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		812
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
37	Retrieval Reference Number	M	MR	261015113000
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270163000004444555560
47.27	PDS927 Counterpart Account ID	M		9270163000004444555560
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	C	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		Please see DE112 With Field Sub-elements for detailed description, Appendix A for DE112 message development, and Appendix B for sample data details.
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if the Beneficiary Bank does not response with DE112.

** Beneficiary Bank will receive DE47 on 0100 message even if the Acquirer/Issuer Bank does not send DE47.

DE2 Primary Account Number

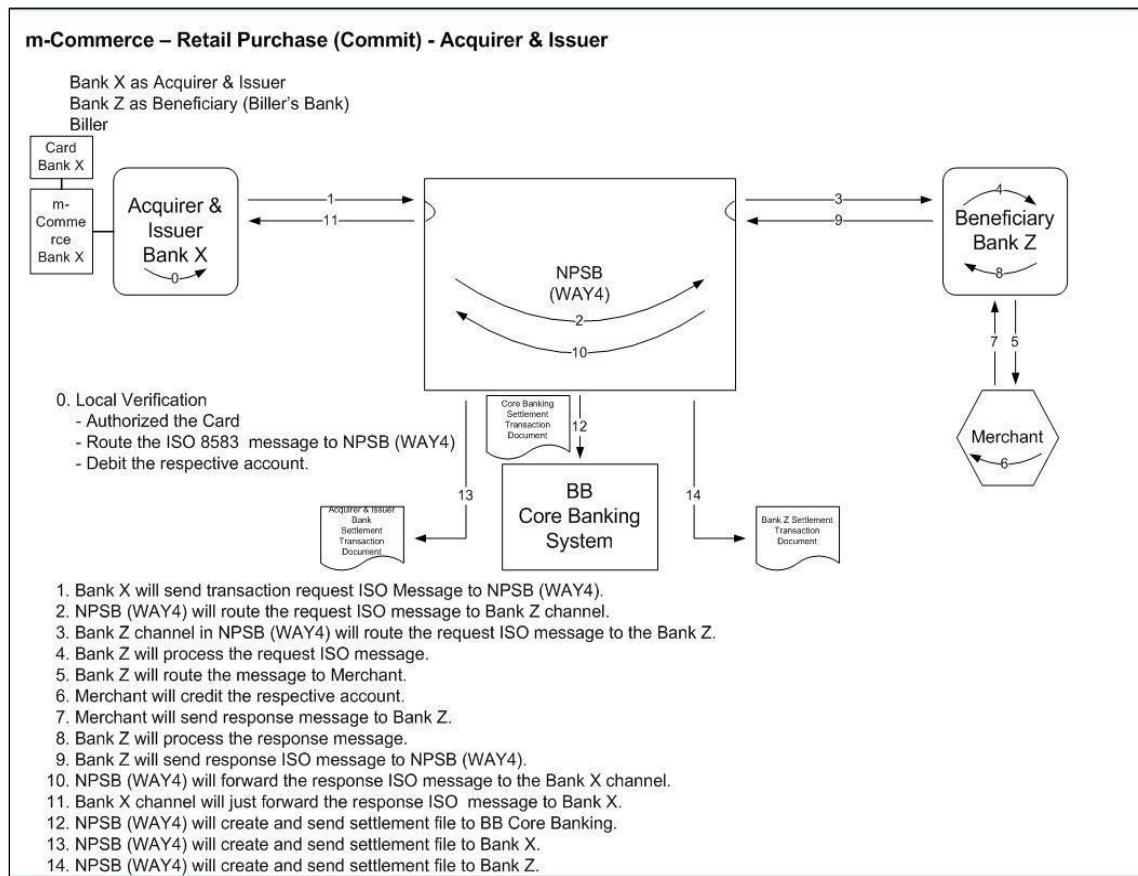
This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account. This field consists of biller's PAN if the destination is Card.

DE103 Account Identification-2

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

AA. Mobile Banking Retail Purchase

1. Mobile Banking Retail Purchase Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	1234567 <merchant account ID>
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015113100
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	153101
12	Local Transaction Time	M		113100
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		6017
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		812
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
37	Retrieval Reference Number	M	MR	331015113100
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270161000001111222230
47.27	PDS927 Counterpart Account ID	M		9270161000001111222230
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
112	Additional Info	M		F015D20954574841545F545258D308544D42414 E4B5250
128	Message Authentication Code	C1	C1	E4B76DF300000012

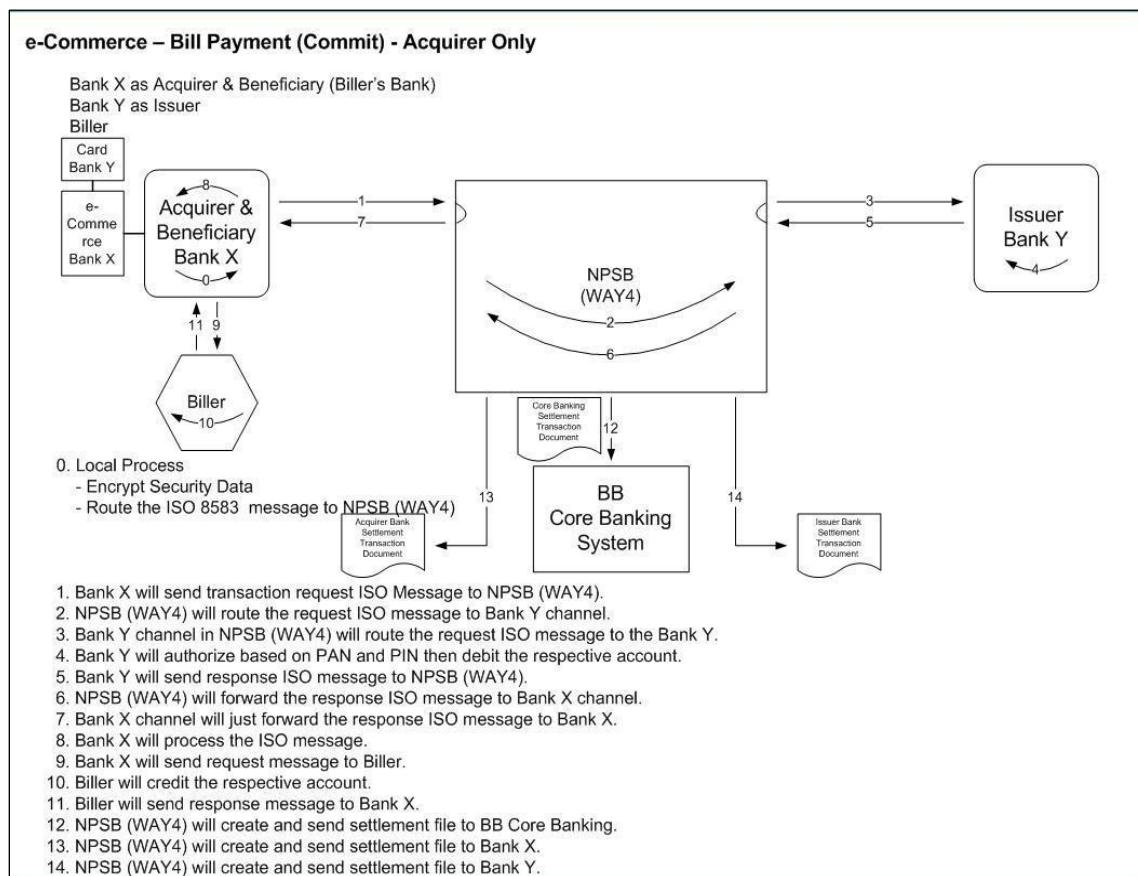
Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if the Beneficiary Bank does not response with DE112.

** Beneficiary Bank will receive DE47 on 0100 message even if the Acquirer/Issuer Bank does not send DE47.

BB. E-Commerce Bill Payment

1. E-Commerce Bill Payment Transaction Flow



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230
3	Processing Code	M	MR	M	MR	100000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015113200
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	153201
12	Local Transaction Time	M		M		113200
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
18	Merchant's Type	M		M		9399
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		812
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
37	Retrieval Reference Number	M	MR	M	MR	261015113200
38	Authorization Code Response		M	O		A62382
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
46	Proprietary Field 46	O				7040366da0005c-288b-484f-b5b9-022750c069ce705028AAIBB1J5cwAAAABkBQFjdAAAAAA=(e-commerce 3DS method)
46.04	PDS704 DS TRANSACTION ID. Used for e-commerce 3DS method.	O				7040366da0005c-288b-484f-b5b9-022750c069ce
46.05	PDS705 CAVV Data. Used for e-commerce 3DS method.	O				705028AAIBB1J5cwAAAABkBQFjdAAAAAA=
47	Proprietary Field 47	O	O			909002059270101234564444 (Request for e-commerce 3DS method) 9290012 (Response for e-commerce 3DS method) 9140031119270101234564444 (Request for e-commerce CVV2 method) 915001M (Response for e-commerce CVV2 method)
47.09	PDS909 Electronic Commerce Indicator (ECI). Used for e-commerce 3DS method.	O				9090020590900205
47.14	PDS914 CVV2 Value. Used for e-commerce CVV2 method.	O				914003111
47.15	PDS915 CVV2 Verification Result. Used for e-commerce CVV2 method.		O			915001M
47.27	PDS927 Counterpart Account ID (Customer Account Bill ID)	O				9270101234564444
47.29	PDS929 CAVV Results Code. Used for e-commerce 3DS method.		O			9290012
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
51	Cardholder Billing Currency Code	O	OR	O	OR	050
90	Original Data Element			O	OR	010015170110151117000000121 212000000000000
112	Additional Info	M				F014D20954574841545F545258D 3075445434F4D4250
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

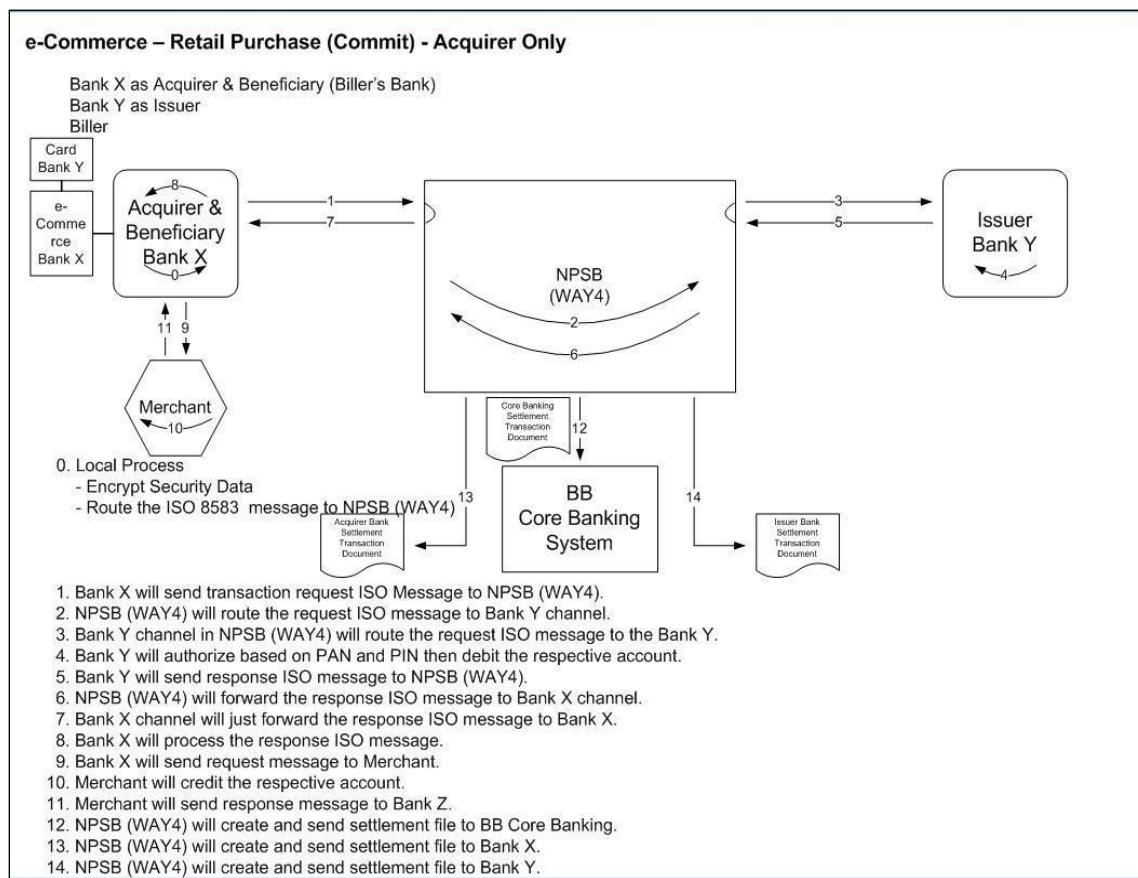
*Acquirer/Beneficiary Bank will receive DE112 on 0110 message even if the Issuer Bank does not response with DE112.

