TECHNICAL SPECIFICATION DOCUMENT

FOR

NIBSS INSTANT PAYMENTS (NIP)

Table of Content

Document Control

S/N	Document Section	Changes	Version
1.	Section 5 Web Service Specification	Two new Web Service Methods added: 1. Fund Transfer Advice (Direct Credit) 2. Fund Transfer Advice (Direct Debit)	7.0
2.	Section 5 Web Service Specifications	Narration pegged to 100 characters in length.	7.0
3.	Section 6. Web Service Method Names	Two method names added: 1. fundtransferAdvice_dc 2. fundtransferAdvice_dd 3.	7.0
4.	Section 7. Channel Code	A new Channel Code '8 – Other Channels' added.	7.0
5.	Section 8. Response Codes	A new Response Code '97 – Timeout waiting for response from destination' added.	7.0
6.	Section 5. Web Service Specification	New batched transaction status query added.	8.0
7.	Section 6. Web Service Method Name	Web service name, txnstatusquerybatch added.	8.0
8.	Section 4.Transaction Type	Description of the following transaction types added: 1. Amount Block 2. Amount Unblock 3. Account Block 4. Account Unblock Description for Bulk transaction (Fund transfer and Name Enquiry) removed.	9.0
9.	Section 5. Web Service Specification	New Fields added and others modified: 1. NameEnquiryRef 2. BeneficiaryAccountName 3. BeneficiaryAccountNumber 4. BeneficiaryBankVerificationNumber 5. OriginatorAccountName 6. OriginatorAccountNumber	9.0

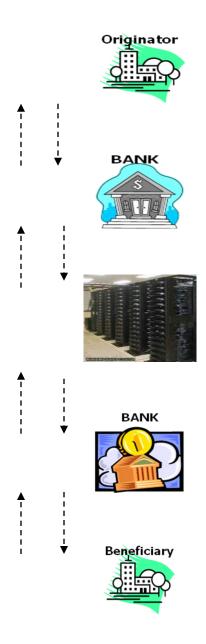|		7. OriginatorBankVerificationNumber 8. OriginatorKYCLeve 9. TransactionLocation 10. DebitAccountName 11. DebitAccountNumber 12. DebitBankVerificationNumber 13. DebitKYCLevel 14. AuthorizationCode 15. TargetAccountName 16. TargetBankVerificationNumber 17. TargetTargetAccountNumber 18. ReasonCode	
10.	Section 5. Web Service Specification	The following methods added: 1. Amount block 2. Account block 3. Amount unblock 4. Account unblock	9.0
11.	Section 9. Response Code	New Response Codes added.	9.1
12.	Section 5. Web Service Specification and Section 7. Field Definition	1. KYCLevel of Beneficiary added. 2. Length of Identification Code of Financial Institutions expanded to six (6) characters from the initial three (3) characters. 3. Session ID adjusted to remove the code of destination bank.	9.1
13.	Section 6. Web Service Method Name	New column, Exposure added	9.1
14.	Section 5. Web Service Specification	1. Financial Institution List 2. Mandate Advice	9.1
15.	Section 6. Web Service Method Name	Batched transaction queries removed.	9.1
16.	Chapter 8 Channel Code	Adjustment to channel to include USSD as a channel	9.2
17.	Chapter 4 Transaction Type	Transaction type, Transaction Response Acknowledgement added	9.3
18	Chapter 10 Category	Adjustment to category codes. 7 was assigned to Primary mortgage and 9 to Microfinance Bank	9.4
19	Chapter 8	Added social media and Agency banking channel codes. 10 and 11 respectively	9.5

1.   Introduction

NIBSS Instant Payment (NIP) is an account – number – based, online real-time Inter-Bank Funds Transfer product. This new electronic payment system would enable banks to provide online real-time funds transfer services to their customers, based on bank account numbers, through channels such as Teller System, Internet Banking, Mobile, and Web (e-Commerce). Also, the NIBSS Instant Payments would support the Mobile Payments initiatives of Mobile Payment service providers who receive the relevant license from the Central Bank.

NIBSS Instant Payments (NIP) would leverage on Banks' connection to the Nigeria Central Switch (NCS). Our NIP engine would connect securely to Banks' Core Banking Systems to receive and deliver electronic payment requests. Also every Bank is required to provide NIP customer interfaces on their respective Teller System and Internet Banking system.

This document discusses the technical specification of NIP. Other available NIP related documents are:

   a.   Introduction to NIBSS Instant Payments

   b.   NIP Settlement Procedure

   c.   NIP Dispute Resolution System

   d.   NIP Message Security Management

2.   Identification of Delivery Channels

By delivery channels, we mean the channels that banks are required to provide to their respective customers for the origination of NIP transactions. The following are the typical delivery channels:

   i.   **Branch Teller:** On the NIP platform, financial institutions' customers can walk into any branch of their respective financial institution, and request for a NIP (OLRT inter – bank transfer) service. Such transfers will be facilitated online real – time i.e value delivered to the beneficiary instantly. The Branch Teller or Customer Service personnel would perform the required customer

authentication check, just as if the customer had requested a cash withdrawal.

