



TECHNICAL SPECIFICATION DOCUMENT

FOR

NIBSS FASTER PAYMENTS (NFP)

Prepared by:
Nigeria Inter – Bank Settlement System (NIBSS)
Version: 5.0
December 10, 2010



Table of Content

1.	<i>Introduction</i>	3
2.	<i>Identification of Delivery Channels</i>	3
3.	<i>Transaction Flows</i>	4
4.	<i>Transaction Types</i>	6
5.	<i>Web Service Specification</i>	7
6.	<i>Web Service Method Names</i>	21
7.	<i>Channel Codes</i>	22
8.	<i>Response Codes</i>	22
9.	<i>Direct Debit Implementation</i>	23
10.	<i>Message Security</i>	24
11.	<i>Transaction Settlement</i>	24
12.	<i>Accounting Entries</i>	24
13.	<i>Reports</i>	26
14.	<i>Dispute Resolution</i>	26
15.	<i>Requirements from Bank</i>	27



1. Introduction

NIBSS Faster Payment (NFP) 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 Faster Payments would support the Mobile Payments initiatives of Mobile Payment service providers who receive the relevant license from the Central Bank.

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

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

- a. Introduction to NIBSS Faster Payments
- b. NFP Settlement Procedure
- c. NFP Dispute Resolution System
- d. NFP 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 NFP transactions. The following are the typical delivery channels:

- i. **Branch Teller:** On the NFP platform, bank customers can walk into any branch of their respective banks, and request for a NFP (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 NFP to provide OLRT inter-bank funds transfer services to customers.
- iii. **Mobile Phone:** NFP 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 NFP transactions. The enrollment procedures inherent in mobile payment systems provide adequate authentication.
- iv. **Automated Teller Machine (ATM) and Point of Sale (POS) Terminals:** With NFP, 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 Faster 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

Banks are required to provide NFP on Internet Banking and Branch Tellers delivery channels, at a minimum, at the commencement of NFP Live operations. All transactions 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 NFP.
4. The NFP 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 NFP instructing the NFP 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 NFP that the transaction is successful.
 - e. The NFP 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)

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

- 6



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. **Bulk Name Enquiry Notification:** this transaction type is sent by the beneficiary bank to inform the sending bank that a bulk Name Enquiry set earlier sent has been completed by the receiving bank.
5. **Bulk Fund Transfer Notification:** this transaction type is sent by the beneficiary bank to inform the sending bank that a bulk transaction earlier sent has been completed by the receiving bank.
6. **Transaction Status Query:** This transaction type enables the bank to query the status of a transaction sent earlier.
7. **Balance Enquiry:** This transaction type enables customers to get balances on their accounts.

5. Web Service Specification

NFP 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 NFP Web Service and a NFP Client. Whenever a sender bank desires to make a NFP request through NIBSS, the bank calls the NIBSS NFP Web Service while NIBSS transmits messages to beneficiary bank by calling the NFP 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 NFP technical team will make available the Web Service Description Language (WSDL) of NFP 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 (Single Item):

```
<?xml version="1.0" encoding="UTF-8" ?>
<NESingleRequest>
  <SessionID>0XX0YY100913103301000000000001</SessionID>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <AccountNumber>2222000000012345</AccountNumber>
</NESingleRequest>
```

011 Name Enquiry Response (Single Item):

```
<?xml version="1.0" encoding="UTF-8" ?>
<NESingleResponse>
  <SessionID>0XX0YY100913103301000000000001</SessionID>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <AccountNumber>2222000000012345</AccountNumber>
  <AccountName>Ajibade Oluwasegun</AccountName>
  <ResponseCode>00</ResponseCode>
</NESingleResponse>
```

012 Fund Transfer Request (Direct Credit – Single Items):

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTSingleCreditRequest>
  <SessionID>0XX0YY100913103301000000000001</SessionID>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <AccountName>Ajibade Oluwasegun</AccountName>
  <AccountNumber>2222000000012345</AccountNumber>
```




