Kuwait Finance House (M) Berhad

KFH Online Banking
(IBG Core for NBPS)

Technical Document

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Document Amendment Log

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1.0	20/05/2014	Initial Release	Md Hafizudin Penril Datability	Norhaidah Dasuki Penril Datability	Tan Lee Yong Penril Datability

1 NBSP Specific Requirement for IBG Processing

1.1 Entry Detail Record

There is no new field added to this record. This record field and structure shall remain the same as before.

The changes are on the Field 10 and 11.

Entry Detail Record contains information about the receiver and the RFI.

The elements of entry Detail Record are as follows and please see the highlighted rows on the changed fields:-

Field	Parameter Name		Contents	Length	Position	Example / Remark
1.	Record Type Code	M	'6'	1		6
2.	Transaction Code	M	Numeric	2		22
3.	Receiving FI Identification	M	Alphanumeric	8		10000233
4.	Check Digit	M	Numeric	1		5
5.	RFI Account Number	M	Numeric	17		12345678
6.	Amount	M	$$$$SS$$cc	10		000010000
7.	Individual identification Number	M	Alphanumeric	15		565656565
8.	Number of Addenda Record	M	Numeric	4		0002
9.	Receiving Company Name / Beneficiary Name	M	Alphanumeric	16		Julie Andrews
10.	Reserved	O	Alphanumeric	2		<blank>0
11.	Discretionary Data	O	Alphanumeric	2		80
12.	Addenda Record Indicator	M	Numeric	1		1
13.	Trace Number	M	Numeric	15		100002270000034

Below describe the details of the new rules and values:-

In short, the value for Field 10 is always <blank>0 and Field 11 is always 80 for NBPS transaction request.

Field 10: Reserved
This field allow payer Bank (OFI) to include codes, of significance only to them, to enable special handling of the entry. This field used 2 alphanumeric characters. The first position (reserved) is to be left blank for future use The second position will identify Processing Code. Processing Code will indicate if there is a need for Payer Bank (OFI) to identify if it is 2nd Validation Transactions. Position 1s: Reserved (O)   - To be left blank for future use   Position 2: Processing Code (O)   - No special handling required (default)   - (0)   2nd Validation required   - (5)   Note: ***The only allows value for NBSP is "0" (zero)*** as 2nd validation is not applicable.

Field 11: Discretionary Data
This field allows Payer Bank (OFI) to include codes, of significance only to them, to enable special handling of the entry. There will be no standardized interpretation for the value of this field unless specified i.e. for **Segment Code 3**. This field must be returned intact for any returned entry. (Note: As Discretionary Date is Optional field. RFI should not reject if receive other than the codes listed below) This field used 2 Alphanumeric characters. The first position will identify the segment code while the second character is default zero. Use ***Segment Code 8 for NBSP*** transaction.

Segment Code	
Government	0
Private	1
OTC	2
EPF Direct Crediting	3
Accountant General	4
e-Share Transaction	6
e-Dividend Transaction	7
e-bill	8

1.2 Addenda Record

There are no changes on the Addenda 1. But, the Addenda 2 table is being restructured with new data format.

Addenda record will be used by the originator to supply additional information about Entry Detail Records which will be passed to the Biller Bank (RFI). Please note hat addenda records associated with the original Entry Detail Record or Corporate Entry Detail WILL NOT be included with any detail entry returned. Addenda record is mandatory when the indicator in the Addenda Record indicator in the Entry Detail Record is set 'on'

The below matrix depicted the addenda record and the number of addenda records in relation to its Segment and Element codes at the Discretionary Date field and Processing Code at the Reserved field in Entry Detail Record:

Processing Code (Position 76)	Segment Code (Position 77)	Element Code (Position 78)	Addenda 1	Addenda 2	Addenda 3
0	0		R	R	NA
0	1		R	R	NA
0	2		R	R	NA
0	3		R	R	NA
0	4		R	R	NA
0	6	Either "0" or "1"	R	R	NA
0	7		R	R	NA
0	8		R	R	NA
* 5	0		R	R	R
* 5	1		R	R	R
* 5	2		R	R	R
5	3		NA		
* 5	4		R	R	R
* 5	6		R	R	R
* 5	7		R	R	R
5	8		NA		

For NBPS transaction segment code "8". 2nd Validation processing code "5" is not applicable if Code 8 (segment code) and Code 5 (Processing Code) are both present, the RFI is to processes the transaction without having to perform 2nd validation processing.

a) 2nd Addenda before for NBPS

Field	Parameter Name		Contents	Length	Position	Example / Remark
1.	Record Type Code	M	'7'	1	01-01	7
2.	Addenda Type Code	M	Numeric	2	02-03	05
3.	Other Payment Details	O	Alphanumeric	20	04-23	Loan Payment
4.	Recipient Reference	M	Alphanumeric	20	24-43	12345677
5.	Reserved	O	Alphanumeric	20	44-83	<blank>
6.	Addenda Sequence Number	O	Numeric	4	84-87	0002
7.	Entry Detail Sequence Number	O	Numeric	7	88-94	0000001

b) 2nd Addenda changes for NBPS

It is mandatory to follow the below format structure. The Payer Bank (OFI) will put the following date segment in a strictly sequence manner as request by NBPS.