**Issuer Bank will receive DE47 on 0100 and 0420 message even if the Acquirer/Beneficiary Bank does not send DE47.

CONFIDENTIAL

CC. E-Commerce Retail Purchase

1. E-Commerce Retail Purchase Transaction Flow



2. Debit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
2	Primary Account Number	M	MR	M	MR	2000001111222230
3	Processing Code	M	MR	M	MR	000000
4	Amount Transaction	M	MR	M	MR	000001000000
5	Amount, Settlement	/M	MR/C			000001000000
6	Amount, Cardholder Billing	O	OR	O	OR	000001000000
7	Transmission Date & Time	M	MR	M	MR	1015113300
10	Conversion Rate, Cardholder Billing	O	OR	O	OR	61000000
11	System Trace Audit Number	M	MR	M	MR	153301
12	Local Transaction Time	M		M		113300
13	Local Transaction Date	M		M		1015
14	Expiration Date	O		O		3209



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
18	Merchant's Type	M		M		5262
19	Acquiring Country Code	O	OR	O	OR	880
22	Point of Service Entry Mode	M		M		812
25	POS Condition Code	O	OR	O	O	00
32	Acquiring Institution ID, Code	M	MR	M	MR	121212
37	Retrieval Reference Number	M	MR	M	MR	331015113300
38	Authorization Code Response		M	O		A62382
39	Response Code		M		M	00
41	Card Acceptor Terminal Id.	M	MR	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	M	MR	999998999998998
43	Card Acceptor Name/Location	O		O		1 Gulshan Ave DHAKA BD
46	Proprietary Field 46	O				7040366da0005c-288b-484f-b5b9-022750c069ce705028AAIBB1J5cwAAAABkBQFjdAAAAAA=
46.04	PDS704 DS TRANSACTION ID. Used for e-commerce 3DS method.	O				7040366da0005c-288b-484f-b5b9-022750c069ce
46.05	PDS705 CAVV Data. Used for e-commerce 3DS method.	O				705028AAIBB1J5cwAAAABkBQFjdAAAAAA=
47	Proprietary Field 47	O	O			909002059270101234564444 (Request for e-commerce 3DS method) 9290012 (Response for e-commerce 3DS method) 9140031119270101234564444 (Request for e-commerce CVV2 method) 915001M (Response for e-commerce CVV2 method)
47.09	PDS909 Electronic Commerce Indicator (ECI). Used for e-commerce 3DS method.	O				90900205
47.14	PDS914 CVV2 Value. Used for e-commerce CVV2 method.	O				914003111
47.15	PDS915 CVV2 Results Code. Used for e-commerce CVV2 method.		O			915001M
47.27	PDS927 Counterpart Account ID (Customer Account Bill ID)	O				9270101234564444
47.29	PDS929 CAVV Results Code. Used for e-commerce 3DS method.		O			9290012
49	Transaction Currency Code	M	MR	M	MR	050
50	Settlement Currency Code	/M	MR/C			050



FIELD	NAME OF THE FIELD	0100	0110	0420	0430	SAMPLE DATA
51	Cardholder Billing Currency Code	O	OR	O	OR	050
90	Original Data Element			O	OR	010015170110151117000000121 212000000000000
112	Additional Info	M				F014D20954574841545F545258D 3075445434F4D5250
128	Message Authentication Code	C1	C1	C1	C1	E4B76DF300000012

Note:

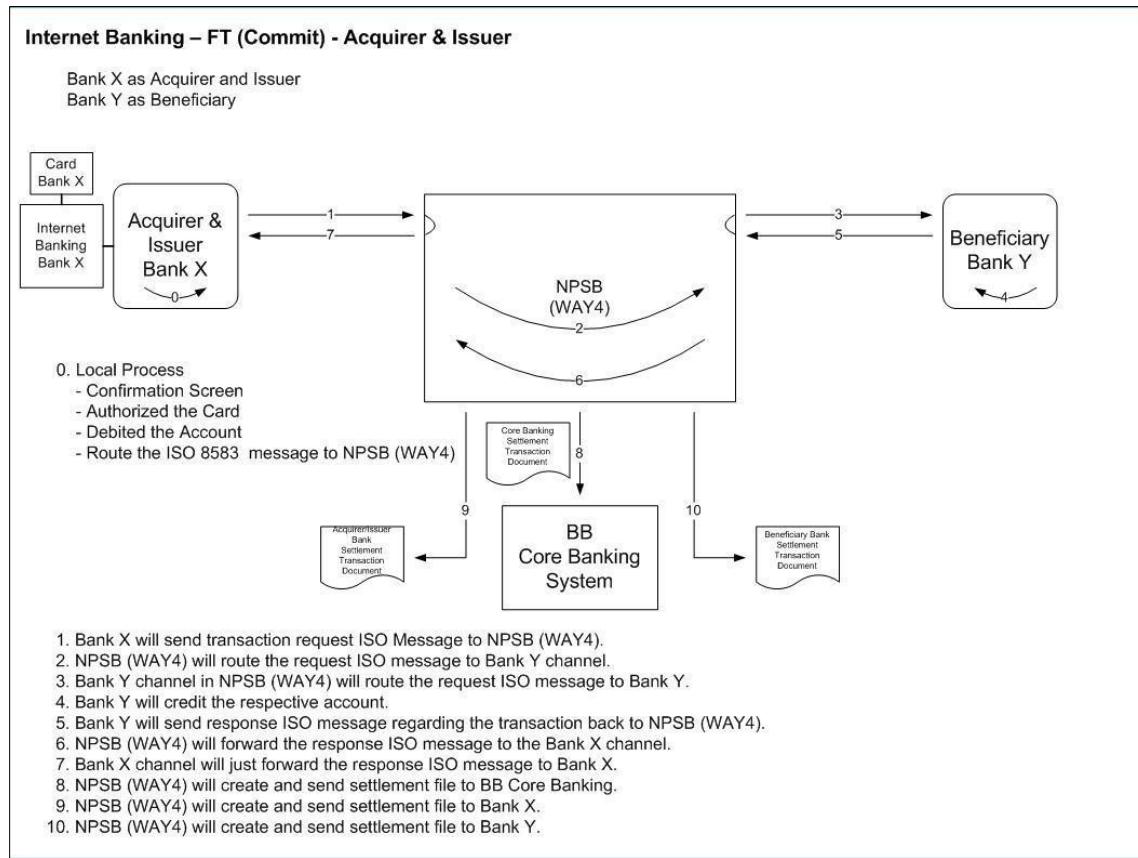
*Acquirer/Beneficiary Bank will receive DE112 on 0110 message even if the Issuer Bank does not response with DE112.

**Issuer Bank will receive DE47 on 0100 and 0420 message even if the Acquirer/Beneficiary Bank does not send DE47.

CONFIDENTIAL

DD. Internet Banking Funds Transfer (Credit)

1. Internet Banking Funds Transfer Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0002001111222260
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015113400
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	153401
12	Local Transaction Time	M		113400
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		000
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	000215
37	Retrieval Reference Number	M	MR	211015113400
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270162000004444555560
47.27	PDS927 Counterpart Account ID	M		9270162000004444555560
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		For Card to Card: F015D20954574841545F545258D308544942465 4433243 For Card to Account: F015D20954574841545F545258D308544942465 4433241 For Account to Account: F015D20954574841545F545258D308544942465 4413241 For Account to Card: F015D20954574841545F545258D308544942465 4413243
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Acquirer/Issuer Bank will receive DE112 on 0110 message even if the Beneficiary Bank does not response with DE112.

**Beneficiary Bank will receive DE47 on 0100 and 0420 message even if the Acquirer/Issuer Bank does not send DE47.

DE2 Primary Account Number



This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account.

This field consists of beneficiary's PAN if the destination is Card.

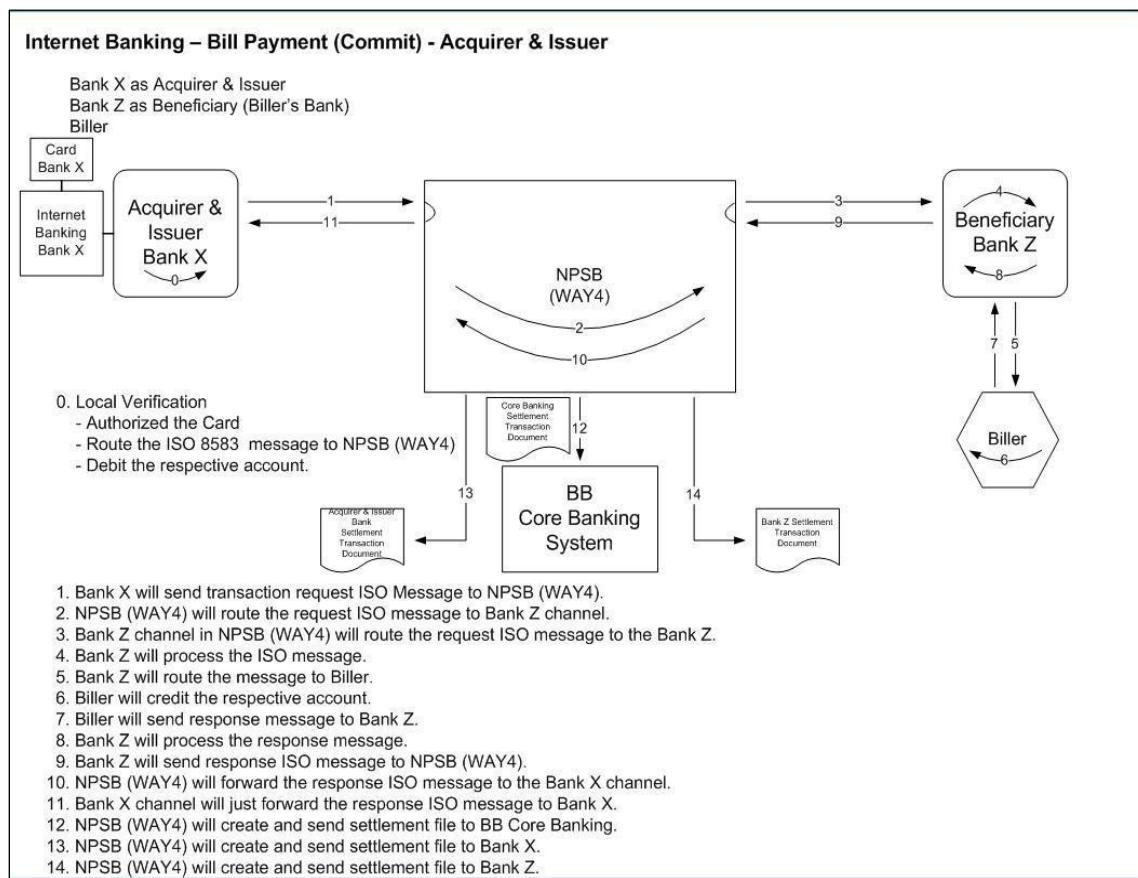
DE103 Account Identification-2

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

CONFIDENTIAL

EE. Internet Banking Bill Payment

1. Internet Banking Bill Payment Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	17000001234123460
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015113500
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	153501
12	Local Transaction Time	M		113500
13	Local Transaction Date	M		1015
14	Expiration Date	O		3209



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
18	Merchant's Type	M		9399
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		000
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	121212
37	Retrieval Reference Number	M	MR	261015113500
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	M	MR	90001000
42	Card Acceptor Identification Code	M	MR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270163000004444555560
47.27	PDS927 Counterpart Account ID	M		9270163000004444555560
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification-2	C	CR	22814215673348
112	Additional Info	M		Please see DE112 With Field Sub-elements for detailed description, Appendix A for DE112 message development, and Appendix B for sample data details.
128	Message Authentication Code	C1	C1	E4B76DF30000012

DE2 Primary Account Number

This field consists of 6 digits BIN which is Bank Code and followed by 10 first digits of account number if the destination is Account.

This field consists of beneficiary's PAN if the destination is Card.