```
<OriginatorName>Adewale Hassan</OriginatorName>
<Narration>1000000001</Narration>
<PaymentReference>yyyyyyyyyyyyyy</PaymentReference>
<Amount>1000.00</Amount>
</FTSingleCreditRequest>
```

013 Fund Transfer Response (Direct Credit – Single Items):

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTSingleCreditResponse>
  <SessionID>OXX0YY100913103301000000000001</SessionID>
  <DestinationBankCode>OXX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <AccountName>Ajibade Oluwasegun</AccountName>
  <AccountNumber>2222000000012345</AccountNumber>
  <OriginatorName>Adewale Hassan</OriginatorName>
  <Narration>Transfer from OXX to OYY</Narration>
  <PaymentReference>1000000001</PaymentReference>
  <Amount>1000.00</Amount>
  <ResponseCode>00</ResponseCode>
</FTSingleCreditResponse>
```

014 Fund Transfer Request (Direct Debit – Single Items):

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTSingleDebitRequest>
  <SessionID>OXX0YY100913103301000000000001</SessionID>
  <DestinationBankCode>OXX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <AccountName>Ajibade Oluwasegun</AccountName>
  <AccountNumber>2222000000012345</AccountNumber>
  <BillerName>Adewale Hassan</BillerName>
  <BillerID>1111111111</BillerID>
  <Narration>Transfer from OXX to OYY</Narration>
  <PaymentReference>1000000001</PaymentReference>
  <MandateReferenceNumber>xxxxxxxxxxxxxxxxxx</MandateReferenceNumber>
  <Amount>1000.00</Amount>
</FTSingleDebitRequest>
```

015 Fund Transfer Response (Direct Debit – Single Items):

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTSingleDebitResponse>
  <SessionID>OXX0YY100913103301000000000001</SessionID>
  <DestinationBankCode>OXX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <AccountName>Ajibade Oluwasegun</AccountName>
  <AccountNumber>2222000000012345</AccountNumber>
  <BillerName>Adewale Hassan</BillerName>
  <BillerID>1111111111</BillerID>
  <Narration>Transfer from OXX to OYY</Narration>
```



```
<PaymentReference>1000000001</PaymentReference>
<MandateReferenceNumber>xxxxxxxxxxxxxxxxxx</MandateReferenceNumber>
<Amount>1000.00</Amount>
<ResponseCode>00</ResponseCode>
</FTSingleDebitResponse>
```

016 Name Enquiry Request (Bulk Items):

```
<?xml version="1.0" encoding="UTF-8" ?>
<NEBulkRequest>
  <Header>
    <DestinationBankCode>0XX</DestinationBankCode>
    <ChannelCode>1</ChannelCode>
    <BatchNumber>0XX0YY100911000000000001</BatchNumber>
    <NumberOfRecords>5</NumberOfRecords>
  </Header>

  <Record>
    <RecID>0XX0YY100913103301000000000001</RecID>
    <AccountNumber>2222000000012341</AccountNumber>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000002</RecID>
    <AccountNumber>2222000000012342</AccountNumber>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000003</RecID>
    <AccountNumber>2222000000012343</AccountNumber>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000004</RecID>
    <AccountNumber>2222000000012344</AccountNumber>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000005</RecID>
    <AccountNumber>2222000000012345</AccountNumber>
  </Record>
</NEBulkRequest>
```

017 Name Enquiry Response:

```
<?xml version="1.0" encoding="UTF-8" ?>
<NEBulkResponse>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <BatchNumber>0XX0YY100911000000000001</BatchNumber>
```



```
<NumberOfRecords>5</NumberOfRecords>
<ResponseCode>09</ResponseCode>
</NEBulkResponse>
```

018 Fund Transfer Request (Direct Credit – Bulk Items):

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTBulkCreditRequest>
  <Header>
    <DestinationBankCode>0XX</DestinationBankCode>
    <ChannelCode>1</ChannelCode>
    <BatchNumber>0XX0YY100911000000000001</BatchNumber>
    <NumberOfRecords>5</NumberOfRecords>
  </Header>

  <Record>
    <RecID>0XX0YY100913103301000000000001</RecID>
    <AccountNumber>2222000000012341</AccountNumber>
    <AccountName>Ajibade Oluwasegun1</AccountName>
    <OriginatorName>Adewale Hassan1</OriginatorName>
    <Narration>Fund Transfer</Narration>
    <PaymentReference>1000000001</PaymentReference>
    <Amount>1000.00</Amount>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000002</RecID>
    <AccountNumber>2222000000012342</AccountNumber>
    <AccountName>Ajibade Oluwasegun2</AccountName>
    <OriginatorName>Adewale Hassan2</OriginatorName>
    <Narration>Fund Transfer</Narration>
    <PaymentReference>1000000002</PaymentReference>
    <Amount>1000.00</Amount>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000003</RecID>
    <AccountNumber>2222000000012343</AccountNumber>
    <AccountName>Ajibade Oluwasegun3</AccountName>
    <OriginatorName>Adewale Hassan3</OriginatorName>
    <Narration>Fund Transfer</Narration>
    <PaymentReference>1000000003</PaymentReference>
    <Amount>1000.00</Amount>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000004</RecID>
    <AccountNumber>2222000000012344</AccountNumber>
    <AccountName>Ajibade Oluwasegun4</AccountName>
```