Field	Parameter Name		Contents	Length	Position	Example / Remark
8.	Record Type Code	M	'7'	1	01-01	7
9.	Addenda Type Code	M	Numeric	2	02-03	05
10	NBPS Reference Number	M	Alphanumeric	8	04-11	10000233
11	Account Type	M	Numeric	1	12-12	1
12	Date of debit	M	Numeric	6	13-18	130630
13	Time of debit	M	Numeric	4	19-22	1430
14	RTN	M	Alphanumeric	1	23	Y
15	Recipient Reference Number	O	Alphanumeric	20	24-43	SG038472928387
16	Recipient Reference Number 2	M	Alphanumeric	30	44-73	marykay@gmail.com
17	Biller Code	M	Alphanumeric	8	74-81	12345

18	Payment channel	M	Alphanumeric	1	82-82	1
19	Payer Type	M	Alphanumeric	1	83-83	C
20	Addenda Sequence Number	O	Numeric	4	84-87	0002
21	Entry Detail Sequence Number	O	Numeric	7	88-94	0000001

Below describe the details of the new rules and values:-

Field 1: Record Type Code
As part of Clear IBG System to identify its message components, the Addenda Record, record type must always be '7'
Field 2: Addenda Type Code
For the addenda Type Record must always contain "05"
Field 3: NBPS Reference Number
This field contains the NBPS Reference umber which identifies the successful validation transaction and debit of Payer's (Orginator) account. It should be the Reference Number returned to the Payer Bank (OFI) during the validation response [BVM] and what was provided for in the Payer's (Orginator) transaction receipt (nbpsref)
Field 4: Account Type
This field contains the account type of the Orginator (Payer) that was successfully debited by Payer Bank (OFI) for NBSP transaction

Account Type	Code
Saving	1
Current	2
Credit Card	3

Field 5: Date of Debit
This Date of Debit YYMMDD format As an example, ie. "140505" is used. It defines the date on which the Payer's (Orginator) account was successfully debited by the Payer Bank (OFI). It must exacly match the date displayed to the confirmation page
Field 6: Time of Debit
The Time of Debit is 24 hours HHMM format, As an example, i.e. "1430" is used. It defines the time in which Payer's (Orginator) account was successfully debited by the Payer Bank (OFI). It must exacly match the time displayed to customer on the confirmation page.

Field 7: RTN

This field contain the RTN flag which identifies the requirement for debit notification to Receiver biller

RTN	Code
Yes	Y
No	N

Field 8: Recipient Reference Number

This field contains the Recpient Reference Number which identifies the Payer's (Orginator) billing account with the biller which to be paid, and should be as what was entered by the Payer (Orginator). The remaining empty/ available positions are to be filled with trailing spaces.

Field 9: Recipient Reference Number 2

This field contains the 2nd (second) Recpient Reference Number . This field contains additional information to be provided by Payer and is required bu te Biller to reconcile the payment. It is applicable only for Biller (Receiver) require it . It should contain the value entered by the Payer (Orginator). The remaining empty available positions are to be filled with trailing spacers.

Field 10: Biller Code

This field contains the Biller Code belonging to Biller (Reciever) and indicaes the code for a product or service grouping offered by the Biller in the shemes. It should contain the Biller Code as enterd by the Payer (Orginator). The remaining empty / available possitions are to be filled with trailling space.

Field 11: Payment channel

This field contains the payment channel in which the NBPS transaction was initiated by the Payer (Orginator)

No.	Payment Channel	Code
1.	Internet Banking	1
2.	Automated Teller Machine (ATM)	2
3.	Mobile Banking	3
4.	MyMobile	4
5.	Bank Branch (OTC)	5
6.	Agent Banker	6
7.	Interactive Voice Response	7
8.	Telebanking	8

Field 12: Payer type

This field contains the type of Payer (Orginator) that initiated the transaction.

No.	Payer Type	Code
1.	Retail	R
2.	Corporate	C

Field 13: Addenda Sequence Number

This number is consecutively assigned to each Addenda record following an Entry Detail Record. The second Addenda sequence number must be a 0002

Field 14: Entry Detail Sequence Number

This field contains the ascending sequence number section of the entry detail record's trace number. This number is the same as the last seven digit of trace number of related Entry Detail Record.