DE103 Account Identification-2

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

FF. MFS Funds Transfer – MFS Account to MFS Account/Wallet-to-Wallet (Credit Message Only)

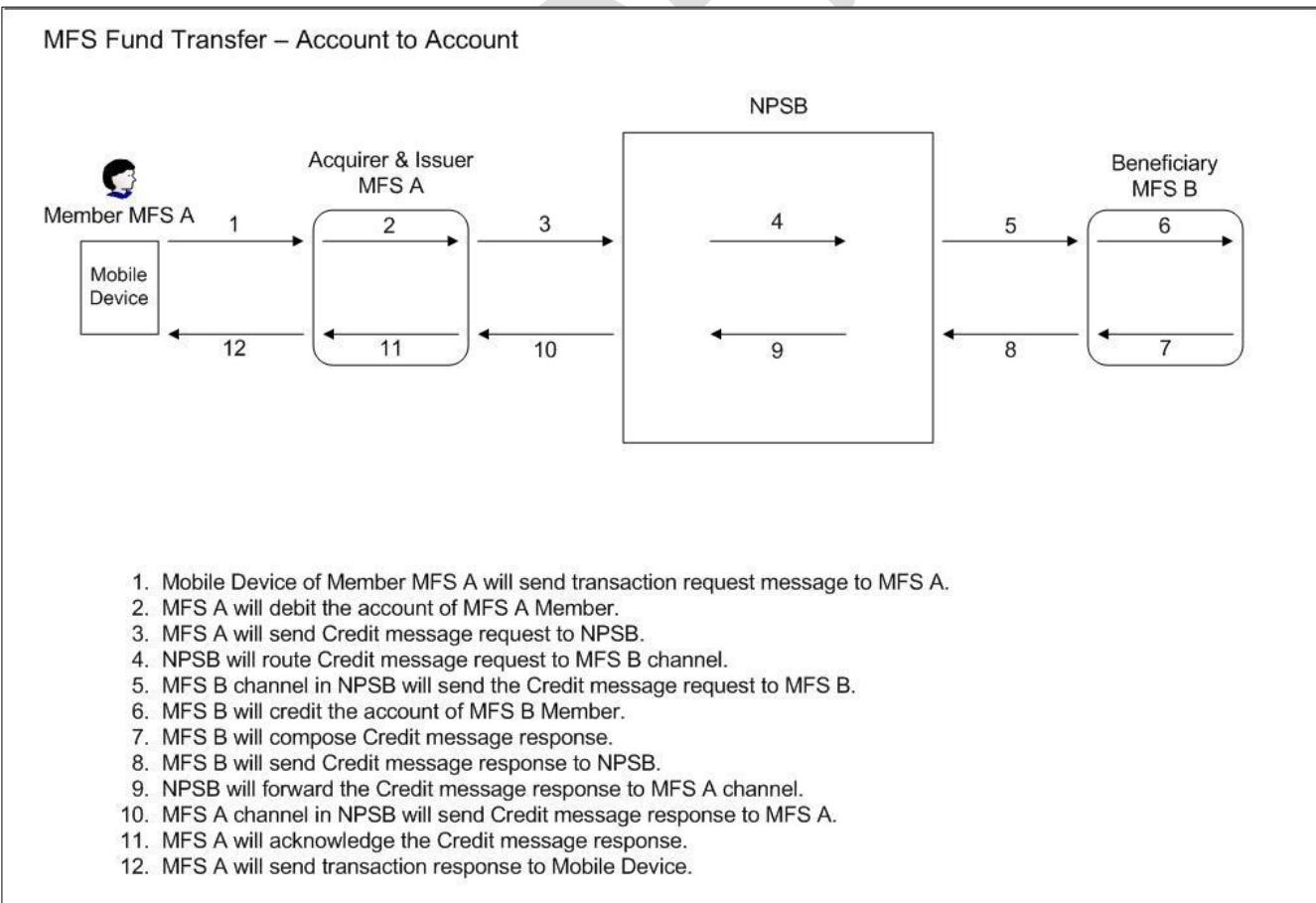
There is no Agent involved in this transaction.

Member MFS A can do Funds Transfer to member of different MFS as follows:

1. On Mobile Device of Member MFS A, open the Application of MFS A and select the transaction that the customer would like to do. In this case, Funds Transfer to MFS Wallet Account.
2. There are two alternatives:
 - a. First alternative:
 - i. On the Application of MFS A, select the destination MFS as the beneficiary. In this example, MFS B.
 - ii. On the Application of MFS A, enter the Destination Account Number.
 - b. Second alternative. On the Application of MFS A, enter destination MFS member ID and Destination Account Number. For example, 0008881912109099 (000888 + 1912109099, member ID of MFS B + Destination Account Number).

The transaction flow is being described in the picture below.

1. MFS Funds Transfer Account/Wallet-to-Wallet Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0008881912109099 (Member ID + Target Account Number)
3	Processing Code	M	MR	280000
4	Amount, Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015112900
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152901
12	Local Transaction Time	M		112900
13	Local Transaction Date	M		1015
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		012
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	000889
37	Retrieval Reference Number	M	MR	211015112900
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270101912109088 (Source Account Number)
47.27	PDS927 Counterpart Account ID	M		9270101912109088 (Source Account Number)
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification	M	MR	22814215673348 (Destination Account Number)
112	Additional Info	M	MR	F016D20954574841545F545258D309544D46534 654413241



128	Message Authentication Code	M	M	E4B76DF300000012
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Note:

*Acquirer/Issuer MFS will receive DE112 on 0110 message even if the Beneficiary MFS does not response with DE112.

** Beneficiary MFS may receive other tag of DE47 on 0100 message.

DE2 Primary Account Number

This field consists of 6 digits Beneficiary MFS Member ID followed by 10-13 digits Beneficiary Account Number (MFS Wallet Account Number).

If beneficiary MFS member ID + beneficiary account number consists of more than 19 digits, fill this field with only first 19 digits of beneficiary MFS member ID + beneficiary account number.

If beneficiary MFS member ID + beneficiary account number consists of less than 16 digits, right pad this field with zero until this field consists of 16 digits.

DE103 Account Identification

This field is filled with the beneficiary MFS Account Number.

GG. MFS Funds Transfer – Cards to MFS Wallet Account (Credit Message Only)

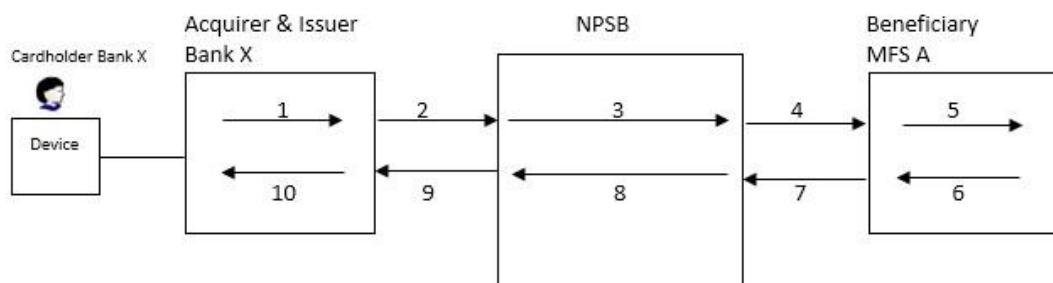
There is no Agent involved in this transaction.

Cardholder of bank can do Funds Transfer to Member MFS as follows:

1. Cardholder of Bank X perform a Fund Transfer transaction.
2. On the Bank X device, cardholder enters the Destination account number of MFS A. For example, 0008881912109099 (000888 + 1912109099, member ID of MFS A + Destination Account Number)

1. MFS Funds Transfer Card-to-Wallet Transaction Flow

MFS Fund Transfer – Cards to Account



Cardholder of Bank X perform FT to MFS account at Bank X device

1. Bank X will debit the account of bank X cardholder
2. Bank X will send credit message request to NPSB
3. NPSB will route Credit message request to MFS A channel
4. MFS A channel in NPSB will send the Credit message request to MFS A
5. MFS A will credit the account of MFS A member
6. MFS A will compose Credit message response
7. MFS A will send Credit message response to NPSB
8. NPSB will forward the Credit message response to Bank X channel
9. Bank X channel in NPSB will send Credit message response to Bank X
10. Bank X will acknowledge the Credit message response

2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0008881912109099 (Member ID + Target Account Number)
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
7	Transmission Date & Time	M	MR	1015112900
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152901
12	Local Transaction Time	M		112900
13	Local Transaction Date	M		1015
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		012
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	000090
37	Retrieval Reference Number	M	MR	211015112900
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		927016888884444555566 (Source Card Number)
47.27	PDS927 Counterpart Account ID	M		927016888884444555566 (Source Card Number)
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification	M	MR	22814215673348 (Destination Account Number)
112	Additional Info	M	MR	F016D20954574841545F545258D309544D46534 654433241
128	Message Authentication Code	M	M	E4B76DF300000012

Note:

*Acquirer/Issuer MFS will receive DE112 on 0110 message even if the Beneficiary MFS does not response with DE112.

** Beneficiary MFS may receive other tag of DE47 on 0100 message.

DE2 Primary Account Number

This field consists of 6 digits Beneficiary MFS Member ID followed by 10-13 digits Beneficiary Account Number (MFS Wallet Account Number).

If beneficiary MFS member ID + beneficiary account number consists of more than 19 digits, fill this field with only first 19 digits of beneficiary MFS member ID + beneficiary account number.



If beneficiary MFS member ID + beneficiary account number consists of less than 16 digits, right pad this field with zero until this field consists of 16 digits.

DE103 Account Identification

This field is filled with the beneficiary MFS Account Number.

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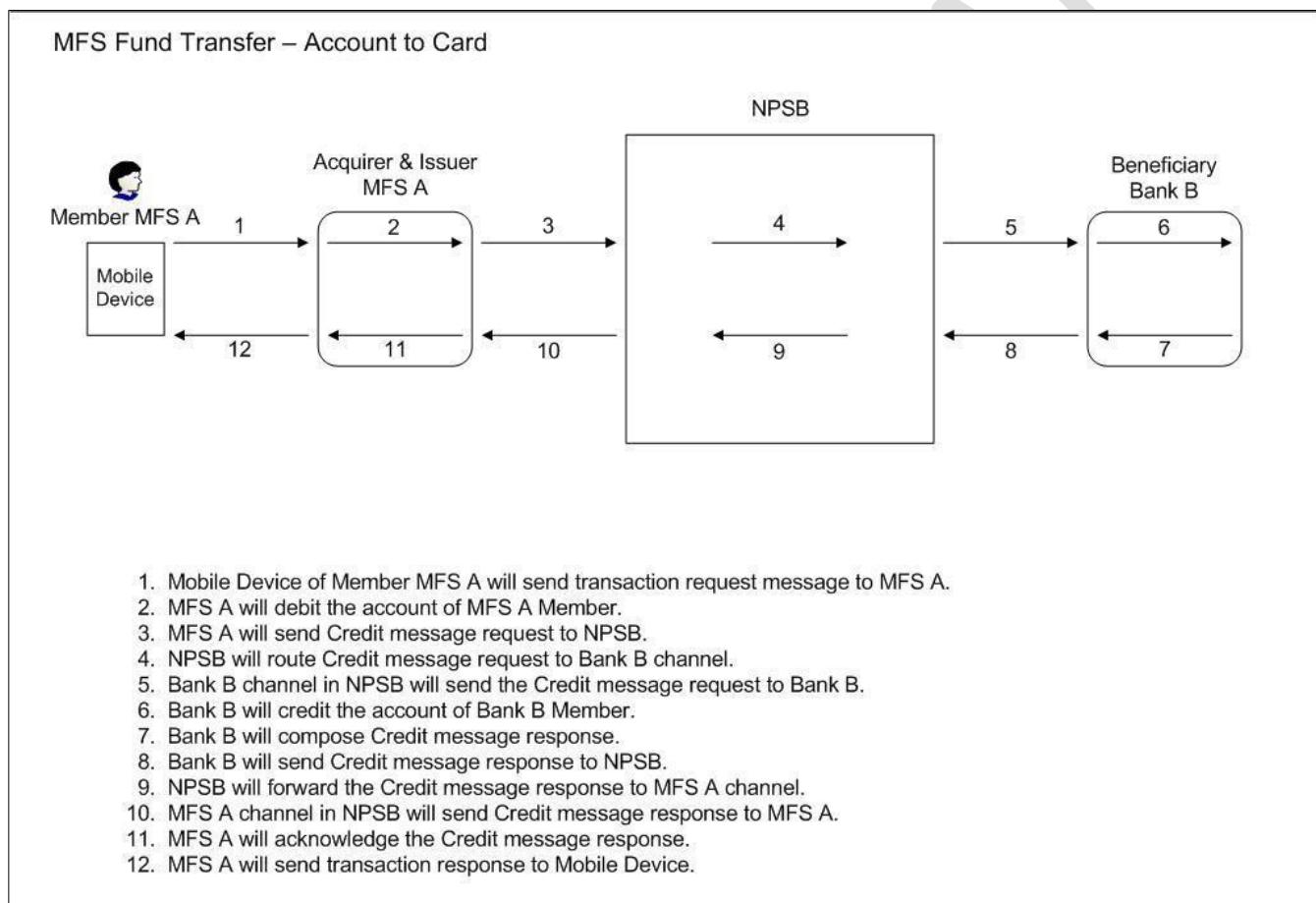
HH. MFS Funds Transfer – MFS Wallet Account to Cards (Credit Message Only)

There is no Agent involved in this transaction.