```
<OriginatorName>Adewale Hassan4</OriginatorName>
<Narration>Fund Transfer</Narration>
<PaymentReference>1000000004</PaymentReference>
<Amount>1000.00</Amount>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000005</RecID>
  <AccountNumber>2222000000012345</AccountNumber>
  <AccountName>Ajibade Oluwasegun5</AccountName>
  <OriginatorName>Adewale Hassan5</OriginatorName>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000005</PaymentReference>
  <Amount>1000.00</Amount>
</Record>
</FTBulkCreditRequest>
```

019 Fund Transfer Response (Direct Credit – Bulk Items):

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTBulkCreditResponse>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <BatchNumber>0XX0YY100911000000000001</BatchNumber>
  <NumberOfRecords>5</NumberOfRecords>
  <ResponseCode>09</ResponseCode>
</FTBulkCreditResponse>
```

020 Fund Transfer Request (Direct Debit – Bulk Items):

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTBulkDebitRequest>
  <Header>
    <DestinationBankCode>0XX</DestinationBankCode>
    <ChannelCode>1</ChannelCode>
    <BatchNumber>0XX0YY100911000000000001</BatchNumber>
    <NumberOfRecords>5</NumberOfRecords>
  </Header>

  <Record>
    <RecID>0XX0YY100913103301000000000001</RecID>
    <AccountNumber>2222000000012341</AccountNumber>
    <AccountName>Ajibade Oluwasegun1</AccountName>
    <BillerName>Adewale Hassan1</BillerName>
    <BillerID>1111111111</BillerID>
    <Narration>Fund Transfer</Narration>
    <PaymentReference>1000000001</PaymentReference>
    <MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>
    <Amount>1000.00</Amount>
  </Record>
```



```
<Record>
  <RecID>0XX0YY100913103301000000000002</RecID>
  <AccountNumber>222200000012342</AccountNumber>
  <AccountName>Ajibade Oluwasegun2</AccountName>
  <BillerName>Adewale Hassan2</BillerName>
  <BillerID>1111111111</BillerID>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000002</PaymentReference>
  <MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>
  <Amount>1000.00</Amount>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000003</RecID>
  <AccountNumber>222200000012343</AccountNumber>
  <AccountName>Ajibade Oluwasegun3</AccountName>
  <BillerName>Adewale Hassan3</BillerName>
  <BillerID>1111111111</BillerID>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000003</PaymentReference>
  <MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>
  <Amount>1000.00</Amount>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000004</RecID>
  <AccountNumber>222200000012344</AccountNumber>
  <AccountName>Ajibade Oluwasegun4</AccountName>
  <BillerName>Adewale Hassan4</BillerName>
  <BillerID>1111111111</BillerID>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000004</PaymentReference>
  <MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>
  <Amount>1000.00</Amount>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000005</RecID>
  <AccountNumber>222200000012345</AccountNumber>
  <AccountName>Ajibade Oluwasegun5</AccountName>
  <BillerName>Adewale Hassan5</BillerName>
  <BillerID>1111111111</BillerID>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000005</PaymentReference>
  <MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>
  <Amount>1000.00</Amount>
</Record>
```



</FTBulkDebitRequest>

021 Fund Transfer Response (Direct Debit):

<?xml version="1.0" encoding="UTF-8" ?>

<FTBulkDebitResponse>

<DestinationBankCode>0XX</DestinationBankCode>

<ChannelCode>1</ChannelCode>

<BatchNumber>0XX0YY100911000000000001</BatchNumber>

<NumberOfRecords>5</NumberOfRecords>

<ResponseCode>09</ResponseCode>

</FTBulkDebitResponse>

022 Bulk Name Enquiry Notification Request

<?xml version="1.0" encoding="UTF-8" ?>

<NEBulkNotificationRequest>

<Header>

<DestinationBankCode>0XX</DestinationBankCode>

<ChannelCode>1</ChannelCode>

<BatchNumber>0XX0YY100911000000000001</BatchNumber>

<NumberOfRecords>5</NumberOfRecords>

</Header>

<Record>

<RecID>0XX0YY100913103301000000000001</RecID>

<AccountNumber>2222000000012341</AccountNumber>

<AccountName>Ajibade Oluwasegun1</AccountName>

<ResponseCode>00</ResponseCode>

</Record>

<Record>

<RecID>0XX0YY100913103301000000000002</RecID>

<AccountNumber>2222000000012342</AccountNumber>

<AccountName>Ajibade Oluwasegun2</AccountName>

<ResponseCode>00</ResponseCode>

</Record>

<Record>

<RecID>0XX0YY100913103301000000000003</RecID>

<AccountNumber>2222000000012343</AccountNumber>

<AccountName>Ajibade Oluwasegun3</AccountName>

<ResponseCode>00</ResponseCode>

</Record>

<Record>

<RecID>0XX0YY100913103301000000000004</RecID>

<AccountNumber>2222000000012344</AccountNumber>

<AccountName>Ajibade Oluwasegun4</AccountName>

<ResponseCode>00</ResponseCode>