2 Web Service Message Components

2.1 Web Service Parameters for Internet Banking

2.1.1 Transaction Entry Parameters

Transaction Entry need to adding new parameter to support NBPS

Input

FIELD	PARAMETER NAME		CONTENTS	LENGTH =<	EXAMPLE / REMARK
1.	channel	M	Numeric	2	01
2.	subChannel	M	Numeric	8	00000001
3.	toBankRouteNo	M	Numeric	8	10000233
4.	fromAccountNo	M	Numeric	17	1234567891012
5.	toAccountNo	M	Numeric	17	98765432109876
6.	amount	M	######.00	10	100.00
7.	chargeAmount	M	####.00	6	2.00
8.	beneID	O	Alphanumeric	15	M336475
9.	toName	M	Alphanumeric	16	Julie Andrews
10.	beneBankName	M	Alphanumeric	64	Public Bank
11.	segmentCode	M	Numeric	1	1
12.	elementCode	M	Numeric	1	0
13.	fromName	M	Alphanumeric	80	Sharon Wee
14.	rimNo	M	Alphanumeric	5	968
15.	paymentRefNo	M	Alphanumeric	20	12345677
16.	paymentDescription	M	Alphanumeric	20	Loan Payment
17.	newICNo	O	Numeric	12	751215105978
18.	oldICNo	O	Alphanumeric	8	A2342024
19.	businessRegNo	O	Alphanumeric	20	43456-K
20.	otherIDNo	O	Numeric	4	R980003
21.	epfMemberId	O	Numeric	8	12345678
22.	batchDate	O	YYYYMMDD	8	20091211
23.	eftNumber	O	Numeric	20	1234567890
24.	description	O	Alphanumeric	256	Not in used
25.	creationDate	O	Date Time	-	Not in used
26.	effectiveDate	M	YYMMDD	6	091118
27.	dateOfDeath	O	YYMMDD	-	Not in used
28.	isTransferCharges	O	Alphabet	1	Not in used

29.	isTransferAmount	O	Alphabet	1	Not in used
30.	phnxChargesDesc	M	Alphanumeric	64	IBG Charges Transfer
31.	phnxPrincipleDesc	M	Alphanumeric	64	IBG Fund Transfer
32.	ibTrnxId	M	Numeric	18	200912110000000001
33.	paymentType	M	Numeric	2	01
34.	forwardCharges	M	Numeric	3	001
35.	oid	O	Numeric	32	Not in used
36.	transactionCode	O	Numeric	20	Not in used
37.	returnCode	O	Alphanumeric	3	Not in used
38.	status	O	Alphabet	16	Not in used
39.	traceNo	O	Numeric	15	Not in used
40.	nbpsRefNo	M	Alphanumeric	8	101AAAAA
41.	accountType	M	Numeric	1	1
42.	dateOfDebit	M	Numeric	6	140510
43.	timeOfDebit	M	Numeric	4	1430
44.	rtn	M	Alphanumeric	1	Y
45.	recipientRefNo	O	Alphanumeric	20	SG038472928387
46.	recipientRefNo2	M	Alphanumeric	30	marykay@gmail.com
47.	billerCode	M	Alphanumeric	8	12345
48.	paymentChannel	M	Alphanumeric	1	1
49.	payerType	M	Alphanumeric	1	C

Below describe the details of the new rules and values:-

Field 1: channel
This defines the code assigned to each input channel.

CHANNEL	CHANNEL CODE
Branch	01
Internet Banking	02

Field 2: subChannel
This defines the code assigned to each sub channel. A Channel by default has to assign a Sub Channel Code in order to be related. E.g. Internet Banking will have a Channel Code of '02' where '00000001' will be Consumer Internet Banking and '00000002' will be Business Internet Banking. For Branch which belongs to Channel Code of '01', '00000001' will be the first dedicated branch of the respective bank and so forth.

Field 3: toBankRouteNo
A standard Routing Number as assigned by MEPS is used to identify a RFI.

Field 4: fromAccountNo

This field defines the Originator's account number for the IBG transaction.

Field 5: toAccountNo

This field defines the Beneficiary's bank customer identification (account number).

Field 6: amount

This field defines the amount of the IBG transaction.

Field 7: chargeAmount

This field defines the charges amount applied to the IBG transaction

Field 8: BeneID

This field contains the accounting number by which the Receiver is known to the Originator. It is included for further identification and for descriptive purposes only.

Field 9: toName

The Receiving Company Name / Beneficiary Name field contains the name of the Receiver.