ii.   **Internet Banking:** Most banks provide internet banking facilities that enable customers to generate financial transactions e.g. account-to-account transfer within same bank. Leveraging on the respective banks' Internet Banking Customer Authentication (i.e. login name, password, and access token), banks can now use NIP to provide OLRT inter-bank funds transfer services to customers.

iii. **Mobile Phone:** NIP is a good delivery channel for Mobile Payment Operators. Transactions that are of inter – bank nature (and based on Account Numbers rather than payment cards) shall be processed through NCS to the beneficiary bank as NIP transactions. The enrollment procedures inherent in mobile payment systems provide adequate authentication.

iv.   **Automated Teller Machine (ATM) and Point of Sale (POS) Terminals:** With NIP, Cardholders can transfer funds to account numbers of beneficiaries using ATM or POS Terminals. The payment originator would be authenticated with a payment card and PIN.

v.   **Electronic Banking/Payment Platform**
NIBSS Instant Payments would facilitate online real-time (OLRT) payment of Bulk Items i.e. OLRT Direct Credits and OLRT Direct Debits. Banks would leverage on this to provide OLRT Bulk payment solutions to their respective customers through Banks' electronic banking/payment platform.

3.   Transaction Flow

Financial Institutions are required to provide NIP on Internet Banking and Branch Tellers delivery channels, at a minimum, at the commencement of NIP Live operations.

Transactions may originate from the sender's bank and also terminate at beneficiary's bank. Assuming a customer wants to transfer fund through a branch, below is the flow:

1. The customer walks into the branch.

2. He / She requests for OLRT inter-bank transfer indicating account details, transfer details, and authorized signature.

3. The teller initiates a Name Enquiry transaction to NIP.

4. The NIP responds with a name attached to the Account Number supplied.

5. The Teller determines that the name matches the Account Number supplied by the customer.

6. The Teller then confirms the funds transfer transaction. This process would automatically:

    a. Place the customer's account on hold to the tune of the amount to be transferred.

    b. A message is sent to NIP instructing the NIP to credit the beneficiary's account in the destination bank with the amount specified by the sender.

    c. The destination bank receives the instruction, debits a Transaction Split Settlement (TSS) Account and credits the beneficiary account.

    d. A response is sent back from the beneficiary bank to inform the NIP that the transaction is successful.

    e. The NIP relates this response back to the sender's bank.

    f. The sender's bank removes the hold placed on the account in 'a' above and debits the account of the sender.

    g. The sender's bank credits a Transaction Split Settlement (TSS) Account

    h. The sender's bank alerts the sender (SMS or e-mail) that transfer succeeded

    i. The destination bank alerts the beneficiary (SMS or e-mail)

4.   Transaction Type

The transaction types that would be supported on the NIP are:

1. **Name Enquiry:**   This transaction type is useful to detect situations where the originating customer specifies a wrong beneficiary account. Name Enquiry Transaction type affords the customer/teller the opportunity of comparing intended beneficiary name with the account name tied to the provided

beneficiary account in the destination bank, before confirming a transfer. So the sender bank makes a request with the account number specified in the request message and the name corresponding to the account number is supplied in the response message provided by the destination bank.

2. **Fund Transfer (Direct Credit):** This transaction type enables a sender to move funds from his/her own account into the account of the beneficiary.

3. **Fund Transfer (Direct Debit):** This transaction type enables the bank to forward a direct debit payment instruction to recover payments based on prearranged debit mandate e.g. Bills Processing.

4. **Transaction Status Query**: This transaction type enables the bank to query the status of a transaction sent earlier.

5. **Balance Enquiry:** This transaction type enables customers to get balances on their accounts.

6. **Fund Transfer Advice (Direct Credit):** This transaction type is sent after timeout waiting for response to the beneficiary bank informing the beneficiary bank that the earlier instruction has been cancelled as a result of in delay in response. This is applicable to **Direct Credit**.

7. **Fund Transfer Advice (Direct Debit):** This transaction type is sent after timeout waiting for response to the beneficiary bank informing the beneficiary bank that the earlier instruction has been cancelled as a result of delay in response. This is applicable to **Direct Debit.**

8. **Amount Block:** This transaction type is sent to destination financial institution by NIBSS to block/lien specified amount in an account.

9. **Amount Unblock:** This transaction type is sent to destination financial institution by NIBSS to unblock (or to remove lien) specified amount in an account.

10. **Account Block:** This transaction type is sent to destination financial institution by NIBSS to block/lien a specified account.

11. **Account unblock:** This transaction type is sent to destination financial institution by NIBSS to unblock (or remove lien from) a specified account.

12. **Financial Institution List:** This transaction type enables NIP to inform existing Financial Institutions on the platform of a new player on the platform.

13. **Mandate Advice**: This transaction type enables NIP to inform Financial Institutions of new Mandate details.

14. **Transaction Response Acknowledgement:** This transaction type is an acknowledgement to Fund Transfer (Credit) transaction response.

5.   Web Service Specification

NIP uses Web Service to interface to the banks. This section discusses the Web Service component of the interface specification. The Bank and NIBSS shall each provide both a NIP Web Service and a NIP Client. Whenever a sender bank desires to make a NIP request through NIBSS, the bank calls the NIBSS NIP Web Service while NIBSS transmits messages to beneficiary bank by calling the NIP Web Service of the beneficiary bank.