```
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000005</RecID>
  <AccountNumber>2222000000012345</AccountNumber>
  <AccountName>Ajibade Oluwasegun5</AccountName>
  <ResponseCode>00</ResponseCode>
</Record>
</NEBulkNotificationRequest>
```

023 Bulk Name Enquiry Notification Response

```
<?xml version="1.0" encoding="UTF-8" ?>
<NEBulkNotificationResponse>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <BatchNumber>0XX0YY100911000000000001</BatchNumber>
  <NumberOfRecords>5</NumberOfRecords>
  <ResponseCode>00</ResponseCode>
</NEBulkNotificationResponse>
```

024 Bulk Fund Transfer Notification Request (Direct Credit)

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTBulkCreditNotificationRequest>
  <Header>
    <DestinationBankCode>0XX</DestinationBankCode>
    <ChannelCode>1</ChannelCode>
    <BatchNumber>0XX0YY100911000000000001</BatchNumber>
    <NumberOfRecords>5</NumberOfRecords>
  </Header>

  <Record>
    <RecID>0XX0YY100913103301000000000001</RecID>
    <AccountNumber>2222000000012341</AccountNumber>
    <AccountName>Ajibade Oluwasegun1</AccountName>
    <OriginatorName>Adewale Hassan1</OriginatorName>
    <Narration>Fund Transfer</Narration>
    <PaymentReference>1000000001</PaymentReference>
    <Amount>1000.00</Amount>
    <ResponseCode>00</ResponseCode>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000002</RecID>
    <AccountNumber>2222000000012342</AccountNumber>
    <AccountName>Ajibade Oluwasegun2</AccountName>
    <OriginatorName>Adewale Hassan1</OriginatorName>
    <Narration>Fund Transfer</Narration>
    <PaymentReference>1000000002</PaymentReference>
```



```
<Amount>1000.00</Amount>
<ResponseCode>00</ResponseCode>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000003</RecID>
  <AccountNumber>2222000000012343</AccountNumber>
  <AccountName>Ajibade Oluwasegun3</AccountName>
  <OriginatorName>Adewale Hassan3</OriginatorName>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000003</PaymentReference>
  <Amount>1000.00</Amount>
  <ResponseCode>00</ResponseCode>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000004</RecID>
  <AccountNumber>2222000000012344</AccountNumber>
  <AccountName>Ajibade Oluwasegun4</AccountName>
  <OriginatorName>Adewale Hassan4</OriginatorName>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000004</PaymentReference>
  <Amount>1000.00</Amount>
  <ResponseCode>00</ResponseCode>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000005</RecID>
  <AccountNumber>2222000000012345</AccountNumber>
  <AccountName>Ajibade Oluwasegun5</AccountName>
  <OriginatorName>Adewale Hassan5</OriginatorName>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000005</PaymentReference>
  <Amount>1000.00</Amount>
  <ResponseCode>00</ResponseCode>
</Record>
</FTBulkCreditNotificationRequest>
```