Field 10: beneBankName

This field defines the beneficiary bank name of the Receiver.

Discretionary Data

Discretionary data is used to enable special handling of the IBG transaction.

This field used 2 alphanumeric characters. The first position will identify the segment code while the second character is used to determine the residential status of the Originator (External Account).

a. **Field 11: segmentCode**
   - Government - (0)
   - Private - (1)
   - OTC - (2)
   - EPF- (3)
   - Accountant General - (4)
   - Second Validation - (5)

b. **Field 12: elementCode**
   - Resident - (0)
   - Non-Resident - (1)

Field 13: fromName

As a Web Service Entry, it is mandatory to incorporate the Applicant / Remitter Name (in full name) in IBG Transaction.

Field 14: rimNo

Field for idenfication of Originator. (RIM NO for case of KFHMB)

Field 15: paymentRefNo

It is a field for payment reference number such as invoice number.

Field 16: paymentDescription

It is a field to provide information on the type of payment.

Field 17: newICNo

It is a field for beneficiary New IC No. where applicable for Discretionary Data Segment Code "3" and "5".

Field 18: oldICNo

It is a field for beneficiary Old IC No. where applicable for Discretionary Data Segment Code "3" and "5".

Field 19: businessRegNo

It is a field for beneficiary Business Registration No. where applicable for Discretionary Data Segment Code "5".

Field 20: otherIDNo

It is a field for Police/Army ID/Passport No. where applicable for Discretionary Data Segment Code "3" and "5".

Note: OFI must indicate at minimum one of the fields as stated from field 17 to field 19 if Segment Code of "3" and "5" is used.

Field 21: epfMemberId

It is a field for EPF Member ID for EPF Direct Crediting where applicable for Discretionary Data Segment Code "3".

Field 22: batchDate

It is a field for Batch Date for EPF Direct Crediting where applicable for Discretionary Data Segment Code "3".

Field 23: eftNumber

It is a field for EFT Number for Accountant General EFT payments where applicable for Discretionary Data Segment Code "4".

Field 24: description

The field defines the description of rejected IBG transactions during enquiry process.

Description is as per Web Service Validation Code. It is not in used and the parameter can be treated as an empty field.

Field 25: creationDate

The field defines the timestamp where the entry is sent to IBG Core Engine for processing. It is not in used and the parameter can be treated as an empty field.

Field 26: Effective Date

The Effective Date identifies the payment date of an entry. Future payments must not have payment date as of current date.

Field 27: dateOfDeath

The field is not in used and the parameter can be treated as an empty field.

Field 28: isTransferCharges

The field defines the indicator to enable charges transfer for the entry. 'Y' denotes yes while 'N' denotes no. It is not in used and the parameter can be treated as an empty field.

Field 29: isTransferAmount

The field defines the indicator to enable charges transfer for the entry. 'Y' denotes yes while 'N' denotes no. It is not in used and the parameter can be treated as an empty field.

Field 30: phnxChargesDesc

This field defines the message needed to be parsed into charges transfer when the entry is processed.

Field 31: phnxPrincipleDesc

This field defines the message needed to be parsed into fund transfer when the entry is processed.

Field 32: ibTrnxId

The ibTrnxId defines the unique reference number that identifies the entry through specified channel.

Field 33: paymentType

This field is to be used by IBG CORE to filter the entries being enquired by payment type. "01" denotes Immediate Payment Entries while "02" denotes Future Payment Entries.

Field 34: forwardCharges

This field is to be used by IBG CORE to determine the branch that placed the charges on the entry and to warehouse the record of the collection account. Branch code of 3 characters will be used to determine the specific collection account for the charges to be forwarded to.

Field 35: oid

The oid is the unique reference number of the transaction being warehoused in IBG Core Engine. It is not in used and the parameter can be treated as an empty field.

Field 36: transactionCode

The field is not in used and the parameter can be treated as an empty field.

Field 37: returnCode

The field is not in used and the parameter can be treated as an empty field.

Field 38: status

This field defines the status of the transaction. It is not in used and the parameter can be treated as an empty field.

STATUS INDICATOR	DESCRIPTION
N	New Transaction
P	Accepted Transaction
F	Failed Transaction

Field 39: traceNo

The field is not in used and the parameter can be treated as an empty field.