Member MFS A can do Funds Transfer to cardholder of bank as follows:

1. On Mobile Device of Member MFS A, open the Application of MFS A and select the transaction that the customer would like to do. In this case, Funds Transfer to Card.
2. On the Application of MFS A, enter the Destination Card Number.

1. MFS Fund Transfer - Wallet to Card Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	6072589431607284 (Target Card Number)
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015112900
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152901
12	Local Transaction Time	M		112900
13	Local Transaction Date	M		1015
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		012
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	000090
37	Retrieval Reference Number	M	MR	211015112900
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270101912109088 (Source Account Number)
47.27	PDS927 Counterpart Account ID	M		9270101912109088 (Source Account Number)
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
112	Additional Info	M	MR	F016D20954574841545F545258D309544D46534 654413243
128	Message Authentication Code	M	M	E4B76DF300000012

Note:

*Acquirer/Issuer MFS will receive DE112 on 0110 message even if the Beneficiary MFS does not response with DE112.

** Beneficiary MFS may receive other tag of DE47 on 0100 message.

DE2 Primary Account Number

This consists of 16-19 digits Beneficiary Card Number.

II. MFS Funds Transfer – Bank Account to MFS Wallet Account (Credit Message Only)

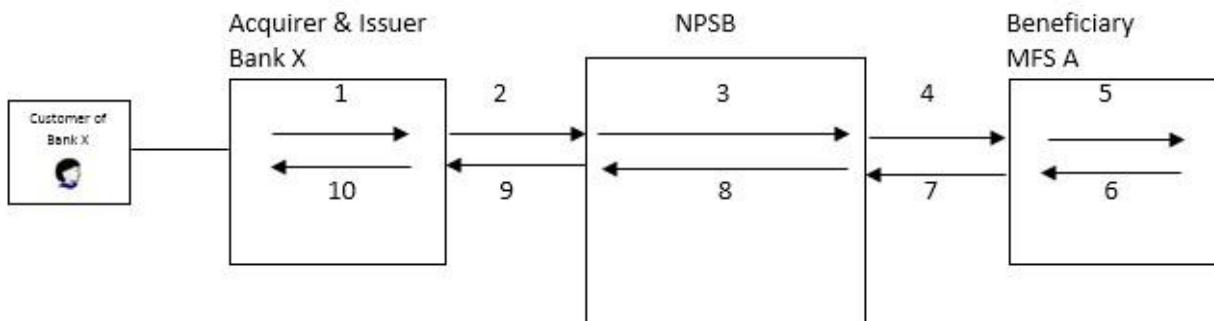
There is no Agent involved in this transaction.

Customer of bank can do Funds Transfer to Member MFS as follows:

1. Customer of Bank X perform a Fund Transfer transaction to MFS A Account
2. Customer Bank X, enter the Destination account number of MFS A. For example, 0008881912109099 (000888 + 1912109099, member ID of MFS A + Destination Account Number)

1. MFS Funds Transfer - Bank Account to Wallet Transaction Flow

MFS Fund Transfer – Bank Account to Account



Customer of Bank X perform FT to MFS account

1. Bank X will debit the account of customer
2. Bank X will send credit message request to NPSB
3. NPSB will route Credit message request to MFS A channel
4. MFS A channel in NPSB will send the Credit message request to MFS A
5. MFS A will credit the account of MFS A member
6. MFS A will compose Credit message response
7. MFS A will send Credit message response to NPSB
8. NPSB will forward the Credit message response to Bank X channel
9. Bank X channel in NPSB will send Credit message response to Bank X
10. Bank X will acknowledge the Credit message response

2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0008881912109099 (Member ID + Target Account Number)
3	Processing Code	M	MR	280000



4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015112900
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152901
12	Local Transaction Time	M		112900
13	Local Transaction Date	M		1015
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		012
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	000090
37	Retrieval Reference Number	M	MR	211015112900
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270101912109088 (Source Account Number)
47.27	PDS927 Counterpart Account ID	M		9270101912109088 (Source Account Number)
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification	M	MR	22814215673348 (Destination Account Number)
112	Additional Info	M	MR	F016D20954574841545F545258D309544D46534 654423241
128	Message Authentication Code	M	M	E4B76DF300000012

Note:

*Acquirer/Issuer MFS will receive DE112 on 0110 message even if the Beneficiary MFS does not response with DE112.

** Beneficiary MFS may receive other tag of DE47 on 0100 message.

DE2 Primary Account Number

This field consists of 6 digits Beneficiary MFS Member ID followed by 10-13 digits Beneficiary Account Number (MFS Wallet Account Number).



If beneficiary MFS member ID + beneficiary account number consists of more than 19 digits, fill this field with only first 19 digits of beneficiary MFS member ID + beneficiary account number.

If beneficiary MFS member ID + beneficiary account number consists of less than 16 digits, right pad this field with zero until this field consists of 16 digits.

DE103 Account Identification

This field is filled with the beneficiary MFS Account Number.

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JJ. MFS Funds Transfer – MFS Wallet Account to Bank Account (Credit Message Only)

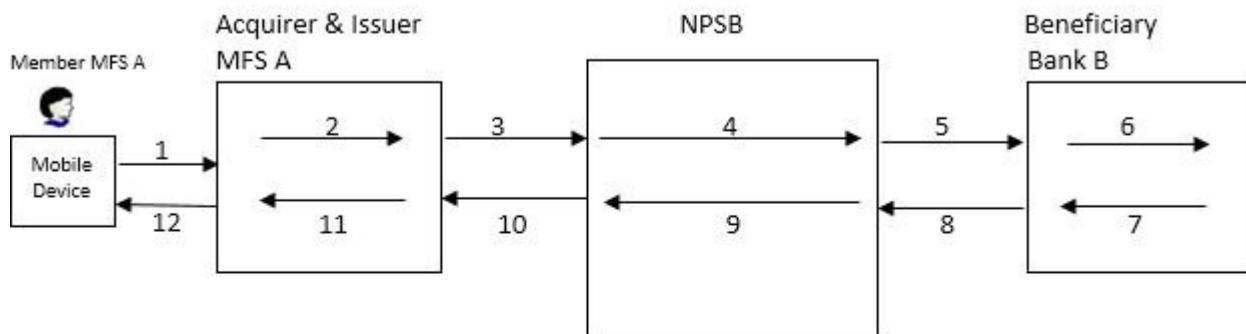
There is no Agent involved in this transaction.

Member MFS A can do Funds Transfer to bank account as follows:

1. On Mobile Device of Member MFS A, open the Application of MFS A and select the transaction that the customer would like to do. In this case, Funds Transfer to Bank B Account.
2. On the Application of MFS A, pick the destination bank and then enter the destination account number.

1. MFS Funds Transfer - Wallet to Bank Account

MFS Fund Transfer – Account to Bank Account



1. Mobile device of member MFS A will send transaction request message to MFS A
2. MFS A will debit the account of MFS A Member
3. MFS A will send credit message request to NPSB
4. NPSB will route credit message request to Bank B channel
5. Bank B channel in NPSB will send the credit message request to Bank B
6. Bank B will credit the account of Bank B Member
7. Bank B will compose credit message response
8. Bank B will send credit message response to NPSB
9. NPSB will forward the credit message response to MFS A channel
10. MFS A channel in NPSB will send credit message response to MFS A
11. MFS A will acknowledge the credit message response
12. MFS A will send transaction response to mobile device

2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0000901234567890 (Member ID Bank + Dummy Number)



FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015112900
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	152901
12	Local Transaction Time	M		112900
13	Local Transaction Date	M		1015
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		012
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	000889
37	Retrieval Reference Number	M	MR	211015112900
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270101912109088 (Source Account Number)
47.27	PDS927 Counterpart Account ID	M		9270101912109088 (Source Account Number)
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification	M	MR	22814215673348 (Destination Account Number)
112	Additional Info	M	MR	F016D20954574841545F545258D309544D46534 654413242
128	Message Authentication Code	M	M	E4B76DF300000012

Note:

*Acquirer/Issuer MFS will receive DE112 on 0110 message even if the Beneficiary MFS does not response with DE112.

** Beneficiary MFS may receive other tag of DE47 on 0100 message.



DE2 Primary Account Number

This field consists of 6 digits Beneficiary MFS Member ID followed by 10-13 digits Beneficiary Account Number (MFS Wallet Account Number).

If beneficiary MFS member ID + beneficiary account number consists of more than 19 digits, fill this field with only first 19 digits of beneficiary MFS member ID + beneficiary account number.

If beneficiary MFS member ID + beneficiary account number consists of less than 16 digits, right pad this field with zero until this field consists of 16 digits.

DE103 Account Identification

This field is filled with the beneficiary Bank Account Number.

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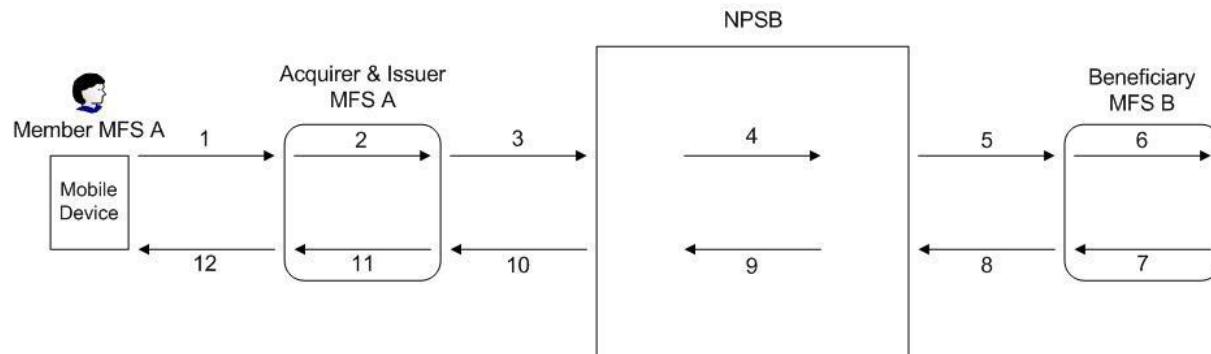
KK. MFS Merchant Payment (Credit Message Only)

Member MFS A can do Payment to Merchant that is a member of different MFS as follows:

1. On Mobile Device of Member MFS A, open the Application of MFS A and select the transaction that the customer would like to do. In this case, Merchant Payment.
2. There are two alternatives:
 - a. First alternatives:
 - i. On the Application of MFS A, select the destination MFS (MFS of Merchant) as the beneficiary. In this example, MFS B.
 - ii. On the Application of MFS A, enter the Destination Merchant Account Number.
 - b. Second alternatives (replaces point number 2). On the Application of MFS A, enter destination Merchant MFS member ID and Destination Merchant Account Number. For example, 0008881912109099 (000888 + 1912109099, member ID of MFS B + Destination Merchant Account Number).

1. MFS Merchant Payment Transaction Flow

MFS Merchant Payment



1. Mobile Device of Member MFS A will send transaction request message to MFS A.
2. MFS A will debit the account of MFS A Member.
3. MFS A will send Credit message request to NPSB.
4. NPSB will route Credit message request to MFS B channel.
5. MFS B channel in NPSB will send the Credit message request to MFS B.
6. MFS B will credit the account of MFS B Member.
7. MFS B will compose Credit message response.
8. MFS B will send Credit message response to NPSB.
9. NPSB will forward the Credit message response to MFS A channel.
10. MFS A channel in NPSB will send Credit message response to MFS A.
11. MFS A will acknowledge the Credit message response.
12. MFS A will send transaction response to Mobile Device.

2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0008881912109099 (Member ID + Target Account Number)
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015113000
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	153001
12	Local Transaction Time	M		113000
13	Local Transaction Date	M		1015
18	Merchant's Type	M		5999 or ISO8583 standard code
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		012
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	000889
37	Retrieval Reference Number	M	MR	261015113000
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998
43	Card Acceptor Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		9270101912109088 (Source Account Number)
47.27	PDS927 Counterpart Account ID	M		9270101912109088 (Source Account Number)
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification	M	MR	22814215673348 (Destination Account Number)
112	Additional Info	M	MR	F013D20954574841545F545258D306544D46534 D50
128	Message Authentication Code	M	M	E4B76DF300000012



Note:

*Acquirer/Issuer MFS will receive DE112 on 0110 message even if the Beneficiary MFS does not response with DE112.

