

**NIP COMPILED TEST PROCEDURE DOCUMENT**

**FOR**

**NIBSS NIP INTEGRATION v. 2.1**

Prepared by:

Nigeria Inter – Bank Settlement System (NIBSS)

Version: 2.1

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**Technical Data**

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|  |  |

**TEST PROCEDURE FOR NIP TEST**

|  |  |
| --- | --- |
| **Start Date** | *This document captures the step by step procedure NIBSS Certification team will take during NIP Tests that will be carried out.* |
| **Start Date** |  |
| **End Date** |  |
| **Status** |  |
| **Time Schedule** |  |

**CONTENT**

## **PROCEDURE FOR OUTWARD TEST**

## **PROCEDURE FOR INWARD TEST**

## **PROCEDURE FOR STRESS TEST**

**TEST DATA (OUTWARD)**

|  |  |
| --- | --- |
| Destination Institution Code |  |
| Account Name |  |
| Account Number |  |

**TEST DATA (INWARD)**

|  |  |
| --- | --- |
| Destination Institution Code |  |
| Account Name |  |
| Account Number |  |

# **A) PROCEDURE FOR OUTWARD TEST**

## Client should send only three (3) transactions namely Name Enquiry, Funds Transfer and transaction status query.

## **EXPECTED RESPONSE**

**1. FOR NAME ENQUIRY**

* CONFIRM THE REQUESTS MATCHES EXPECTED ACCORDING TO TECHNICAL SPECIFICATION
* CONFIRM THAT SESSION ID IS 30 CHARACTERS IN LENGTH – IN THE FORMAT  
  Char 1 – 6: Senders Financial Institution’s code

Char 7 – 18: Date and time (in the format yymmddHHmmss – HH is 24 hour clock)

Char 19 – 30: 12 – character unique number (either serial # or random number)

1. **Name Enquiry Test evidence**

**Paste the Request and Response for the NE Transaction you initiated.**

* 1. **Request**
  2. **Response**

**2. FOR FUNDS TRANSFER (CREDIT)**

* CONFIRM THAT THE REQUESTS MATCHES AS EXPECTED ACCORDING TO TECHNICAL SPECS
* CONFIRM THAT AMOUNT BEING SENT BY CLIENT IS IN TWO DECIMAL PLACES ONLY WITHOUT ANY NON-NUMERIC CHARACTERS
* CONFIRM THAT THE NAME ENQUIRY REFERENCE BEING SENT IN FT DIRECT CREDIT IS SAME AS THE ONE USED IN NAME ENQUIRY
* CONFIRM THAT A TSQUERY IS ALWAYS SENT TO VALIDATE THE FINAL STATUS OF TRANSACTION AFTER AN FT CREDIT RESPONSE IS RECEIVED FROM NIBSS
* CONFIRM THAT A TSQUERY IS ALWAYS SENT TO VALIDATE THE FINAL STATUS OF TRANSACTION WHEN AN FT CREDIT RESPONSE IS NOT RECEIVED FROM NIBSS.

1. **FT Direct Credit Test Evidence**

**2A: Send FT Direct Credit of 1,000 Naira**

**Paste the Request and Response for the NE Transaction you initiated.**

* 1. **Request**
  2. **Response**

**2B: Send FT Direct Credit of 1,100,000,000 Naira.**

**Paste the Request and Response for the NE Transaction you initiated.**

1. **Request**
2. **Response**

**2C.** SEND FUNDS TRANSFER CREDIT TRANSACTION WITH AMOUNT AS **0 NAIRA**

**Expected: Transaction shouldn’t go through. It should fail with Response code 13 – Invalid Amount**

**2D.** SEND FUNDS TRANSFER CREDIT TRANSACTION WITH AMOUNT AS **-45,000 NAIRA**

**Expected: Transaction shouldn’t go through. It should fail with Response code 13 – Invalid Amount**

**2E.** SEND FUNDS TRANSFER CREDIT TRANSACTION WITH NARRATION AS **“ This is TO Nigeria Interbank Settlement System Plc Inward Clearing to this account to check transaction narration without special characters verification End of Narration text” LENGTH OF NARRATION IS MAX 100**

**2F.** SEND FUNDS TRANSFER CREDIT TRANSACTION WITH NARRATION AS **“This is FROM NIBSS | Plc !@#$%^&\*(GROUP)\_-+={[LIMITED]}|Outward, to this account/><”” CHECK FOR MORE SPECIAL CHARACTERS**