Field 40: nbpsRefNo

This field contains the NBPS Reference umber which identifies the successful validation transaction and debit of Payer's (Orginator) account. It should be the Reference Number returned to the Payer Bank (OFI) during the validation response [BVM] and what was provided for in the Payer's (Orginator) transaction receipt (nbpsrefno)

Field 41: accountType

This field contains the account type of the Orginator (Payer) that was successfully debited by Payer Bank (OFI) for NBSP transaction

Account Type	Code
Saving	1
Current	2
Credit Card	3

Field 32: dateOfDebit

This Date of Debit YYMMDD format As an example, ie. "140505" is used. It defines the date on which the Payer's (Orginator) account was successfully debited by the Payer Bank (OFI). It must exacly match the date displayed to the confirmation page

Field 33: timeOfDebit

The Time of Debit is 24 hours HHMM format, As an example, i.e. "1430" is used. It defines the time in which Payer's (Orginator) account was successfully debited by the Payer Bank (OFI). It must exacly match the time displayed to customer on the confirmation page.

Field 34: rtn

This field contain the RTN flag which identifies the requirement for debit notification to Receiver biller

RTN	Code
Yes	Y
No	N

Field 45: recipientRefNo

This field contains the Recpient Reference Number which identifies the Payer's (Orginator) billing account with the biller which to be paid, and should be as what was entered by the Payer (Orginator). The remaining empty/ available positions are to be filled with trailing spaces.

Field 46: recipientRefNo2

This field contains the 2nd (second) Recpient Reference Number . This field contains additional information to be provided by Payer and is required bu te Biller to reconcile the payment. It is applicable only for Biller (Receiver) require it . It should contain the value entered by the Payer (Orginator). The remaining empty available positions are to be filled with trailing spacers

Field 47: billerCode

This field contains the Biller Code belonging to Biller (Reciever) and indicaes the code for a product or service grouping offered by the Biller in the shemes. It should contain the Biller Code as enterd by the Payer (Orginator). The remaining empty / available possitions are to be filled with trailling space

Field 48: paymentChannel

This field contains the payment channel in which the NBPS transaction was initiated by the Payer (Orginator)

No.	Payment Channel	Code
1.	Internet Banking	1
2.	Automated Teller Machine (ATM)	2
3.	Mobile Banking	3
4.	MyMobile	4
5.	Bank Branch (OTC)	5
6.	Agent Banker	6
7.	Interactive Voice Response	7
8.	Telebanking	8

Field 49: payerType

This field contains the type of Payer (Orginator) that initiated the transaction.

No.	Payer Type	Code
1.	Retail	R
2.	Corporate	C

Output

There are no changes on the **Output.**

FIELD	PARAMETER NAME		CONTENTS	LENGTH	EXAMPLE
1	chargeReferenceNo	O	Numeric	>0	123456
2	chargeRespCode	O	Numeric	>0	0000
3	fundReferenceNo	O	Numeric	>0	234567
4	fundRespCode	O	Numeric	>0	0000
5	oid	M	Numeric	14	20100309000096
6	respCode	M	Numeric	4	5000
7	respMsg	M	Alphanumeric	>0	Successful

Below describe the details of the new rules and values:-

Field 1: chargeReferenceNo
The chargeReferenceNo is the unique reference number of the transaction where a charge is deducted or reverted.

Field 2: chargeRespCode
The chargeRespCode is the return code that defines the status of the specified charge being transferred.

Field 3: fundReferenceNo
The fundReferenceNo is the unique reference number of the transaction where a fund is deducted or reverted.

Field 4: fundRespCode
The fundRespCode is the return code that defines the status of the specified fund being transferred.

Field 5: oid
The oid is the unique reference number of the transaction being warehoused in IBG Core Engine.

Field 6: respCode
The respCode defines the code returned by IBG Core. Refer Web Service Validation Code for details.

Field 7:respMsg
The respMsg further elaborates the denotation of Return Code. Refer Web Service Validation Code for details.

2.2 Web Service Parameter for Other Channels

2.2.1 Transaction NBPS Entry Parameters

Create new web service for other channels.

Input XML

FIELD	PARAMETER NAME		CONTENTS	LENGTH =<	EXAMPLE / REMARK
1.	IBG NBPS Entry	M	XML String	-	

Content of the input XML

FIELD	ELEMENT NAME		Data Type	Format	LENGTH =<	EXAMPLE / REMARK
1.	serviceID	M	String	N	3	101
2.	channel	M	String	N	2	01
3.	subChannel	M	String	N	8	00000001
4.	toBankRouteNo	M	String	N	8	10000233
5.	fromAccountNo	M	String	N	17	1234567891012
6.	toAccountNo	M	String	N	17	98765432109876
7.	amount	M	String	N	10	100.00
8.	chargeAmount	M	String	N	6	2.00
9.	beneID	O	String	AN	15	M336475
10.	toName	M	String	AN	16	Julie Andrews
11.	segmentCode	M	String	N	1	1
12.	elementCode	M	String	N	1	0
13.	fromName	M	String	AN	80	Sharon Wee
14.	rimNo	M	String	N	5	968
15.	paymentRefNo	M	String	AN	20	12345677
16.	paymentDescription	M	String	ANSC	20	Loan Payment
17.	newICNo	R	String	N	12	751215105978
18.	oldICNo	R	String	AN	8	A2342024
19.	businessRegNo	R	String	AN	20	43456-K
20.	otherIDNo	R	String	AN	4	R980003
21.	epfMemberId	R	String	AN	8	12345678
22.	batchDate	R	String	YYYYMMDD	8	20131130
23.	eftNumber	R	String	AN	20	1234567890
24.	effectiveDate	M	String	YYYYMMDD	8	20131128
25.	phnxChargesDesc	M	String	AN	64	IBG Charges Transfer
26.	phnxPrincipleDesc	M	String	AN	64	IBG Fund Transfer

