

Kuwait Finance House

IBFT Technical Documentation

Prepared By



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VERSION: 1.1

Revision

Revision	Amendment	Ref In Doc	Updated By	Date
1.0	New Document	All	Vincent Devethas	07/12/2010
1.1	Amendment	IBFT Response Code	Vincent Devethas	06/01/2011

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1.0 Document Purpose

This document serves as a reference for KFH Technical personnel to do any enhancement to IBFT Services in future by modifying the configurations. It provides a brief description of the configurations and configuration files.

There are two common configuration files used in IBFT Module, .xml and .properties. This configuration files like change once and effect all. Means, only one configuration file will be changed and any other files that sharing the configuration file will get affected.

Finally, an example configuration file is given to guide the Technical personnel on how to make the changes.

Apart from the configuration of the application, parameter setting for IBFT via PowerCard is included.

2.0 IBFT Integration

2.1 Overview of Integration

Two (2) functions available in PowerCard that will call from Internet Banking (IB) to perform IBFT:

1. IB Account Enquiry –To retrieve Beneficiary Name
2. Confirm Transfer – To transfer fund to Beneficiary Account.

These functions will called by services from IB when initiating IBFT Transaction.

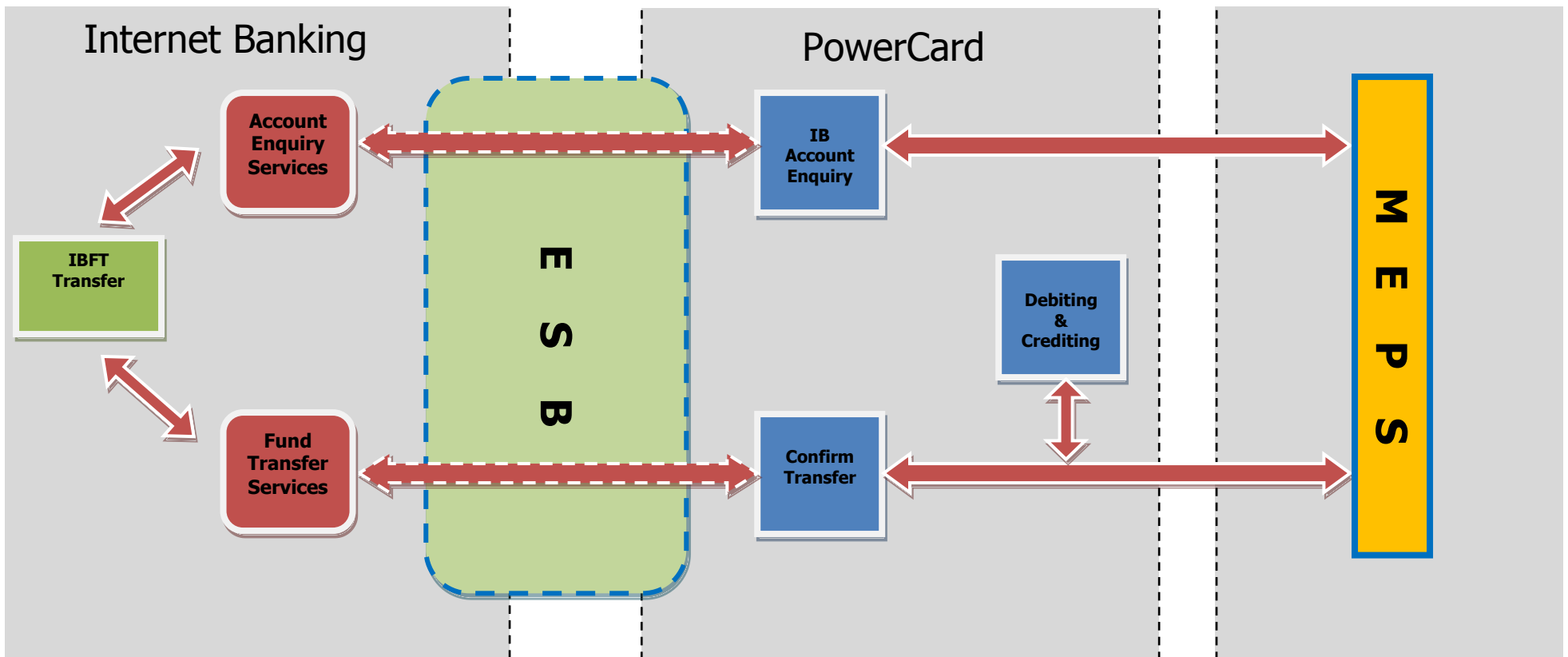


Figure 2.1: Components of IBFT System Integration

2.2 Flow of Process

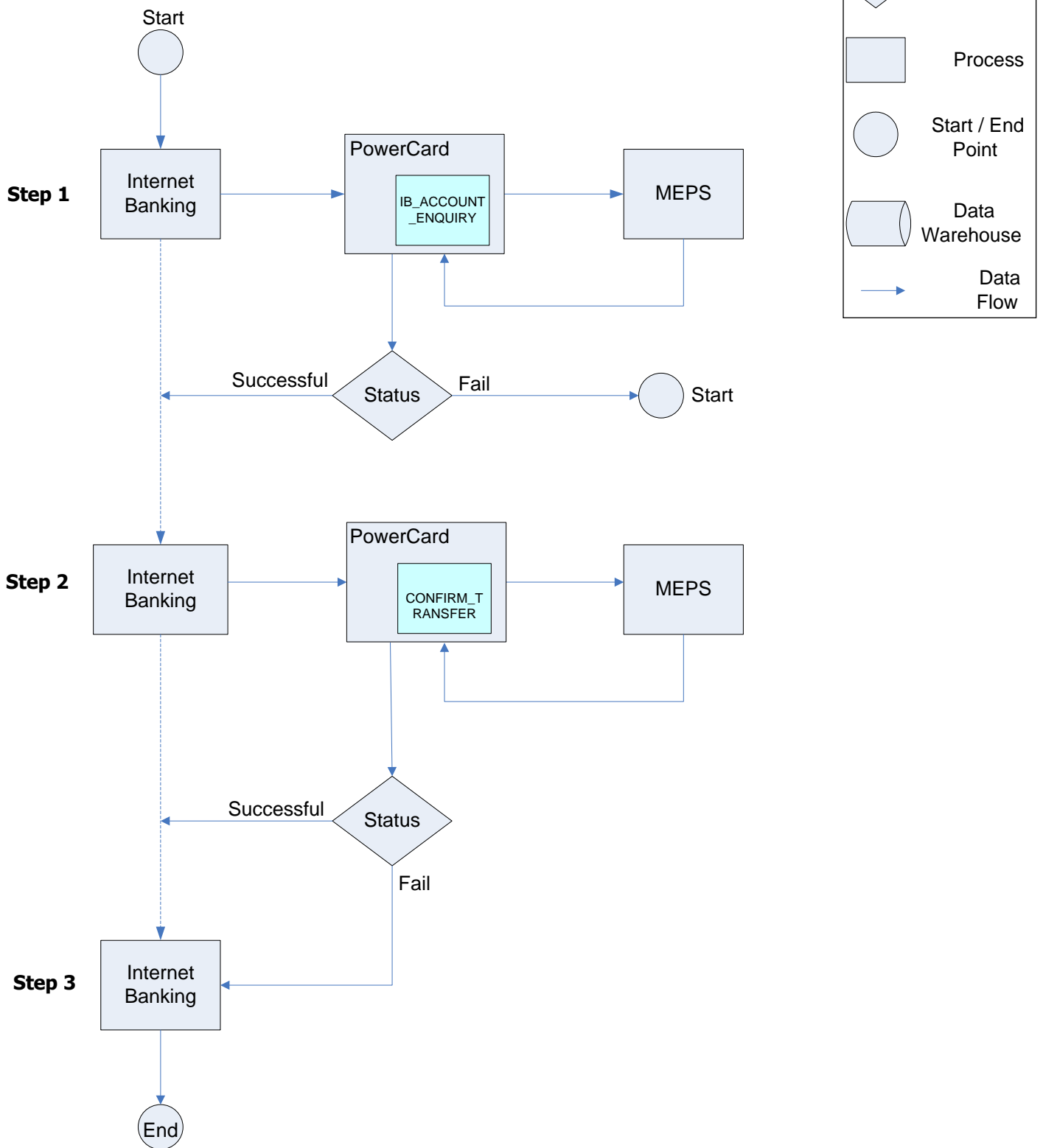


Figure 2.2: IBFT flow of process