** Beneficiary MFS may receive other tag of DE47 on 0100 message.

DE2 Primary Account Number

This field consists of 6 digits Beneficiary MFS Member ID followed by 10-13 digits Beneficiary Account Number (MFS Wallet Account Number).

If beneficiary MFS member ID + beneficiary account number consists of more than 19 digits, fill this field with only first 19 digits of beneficiary MFS member ID + beneficiary account number.

If beneficiary MFS member ID + beneficiary account number consists of less than 16 digits, right pad this field with zero until this field consists of 16 digits.

DE103 Account Identification

This field is filled with the beneficiary Bank Account Number.

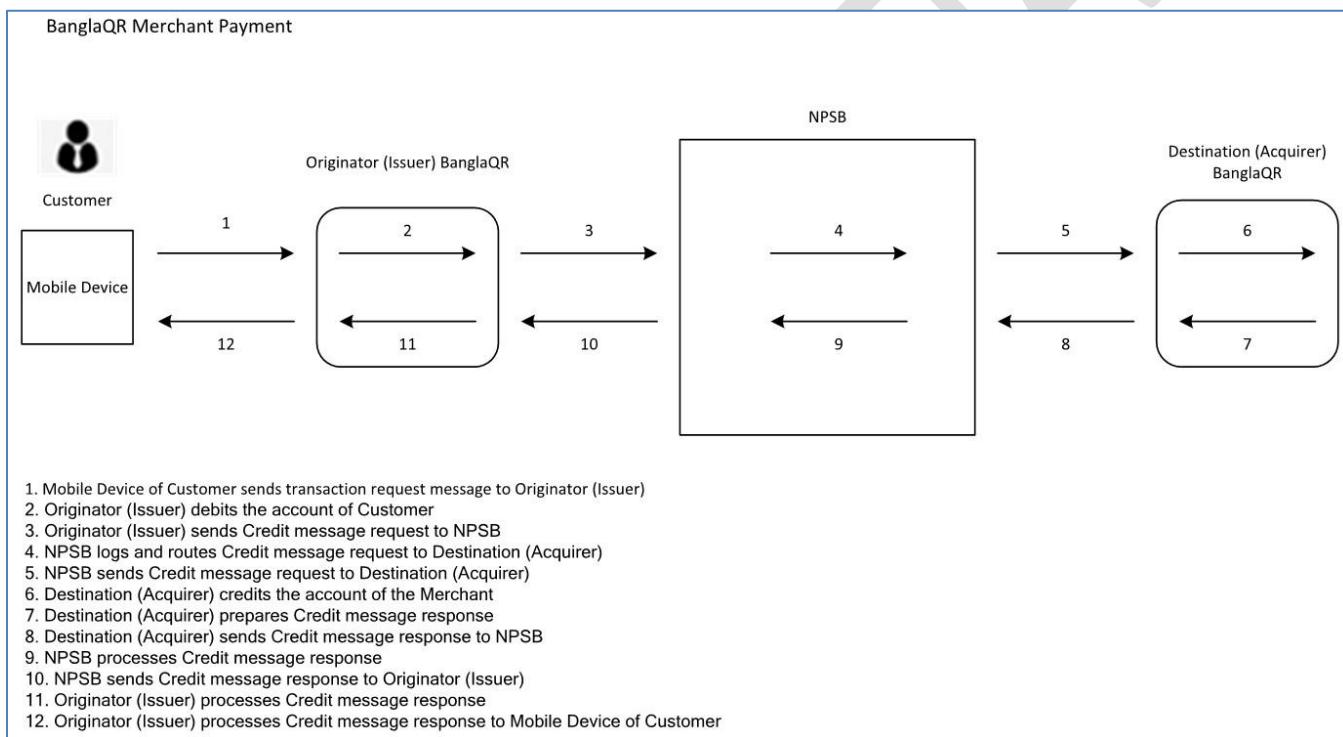
LL. Bangla QR Merchant Payment (Credit Message Only)

A financial institution's Customer can do payment to a merchant that is the member of different institution using BanglaQR as follows:

On mobile device of Customer, open the application to scan the QR Code provided by the Merchant.

1. The summary of the transaction will be shown on the Customer mobile device's application.
2. In some cases, Customer needs to put some data such as transaction amount.
3. The Customer then confirms the payment; hence, transaction will be initiated.
4. The outcome of the transaction will be sent to Customer's mobile device and (optionally by the Destination institution) to the Merchant device.

1. Bangla QR Merchant Payment Transaction Flow



2. Credit Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0310011234567890 (Merchant ID from sub-ID 03 of BanglaQR data object ID 26-27)
3	Processing Code	M	MR	280000
4	Amount Transaction	M	MR	000001000000 (the format of this field is 12 digits number as listed in field format with the last two digits as minor unit for BDT currency. In case of dynamic QR, this field can be taken)



				from BanglaQR data object ID 54.)
5	Amount, Settlement	/M	MR/C	000001000000
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015113000
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	153001
12	Local Transaction Time	M		113000
13	Local Transaction Date	M		1015
18	Merchant's Type	M		5999 or ISO8583 standard code (this field can be filled with value from BanglaQR data object ID 52)
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		033
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	031001
37	Retrieval Reference Number	M	MR	261015113000
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998 (App/Wallet ID set by Originator institution)
43	Merchant Name/Location	O		1 Gulshan Ave DHAKA BD (taken from BanglaQR data object ID 59, ID 60, and ID 58 combined which then represented following the ISO 8583 standard)
47	Proprietary Field 47	M		9270101912109088 (Source Account Number)
47.27	PDS927 Counterpart Account ID	M		9270101912109088 (Source Account Number)
49	Transaction Currency Code	M	MR	050 (taken from BanglaQR data object ID 53)
50	Settlement Currency Code	/M	MR/C	050
51	Cardholder Billing Currency Code	O	OR	050
112	Additional Info	M	M	F012D20954574841545F545258D3055451524D50
128	Message Authentication Code	C1	C1	E4B76DF300000012

Note:

*Originator institution will receive DE112 on 0110 message even if the Destination institution does not response with DE112.

** Destination institution may receive other tag of DE47 on 0100 message.

DE2 Primary Account Number

This field consists of 16-19 digits, with its value taken from BanglaQR data object ID 26-27 sub-ID 03.



DE43 Merchant Name/Location

The merchant's name and location of the card acceptor. This data element is divided into following sections:

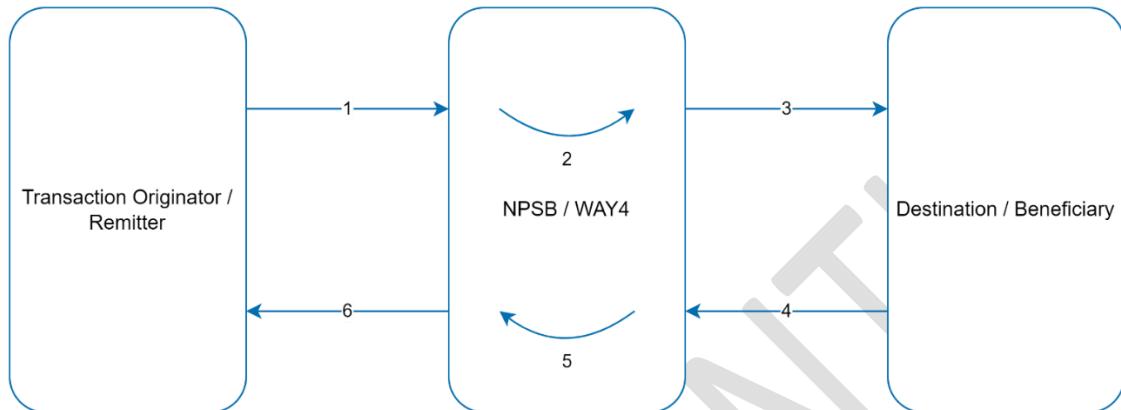
1. Position 1–25, merchant Name and location (right-pad with spaces).
This data element can be filled with value from BanglaQR data object ID 59.
2. Position 26–38, city name (right-pad with spaces).
City where the transaction occurs. This data element can be filled with value from BanglaQR data object ID 60.
3. Position 39–40, country code.
Two-character ISO alpha-2 country code for the country where the terminal is located. This data element can be filled with value from BanglaQR data object ID 58.

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MM.Transaction Status Inquiry (TSI)

This transaction type is used to check the status of any credit transaction. By having Transaction Status Inquiry transaction, transaction originator/remitter institution can decide to reverse or not to reverse remitter's (the person) balance based on the result of Transaction Status Inquiry.

1. Transaction Status Inquiry Flow



1. Transaction originator/remitter sends Transaction Status Inquiry message to NPSB.
2. There are three things that are done by NPSB:
 - a) Records the Transaction Status Inquiry message.
 - b) Check past Transaction Status Inquiry record. If there is a Transaction Status Inquiry message that searched for the same original Credit transaction (using the original Credit transaction's RRN, transaction originator member ID, destination card number, and STAN) with successful response, go to flow 5.
 - c) Check the original Credit transaction:
 - i. If the searched credit transaction is not found, go to flow 5.
 - ii. If the searched credit transaction is found and has clear status (response code other than 85), go to flow 5.
 - iii. If all the above conditions are not met, go to flow 3.
3. NPSB forwards the Transaction Status Inquiry message to destination/beneficiary.
4. Destination/beneficiary responds the Transaction Status Inquiry message to NPSB. If the destination/beneficiary cannot find the credit transaction, respond with RC 95. If destination/beneficiary can find the credit transaction, respond the Transaction Status Inquiry message with RC 00 and the RC of the credit message in DE47.25.
5. There are several scenarios below:
 - a. If there is duplicate successful Transaction Status Inquiry message (point 2.b), prepare the response with "duplicate" status (RC 94) and credit transaction status from successful Transaction Status Inquiry message.
 - b. If the searched credit transaction is not found (point 2.c.i), prepare the response with unsuccessful status (RC 95).
 - c. If the searched credit transaction is found and has a clear status (point 2.c.ii), prepare response with



successful status (RC 00) along with the status of credit transaction.

- d. If Transaction Status Inquiry from Destination/Beneficiary is unsuccessful with RC other than 95, prepare to forward the Transaction Status Inquiry response to transaction originator/remitter.
 - e. If Transaction Status Inquiry from Destination/Beneficiary is successful (RC 00) and the credit transaction status is unsuccessful, or the Transaction Status Inquiry is unsuccessful with RC 95, two things will be done:
 - i. Create a new reversal document record to reverse the credit transaction.
 - ii. Prepare to forward the Transaction Status Inquiry response to the transaction originator/remitter along with the status of credit transaction (the status of credit transaction should exist if the RC is 00).
 - f. If Transaction Status Inquiry from Destination/Beneficiary is successful and the credit transaction status is successful, then prepare to forward the Transaction Status Inquiry message to transaction originator/remitter along with the status of credit transaction.
6. NPSB responds to transaction originator/remitter.

2. Inquiry Status Message to NPSB

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	2000004444555560 (Use the same value as the original Credit transaction)
3	Processing Code	M	MR	910000
4	Amount, Transaction	M	MR	000000037500 (Use the same value as the original Credit transaction)
7	Transmission Date & Time	M	MR	1015063000
11	System Trace Audit Number	M	MR	153001 (Use the same value as the original Credit transaction)
12	Local Transaction Time	M		113000
13	Local Transaction Date	M		1015
18	Merchant's Type	O		4829 (Use the same value as the original Credit transaction)
22	Point of Service Entry Mode	M		012 (Use the same value as the original Credit transaction)
32	Acquiring Institution ID, Code	M	MR	031001 (Use the same value as the original Credit transaction)
37	Retrieval Reference Number	M	MR	261015113000
39	Response Code (RC)		M	00 (This is the RC of the TSI message. The RC of the original Credit transaction will be in DE47.62.)
41	Card Acceptor Terminal Id.	O	OR	90001000 (Use the same value as the original Credit



				transaction)
42	Card Acceptor Identification Code	O	OR	999998999998998 (Use the same value as the original Credit transaction)
43	Merchant Name/Location	O		1 Gulshan Ave DHAKA BD (Use the same value as the original Credit transaction)
47	Proprietary Field 47	M		92501824070400000907000996200200
47.25	PDS925 External Network Reference	M	MR	925018240704000009070009 (18-digit value of RRN and STAN from the original Credit transaction. Specifically for TSI of Credit RTP, the value should echo the Credit RTP's DE47.25.)
47.62	PDS962 Original Credit Response Code		O	96200200 (RC of the original Credit transaction)
49	Transaction Currency Code	M	MR	050 (Use the same value as the original Credit transaction)
112	Additional Info	M	MR	F011D20954574841545F545258D30454545349
128	Message Authentication Code	C1	C1	E4B76DF396322FE4

Note:

*Originator institution may receive DE112 on 0110 message even if the Destination institution does not response with DE112.