27.	ibTrnxId	M	String	AN	18	200912110000000001
28.	paymentType	M	String	N	2	01
29.	forwardCharges	M	String	N	3	001
30.	nbpsRefNo	M	String	AN	8	101AAAAA
31.	accountType	M	String	N	1	1
32.	dateOfDebit	M	String	N	6	140510
33.	timeOfDebit	M	String	N	4	1430
34.	rtn	M	String	AN	1	Y
35.	recipientRefNo	O	String	AN	20	SG038472928387
36.	recipientRefNo2	M	String	AN	30	marykay@gmail.com
37.	billerCode	M	String	AN	8	12345
38.	paymentChannel	M	String	AN	1	1
39.	payerType	M	String	AN	1	C

Refer to Appendix 3.1.1 for example input XML Format

N – Numeric**,**   **AN** – Alpha Numeric**, ANSC** – Alpha Numeric & Special Character.

Below describe the details of the new rules and values:-

Field 1: serviceID
This defines the unique service of IBG. In this case the service ID is defaulted to '101'
Field 2: channel
This defines the code assigned to each input channel.

CHANNEL	CHANNEL CODE
Branch	01
Internet Banking	02
ATM	03

Field 3: subChannel
This defines the code assigned to each sub channel. A Channel by default has to assign a Sub Channel Code in order to be related. E.g. Internet Banking will have a Channel Code of '02' where '00000001' will be Consumer Internet Banking and '00000002' will be Business Internet Banking. For Branch which belongs to Channel Code of '01', '00000001' will be the first dedicated branch of the respective bank and so forth.
Field 4: toBankRouteNo
A standard Routing Number as assigned by MEPS is used to identify a RFI.
Field 5: fromAccountNo
This field defines the Originator's account number for the IBG transaction.

Field 6: toAccountNo
This field defines the Beneficiary's bank customer identification (account number).

Field 7: amount
This field defines the amount of the IBG transaction.

Field 8: chargeAmount
This field defines the charges amount applied to the IBG transaction

Field 9: BeneID
This field contains the accounting number by which the Receiver is known to the Originator. It is included for further identification and for descriptive purposes only.

Field 10: toName
The Receiving Company Name / Beneficiary Name field contains the name of the Receiver.

Discretionary Data
Discretionary data is used to enable special handling of the IBG transaction.

This field used 2 alphanumeric characters. The first position will identify the segment code while the second character is used to determine the residential status of the Originator (External Account).

- a. **Field 11: segmentCode**
  - Government - (0)
  - Private - (1)
  - OTC - (2)
  - EPF- (3)
  - Accountant General - (4)
  - Second Validation - (5)
- b. **Field 12: elementCode**
  - Resident - (0)
  - Non-Resident - (1)

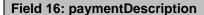| **Field 13: fromName** |
| --- |
| As a Web Service Entry, it is mandatory to incorporate the Applicant / Remitter Name (in full name) in IBG Transaction. |

Field 14: rimNo
Field for idenfication of Originator. (RIM NO for case of KFHMB)

Field 15: paymentRefNo
It is a field for payment reference number such as invoice number.

Field 16: paymentDescription

It is a field to provide information on the type of payment. As stated in the table above, this field are allowed to send special characters. But some of the special characters are not recognize by IBG System. Here is the list of them:

No	Special Character
1	"
2	<
3	>
4	/
5	\
6	~
7	`
8	?
9	'
10	%
11	;
12	&

Field 17: newICNo

It is a field for beneficiary New IC No. where applicable for Discretionary Data Segment Code "3" and "5".

Field 18: oldICNo

It is a field for beneficiary Old IC No. where applicable for Discretionary Data Segment Code "3" and "5".

Field 19: businessRegNo

It is a field for beneficiary Business Registration No. where applicable for Discretionary Data Segment Code "5".

Field 20: otherIDNo

It is a field for Police/Army ID/Passport No. where applicable for Discretionary Data Segment Code "3" and "5".