As per figure 2.0 below are the description of steps in details:

Action	Description	Remarks
Step 1	Input all Beneficiary Details from IB to retrieve Beneficiary Name.	Input: <ul style="list-style-type: none"> • Rim No • From Account No • To Account No • Amount • Bank Code
	Call to PowerCard to send the request to MEPS.	Function : IB_ACCOUNT_ENQUIRY
	MEPS to return Beneficiary Name from other Financial Institution if available.	Beneficiary Name
	PowerCard send the response from MEPS to IB	
	If Beneficiary Name is not available, retry Step 1	
Step 2	Return Beneficiary Name will confirm by sender.	Beneficiary Name verification
	If Beneficiary Name is correct, call PowerCard to transfer the fund to Beneficiary Account.	Function: CONFIRM_TRANSFER Input: <ul style="list-style-type: none"> • Rim No • From Account No • To Account No • Amount • Bank Code
	MEPS receive the transaction and forward to respective Financial Institution for crediting.	Crediting process
	MEPS return the status of the transaction	Return status
	PowerCard forward the response from MEPS.	
Step 3	Display the result of the transaction	Result of the transaction
	Retry if performed transaction fail.	

Table 2.1: Details flow of process

3.0 PowerCard Connection

PowerCard Connection settings to access IBFT Services kept in a properties file, “**esb.properties**”. This file resides within the application and the connection settings will be used to make the connection from IB to PowerCard. There are four (4) properties required to set:

Property name	Description
<i>ibft.endpoint.powercard</i>	End Pointing URL (IP Address & Port)
<i>ibft.endpoint.powercard.ws</i>	Service Name