**3. FOR TRANSACTION STATUS QUERY**

* CONFIRM THE REQUESTS MATCHES EXPECTED ACCORDING TO TECHNICAL SPECIFICATION

1. **TS Query Test Evidence**
   1. **Request**
   2. **Response**

**B) PROCEDURE FOR INWARD TEST**

# **NAME ENQUIRY (NE)**

## **SEND NE REQUEST**

EXPECTED RESPONSE: **RESPONSE CODE 00 – SUCCESSFUL. ACCOUNT NAME, BVN AND KYC LEVEL MUST BE RETURNED**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><NESingleResponse><SessionID>999999200211132926200211132926</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>1</ChannelCode><AccountNumber>08068863597</AccountNumber><AccountName>NONSO AZUBIKE</AccountName><BankVerificationNumber>08068863597</BankVerificationNumber><KYCLevel>2</KYCLevel><ResponseCode>00</ResponseCode></NESingleResponse>

**MANDATE ADVICE (MA)**

## SEND MA OF ANOTHER AMOUNT E.G. 1000 FOR A SPECIFIC MANDATE REFERENCE NO E.G. REF/CONTEC/1k

EXPECTED RESPONSE: **RESPONSE CODE 00 – FOR AMOUNT 1000 AND REFERENCE - REF/CONTEC/101000**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><MandateAdviceResponse><SessionID>999999200211133122200211133122</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><MandateReferenceNumber>ref/eTran/1000</MandateReferenceNumber><Amount>1000.00</Amount><DebitAccountName>NONSO AZUBIKE</DebitAccountName><DebitAccountNumber>08068863597</DebitAccountNumber><DebitBankVerificationNumber>08068863597</DebitBankVerificationNumber><DebitKYCLevel>2</DebitKYCLevel><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><ResponseCode>00</ResponseCode></MandateAdviceResponse>

## SEND MA OF A SPECIFIC AMOUNT E.G. 2500 FOR A NEW MANDATE REFERENCE NO E.G. REF/CONTEC/2k

EXPECTED RESPONSE: **RESPONSE CODE 00 – FOR AMOUNT 2500 AND REFERENCE - REF/** **CONTEC/002**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><MandateAdviceResponse><SessionID>999999200211133219200211133219</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><MandateReferenceNumber>ref/eTran/3000</MandateReferenceNumber><Amount>3000.00</Amount><DebitAccountName>NONSO AZUBIKE</DebitAccountName><DebitAccountNumber>08068863597</DebitAccountNumber><DebitBankVerificationNumber>08068863597</DebitBankVerificationNumber><DebitKYCLevel>2</DebitKYCLevel><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><ResponseCode>00</ResponseCode></MandateAdviceResponse>

## RESEND MA OF THE SAME AMOUNT ABOVE or ANY AMOUNT E.G. 2000 FOR A MANDATE REFERENCE ALREADY USED NO E.G. REF/CONTEC/002

EXPECTED RESPONSE: **RESPONSE CODE 94 – DUPLICATE TRANSACTION - REF/** **CONTEC/002**Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><MandateAdviceResponse><SessionID>999999200211145428200211145428</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><MandateReferenceNumber>ref/eTran/3000</MandateReferenceNumber><Amount>3000.00</Amount><DebitAccountName>NONSO AZUBIKE</DebitAccountName><DebitAccountNumber>08068863597</DebitAccountNumber><DebitBankVerificationNumber>08068863597</DebitBankVerificationNumber><DebitKYCLevel>2</DebitKYCLevel><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><ResponseCode>96</ResponseCode></MandateAdviceResponse>

# **BALANCE ENQUIRY (BE)**

## SEND BE USING AN **INVALID** OR NON EXISTING AUTHORIZATION CODE E.G. ref/CONTEC/3000X

EXPECTED RESPONSE**: RESPONSE CODE 05 – DO NOT HONOR AS EXPECTED**

processMessage :: Clear Response :: <?xml version="1.0" encoding="UTF-8" standalone="yes"?>

INFO | jvm 1 | 2020/02/11 13:33:53 | <BalanceEnquiryResponse>

INFO | jvm 1 | 2020/02/11 13:33:53 | **<AuthorizationCode>ref/eTran/5000</AuthorizationCode>**