Note: OFI must indicate at minimum one of the fields as stated from field 17 to field 19 if Segment Code of "3" and "5" is used.

Field 21: epfMemberId

It is a field for EPF Member ID for EPF Direct Crediting where applicable for Discretionary Data Segment Code "3".

Field 22: batchDate

It is a field for Batch Date for EPF Direct Crediting where applicable for Discretionary Data Segment Code "3".

Field 23: eftNumber

It is a field for EFT Number for Accountant General EFT payments where applicable for Discretionary Data Segment Code "4".

Field 24: Effective Date

The Effective Date identifies the payment date of an entry. Future payments must not have payment date as of current date.

Field 25: phnxChargesDesc

This field defines the message needed to be parsed into charges transfer when the entry is processed.

Field 26: phnxPrincipleDesc

This field defines the message needed to be parsed into fund transfer when the entry is processed.

Field 27: ibTrnxId

The ibTrnxId defines the unique reference number that identifies the entry through specified channel.

Field 28: paymentType

This field is to be used by IBG CORE to filter the entries being enquired by payment type. "01" denotes Immediate Payment Entries while "02" denotes Future Payment Entries.

Field 29: forwardCharges

This field is to be used by IBG CORE to determine the branch that placed the charges on the entry and to warehouse the record of the collection account. Branch code of 3 characters will be used to determine the specific collection account for the charges to be forwarded to.

Field 30: nbpsRefNo

This field contains the NBPS Reference umber which identifies the successful validation transaction and debit of Payer's (Orginator) account. It should be the Reference Number returned to the Payer Bank (OFI) during the validation response [BVM] and what was provided for in the Payer's (Orginator) transaction receipt (nbpsrefno)

Field 31: accountType

This field contains the account type of the Orginator (Payer) that was successfully debited by Payer Bank (OFI) for NBSP transaction

Account Type	Code
Saving	1
Current	2
Credit Card	3

Field 32: dateOfDebit

This Date of Debit YYMMDD format As an example, ie. "140505" is used. It defines the date on which the Payer's (Orginator) account was successfully debited by the Payer Bank (OFI). It must exacly match the date displayed to the confirmation page

Field 33: timeOfDebit

The Time of Debit is 24 hours HHMM format, As an example, i.e. "1430" is used. It defines the time in which Payer's (Orginator) account was successfully debited by the Payer Bank (OFI). It must exacly match the time displayed to customer on the confirmation page.

Field 34: rtn

This field contain the RTN flag which identifies the requirement for debit notification to Receiver biller

RTN	Code
Yes	Y
No	N

Field 35: recipientRefNo

This field contains the Recpient Reference Number which identifies the Payer's (Orginator) billing account with the biller which to be paid, and should be as what was entered by the Payer (Orginator). The remaining empty/ available positions are to be filled with trailing spaces.

Field 36: recipientRefNo2

This field contains the 2nd (second) Recpient Reference Number . This field contains additional information to be provided by Payer and is required bu te Biller to reconcile the payment. It is applicable only for Biller (Receiver) require it . It should contain the value entered by the Payer (Orginator). The remaining empty available positions are to be filled with trailing spacers

Field 37: billerCode

This field contains the Biller Code belonging to Biller (Reciever) and indicaes the code for a product or service grouping offered by the Biller in the shemes. It should contain the Biller Code as enterd by the Payer (Orginator). The remaining empty / available possitions are to be filled with trailling space

Field 38: paymentChannel

This field contains the payment channel in which the NBPS transaction was initiated by the Payer (Orginator)

No.	Payment Channel	Code
1.	Internet Banking	1
2.	Automated Teller Machine (ATM)	2
3.	Mobile Banking	3
4.	MyMobile	4
5.	Bank Branch (OTC)	5
6.	Agent Banker	6
7.	Interactive Voice Response	7
8.	Telebanking	8

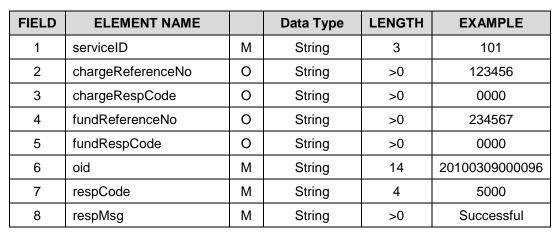**Field 39: payerType**

This field contains the type of Payer (Orginator) that initiated the transaction.