The Web Service has been designed in such a manner that it takes a string as input and sends out string as output. The format of the input and output string is based on XML format. As soon as a bank is ready to commence integration testing, the NIBSS NIP technical team will make available the Web Service Description Language (WSDL) of NIP and would request for the WSDL of the testing bank as well.

The transaction could either be a single item or a bulk item. The implementation for both single item and bulk items are similar, however the difference in implementation differs from the perspective of the Web Service integration. Below are the formats of the xml of the input and output string for all transactions:

010   Name Enquiry Request:
```
<?xml version="1.0" encoding="UTF-8" ?>
<NESingleRequest>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <AccountNumber>2222000000012345</AccountNumber>
</NESingleRequest>
```

011   Name Enquiry Response:
```
<?xml version="1.0" encoding="UTF-8" ?>
<NESingleResponse>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <AccountNumber>2222000000012345</AccountNumber>
        <AccountName>Ajibade Oluwasegun</AccountName>
        <BankVerificationNumber>1033000441</BankVerificationNumber>
        <KYCLevel>1</KYCLevel>
        <ResponseCode>00</ResponseCode>
</NESingleResponse>
```

012   Fund Transfer Request (Direct Credit):
```
<?xml version="1.0" encoding="UTF-8" ?>
<FTSingleCreditRequest>
        <SessionID>000001100913103301000000000002</SessionID>
        <NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <BeneficiaryAccountName>Ajibade Oluwasegun</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
        <OriginatorAccountName>Adewale Hassan</OriginatorAccountName>
        <OriginatorAccountNumber>3333002345</OriginatorAccountNumber>
        <OriginatorBankVerificationNumber>1033000441</OriginatorBankVerificationNumber>
        <OriginatorKYCLevel>1</OriginatorKYCLevel>
        <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        <Narration>1000000001</Narration>
        <PaymentReference>yyyyyyyyyyyyyy</PaymentReference>
```

```
            <Amount>1000.00</Amount>
</FTSingleCreditRequest>
```

013   Fund Transfer Response (Direct Credit):
```
<?xml version="1.0" encoding="UTF-8" ?>
<FTSingleCreditResponse>
        <SessionID>000001100913103301000000000002</SessionID>
        <NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <BeneficiaryAccountName>Ajibade Oluwasegun</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <OriginatorAccountName >Adewale Hassan</OriginatorAccountName>
        <OriginatorAccountNumber>3333002345</OriginatorAccountNumber>
        <OriginatorBankVerificationNumber>1033000441</OriginatorBankVerificationNumber>
        <OriginatorKYCLevel>1</OriginatorKYCLevel>
        <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        <Narration>1000000001</Narration>
        <PaymentReference>yyyyyyyyyyyyyy</PaymentReference>
        <Amount>1000.00</Amount>
        <ResponseCode>00</ResponseCode>
</FTSingleCreditResponse>
```

014   Fund Transfer Request (Direct Debit):
```
<?xml version="1.0" encoding="UTF-8" ?>
<FTSingleDebitRequest>
        <SessionID>000001100913103301000000000002</SessionID>
        <NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <DebitAccountName>Ajibade Oluwasegun</DebitAccountName>
        <DebitAccountNumber>2222000000012345</DebitAccountNumber>
        <DebitBankVerificationNumber>1033000442</DebitBankVerificationNumber>
        <DebitKYCLevel>1</DebitKYCLevel>
        <BeneficiaryAccountName>Sarah Hassan Emeka</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
        <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <PaymentReference>1000000001</PaymentReference>
        <MandateReferenceNumber>xxxxxxxxxxxxxxxxxxxx</MandateReferenceNumber>
        <TransactionFee>0.00</TransactionFee>
        <Amount>1000.00</Amount>
</FTSingleDebitRequest>
```

015   **Fund Transfer Response (Direct Debit):**

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<FTSingleDebitResponse>
        <SessionID>000001100913103301000000000002</SessionID>
        <NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <DebitAccountName>Ajibade Oluwasegun</DebitAccountName>
        <DebitAccountNumber>2222000000012345</DebitAccountNumber>
        <DebitBankVerificationNumber>1033000442</DebitBankVerificationNumber>
        <DebitKYCLevel>1</DebitKYCLevel>
        <BeneficiaryAccountName>Sarah Hassan Emeka</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
        <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <PaymentReference>1000000001</PaymentReference>
        <MandateReferenceNumber>xxxxxxxxxxxxxxxxxxx</MandateReferenceNumber>
        <TransactionFee>0.00</TransactionFee>
        <Amount>1000.00</Amount>
        <ResponseCode>00</ResponseCode>
</FTSingleDebitResponse>
```

016 Transaction Status Query Request (Single Transaction)

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<TSQuerySingleRequest>
        <SourceInstitutionCode>000002</SourceInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <SessionID>000001100913103301000000000001</SessionID>
</TSQuerySingleRequest>
```

017 Transaction Status Query Response (Single Transaction)

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<TSQuerySingleResponse>
        <SourceInstitutionCode>000002</SourceInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <SessionID>000001100913103301000000000001</SessionID>
        <ResponseCode>00</ResponseCode>
</TSQuerySingleResponse>
```

018 Balance Enquiry Request

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<BalanceEnquiryRequest>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
```

```
<AuthorizationCode>xxxxxxxxxxxxxx</AuthorizationCode>
<TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
<TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
<TargetAccountNumber>2222002345</TargetAccountNumber>
</BalanceEnquiryRequest>
```