INFO | jvm 1 | 2020/02/11 13:33:53 | <AvailableBalance></AvailableBalance>

INFO | jvm 1 | 2020/02/11 13:33:53 | <ChannelCode>7</ChannelCode>

INFO | jvm 1 | 2020/02/11 13:33:53 | <DestinationInstitutionCode>999006</DestinationInstitutionCode>

INFO | jvm 1 | 2020/02/11 13:33:53 | **<ResponseCode>05</ResponseCode>**

INFO | jvm 1 | 2020/02/11 13:33:53 | <SessionID>999999200211133351200211133351</SessionID>

INFO | jvm 1 | 2020/02/11 13:33:53 | <TargetAccountName>NONSO AZUBIKE</TargetAccountName>

INFO | jvm 1 | 2020/02/11 13:33:53 | <TargetAccountNumber>08068863597</TargetAccountNumber>

INFO | jvm 1 | 2020/02/11 13:33:53 | <TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber>

INFO | jvm 1 | 2020/02/11 13:33:53 | </BalanceEnquiryResponse>

## SEND BE USING ANY VALID AUTHORIZATION CODE WHICH WAS INITIATLLY SUBMITTED DURING MANDATE ADVICE ABOVE E.G. REF/001/102500

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, AVAILABLE BALANCE SHOULD BE RETURNED**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211134338200211134338</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><**AvailableBalance>31.52</AvailableBalance**><ResponseCode>00</ResponseCode></BalanceEnquiryResponse>

# **FUNDS TRANSFER -DIRECT CREDIT (FT CREDIT) -**

## SEND BALANCE ENQUIRY (BE) REQUEST TO CONFIRM THE AVAILABLE BALANCE ON THE ACCOUNT

EXPECTED RESPONSE**: BALANCE IS RETURNED, NOTE IT DOWN**Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211134338200211134338</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><AvailableBalance>31.52</AvailableBalance><**ResponseCode>00</ResponseCode**></BalanceEnquiryResponse>

## SEND FT CREDIT OF A SPECIFIC AMOUNT TO THE ACCOUNT E.G. 1000.00

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleCreditResponse><SessionID>999999200211134507200211134507</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><OriginatorAccountName>Ajao Niyi</OriginatorAccountName><OriginatorAccountNumber>0105498919</OriginatorAccountNumber><OriginatorBankVerificationNumber>10000000002</OriginatorBankVerificationNumber><OriginatorKYCLevel>1</OriginatorKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>08030567920 to 96600021</Narration><PaymentReference>ref/08034254246</PaymentReference><Amount>1000.00</Amount><**ResponseCode>00</ResponseCode**></FTSingleCreditResponse>

## SEND BALANCE ENQUIRY IMMEDIATELY **LESS THAN 30 SECONDS** LATER TO CONFIRM THE FT TRANSACTION AMOUNT DIDN’T IMPACT ON THE ACCOUNT

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, BALANCE SHOULD STILL BE THE SAME AS BEFORE BECAUSE TSQ WOULDN’T HAVE BEEN SENT BY YOU.**

**Wait for 60 Seconds…and Check that TSQ is sent**

**4ii. FOR TRANSACTION STATUS QUERY**

**The process flow will be: for Fund Transfer inflows to your bank (successful), TSQuery must be sent to NIBSS to ascertain the status before funds are released to the customer. This should be sent at least 60 seconds after FTResponse is sent by client to NIBSS. You may refer to the attached FT Credit Implementation View.png file for further clarification.**

1. CONFIRM TSQUERY IS SENT FOR EVERY FUND TRANSFER RESPONSE RETURNED.

response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><TSQuerySingleResponse><SourceInstitutionCode>999006</SourceInstitutionCode><ChannelCode>7</ChannelCode><SessionID>999999200211134507200211134507</SessionID><**ResponseCode>00</ResponseCode**></TSQuerySingleResponse>

## SEND BALANCE ENQUIRY TO CONFIRM IF THE FT TRANSACTION AMOUNT IMPACTED ON THE ACCOUNT

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, CURRENT BALANCE IS RETURNED, CONFIRM IF IT INCREASED BY THE FT AMOUNT JUST SENT**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211143307200211143307</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><AvailableBalance>1031.52</AvailableBalance><**ResponseCode>00</ResponseCode**></BalanceEnquiryResponse>