No.	Payer Type	Code
1.	Retail	R
2.	Corporate	C

Output

FIELD	ELEMENT NAME		Data Type	LENGTH	EXAMPLE
1	serviceID	M	String	3	101
2	chargeReferenceNo	O	String	>0	123456
3	chargeRespCode	O	String	>0	0000
4	fundReferenceNo	O	String	>0	234567
5	fundRespCode	O	String	>0	0000
6	oid	M	String	14	20100309000096
7	respCode	M	String	4	5000
8	respMsg	M	String	>0	Successful

Refer to example output XML format in Appendix 3.1.2

Below describe the details of the new rules and values:-

Field 1: serviceID
This defines the unique service of IBG. In this case IBG will return the same service ID to the channels. Eg. 101.
Field 2: chargeReferenceNo
The chargeReferenceNo is the unique reference number of the transaction where a charge is deducted or reverted.
Field 3: chargeRespCode
The chargeRespCode is the return code that defines the status of the specified charge being transferred.
Field 4: fundReferenceNo
The fundReferenceNo is the unique reference number of the transaction where a fund is deducted or reverted.
Field 5: fundRespCode
The fundRespCode is the return code that defines the status of the specified fund being transferred.
Field 6: oid
The oid is the unique reference number of the transaction being warehoused in IBG Core Engine.
Field 7: respCode
The respCode defines the code returned by IBG Core. Refer Web Service Validation Code for details.
Field 8:respMsg
The respMsg further elaborates the denotation of Return Code. Refer Web Service Validation Code for details.

3   Appendix

3.1   IBG XML Format

3.1.1 Request XML Format

```
<Msg>
    <MsgHeader>
        <ServiceID>101</ServiceID>
        <channel>01</channel>
        <subChannel>00000001</subChannel>
    </MsgHeader>
    <MsgBody>
        <toBankRouteNo>10000227</toBankRouteNo>
        <fromAccountNo>001103015966</fromAccountNo>
        <toAccountNo>158220580719</toAccountNo>
        <amount>10.55</amount>
        <chargeAmount>1.25</chargeAmount>
        <beneID></beneID>
        <toName>Vincent</toName>
        <segmentCode>2</segmentCode>
        <elementCode></elementCode>
        <fromName>ARNOSHAM BIN OMAR</fromName>
        <rimNo>37107</rimNo>
        <paymentRefNo>1234567890</paymentRefNo>
        <paymentDescription>testing</paymentDescription>
        <newICNo></newICNo>
        <oldICNo> </oldICNo>
        <businessRegNo> </businessRegNo>
        <otherIDNo></otherIDNo>
        <epfMemberId></epfMemberId>
        <batchDate></batchDate>
        <eftNumber></eftNumber>
        <effectiveDate>20131128</effectiveDate>
        <phnxChargesDesc>OTC Fund Transfer : MEPS
IBG</phnxChargesDesc>
        <phnxPrincipleDesc>OTC MEPS IBG Credit
Returned</phnxPrincipleDesc>
        <ibTrnxId>20100521000002</ibTrnxId>
        <paymentType>01</paymentType>
        <forwardCharges>001</forwardCharges>
        < nbpsRefNo >101AAAAA </ nbpsRefNo >
```

```xml
            < accountType >1</ accountType >
            < dateOfDebit >140510</ dateOfDebit >
            < timeOfDebit >1430</ timeOfDebit >
            < rtn >Y</ rtn >
            < recipientRefNo > SG038472928387</ recipientRefNo >
            < recipientRefNo2> marykay@gmail.com </ recipientRefNo2>
            < billerCode >12345</ billerCode >
            < paymentChannel >1</ paymentChannel >
            < payerType >C</ payerType >
        </MsgBody>
    </Msg>
```

3.1.2 Response XML Format

```xml
<Msg>
    <MsgHeader>
        <respCode>5000</respCode>
        <respMsg>Successful</respMsg>
        <ServiceID>101</ServiceID>
    </MsgHeader>
    <MsgBody>
        <Records>
            <Record>
                <chargeReferenceNo>1005200174</chargeReferenceNo>
                <chargeRespCode>0000</chargeRespCode>
                <oid>20131128006747</oid>
                <fundReferenceNo>1005200175</fundReferenceNo>
                <fundRespCode>0000</fundRespCode>
            </Record>
        </Records>
    </MsgBody>
</Msg>
```

3.2 Web Service Validation Code

The Validation Code is returned after each web service is being called. Validation code as per below:

RETURN	RETURN CODE	CODE DESCRIPTION
1	5000	SUCCESSFUL
2	5001	ACCEPTED
3	5003	NO RECORD FOUND
4	5555	INVALID EFFECTIVE DATE
5	5555	INVALID BENEFICIARY ACCOUNT NO
6	5555	TRANSFER LIMIT EXCEEDED {AMOUNT}
7	5555	IB TRANSACTION ID IS NULL
8	5555	IB TRANSACTION ID IS NOT VALID