019 Balance Enquiry Response
```
<?xml version="1.0" encoding="UTF-8" ?>
<BalanceEnquiryResponse>
<SessionID>000001100913103301000000000001</SessionID>
<DestinationInstitutionCode>000002</DestinationInstitutionCode>
<ChannelCode>7</ChannelCode>
<AuthorizationCode>xxxxxxxxxxxxxx</AuthorizationCode>
<TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
<TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
<TargetAccountNumber>2222002345</TargetAccountNumber>
<AvailableBalance>1000.00</AvailableBalance>
<ResponseCode>00</ResponseCode>
</BalanceEnquiryResponse>
```

020 Fund Transfer Advice Request (Direct Credit):
```
<?xml version="1.0" encoding="UTF-8" ?>
<FTAdviceCreditRequest>
<SessionID>000001100913103301000000000002</SessionID>
<NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
<DestinationInstitutionCode>000002</DestinationInstitutionCode>
<ChannelCode>1</ChannelCode>
<BeneficiaryAccountName>Ajibade Oluwasegun</BeneficiaryAccountName>
<BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
<BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
<OriginatorAccountName>Adewale Hassan</OriginatorAccountName>
<OriginatorAccountNumber>3333002345</OriginatorAccountNumber>
<OriginatorBankVerificationNumber>1033000441</OriginatorBankVerificationNumber>
<OriginatorKYCLevel>1</OriginatorKYCLevel>
<TransactionLocation>6.4300747,3.4110715</TransactionLocation>
<Narration>Transfer from 000002 to 0YY</Narration>
<PaymentReference>1000000001</PaymentReference>
<Amount>1000.00</Amount>
</FTAdviceCreditRequest>
```

021 Fund Transfer Advice Response (Direct Credit):
```
<?xml version="1.0" encoding="UTF-8" ?>
<FTAdviceCreditResponse>
<SessionID>000001100913103301000000000002</SessionID>
<NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
<DestinationInstitutionCode>000002</DestinationInstitutionCode>
<ChannelCode>1</ChannelCode>
```

```
        <BeneficiaryAccountName>Ajibade Oluwasegun</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
        <OriginatorAccountName>Adewale Hassan</OriginatorAccountName>
        <OriginatorAccountNumber>3333002345</OriginatorAccountNumber>
        <OriginatorBankVerificationNumber>1033000441</OriginatorBankVerificationNumber>
        <OriginatorKYCLevel>1</OriginatorKYCLevel>
        <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <PaymentReference>1000000001</PaymentReference>
        <Amount>1000.00</Amount>
        <ResponseCode>00</ResponseCode>
</FTAdviceCreditResponse>
```

022 Fund Transfer Advice Request (Direct Debit):
```
<?xml version="1.0" encoding="UTF-8" ?>
<FTAdviceDebitRequest>
        <SessionID>000001100913103301000000000002</SessionID>
        <NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <DebitAccountName>Ajibade Oluwasegun</DebitAccountName>
        <DebitAccountNumber>2222000000012345</DebitAccountNumber>
        <DebitBankVerificationNumber>1033000442</DebitBankVerificationNumber>
        <DebitKYCLevel>1</DebitKYCLevel>
        <BeneficiaryAccountName>Sarah Hassan Emeka</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
        <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <PaymentReference>1000000001</PaymentReference>
        <MandateReferenceNumber>xxxxxxxxxxxxxxxxxxxx</MandateReferenceNumber>
        <TransactionFee>0.00</TransactionFee>
        <Amount>1000.00</Amount>
</FTAdviceDebitRequest>
```

023 Fund Transfer Advice Response (Direct Debit):
```
<?xml version="1.0" encoding="UTF-8" ?>
<FTAdviceDebitResponse>
        <SessionID>000001100913103301000000000002</SessionID>
        <NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <DebitAccountName>Ajibade Oluwasegun</DebitAccountName>
        <DebitAccountNumber>2222000000012345</DebitAccountNumber>
        <DebitBankVerificationNumber>1033000442</DebitBankVerificationNumber>
```

```
        <DebitKYCLevel>1</DebitKYCLevel>
        <BeneficiaryAccountName>Sarah Hassan Emeka</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
        <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <PaymentReference>1000000001</PaymentReference>
        <MandateReferenceNumber>xxxxxxxxxxxxxxxxxxx</MandateReferenceNumber>
        <TransactionFee>0.00</TransactionFee>
        <Amount>1000.00</Amount>
        <ResponseCode>00</ResponseCode>
</FTAdviceDebitResponse>
```

024 Amount Block Request
```
<?xml version="1.0" encoding="UTF-8" ?>
<AmountBlockRequest>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <ReferenceCode>xxxxxxxxxxxxxxx</ReferenceCode>
        <TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
        <TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
        <TargetAccountNumber>2222002345</TargetAccountNumber>
        <ReasonCode>0001</ReasonCode>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <Amount>1000.00</Amount>
</AmountBlockRequest>
```