<i>ibft.endpoint.powercard.username</i>	UserName to access database
<i>ibft.endpoint.powercard.passwd</i>	Password to access database

Table 3.1: Connection properties

esb.properties file needs to be changed in all BV instances.

- [/opt/BV1TO1/JBoss/server/bv_framework0/deploy/kfh_consumer/WEB-INF/classes/esb.properties](#)
- [/opt/BV1TO1/JBoss/server/bv_framework1/deploy/kfh_consumer /WEB-INF/classes/esb.properties](#)
- [/opt/BV1TO1/JBoss/server/bv_framework2/deploy/kfh_consumer/ WEB-INF/classes/esb.properties](#)
- [/opt/BV1TO1/JBoss/server/bv_framework3/deploy/kfh_consumer/ WEB-INF/classes/esb.properties](#)

Refer to **Appendix 6.1** for example properties file.

4.0 PowerCard Services Message Components

Two functions available:

- (1) IB_ACCOUNT_ENQUIRY and
- (2) CONFIRM_TRANSFER.

These functions will be triggered by IB with the required parameters. Below are the request and response messages of these functions.

4.1 IB_ACCOUNT_ENQUIRY

4.1.1 Request Message

FIELD	PARAMETER NAME	Depends	CONTENTS	EXAMPLE / REMARK
1.	p_rim	Mandatory	String	5570
2.	p_account_from	Mandatory	String	001105005475
3.	p_account_to	Mandatory	String	158220580719
4.	p_amount	Mandatory	String	100.00
5.	p_bank_code	Mandatory	String	58383

Table 4.1: Request properties values

1. **p_rim**
This field defines the Sender Account Rim No
2. **p_account_from**
This field defines the Sender Account Number
3. **p_account_to**
This field defines the Beneficiary Account Number.
4. **p_amount**
This field defines the Amount to be transferred to Beneficiary Account
5. **p_bank_code**
This field defines the IBFT Member ID for the respective Bank.