** Destination institution may receive other tag of DE47 on 0100 message.

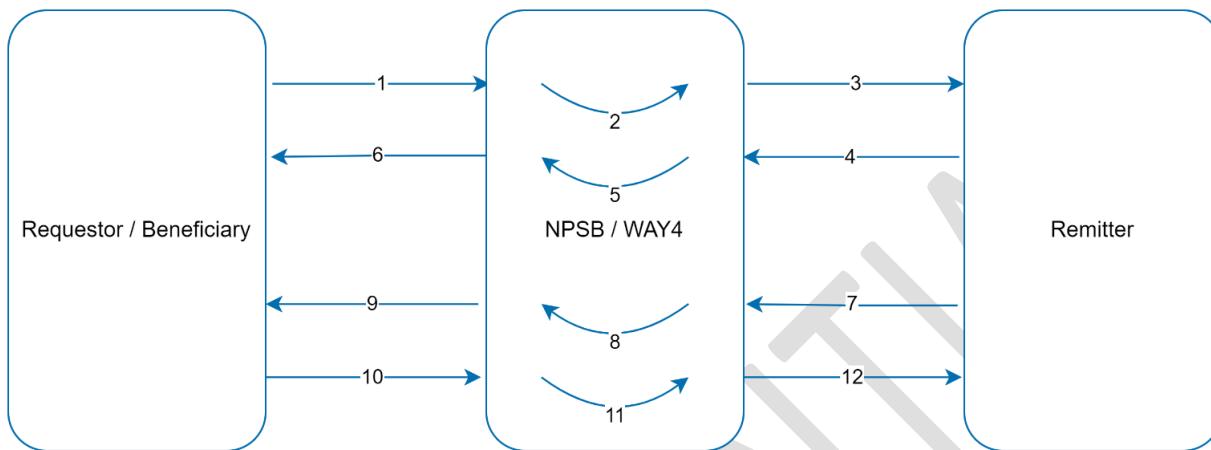
DE2 Primary Account Number

This data element consists of 16-19 digits Primary Account Number of the original Credit transaction.

NN. Request to Pay (RTP) Transaction

RTP transaction is a transaction where the beneficiary is requesting remitter to send money to the beneficiary.

1. Request to Pay Transaction Flow



1. Requestor sends RTP message to NPSB.
2. NPSB records the RTP message.
3. NPSB forwards the RTP message to remitter.
4. Remitter responds the RTP message to NPSB.
5. NPSB updates the RTP message record based on the response.
6. NPSB forwards the RTP response to requestor.
7. If remitter agrees to send the requested money to requestor/beneficiary, remitter sends Pay (credit) transaction to NPSB.
8. NPSB validates the Pay (credit) transaction. The following steps are completed at this step:
 - a. Records the "pay" message.
 - b. Check for the RTP message:
 - i. Identifiers to get the RTP message record: RRN of the RTP transaction, transaction originator member ID of the RTP transaction, beneficiary account number/card number, STAN of the RTP transaction, and transaction amount of the RTP transaction.
 - ii. After searching the RTP message record:
 - If searched RTP message record is not found, respond with RC 95 to remitter.
 - If searched RTP message record is found, check whether the period between RTP and "pay" message is within the time limit. Regarding "pay message and time limit checking":
 - If the "pay" message is within the time frame, then continue to step 9.
 - If the "pay" message is over the time frame, then remitter will be responded with RC 05.
 9. NPSB forwards the Pay (credit) transaction to beneficiary.



10. Beneficiary responds the Pay (credit) transaction to NPSB.
11. NPSB updates Pay (credit) transaction record based on the Pay transaction response.
12. NPSB forwards the Pay transaction response to remitter.

2. Order Request Message to NPSB (Flow No. 1 to No. 6)

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	0001302281421567334
3	Processing Code	M	MR	910000
4	Amount, Transaction	M	MR	000001000000
7	Transmission Date & Time	M	MR	1015053000
11	System Trace Audit Number	M	MR	210021
12	Local Transaction Time	M		113000
13	Local Transaction Date	M		1015
18	Merchant's Type	O		4829
22	Point of Service Entry Mode	M		013
32	Acquiring Institution ID, Code	M	MR	000090
37	Retrieval Reference Number	M	MR	240704210021
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998
43	Merchant Name/Location	O		1 Gulshan Ave DHAKA BD
46	Proprietary Field 46	O		760018FIRSTNAME LASTNAME
46.60	PDS760 Sender Name	O		760018FIRSTNAME LASTNAME
47	Proprietary Field 47	M		9250182407042100212100219270161000011234567890
47.25	PDS925 External Network Reference	M	MR	925018240704210021210021 (18-digit value of RRN and STAN)
47.27	PDS927 Counterpart Account ID	M		9270161000011234567894 (Beneficiary account number/card number that will be credited)
48	Proprietary Field 48	O	OR	84801422814215673348
48.48	PDS848 Payment Service Code	O	OR	84801422814215673348
49	Transaction Currency Code	M	MR	050
103	Account Identification	C	CR	22814215673348
112	Additional Info	M	MR	For Card to Card (RTPC2C): F014D20954574841545F545258D30754525450433243



				For Card to Account (RTPC2A): F014D20954574841545F545258D307545254504 33241
				For Account to Account (RTPA2A): F014D20954574841545F545258D307545254504 13241
				For Account to Card (RTPA2C): F014D20954574841545F545258D307545254504 13243
128	Message Authentication Code	C1	C1	E4B76DF396322FE4

Note:

*Originator institution will receive DE112 on 0110 message even if the Destination institution does not response with DE112.

** Destination institution may receive other tag of DE47 on 0100 message.

DE2 Primary Account Number

This data element consists of 16-19 digits of remitter's account number. The remitter's account number can be:

1. Remitter's card number if the RTP is RTP to card, i.e., RTPC2C and RTPA2C.
2. Remitter's member ID followed by the first digits of remitter's account number. If the length of the value is still less than 16, pad with zeroes ("0"). This format is used if the RTP is RTP to account, i.e., RTPC2A and RTPA2A.

DE103 Account Identification

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

3. *Credit Message to NPSB (Flow No. 7 to No. 12)*

FIELD	NAME OF THE FIELD	0100	0110	SAMPLE DATA
2	Primary Account Number	M	MR	1000011234567894
3	Processing Code	M	MR	280000
4	Amount, Transaction	M	MR	000001000000 (The same amount with the original Request to Pay message)
5	Amount, Settlement	/M	MR/C	000001000000 (DE5 to remitter might not exist, e.g., if there is no response from beneficiary or when there is system malfunction)
6	Amount, Cardholder Billing	O	OR	000001000000
7	Transmission Date & Time	M	MR	1015053000
10	Conversion Rate, Cardholder Billing	O	OR	61000000
11	System Trace Audit Number	M	MR	153001
12	Local Transaction Time	M		113000

13	Local Transaction Date	M		1015
18	Merchant's Type	M		4829
19	Acquiring Country Code	O	OR	880
22	Point of Service Entry Mode	M		821
25	POS Condition Code	O	OR	00
32	Acquiring Institution ID, Code	M	MR	000130
37	Retrieval Reference Number	M	MR	261015113000
38	Authorization Code Response		O	000001
39	Response Code		M	00
41	Card Acceptor Terminal Id.	O	OR	90001000
42	Card Acceptor Identification Code	O	OR	999998999998998
43	Merchant Name/Location	O		1 Gulshan Ave DHAKA BD
47	Proprietary Field 47	M		92501824070421002121002192701422814215673348 08963006000090
47.25	PDS925 External Network Reference	M	MR	925018240704210021210021 (18-digit value of RRN and STAN from the original Request to Pay message)
47.27	PDS927 Counterpart Account ID	M		92701422814215673348 (Remitter's Account Number)
47.63	PDS963 Original Acquiring Institution ID	M		963006000090 (Acquiring Institution ID from the original Request to Pay message's DE32)
48	Proprietary Field 48	O	OR	84801423350123456789
48.48	PDS848 Payment Service Code	O	OR	84801423350123456789
49	Transaction Currency Code	M	MR	050
50	Settlement Currency Code	/M	MR/C	050 (DE50 to remitter might not exist, e.g., if there is no response from beneficiary or when there is system malfunction)
51	Cardholder Billing Currency Code	O	OR	050
103	Account Identification	C	CR	23350123456789 (Beneficiary Account Number, taken from the original Request to Pay message's DE47.27)
112	Additional Info	M	M	For Card to Card (RTPC2C): F014D20954574841545F545258D30754525450433243 For Card to Account (RTPC2A): F014D20954574841545F545258D30754525450433241 For Account to Account (RTPA2A): F014D20954574841545F545258D30754525450413241 For Account to Card (RTPA2C):



				F014D20954574841545F545258D30754525450413243
128	Message Authentication Code	C1	C1	E4B76DF396322FE4

Note:

*Originator institution will receive DE112 on 0110 message even if the Destination institution does not response with DE112.

** Destination institution may receive other tag of DE47 on 0100 message.

DE2 Primary Account Number

This data element consists of 16-19 digits of beneficiary's member ID followed by first digits of beneficiary's account number. If the length of the value is still less than 16, pad with zeroes ("0").

DE103 Account Identification

This field is filled with the beneficiary account number if the destination is Account (mandatory for transaction to Account).

DE112 Additional Info

Use the same DE112 as the RTP message. E.g., If the DE112 in the RTP message was card to account (RTPC2A), also use card to account (RTPC2A) for the "pay" message.

VII. TRANSACTION TIMEOUT AND REVERSAL HANDLING

A. TIMEOUT PARAMETER

The timeout for host waiting for a response are set in:

- Acquirer Host

The parameter is set to count the waiting time of response right after the request message initiated by Acquirer Host sent to NPSB host.

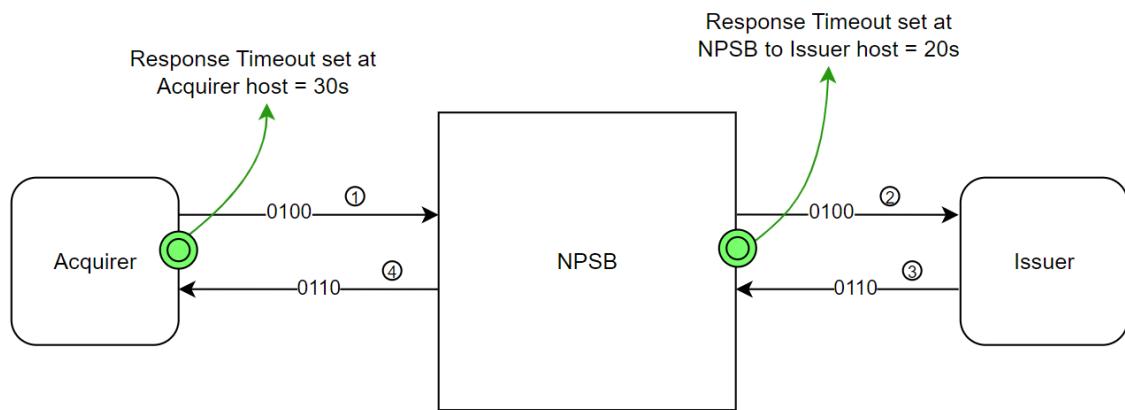
The maximum timeout parameter must be set to **30** seconds.

- NPSB Host

The timeout parameter in NPSB host is set to count the waiting time of incoming response message from Issuer Host.

The maximum timeout parameter must be set to **20** seconds.