025 Amount Block Response
```
<?xml version="1.0" encoding="UTF-8" ?>
<AmountBlockResponse>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <ReferenceCode>xxxxxxxxxxxxxxx</ReferenceCode>
        <TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
        <TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
        <TargetAccountNumber>2222002345</TargetAccountNumber>
        <ReasonCode>0001</ReasonCode>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <Amount>1000.00</Amount>
        <ResponseCode>00</ResponseCode>
</AmountBlockResponse>
```

026 Amount Unblock Request
```
<?xml version="1.0" encoding="UTF-8" ?>
```

```xml
<AmountUnblockRequest>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <ReferenceCode>xxxxxxxxxxxxxx</ReferenceCode>
        <TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
        <TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
        <TargetAccountNumber>2222002345</TargetAccountNumber>
        <ReasonCode>0001</ReasonCode>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <Amount>1000.00</Amount>
</AmountUnblockRequest>
```

027 Amount Unblock Response
```xml
<?xml version="1.0" encoding="UTF-8" ?>
<AmountUnblockResponse>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <ReferenceCode>xxxxxxxxxxxxxx</ReferenceCode>
        <TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
        <TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
        <TargetAccountNumber>2222002345</TargetAccountNumber>
        <ReasonCode>0001</ReasonCode>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <Amount>1000.00</Amount>
        <ResponseCode>00</ResponseCode>
</AmountUnblockResponse>
```

028 Account Block Request
```xml
<?xml version="1.0" encoding="UTF-8" ?>
<AccountBlockRequest>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <ReferenceCode>xxxxxxxxxxxxxx</ReferenceCode>
        <TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
        <TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
        <TargetAccountNumber>2222002345</TargetAccountNumber>
        <ReasonCode>0001</ReasonCode>
        <Narration>Transfer from 000002 to 0YY</Narration>
</AccountBlockRequest>
```

029 Account Block Response
```xml
<?xml version="1.0" encoding="UTF-8" ?>
<AccountBlockResponse>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
```

```xml
            <ChannelCode>7</ChannelCode>
            <ReferenceCode>xxxxxxxxxxxxxx</ReferenceCode>
            <TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
            <TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
            <TargetAccountNumber>2222002345</TargetAccountNumber>
            <ReasonCode>0001</ReasonCode>
            <Narration>Transfer from 000002 to 0YY</Narration>
            <ResponseCode>00</ResponseCode>
</AccountBlockResponse>
```

030 Account Unblock Request
```xml
<?xml version="1.0" encoding="UTF-8" ?>
<AccountUnblockRequest>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <ReferenceCode>xxxxxxxxxxxxxx</ReferenceCode>
        <TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
        <TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
        <TargetAccountNumber>2222002345</TargetAccountNumber>
        <ReasonCode>0001</ReasonCode>
        <Narration>Transfer from 000002 to 0YY</Narration>
</AccountUnblockRequest>
```

031 Account Unblock Response
```xml
<?xml version="1.0" encoding="UTF-8" ?>
<AccountUnblockResponse>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <ReferenceCode>xxxxxxxxxxxxxx</ReferenceCode>
        <TargetAccountName>Ajibade Oluwasegun</TargetAccountName>
        <TargetBankVerificationNumber>1033000442</TargetBankVerificationNumber>
        <TargetAccountNumber>2222002345</TargetAccountNumber>
        <ReasonCode>0001</ReasonCode>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <ResponseCode>00</ResponseCode>
</AccountUnblockResponse>
```

032 Financial Institution List Request
```xml
<?xml version="1.0" encoding="UTF-8" ?>
<FinancialInstitutionListRequest>
        <Header>
                <BatchNumber>000001100911000000000001</BatchNumber>
                <NumberOfRecords>5</NumberOfRecords>
                <ChannelCode>1</ChannelCode>
                <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        </Header>
```

```xml
    <Record>
        <InstitutionCode>000001</InstitutionCode>
        <InstitutionName>Bank ABC</InstitutionName>
        <Category>2</Category>
    </Record>
    <Record>
        <InstitutionCode>000002</InstitutionCode>
        <InstitutionName>MMO XYZ</InstitutionName>
        <Category>10</Category>
    </Record>
    <Record>
        <InstitutionCode>000003</InstitutionCode>
        <InstitutionName>Bank XYZ</InstitutionName>
        <Category>2</Category>
    </Record>
    <Record>
        <InstitutionCode>000004</InstitutionCode>
        <InstitutionName>PMB X</InstitutionName>
        <Category>6</Category>
    </Record>
    <Record>
        <InstitutionCode>000005</InstitutionCode>
        <InstitutionName>Merchant Bank XYZ</InstitutionName>
        <Category>2</Category>
    </Record>
</FinancialInstitutionListRequest>
```

033 Financial Institution Response
```xml
<?xml version="1.0" encoding="UTF-8" ?>
<FinancialInstitutionListResponse>
        <BatchNumber>000001100911000000000001</BatchNumber>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <NumberOfRecords>5</NumberOfRecords>
        <ResponseCode>00</ResponseCode>
</FinancialInstitutionListResponse>
```