1. SEND FUNDS TRANSFER CREDIT TRANSACTION WITH NARRATION AS **“Transaction from me &amp; you” ESCAPE SPECIAL CHARACTERS IN NARRATION FOR FUNDS TRANSFER**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleCreditResponse><SessionID>999999200211134507200211134507</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><OriginatorAccountName>Ajao Niyi</OriginatorAccountName><OriginatorAccountNumber>0105498919</OriginatorAccountNumber><OriginatorBankVerificationNumber>10000000002</OriginatorBankVerificationNumber><OriginatorKYCLevel>1</OriginatorKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>08030567920 to 96600021</Narration><PaymentReference>ref/08034254246</PaymentReference><Amount>1000.00</Amount><**ResponseCode>00</ResponseCode**></FTSingleCreditResponse>

1. SEND FUNDS TRANSFER CREDIT TRANSACTION WITH NARRATION AS **“Étienne Gaël Océane Aimée” ESCAPE SPECIAL CHARACTERS IN NARRATION FOR FUNDS TRANSFER**

**No response**

1. SEND FUNDS TRANSFER CREDIT TRANSACTION WITH NARRATION AS **“ This is FROM Nigeria Interbank Settlement System Plc Inward Clearing to this account to check transaction narration without special characters verification End of Narration text” LENGTH OF NARRATION IS MAX 100**

**No response**

1. SEND FUNDS TRANSFER CREDIT TRANSACTION WITH AMOUNT AS **0 NAIRA**

**Expected: Transaction shouldn’t go through. It should fail with Response code 13 – Invalid Amount**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleCreditResponse><SessionID>999999200211134553200211134553</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><OriginatorAccountName>Ajao Niyi</OriginatorAccountName><OriginatorAccountNumber>0105498919</OriginatorAccountNumber><OriginatorBankVerificationNumber>10000000002</OriginatorBankVerificationNumber><OriginatorKYCLevel>1</OriginatorKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>08030567920 to 96600021</Narration><PaymentReference>ref/08034254246</PaymentReference><Amount>0.00</Amount><**ResponseCode>13</ResponseCode**></FTSingleCreditResponse>

1. SEND FUNDS TRANSFER CREDIT TRANSACTION WITH AMOUNT AS **-45,000 NAIRA**

**Expected: Transaction shouldn’t go through. It should fail with Response code 13 – Invalid Amount**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleCreditResponse><SessionID>999999200211134701200211134701</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><OriginatorAccountName>Ajao Niyi</OriginatorAccountName><OriginatorAccountNumber>0105498919</OriginatorAccountNumber><OriginatorBankVerificationNumber>10000000002</OriginatorBankVerificationNumber><OriginatorKYCLevel>1</OriginatorKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>08030567920 to 96600021</Narration><PaymentReference>ref/08034254246</PaymentReference><**Amount>-4500.00</Amount**><**ResponseCode>13</ResponseCode**></FTSingleCreditResponse>

1. SEND FUNDS TRANSFER CREDIT TRANSACTION WITH AMOUNT AS **1,100,000,000 NAIRA where Transfer Limit for Customer (e.g. NOVA on ConfigData) is less than the figure (e.g. 1,100,0000,000)**

**Expected: Transaction shouldn’t go through. It should fail with Response code 61 – Transaction Limit exceeded.**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleCreditResponse><SessionID>999999200211142955200211142955</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><OriginatorAccountName>Ajao Niyi</OriginatorAccountName><OriginatorAccountNumber>0105498919</OriginatorAccountNumber><OriginatorBankVerificationNumber>10000000002</OriginatorBankVerificationNumber><OriginatorKYCLevel>1</OriginatorKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>Transaction from me &amp;amp; you</Narration><PaymentReference>ref/08034254246</PaymentReference><Amount>1100000000.00</Amount><ResponseCode>61</ResponseCode></FTSingleCreditResponse>

1. SEND FUNDS TRANSFER CREDIT TRANSACTION WITH NARRATION AS **“This is FROM NIBSS | Plc !@#$%^&\*(GROUP)\_-+={[LIMITED]}|Outward, to this account/><”” CHECK FOR MORE SPECIAL CHARACTERS**

**NO RESPONSE**.

# **FUNDS TRANSFER ADVICE (DIRECT CREDIT)**

## Do Balance Enquiry to confirm balance

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, BALANCE IS RETURNED**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211143307200211143307</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><AvailableBalance>1031.52</AvailableBalance><ResponseCode>00</ResponseCode></BalanceEnquiryResponse>