4.1.2 Response Message

FIELD	PARAMETER NAME	Depends	CONTENTS	EXAMPLE / REMARK
1.	p_response_code	Mandatory	String	000
2.	p_error_code	Optional	String	-10
3.	p_benef_name	Optional	String	John Doe
4.	RETURN_STATUS	Mandatory	String	0

Table 4.2: Response properties values

- p_response_code**
This field defines the details of RETURN_STATUS. Each code return describes the response message in detail.
- p_error_code**
This field defines the reason of the failed transaction. Only present for fail transactions.
- p_benef_name**
This field defines the beneficiary account holder name. This given name will be verified by Sender before confirming the fund transfer.
- RETURN_STATUS**
This field defines the status of the transaction whether the performed transaction successful or fail.

Refer to **Appendix 6.2** for example of Request and Response Message.

4.2 Confirm_Transfer

4.2.1 Request Message

FIELD	PARAMETER NAME	Depends	CONTENTS	EXAMPLE / REMARK
1.	p_rim	Mandatory	String	5570
2.	p_account_from	Mandatory	String	001105005475
3.	p_account_to	Mandatory	String	158220580719
4.	p_amount	Mandatory	String	100.00
5.	p_bank_code	Mandatory	String	58383

Table 4.3: Request properties values

- p_rim**
This field defines the Sender Account Rim No
- p_account_from**
This field defines the Sender Account Number
- p_account_to**
This field defines the Beneficiary Account Number.
- p_amount**
This field defines the Amount to be transferred to Beneficiary Account
- p_bank_code**
This field defines the IBFT Member ID for the respective Bank.

4.2.2 Response Message

FIELD	PARAMETER NAME	Depends	CONTENTS	EXAMPLE / REMARK
1.	p_response_code	Mandatory	String	000
2.	p_error_code	Optional	String	-12
3.	p_audit_number	Mandatory	String	987654321
4.	p_reference_number	Mandatory	String	1234567890
5.	RETURN_STATUS	Mandatory	String	0

Table 4.4: Response properties values

- 1. p_response_code**
This field defines the details of RETURN_STATUS. Each code return describes the response message in detail.
- 2. P_error_code**
This field defines the reason of the failed transaction. Only present for fail transactions.
- 3. p_audit_number**
This field defines the Audit Number of the transaction
- 4. p_reference_number**
This field defines the Reference Number of the transaction
- 5. RETURN_STATUS**
This field defines the status of the transaction whether the performed transaction successful of fail.

Refer to **Appendix 6.3** for example Request and Response message.

5.0 IBFT Response Code

Response code returns from MEPS to describe the status of transaction. Each response code returns from MEPS has a meaning. All the description for the response code is maintained in a properties file. Whenever a response code returns, the system will capture the description for the respective response code. Refer to **Appendix 6.4** for the list for **Response Code** and **Description**

6.0 Appendix

6.1 esb.properties

```
4
5esb.endpoint.phoenix.tpi.ws=xmlReceiver
6esb.endpoint.phoenix.tpi=http://kfhib09:7003/PhoenixTPIPS
7#esb.endpoint.phoenix.tpi=http://localhost:8080/ESBWebService/services/PhoenixTPI
8
9esb.endpoint.phoenixws=http://kfhib09:7003/PhoenixWSPS
10
11#GL 2 CASA
12esb.endpoint.phoenixGL2CASA.ws=xmlReceiver
13esb.endpoint.phoenixGL2CASA=http://kfhib09:7003/PhoenixGL2CASAPS
14
15esb.endpoint.epay=http://kfhib05:7003/ePayPS_DEV
16
17esb.endpoint.powercard=http://kfhib09:7003/PowerCardPS
18esb.endpoint.powercard.ws=hpsService
19esb.endpoint.powercard.username=kfhib
20esb.endpoint.powercard.passwd=kfh1234
21
22#IBFT connection properties
23ibft.endpoint.powercard=http://kfhib09:7003/PowerCardPS
24ibft.endpoint.powercard.ws=hpsService
25ibft.endpoint.powercard.username=IB_KFH
26ibft.endpoint.powercard.passwd=hps001
27
28# EPay Configuration
29#201893
30esb.epay.merchant.id=608022
31#IBS
32esb.epay.operator.id=KFH
33#80000662
34esb.epay.terminal.id=69999979
35
36# Mobility One
37esb.endpoint.m1=http://kfhib09:7003/M1PS
38
```