034 Mandate Advice Request
```xml
<?xml version="1.0" encoding="UTF-8" ?>
<MandateAdviceRequest>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <MandateReferenceNumber>xxxxxxxxxxxxxxx</MandateReferenceNumber>
        <Amount>1000.00</Amount>
        <DebitAccountName>Ajibade Oluwasegun</DebitAccountName>
        <DebitAccountNumber>2222000000012345</DebitAccountNumber>
```

```
        <DebitBankVerificationNumber>1033000442</DebitBankVerificationNumber>
        <DebitKYCLevel>1</DebitKYCLevel>
        <BeneficiaryAccountName>Sarah Hassan Emeka</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
</MandateAdviceRequest>
```

035 Mandate Advice Response
```
<?xml version="1.0" encoding="UTF-8" ?>
<MandateAdviceResponse>
        <SessionID>000001100913103301000000000001</SessionID>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>7</ChannelCode>
        <MandateReferenceNumber>xxxxxxxxxxxxxxx</MandateReferenceNumber>
        <Amount>1000.00</Amount>
        <DebitAccountName>Ajibade Oluwasegun</DebitAccountName>
        <DebitAccountNumber>2222000000012345</DebitAccountNumber>
        <DebitBankVerificationNumber>1033000442</DebitBankVerificationNumber>
        <DebitKYCLevel>1</DebitKYCLevel>
        <BeneficiaryAccountName>Sarah Hassan Emeka</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
<BeneficiaryBankVerificationNumber>1033000442</BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
        <ResponseCode>00</ResponseCode>
</MandateAdviceResponse>
```

036 Transaction Response Acknowledgement Callback
```
<?xml version="1.0" encoding="UTF-8" ?>
<FTAckCredit>
        <SessionID>000001100913103301000000000002</SessionID>
        <NameEnquiryRef>000001100913103301000000000001</NameEnquiryRef>
        <DestinationInstitutionCode>000002</DestinationInstitutionCode>
        <ChannelCode>1</ChannelCode>
        <BeneficiaryAccountName>Ajibade Oluwasegun</BeneficiaryAccountName>
        <BeneficiaryAccountNumber>2222002345</BeneficiaryAccountNumber>
        <BeneficiaryBankVerificationNumber>1033000442
        </BeneficiaryBankVerificationNumber>
        <BeneficiaryKYCLevel>1</BeneficiaryKYCLevel>
        <OriginatorAccountName>Adewale Hassan</OriginatorAccountName>
        <OriginatorAccountNumber>3333002345</OriginatorAccountNumber>
        <OriginatorBankVerificationNumber>1033000441</OriginatorBankVerificationNumber>
        <OriginatorKYCLevel>1</OriginatorKYCLevel>
        <TransactionLocation>6.4300747,3.4110715</TransactionLocation>
        <Narration>Transfer from 000002 to 0YY</Narration>
        <PaymentReference>1000000001</PaymentReference>
        <Amount>1000.00</Amount>
        <ResponseCode>00</ResponseCode>
```

`</FTAckCredit>`

037 Transaction Response Acknowledgement Response:
Echo back of the request

6.   Web Service Method Name

For easy management of exposed methods in the Web Service, the following methods will be exposed with the respective reference XMLs (as mentioned in section 5 above):

S/N	Method Name	Reference XML	Exposure
1.	nameenquirysingleitem	010 Name Enquiry – Single Item	Exposed by Financial Institution and NIBSS
2.	fundtransfersingleitem_dc	012 Fund Transfer (Direct Credit) – Single Items	Exposed by Financial Institution and NIBSS
3.	fundtransfersingleitem_dd	014 Fund Transfer (Direct Debit) – Single Items	Exposed by Financial Institution
4.	txnstatusquerysingleitem	016 Transaction Status Query (Single Transaction)	Exposed by NIBSS
6.	balanceenquiry	018 Balance Enquiry	Exposed by Financial Institution
7.	fundtransferAdvice_dc	020 Fund Transfer Advice (Direct Credit)	Exposed by Financial Institution
8.	fundtransferAdvice_dd	022 Fund Transfer Advice (Direct Debit)	Exposed by Financial Institution
10.	amountblock	024 Amount Block	Exposed by Financial Institution
11.	amountUnblock	026 Amount Unblock	Exposed by Financial Institution
12.	accountblock	028 Account Block	Exposed by Financial Institution
13.	accountUnblock	030 Account Unblock	Exposed by Financial Institution
14.	financialinstitutionlist	032 Financial Institution List	Exposed by Financial Institution
15.	mandateadvice	034 Mandate Advice	Exposed by Financial Institution
16.	ftackcreditrequest	036 Transaction Response Acknowledgement	Exposed by Financial Institution