## Do FT Credit of a specific amount e.g. 100.00

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, ACCOUNT BALANCE SHOULD HAVE INCREASED BY THE AMOUNT**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleCreditResponse><SessionID>999999200211143427200211143427</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><OriginatorAccountName>Ajao Niyi</OriginatorAccountName><OriginatorAccountNumber>0105498919</OriginatorAccountNumber><OriginatorBankVerificationNumber>10000000002</OriginatorBankVerificationNumber><OriginatorKYCLevel>1</OriginatorKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>Transaction from me &amp;amp; you</Narration><PaymentReference>ref/08034254246</PaymentReference><Amount>1000.00</Amount><**ResponseCode>00</ResponseCode**></FTSingleCreditResponse>

## Do Balance Enquiry again to confirm credit impacted

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, BALANCE INCREASED**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211143517200211143517</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><AvailableBalance>2031.52</AvailableBalance><ResponseCode>00</ResponseCode></BalanceEnquiryResponse>

## Do FT Credit Advice with invalid session id (different from the one used for the previous FT Credit transaction), this should Fail.

EXPECTED RESPONSE**: RESPONSE CODE 15 – INVALID SESSION ID**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTAdviceCreditResponse><SessionID>999999150915122330150915122336</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><OriginatorAccountName>Ajao Niyi</OriginatorAccountName><OriginatorAccountNumber>0105498919</OriginatorAccountNumber><OriginatorBankVerificationNumber>10000000002</OriginatorBankVerificationNumber><OriginatorKYCLevel>1</OriginatorKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>Transaction from me &amp;amp; you</Narration><PaymentReference>ref/08034254246</PaymentReference><Amount>1000.00</Amount><**ResponseCode>12</ResponseCode**></FTAdviceCreditResponse>

## Do FT Credit Advice with valid session id of FT transaction and with any amount to trigger reversal (NOT on the Amount Sent) but on the Amount of the original transaction tied on the Session ID.

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, EXPECTING THAT REVERSAL WOULD HAVE TAKEN PLACE ON THE AMOUNT TIED ON THE SESSION ID AND NOT ON THE AMOUNT SENT.**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTAdviceCreditResponse><SessionID>999999200211143427200211143427</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><OriginatorAccountName>Ajao Niyi</OriginatorAccountName><OriginatorAccountNumber>0105498919</OriginatorAccountNumber><OriginatorBankVerificationNumber>10000000002</OriginatorBankVerificationNumber><OriginatorKYCLevel>1</OriginatorKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>Transaction from me &amp;amp; you</Narration><PaymentReference>ref/08034254246</PaymentReference><Amount>1000.00</Amount><**ResponseCode>12</ResponseCode**></FTAdviceCreditResponse>

## Check Balance again, it should be the same as Balance before FT

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, BALANCE INDICATES THAT REVERSAL TOOK PLACE**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211143910200211143910</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><**AvailableBalance>2031.52</AvailableBalance**><ResponseCode>00</ResponseCode></BalanceEnquiryResponse>

## Check FT CREDIT ADVICE AGAIN, it shouldn’t be able to reverse the transaction again. EXPECTED RESPONSE**: RESPONSE CODE 21 – NO ACTION TAKEN**

## **DEPENDENT ON THE SUCCESS OF (E).**

## Check Balance again, it shouldn’t reduce

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, BALANCE INDICATES THAT REVERSAL TOOK PLACE**

## **DEPENDENT ON THE SUCCESS OF (E).**

**FUNDS TRANSFER DIRECT DEBIT (FT DEBIT) -**

## SEND BALANCE ENQUIRY (BE) REQUEST TO CONFIRM THE AVAILABLE BALANCE ON THE ACCOUNT

EXPECTED RESPONSE**: BALANCE IS RETURNED, NOTE IT DOWN**<?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211143910200211143910</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><**AvailableBalance>2031.52</AvailableBalance**><ResponseCode>00</ResponseCode></BalanceEnquiryResponse>