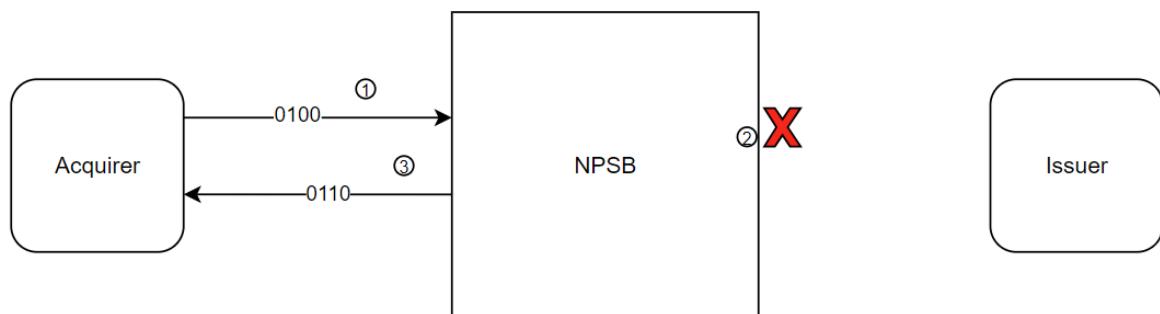
Following is diagram for timeout parameters set in NPSB and member bank host:



B. ISSUER SIDE TIMEOUT

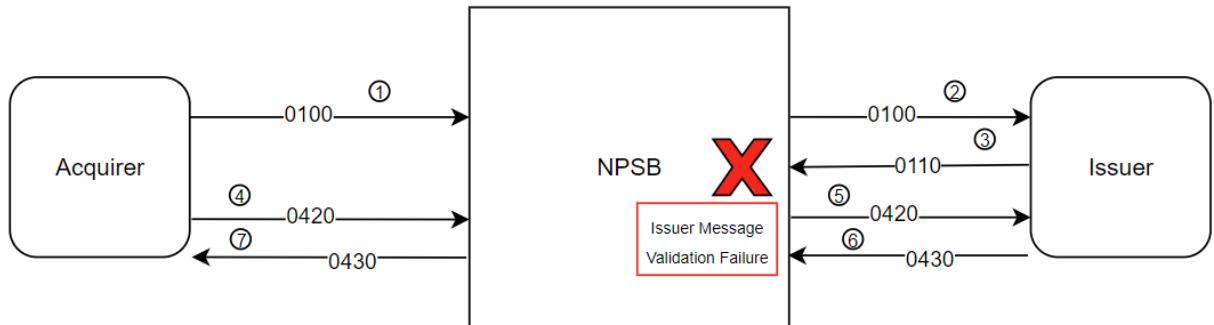
This section describes possible timeout scenarios during message transmission between NPSB and issuer host as follows:

1. NPSB Failed to Forward Request Message



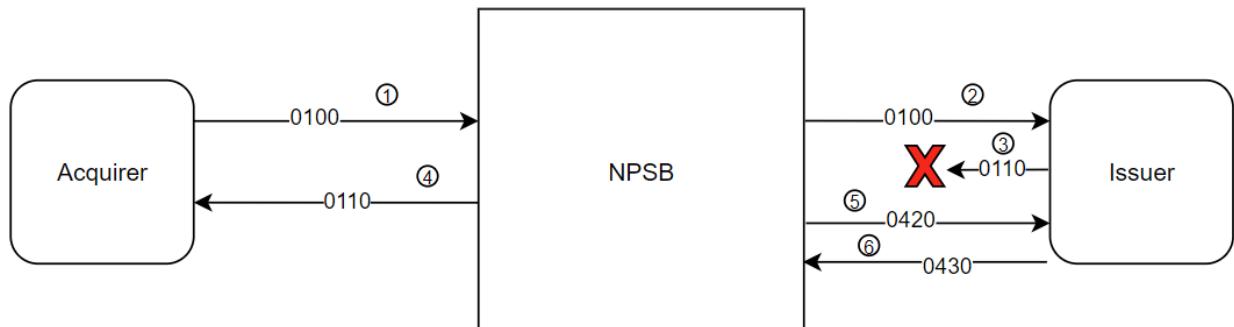
In this scenario, the request message coming from acquirer host fails due to unavailability of connection to issuer host or issuer host in sign off status. NPSB will respond to acquirer host with MTI 0110 and **RC=91**. No reversal is being generated at NPSB side to issuer host.

2. Issuer Message Validation Failure at NPSB



In this scenario, the response message coming from issuer host fails to be validated at NPSB side. Along the way, the acquirer host detected timeout due to no response message of the previous request message. The Acquirer host then generates reversal advice (flow no. 4) with **RC=68** and sends it to NPSB to be forwarded to issuer host. Issuer should respond to the reversal with RC=00.

3. No Response Message from Issuer

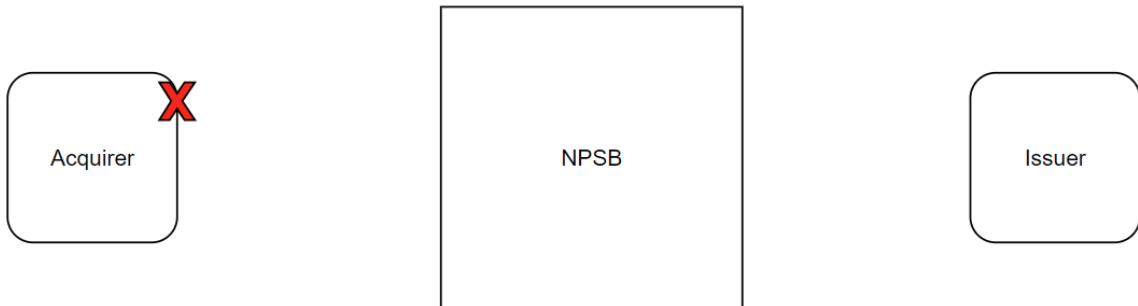


In this scenario, the response message sent by the issuer host is not received by NPSB due to network problem. NPSB will respond to acquirer host with MTI 0110 and RC=68. Reversal is generated and sent by NPSB to issuer host (flow no. 5). Issuer should respond to the reversal with RC=00.

C. ACQUIRER SIDE TIMEOUT

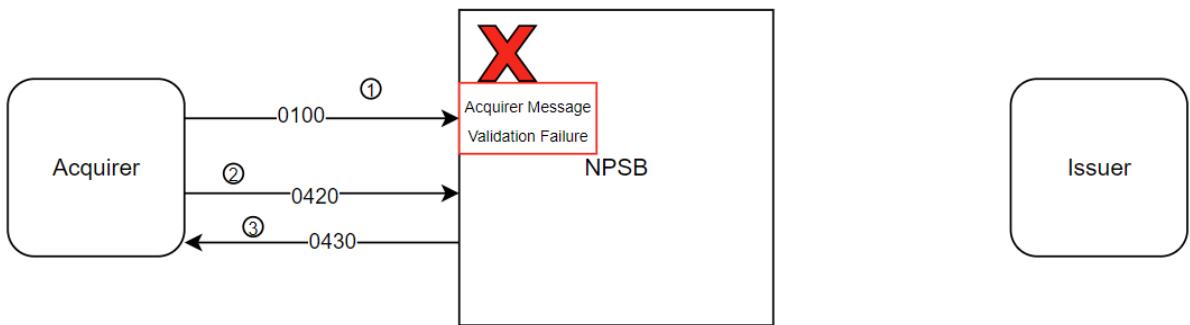
This section describes possible timeout scenarios during message transmission between Acquirer and NPSB host as follows:

1. [Failure To Send Request Message to NPSB](#)



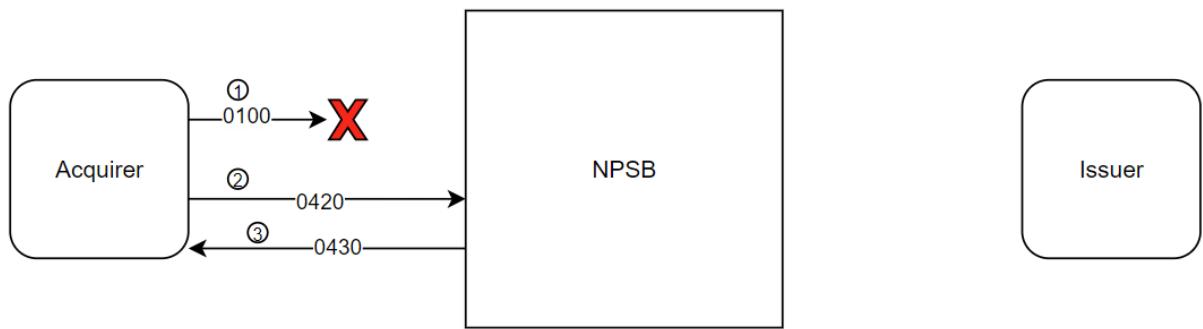
In this scenario, the Acquirer failed to send the request message. There is no reversal generated and sent to NPSB for this scenario.

2. [Failure in Message Validation at NPSB](#)



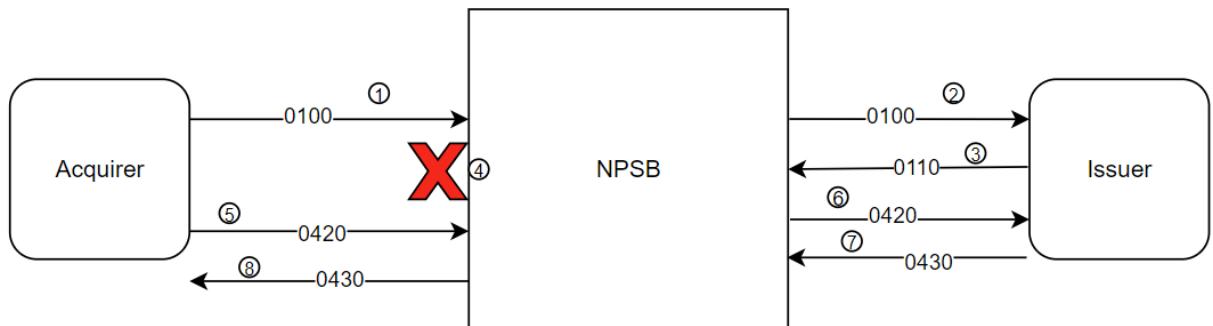
In this scenario, the request message coming from acquirer host fails to be validated at NPSB side. Along the way, the acquirer host detected timeout due to no response message of the previous request message. The Acquirer host then generates reversal advice (flow no. 2) with **RC=68** and sends it to NPSB. NPSB should respond to the reversal advice sent by acquirer host with RC=00.

3. NPSB Has Not Receive Request Message



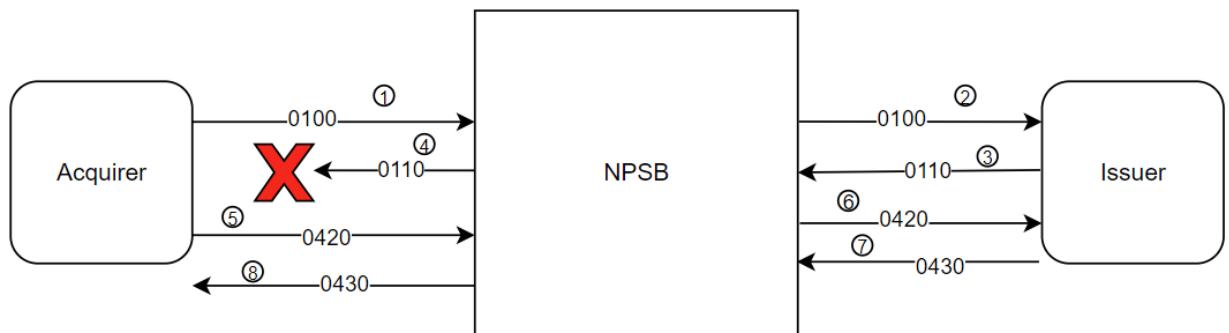
In this scenario, the request message sent by the acquirer host is sent but NPSB does not receive the respective request message due to network problem. Along the way, the acquirer host detected timeout due to no response message of the previous request message. The Acquirer host then generates reversal advice (flow no. 2) with **RC=68** and sends it to NPSB. NPSB should respond to the reversal advice sent by acquirer host with RC=00.

4. NPSB Failed to Forward the Response Message



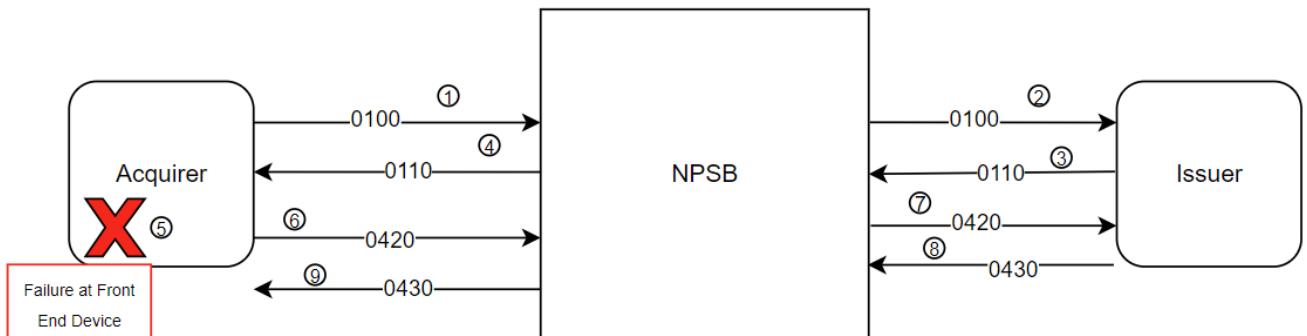
In this scenario, the response message sent by the issuer host cannot be forwarded by NPSB due to internal issue at NPSB host. Along the way, the acquirer host detected timeout due to no response message of the previous request message. The Acquirer host then generates reversal advice (flow no. 5) with **RC=68** and sends it to NPSB to be forwarded again to issuer host. Issuer host should respond to the reversal advice sent by acquirer host with RC=00.