7. Field Descriptions

S/N	Field	Description	Length/Type	Presence Indicator
1.	SessionID	Unique number that identifies transactions in the following format: Char 1 – 6: Senders bank'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)	30	Mandatory
2.	DestinationInstitutionCode	Code for identifying destination Institution	6	Mandatory
3.	SourceInstitutionCode	Code for identifying source Institution	6	Mandatory
4.	ChannelCode	Code for identifying the source channel of transaction	integer	Mandatory
5.	AccountNumber	Account Number of financial institution's customer.	Maximum of 20	Mandatory
6.	*BankVerificationNumber	Financial Institution's Customer's Bank Verification Number	Maximum of 20	Mandatory
7.	ResponseCode	Code showing the status of transaction	2	Mandatory
8.	NameEnquiryRef	Session ID of the name enquiry done prior to a fund transfer	30	Optional
9.	BeneficiaryAccountName	Beneficiary Account Name of financial institution's customer	Maximum of 100	Mandatory
10.	BeneficiaryAccountNumber	Beneficiary Account Number of financial institution's customer	Maximum of 20	Mandatory
11.	*BeneficiaryBankVerificationNumber	Beneficiary Bank Verification Number	Maximum of 20	Mandatory
12.	OriginatorAccountName	Originator Account Name of financial institution's customer	Maximum of 100	Mandatory
13.	OriginatorAccountNumber	Originator Account Number of financial institution's customer	Maximum of 20	Mandatory
14.	*OriginatorBankVerificationNumber	Originator Bank Verification Number	Maximum of 20	Mandatory
15.	OriginatorKYCLevel	Originator's Know Your Customer Level	1	Optional
16.	TransactionLocation	GPS location of channel of transaction	Longitude and latitude	Optional
17.	Narration	Description of transaction	Maximum of 100	Optional
18.	PaymentReference	Reference of Payment	Maximum of 100	Optional
19.	***Amount	Value of fund in naira	Decimal up to	Mandatory

			a maximum allowed by regulation	
20.	DebitAccountName	Account Name of financial institution's customer that is to receive debit	Maximum of 100	Mandatory
21.	DebitAccountNumber	Account Number of financial institution's customer that is to receive debit	Maximum of 20	Mandatory
22.	*DebitBankVerificationNumber	Bank Verification Number of financial institution's customer that is to receive debit	Maximum of 20	Mandatory
23.	MandateReferenceNumber	Reference Number authorizing debit to be passed into customer's account	Maximum of 30	Mandatory
24.	BatchNumber	Unique Number identifying a batch of transactions in the following format: Char 1 – 6: Senders bank's code Char 7 – 12: Date and time (in the format yymmdd) Char 13 – 24: 12 – character unique number (either serial # or random number)	24	Mandatory
25.	NumberOfRecords	Number of records in a batch	Integer	Mandatory
26.	RecID	Unique number that identifies transactions in a batch	30	Mandatory
27.	AuthorizationCode	Code authorizing balance enquiry transaction	Maximum of 30	Mandatory
28.	TargetAccountName	Account Name of financial institution's customer	Maximum of 100	Mandatory
29.	TargetAccountNumber	Account Number of financial institution's customer	Maximum of 20	Mandatory
30.	*TargetBankVerificationNumber	Bank Verification Number of financial institution's customer	Maximum of 20	Mandatory
31.	***AvailableBalance	Available balance of the account of financial institution's customer	Decimal	Mandatory
32.	**TransactionFee	Fee charged for transaction	Decimal	Mandatory
33.	DebitKYCLevel	Know Your Customer Level of customer's account that is to receive debit	1	Optional
34.	ReferenceCode	Code that generated by the source of amount/account block/unblock transaction type	Maximum of 30	Mandatory
35.	ReasonCode	Code identifying the reason for blocking/unblocking amount/account	4	Mandatory
36	AccountName	Account Name of financial institution's customer.	Maximum of 100	Mandatory

37.	BeneficiaryKYCLevel	Know Your Customer Level of customer's account that is to receive credit	1	Optional
38.	KYCLevel	Know Your Customer Level of customer's account that returned in response to Name Enquiry	1	Optional
39.	InstitutionCode	Code of Financial Institution		
40.	InstitutionName	Name of Financial Institution		
41.	Category	Financial segment of Financial Institution		

*for non – Deposit Money Bank, this is customer's phone number

**where not applicable, the value will be 0.00 and to two decimal places without comma

***to two decimal places without comma

8.   Channel Codes

Find in the table the channel codes and their respective names:

Codes	Channel Names
1	Bank Teller
2	Internet Banking
3	Mobile Phones
4	POS Terminals
5	ATM
6	Vendor/Merchant Web Portal
7	Third – Party Payment Platform
8	Unstructured Supplementary Service Data (USSD)
9	Other Channels
10	Social Media
11	Agency Banking

9.   Response Codes

Find in the table below the response codes and their respective descriptions:

Codes	Descriptions
00	Approved or completed successfully
01	Status unknown, please wait for settlement report

03	Invalid Sender
05	Do not honor
06	Dormant Account
07	Invalid Account
08	Account Name Mismatch
09	Request processing in progress
12	Invalid transaction
13	Invalid Amount
14	Invalid Batch Number
15	Invalid Session or Record ID
16	Unknown Bank Code
17	Invalid Channel
18	Wrong Method Call
21	No action taken
25	Unable to locate record
26	Duplicate record
30	Format error
34	Suspected fraud
35	Contact sending bank
51	No sufficient funds
57	Transaction not permitted to sender
58	Transaction not permitted on channel
61	Transfer limit Exceeded
63	Security violation
65	Exceeds withdrawal frequency
68	Response received too late
69	Unsuccessful Account/Amount block
70	Unsuccessful Account/Amount unblock
71	Empty Mandate Reference Number
91	Beneficiary Bank not available
92	Routing error
94	Duplicate transaction
96	System malfunction
97	Timeout waiting for response from destination