## DO AN FT DEBIT USING INVALID MANDATE REFERENCE CODE - ref/001/1XX

EXPECTED RESPONSE**: RESPONSE CODE 25 – UNABLE TO LOCATE RECORD**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTAdviceDebitResponse><SessionID>999999200211143427200211143427</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><DebitAccountName>NONSO AZUBIKE</DebitAccountName><DebitAccountNumber>08068863597</DebitAccountNumber><DebitBankVerificationNumber>08068863597</DebitBankVerificationNumber><DebitKYCLevel>2</DebitKYCLevel><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>Transaction from me &amp;amp; you</Narration><PaymentReference>ref/08034254246</PaymentReference><MandateReferenceNumber>ref/eTran/3000</MandateReferenceNumber><TransactionFee>100.00</TransactionFee><Amount>1000.00</Amount><**ResponseCode>96</ResponseCode**></FTAdviceDebitResponse>

1. DO AN FT DEBIT USING VALID MANDATE REFERENCE CODE & AMOUNT **TIED** TO THE MANDATE [as already registered with client during mandate advice]

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleDebitResponse><SessionID>999999200211144351200211144351</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><DebitAccountName>NONSO AZUBIKE</DebitAccountName><DebitAccountNumber>08068863597</DebitAccountNumber><DebitBankVerificationNumber>08068863597</DebitBankVerificationNumber><DebitKYCLevel>2</DebitKYCLevel><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>Transaction from me &amp;amp; you</Narration><PaymentReference>ref/08034254246</PaymentReference><MandateReferenceNumber>ref/eTran/1000</MandateReferenceNumber><TransactionFee>100.00</TransactionFee><Amount>1000.00</Amount><**ResponseCode>05</ResponseCode**></FTSingleDebitResponse>

## SEND BALANCE ENQUIRY (BE) REQUEST TO CONFIRM THE AVAILABLE BALANCE ON THE ACCOUNT HAS DECREASED BY **THE AMOUNT SENT + TRANSACTION FEE**

EXPECTED RESPONSE**: BALANCE IS RETURNED, NOTE IT DOWN**

**DEPENDENT ON SCENARIO C**

## DO AN FT DEBIT USING VALID MANDATE REFERENCE CODE & AMOUNT **LESS THAN** WHAT WAS INITIALLY REGISTERED DURING MANDATE ADVICE

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL**

**DEPENDENT ON SCENARIO C**

## SEND BALANCE ENQUIRY (BE) REQUEST TO CONFIRM THE AVAILABLE BALANCE ON THE ACCOUNT HAS DECREASED BY **THE AMOUNT SENT + TRANSACTION FEE**

EXPECTED RESPONSE**: BALANCE IS RETURNED, AND IT IS CORRECT**<?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211144525200211144525</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><AvailableBalance>2031.52</AvailableBalance><**ResponseCode>00</ResponseCode**></BalanceEnquiryResponse>

## DO AN FT DEBIT USING VALID MANDATE REFERENCE CODE & AMOUNT **GREATER** THAN WHAT WAS INITIALLY REGISTERED DURING MANDATE ADVICE

EXPECTED RESPONSE**: RESPONSE CODE 13 – INVALID AMOUNT**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleDebitResponse><SessionID>999999200211144632200211144632</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><DebitAccountName>NONSO AZUBIKE</DebitAccountName><DebitAccountNumber>08068863597</DebitAccountNumber><DebitBankVerificationNumber>08068863597</DebitBankVerificationNumber><DebitKYCLevel>2</DebitKYCLevel><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>Transaction from me &amp;amp; you</Narration><PaymentReference>ref/08034254246</PaymentReference><MandateReferenceNumber>ref/eTran/1000</MandateReferenceNumber><TransactionFee>100.00</TransactionFee><Amount>5000.00</Amount><**ResponseCode>05</ResponseCode**></FTSingleDebitResponse>

# **FUNDS TRANSFER ADVICE (DIRECT DEBIT)**

## Do BE to confirm Current Balance

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, BALANCE IS RETURNED, NOTE IT DOWN**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211144525200211144525</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><AvailableBalance>2031.52</AvailableBalance><**ResponseCode>00</ResponseCode**></BalanceEnquiryResponse>

## Do FT Debit using the valid mandate reference number e.g. REF/001/101000

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, CONFIRM THAT DEBIT OF AMOUNT TIED TO THE MANDATE REFERENCE PLUS THE FEE IS RETURNED (E.G 1000 NAIRA PLUS FEE AMOUNT IS DEBITED)**