6.2 IB_Account_Enquiry

6.2.1 Request Message

```
<?xml version="1.0" encoding="UTF-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
- <soapenv:Body>
- <hpsService xmlns="http://hps.ws.service/">
  <login xmlns="">IB_KFH</login>
  <passwd xmlns="">hps001</passwd>
  <functionName xmlns="">IB_ACCOUNT_INQUIRY</functionName>
- <args xmlns="">
  <ns1:String xmlns:ns1="http://hps.ws.service/types/">5570</ns1:String>Rim No
  <ns2:String xmlns:ns2="http://hps.ws.service/types/">001102015412</ns2:String>From Account No
  <ns3:String xmlns:ns3="http://hps.ws.service/types/">2028200008041</ns3:String>To Account No
  <ns4:String xmlns:ns4="http://hps.ws.service/types/">100.00</ns4:String>Amount
  <ns5:String xmlns:ns5="http://hps.ws.service/types/">589861</ns5:String>Bank Code
  <ns6:String xmlns:ns6="http://hps.ws.service/types/" />
  <ns7:String xmlns:ns7="http://hps.ws.service/types/" />
  <ns8:String xmlns:ns8="http://hps.ws.service/types/" />
  </args>
</hpsService>
</soapenv:Body>
</soapenv:Envelope>
```

6.2.2 Response Message

```
<?xml version="1.0" encoding="UTF-8" ?>
- <HPSRESULT>
  <RETURN_STATUS>0</RETURN_STATUS>
  <p_benef_name>AH KOW @ YAP AH KOW</p_benef_name>
  <p_error_code>null</p_error_code>
  <p_response_code>000</p_response_code>
</HPSRESULT>
```

6.3 Confirm_Transfer

6.3.1 Request Message

```
<?xml version="1.0" encoding="UTF-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
- <soapenv:Body>
- <hpsService xmlns="http://hps.ws.service/">
  <login xmlns="">IB_KFH</login>
  <passwd xmlns="">hps001</passwd>
  <functionName xmlns="">CONFIRM_TRANSFER</functionName>
- <args xmlns="">
  <ns1:String xmlns:ns1="http://hps.ws.service/types/">5570</ns1:String>Rim No
  <ns2:String xmlns:ns2="http://hps.ws.service/types/">001102015412</ns2:String>From Account No
  <ns3:String xmlns:ns3="http://hps.ws.service/types/">2028200008041</ns3:String>To Account No
  <ns4:String xmlns:ns4="http://hps.ws.service/types/">100.00</ns4:String>Amount
  <ns5:String xmlns:ns5="http://hps.ws.service/types/">589861</ns5:String>Bank Code
  <ns6:String xmlns:ns6="http://hps.ws.service/types/" />
  <ns7:String xmlns:ns7="http://hps.ws.service/types/" />
  <ns8:String xmlns:ns8="http://hps.ws.service/types/" />
  </args>
</hpsService>
</soapenv:Body>
</soapenv:Envelope>
```

6.3.2 Response Message

```
<?xml version="1.0" encoding="UTF-8" ?>
- <HPSRESULT>
  <RETURN_STATUS>0</RETURN_STATUS>
  <p_reference_number>141010000423</p_reference_number>
  <p_audit_number>000423</p_audit_number>
  <p_error_code>0</p_error_code>
  <p_response_code>000</p_response_code>
</HPSRESULT>
```