5. Acquirer Has Not Received Response Message Forwarded by NPSB



In this scenario, the response message forwarded by NPSB from the issuer host is not received by Acquirer host due to network problem. Along the way, the acquirer host detected timeout due to no response message of the previous request message. The Acquirer host then generates reversal advice (flow no. 5) with **RC=68** and sends it to NPSB to be forwarded again to issuer host. Issuer host should respond to the reversal advice sent by acquirer host with RC=00.

6. Failure at Acquirer Side to Process Approved Response Message in Front End Device



In this scenario, the response message from the issuer host is forwarded successfully by NPSB to acquirer host but there is a front-end device issue when trying to complete the transaction. The Acquirer host then generates reversal advice (flow no. 6) with **RC=17** and sends it to NPSB to be forwarded again to issuer host. Issuer host should respond to the reversal advice sent by acquirer host with RC=00.

VIII. APPENDIX

A. Appendix A: DE112 Format

This field can consist of tags. Each tag is coded in BER-TLV, which basically there is tag, length, and value. Tag represents the data type, length represents the size of the value of the tag, and value is the data of the tag. There could be tag inside a tag.

Sample:

F0820155C18201415432392F30332048454144204F46464943452043312020202020202020202032392F30332048454144204F46464943452043312020202020202020202032392F30332048454144204F46464943452043312020202020202020202032392F30332048454144204F464649434520433120202020202020202020373532332F30332048454144204F464649434520433120202020202020202020203332332F3033204D65726368616E74204E616D65202020202020202020353032332F3033204D65726368616E74204E616D652020202020202020203530C20E5468697320697320612074657374

DE112 sample above can be decomposed as follows:

1. F0, C1, C2 are tags where C1 and C2 are the sub-tags of F0. Therefore, it can be said that the sample message contains F0.C1 and F0.C2 tags.
2. 820155, 820141, and 0E are the length of the value of tag F0, tag F0.C1, and tag F0.C2, respectively. The length is in hexadecimal and represents the length in bytes. The prefix of the length represents the length of the length in bytes, hence:
 - a. Without prefix, used for data with 1-127 bytes length. For example, 0E (14 bytes length)
 - b. With prefix 81, used for data with 127-255 bytes length. For example, 8183 (131 bytes length)
 - c. With prefix 82, used for data with more than 255 bytes length. For example, 820155 (341 bytes length)
3. Data with black font color is the value. Since the data is text, the value is preceded with 'T' character.

**B. Appendix B: Sample Message of DE112 for Bill Payment by Transaction Type**

Device	Transaction Type	Source & Destination	Sample Message
Internet Banking	Income Tax	Card to Card	F06ED20954574841545F545258D3085449424250433243D403543031D55254 6B687572736865642020202020202020202030313131303233534239 393939313431323135333431313433373832333343334333313432313233 3433233343332303030303030303030335135
Internet Banking	Income Tax	Card to Account	F06ED20954574841545F545258D3085449424250433241D403543031D55254 6B687572736865642020202020202020202030313131303233534239 393939313431323135333431313433373832333343334333313432313233 3433233343332303030303030303030335135
Internet Banking	Income Tax	Account to Account	F06ED20954574841545F545258D3085449424250413241D403543031D55254 6B687572736865642020202020202020202030313131303233534239 393939313431323135333431313433373832333343334333313432313233 3433233343332303030303030303030335135
Internet Banking	Income Tax	Account to Card	F06ED20954574841545F545258D3085449424250413243D403543031D55254 6B687572736865642020202020202020202030313131303233534239 393939313431323135333431313433373832333343334333313432313233 3433233343332303030303030303030335135
Internet Banking	VAT Tax	Card to Card	F06ED20954574841545F545258D3085449424250433243D403543032D55254 6B687572736865642020202020202020202030313130323353423939 39393134313231353334303931353635373838373131323132313537363738 3837373738383830303030303030303031353030
Internet Banking	VAT Tax	Card to Account	F06ED20954574841545F545258D3085449424250433241D403543032D55254 6B687572736865642020202020202020202030313130323353423939 39393134313231353334303931353635373838373131323132313537363738 3837373738383830303030303030303031353030
Internet Banking	VAT Tax	Account to Account	F06ED20954574841545F545258D3085449424250413241D403543032D55254 6B687572736865642020202020202020202030313130323353423939 39393134313231353334303931353635373838373131323132313537363738 38373737383838303030303030303031353030
Internet Banking	VAT Tax	Account to Card	F06ED20954574841545F545258D3085449424250413243D403543032D55254 6B687572736865642020202020202020202030313130323353423939 39393134313231353334303931353635373838373131323132313537363738 3837373738383830303030303030303031353030
Internet Banking	Custom Duty	Card to Card	F079D20954574841545F545258D3085449424250433243D403543033D55D5 46B68757273686564202020202020202020203031313032335342393 939393134313231353334303931353635373838373131323132313233343 536373839393939393931303130323230313233343230313530313031
Internet Banking	Custom Duty	Card to Account	F079D20954574841545F545258D3085449424250433241D403543033D55D5 46B68757273686564202020202020202020203031313032335342393 939393134313231353334303931353635373838373131323132313233343 536373839393939393931303130323230313233343230313530313031



Device	Transaction Type	Source & Destination	Sample Message
Internet Banking	Custom Duty	Account to Account	F079D20954574841545F545258D3085449424250413241D403543033D55D5 46B687572736865642020202020202020203031313032335342393 93939313431323135333430393135363537383837313132313231313233343 536373839393939393931303130323230313233343230313530313031
Internet Banking	Custom Duty	Account to Card	F079D20954574841545F545258D3085449424250413243D403543033D55D5 46B687572736865642020202020202020203031313032335342393 93939313431323135333430393135363537383837313132313231313233343 536373839393939393931303130323230313233343230313530313031

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C. Appendix C: Product Code

SL No	Code	Description
1	01	Income Tax
2	02	VAT Tax
3	03	Custom Duty

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D. Appendix D: Income Tax

SL No	Fields	Data type & Format	Sample Data	Notes
1	NBR e-Payment Main Portal User ID	ANS20	khurshed	Left justified, padded with spaces
2	Bank Code	ANS4	0011	Left justified, padded with spaces
3	Card No or Reference No (Account Payment)	ANS20	1023SB99991412153411	Left justified, padded with spaces
4	13 Digit Bank Govt. Tax Account Number	N13	4378233434331	Need to be fixed 13 digits
5	eTIN or TIN Number	N12	421234323432	Need to be fixed 12 digits
6	Amount	N12	000000003515	Need to be fixed 12 digits

Note: The data above are combined into one tag "D5" accordingly. Please see the DE112 sample Data.

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E. Appendix E: VAT Tax

SL No	Fields	Data type & Format	Sample Data	Notes
1	NBR e-Payment Main Portal User ID	ANS20	khurshed	Left justified, padded with spaces
2	Bank Code	ANS4	0011	Left justified, padded with spaces
3	Card No or Reference No(Account Payment)	ANS20	023SB999914121534091	Left justified, padded with spaces
4	13 Digit Bank Govt. Tax Account Number	N13	5657887112121	Need to be fixed 13 digits
5	BIN Number	N12	576788777888	Need to be fixed 12 digits
6	Amount	N12	000000001500	Need to be fixed 12 digits

Note: The data above are combined into one tag "D5" accordingly. Please see the DE112 sample Data.



F. Appendix F: Custom Duty

SL No	Fields	Data type & Format	Sample Data	Notes
1	NBR e-Payment Main Portal User ID	ANS20	khurshed	Left justified, padded with spaces
2	Bank Code	ANS4	0011	Left justified, padded with spaces
3	Card No or Reference No (Account Payment)	ANS20	20141216104900000011	Left justified, padded with spaces
4	13 Digit Bank Govt. Tax Account Number	N13	5657887112121	Need to be fixed 13 digits
5	AIN Number (C & F Agent Identification Number)	N15	123456789999999	Need to be fixed 15 digits
6	B/E (Bill Of Entry Number)	N12	101022201234	Need to be fixed 12 digits
7	B/E Date	N8(YYYYMMDD)	20150101	Need to be fixed 8 digits

Note: The data above are combined into one tag "D5" accordingly. Please see the DE112 sample Data.



G. Appendix G: Flow of Reversal and Guidelines

Flow of Reversal:

1. Acquirer Bank sends reversal debit to Issuer bank.
2. Acquirer Bank sends 0420 request message to NPSB (if Beneficiary is another bank than Acquirer).
3. Acquirer Bank will receive a response 0430 message with RC=00 from NPSB (NPSB will send auto response 0430 message with RC=00 to the Acquirer Bank and store 0420 as SAF message).
4. NPSB sends 0420 request message to Beneficiary Bank.
5. When the Beneficiary Bank receives 0420 message in Store and Forward mechanism until 0430 response with RC=00 (or 94) received by NPSB.

Guidelines:

1. NPSB Switch will send request 0420 message as many as 3 times if the Beneficiary Bank has not sent response 0430 message with RC=00 (or 94).
2. If the Beneficiary Bank never sends response 0430 message with RC=00(or 94), then settlement between NPSB and Beneficiary Bank should be done manually.



H. Appendix H: Chip Transactions Related Data

Chip transactions related data (DE23 and DE55) will be required for transactions that come from Card Based Transaction device, such as ATM, POS, and Kiosk.

DE 55 Smart Card Specific Data is used to transport chip-specific data over the payment network. It contains various data captured by the chip terminal as part of a chip transaction. DE 55 is used only for Chip Full Grade transactions. Following are list of EMV tag that can be passed through NPSB with its respective tag description and tag usage:

TAG	Description	EMV Tag Usage	
		Usage	Bytes
9F02	Transaction Amount	M	6
9F03	Other Amount	O	6
9F06	Application Identifier (AID)- terminal	O	VAR 16
82	AIP	M	2
9F36	ATC - Application transaction counter maintained by chip card	M	2
9F07	Application usage Control	O	2
9F27	CID: Cryptogram Information Data indicates type of cryptogram generated by chip 00 = AAC (declined) 40/50 =TC (Approved) 80/90 =ARQC (go online)	M	1
9F34	CVM results	O	3
84	Dedicated file name Usually same as AID (Tag 4F)	O	Var 16
4F	ICC AID ADF name (AID) returned by ICC, as read from directory file, in template 61	O	Var 16
9F1E	POS/Terminal Serial Number	O	8
9F26	Application Cryptogram		
9F10	IAD Issuer Application Data (Proprietary data for transmission to issuer in an online transaction	M	Var 32
9F09	Terminal Application Version Number	O	2
9F33	Terminal Capabilities	M	3
9F1A	Terminal Country Code	M	2
9F35	Terminal Type	O	1
95	TVR (Terminal Verification results)	M	5
5F2A	Transaction Currency Code	M	2
9A	Terminal Transaction date Format: YYMMDD	M	3
9F41	Transaction Sequence Counter	O	2
9C	Transaction Type	M	1
9F37	Unpredictable number	M	4
9F41	Transaction Sequence Counter	O	VAR 4
9F53	Transaction Category Code	O	1
5F34	PAN Sequence Number (sent in De 23)	O	1
5A	PAN (Sent in Bit 2)	O	VAR 10
57	Track 2 data (Sent in bit 35)	O	VAR 19



In NPSB, the EMV tag structure will be following this format:

PDS tag	PDS length = N	PDS value	PDS tag	PDS length = M	PDS value	...
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PDS Tag contains the tag identifying the EMV data object transported in this PDS (e.g. PDS '9F26' corresponds to the EMV tag '9F26'). **For EMV, refer to the *EMV '96 Specifications* for the structure and definition of the EMV tags.**

PDS Length specifies the length (in bytes) of the PDS data, expressed as a binary number in the range 1 to 127.

PDS Value contains the actual data from the corresponding EMV data object, as identified by the PDS Tag.

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