Clear Response: <?xml version="1.0" encoding="UTF-8" standalone="yes"?><FTSingleDebitResponse><SessionID>999999200211144817200211144817</SessionID><NameEnquiryRef>999999150624122358150624122354</NameEnquiryRef><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><DebitAccountName>NONSO AZUBIKE</DebitAccountName><DebitAccountNumber>08068863597</DebitAccountNumber><DebitBankVerificationNumber>08068863597</DebitBankVerificationNumber><DebitKYCLevel>2</DebitKYCLevel><BeneficiaryAccountName>NONSO AZUBIKE</BeneficiaryAccountName><BeneficiaryAccountNumber>08068863597</BeneficiaryAccountNumber><BeneficiaryBankVerificationNumber>08068863597 </BeneficiaryBankVerificationNumber><BeneficiaryKYCLevel>2</BeneficiaryKYCLevel><TransactionLocation>6.4300747,3.4110715</TransactionLocation><Narration>Transaction from me &amp;amp; you</Narration><PaymentReference>ref/08034254246</PaymentReference><MandateReferenceNumber>ref/eTran/3000</MandateReferenceNumber><TransactionFee>100.00</TransactionFee><Amount>3000.00</Amount><**ResponseCode>05</ResponseCode**></FTSingleDebitResponse>

## Check Balance to confirm if debit request impacted

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, BALANCE IS REDUCED BY THE TOTAL AMOUNT DEBITED (TRANSACTION AMOUNT + TRANSACTION FEE)**

<?xml version="1.0" encoding="UTF-8" standalone="yes"?><BalanceEnquiryResponse><SessionID>999999200211144525200211144525</SessionID><DestinationInstitutionCode>999006</DestinationInstitutionCode><ChannelCode>7</ChannelCode><AuthorizationCode>ref/eTran/3000</AuthorizationCode><TargetAccountName>NONSO AZUBIKE</TargetAccountName><TargetBankVerificationNumber>08068863597</TargetBankVerificationNumber><TargetAccountNumber>08068863597</TargetAccountNumber><AvailableBalance>2031.52</AvailableBalance><**ResponseCode>00</ResponseCode**></BalanceEnquiryResponse>

## Do FT Debit Advice with a session id that doesn’t exist of FT Debit already done

EXPECTED RESPONSE**: RESPONSE CODE 15 – INVALID SESSION ID**

**DEPENDENT ON B**

## Do FT Debit Advice with a session id of the initially sent FT Direct Debit transaction

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, REVERSAL TOOK PLACE**

**DEPENDENT ON B**

## Do BE to confirm reversal - Balance should reflect same available balance before the FT Debit transaction was done

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL, BALANCE INDICATES THAT REVERSAL TOOK PLACE**

**DEPENDENT ON B**

## Send FT DEBIT ADVICE AGAIN, it shouldn’t reverse the transaction again but rather let us know it’s already been acted on. EXPECTED RESPONSE**: RESPONSE CODE 21 – NO ACTION TAKEN**

**DEPENDENT ON B**

# **FINANCIAL INSTITUTION LIST**

## Send Financial Institution List Transaction

EXPECTED RESPONSE**: RESPONSE CODE 00 – SUCCESSFUL – NUMBER OF RECORDS TAG SHOULD REFLECT THE TOTAL NUMBER OF INSTITUTION LIST SENT.**

**C) PROCEDURE FOR STRESS TEST**

**To test both the performance of the system and response time on Test bed as a minimum requirement for the actual NIP implementation on production.**

**Bench Mark is 2000 requests without failure. Apache JMeter 3.x is used for the Stress Test.**

* **As you proceed with the test increase the number of users/request to test and confirm the limits at which behavior of the system becomes abnormal (starts returning error rate greater than 0%) and record at the point whereby this happens.**
* **Also check for the average response time for each of this request**
* **Determine if client application passed or failed the stress test.**

**Reasons Why Stress Test Could Fail**

1. Processing speed is poor
2. Connection pull setting is not configured to cater for the requests
3. Multithreading capability
4. Application Related Issues
5. Technology Infrastructure Capacity (See recommended requirement for NIP below)

**Recommended Technology Infrastructure (including Server Specification) requirements for NIP**

**Hardware**

* G8/G9 Server with at least 16 CPU Processors (2.3GHz)
* 1TB HDD
* 40GB RAM

**Operating System**

* 64-Bit Operating System
* Policy on regular purging and fine-tuning of database.
* Registry Setting for System running Windows
* Time Wait-Delay should be set at 10 seconds
* MaxPort set at 65535