6.4 IBFT Response Code & Description

No	Response Code	RETURN_STATUS	Description
1	000	0	Accepted
2	000	NOT 0	Unsuccessful
3	NOT 000	0	*as in 'Customized Description' column, based on response code
4	NOT 000	NOT 0	*as in 'Customized Description' column, based on response code

No	Response Code	Description	Customized Description
1	000	Accepted	same as Description
2	001	Accepted with identification	Transaction rejected
3	003	Accepted (VIP)	Transaction rejected
4	007	Accepted, ICC updating	Transaction rejected
5	100	Do not honour	Transaction rejected
6	101	Card expired	Transaction rejected
7	102	Fraud detected	Transaction rejected
8	104	Card has reserved use	Transaction rejected
9	106	PIN tries number allowed exceeded	Transaction rejected
10	107	Refer to Card Issuer	Transaction rejected
11	108	Refer to Card Issuer special conditions	Transaction rejected
12	109	Wrong business	Transaction rejected
13	110	Wrong amount	Transaction rejected
14	111	Wrong card No.	Transaction rejected
15	112	Data linked to PIN required	Transaction rejected
16	114	No account for type requested	Transaction rejected
17	115	Function requested not undertaken	Transaction rejected
18	116	Insufficient funds	same as Description
19	117	PIN incorrect	same as Description
20	118	Card not recorded	same as Description
21	119	Transaction not authorised for Holder	same as Description
22	120	Transaction not accepted by terminal	same as Description

23	121	Withdrawal limits exceeded	same as Description
24	122	Security violation	same as Description
25	123	Exceeding withdrawal authorised frequency	same as Description
26	125	Card not in service	same as Description
27	126	Wrong PIN format	same as Description
28	127	Wrong PIN length	same as Description
29	128	Synchro error of PIN key	same as Description
30	129	Card counterfeit detected	same as Description
31	180	Shadow account not found	Account not found
32	181	Check account not found	Account not found
33	182	Saving account not found	Account not found
34	183	CVV invalid	same as Description
35	184	Date invalid	same as Description
36	200	Do not honour, capture card	same as Description
37	201	Card expired, capture card	same as Description
38	202	Fraud detected, capture card	same as Description
39	204	Card has reserved use, capture	same as Description
40	205	Card acceptor calls for acquirer security service, capture	same as Description
41	206	PIN validation tries number allowed exceeded	same as Description
42	207	Special Conditions, capture card	same as Description
43	208	Card lost, capture card	same as Description
44	209	Card stolen, capture card	same as Description
45	210	Card counterfeit detected, capture card	same as Description
46	280	Alternative amount cancelled	same as Description
47	299	Capture card	same as Description
48	300	Processing fulfilled	same as Description
49	301	Not supported by sender	same as Description
50	302	Unable to spot record in file	same as Description
51	303	Duplicate record, old record replaced	same as Description
52	304	Zone control error	same as Description
53	305	File locked	same as Description
54	306	Processing failed	same as Description
55	307	Format error	same as Description

56	308	Duplicate processing, new record rejected	same as Description
57	309	File unknown	same as Description
58	381	Record not found. Account not cut off. Withdrawal not processed	same as Description
59	382	Clearing balance record	same as Description
60	383	Updating balance	same as Description
61	385	Balance request	same as Description
62	480	Reversal correct	same as Description
63	481	Reversal amount incorrect	same as Description
64	482	Transaction already cancelled	same as Description
65	503	Totals not available	same as Description
66	500	Reconciliation succeeded	same as Description
67	581	Reconciliation already done	same as Description
68	582	Reconciliation procedure not available	same as Description
69	800	Cut-off in process	same as Description
70	880	Connection not accepted	same as Description
71	888	Send of cut-off	same as Description
72	902	Transaction invalid	same as Description
73	908	Transaction sender not referenced for switch	same as Description
74	909	System defect	System error
75	911	Issuer undue response	same as Description
76	912	Card issuer not available	same as Description
77	992	Issuer not found	same as Description
78	993	PINN verification not allowed	same as Description
79	994	Error in transaction processing	same as Description
80	995	Error in server processing	same as Description