10.   Reason Codes

Codes	Descriptions
0001	Suspected fraud
0002	Security violation

0003	Multiple cases of insufficient fund
0004	Multiple cases of "Transfer limit Exceeded"
0005	Non-compliance with operating regulations
0006	Identity theft
0007	Duplicate transaction processing
0008	Fraudulent multiple transactions
0009	Payment made by other means
0010	Purpose of payment not redeemed
0011	Recurring transactions
1111	Others

10. Category

Codes	Names
1	Bureaux-de-Change
2	Commercial Bank
3	Development Financial Institution
4	Discount Houses
5	Finance Companies
6	Merchant Bank
7	Primary Mortgage Bank
8	Non – Interest Bank
9	Micro-finance Bank
10	Mobile Money Operator
11	Other Financial Institutions

12. Message Security

The security of the message exchange between NIP and the financial institutions is of great importance, to stem the incidence of fraud and unauthorized access. The NIP Web Service message security system is based on the renowned PGP technology. NIBSS shall make available to every financial institution the NIP Software Security Module (NSSM) with which a pair of keys – public and private keys – will be generated and also, it would handle all cryptographic functions between NIP and the integrating financial institution. This security mechanism would ensure the safety of NIP messages between financial institutions and NIBSS.

13. Transaction Settlement

Settlement of all transactions will be done once in a day and at a cut – over time of mid-night. NIBSS will handle the settlement of all transactions that passes through the NIP, and effect settlement on a next-day basis as it is done with card payments.

14. Account Entries

Below are the suggested accounting entries at sender's bank at transaction time:

Account	Action	Amount	Remark
Customer Account	Debit	NXXXX.XX	Amount to be transferred
Customer Account	Debit	NYY.YY	Transaction Fee
NIP Payable Account	Credit	NXXXX.XX + NYY.YY	Total amount debited from customer's account

Below are the suggested accounting entries at beneficiary financial institution at transaction time:

Account	Action	Amount	Remark
NIP Transaction Split Settlement Account	Debit	NXXXX.XX	Amount transferred from the sender's bank
Beneficiary Account	Credit	NXXXX.XX	Amount transferred from the sender's bank

Below are the suggested accounting entries at sender's financial institution at settlement time:

Account	Action	Amount	Remark
NIP Payable Account	Debit	NXXXX.XX + NYY.YY	Transaction Amount and Transaction fee
Commission Account	Credit	NY.YY	Share of the transaction fee that belongs to the

			sender's bank.
NIP Mirror Account	Credit	NY.YY	Share of the transaction fee that belongs to NIP.
NIP Mirror Account	Credit	NXXXX.XX	Actual transaction value

Below are the suggested accounting entries at beneficiary financial institution at settlement time:

Account	Action	Amount	Remark
NIP Transaction Split Settlement Account	Credit	NXXXX.XX	Amount Transferred is returned back to TSS
NIP Mirror Account	Debit	NXXXX.XX	

15. Reports

NIP shall make available transaction reports to both the sender's and beneficiary's financial institution at the end of every settlement cycle. The reports would be made available on the operational web-based NIBSS Financial Reports Delivery Platform.

16. Dispute Resolution

Dispute Resolution will be based on the Procedure below:

a.　The Sender lodges complaint(s) with his/her financial institution.

b.　The Sender's financial institution performs first level check such as:

　i.　Authenticate Sender　　　ii. Confirms that account was debited

　iii. Checks for auto-reversal　　iv. Is Transaction in Store and Forward repository etc

c.　Based on the first – level check ascertaining that the dispute is indeed genuine, the sender's financial institution logs the issue on the NIP Dispute Resolution System (DSR).

d.　DSR stores the disputes and alerts the Beneficiary's financial institution.

e.   The Beneficiary's financial institution receives the alert and verifies dispute from the transaction traces and logs.

f.   The Beneficiary's financial institution through the DSR responds with a 'complaint valid' or 'complaint invalid'.

g.   If response is not received from the Beneficiary's financial institution within 72 hours, NIBSS would recover the contested fund automatically from the Beneficiary's financial institution back to the Sender's financial institution.

h.   If the response from the Beneficiary's financial institution is 'complaint invalid', no further action will be taken. However, if there is a repeat lodgement by the Sender's financial institution of this complaint, it would be referred to Arbitration Panel (comprising representatives of the two banks of involved and NIBSS) for resolution and the decision of the Panel will be final.

i.   If the response from the Beneficiary's financial institution is 'complain valid', it would notify the DRS which, would based on this instruction, recover funds from the Beneficiary's financial institution to the Sender's institution for final disbursement to the Sender.

17.   Requirements from Financial Institutions

For integration to NIP, the following will be required from Banks:

1. Full integration to the Nigeria Central Switch (NCS) Infrastructure.

2. Development of a Web Service that is in conformity with the specification highlighted in section 5 above.

3. Development of a client that is in conformity with the specification highlighted in section 5 above.

4. Opening of NIP Mirror Account and NIP Transaction Split Settlement (TSS) Account.

5. Banks are required to provide NIBSS Instant Payment interfaces on the branch teller system, internet banking channels, e-payment/banking/business platform, etc. NIBSS would readily provide assistance and support to banks and financial institutions, where necessary.