025 Bulk Fund Transfer Notification Response (Direct Credit)

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTBulkCreditNotificationResponse>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <BatchNumber>0XX0YY100911000000000001</BatchNumber>
  <NumberOfRecords>5</NumberOfRecords>
  <ResponseCode>00</ResponseCode>
</FTBulkCreditNotificationResponse>
```




026 Bulk Fund Transfer Notification Request (Direct Debit)

<?xml version="1.0" encoding="UTF-8" ?>

<FTBulkDebitNotificationRequest>

<Header>

<DestinationBankCode>0XX</DestinationBankCode>

<ChannelCode>1</ChannelCode>

<BatchNumber>0XX0YY100911000000000001</BatchNumber>

<NumberOfRecords>5</NumberOfRecords>

</Header>

<Record>

<RecID>0XX0YY100913103301000000000001</RecID>

<AccountNumber>2222000000012341</AccountNumber>

<AccountName>Ajibade Oluwasegun1</AccountName>

<BillerName>Adewale Hassan1</BillerName>

<BillerID>1111111111</BillerID>

<Narration>Fund Transfer</Narration>

<PaymentReference>1000000001</PaymentReference>

<MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>

<Amount>1000.00</Amount>

<ResponseCode>00</ResponseCode>

</Record>

<Record>

<RecID>0XX0YY100913103301000000000002</RecID>

<AccountNumber>2222000000012342</AccountNumber>

<AccountName>Ajibade Oluwasegun2</AccountName>

<BillerName>Adewale Hassan1</BillerName>

<BillerID>1111111111</BillerID>

<Narration>Fund Transfer</Narration>

<PaymentReference>1000000002</PaymentReference>

<MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>

<Amount>1000.00</Amount>

<ResponseCode>00</ResponseCode>

</Record>

<Record>

<RecID>0XX0YY100913103301000000000003</RecID>

<AccountNumber>2222000000012343</AccountNumber>

<AccountName>Ajibade Oluwasegun3</AccountName>

<BillerName>Adewale Hassan3</BillerName>

<BillerID>1111111111</BillerID>

<Narration>Fund Transfer</Narration>

<PaymentReference>1000000003</PaymentReference>

<MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>

<Amount>1000.00</Amount>

<ResponseCode>00</ResponseCode>

</Record>



```
<Record>
  <RecID>0XX0YY100913103301000000000004</RecID>
  <AccountNumber>222200000012344</AccountNumber>
  <AccountName>Ajibade Oluwasegun4</AccountName>
  <BillerName>Adewale Hassan4</BillerName>
  <BillerID>1111111111</BillerID>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000004</PaymentReference>
  <MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>
  <Amount>1000.00</Amount>
  <ResponseCode>00</ResponseCode>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000005</RecID>
  <AccountNumber>222200000012345</AccountNumber>
  <AccountName>Ajibade Oluwasegun5</AccountName>
  <BillerName>Adewale Hassan5</BillerName>
  <BillerID>1111111111</BillerID>
  <Narration>Fund Transfer</Narration>
  <PaymentReference>1000000005</PaymentReference>
  <MandateReferenceNumber>xxxxxxxxxxx</MandateReferenceNumber>
  <Amount>1000.00</Amount>
  <ResponseCode>00</ResponseCode>
</Record>
</FTBulkDebitNotificationRequest>
```

027 Bulk Fund Transfer Notification Response (Direct Debit)

```
<?xml version="1.0" encoding="UTF-8" ?>
<FTBulkDebitNotificationResponse>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <BatchNumber>0XX0YY100911000000000001</BatchNumber>
  <NumberOfRecords>5</NumberOfRecords>
  <ResponseCode>00</ResponseCode>
</FTBulkDebitNotificationResponse>
```

028 Transaction Status Query Request (Single Transaction)

```
<?xml version="1.0" encoding="UTF-8" ?>
<TSQuerySingleRequest>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <SessionID>0XX0YY100913103301000000000001</SessionID>
</TSQuerySingleRequest>
```

029 Transaction Status Query Response (Single Transaction)

```
<?xml version="1.0" encoding="UTF-8" ?>
```



```
<TSQuerySingleResponse>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <SessionID>0XX0YY100913103301000000000001</SessionID>
  <ResponseCode>00</ResponseCode>
</TSQuerySingleResponse>
```

030 Transaction Status Query Request (Bulk Transaction)

```
<?xml version="1.0" encoding="UTF-8" ?>
<TSQueryBulkRequest>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <BatchNumber>0XX0YY100911000000000001</BatchNumber>
</TSQueryBulkRequest>
```

031 Transaction Status Query Response (Bulk Transaction)

```
<?xml version="1.0" encoding="UTF-8" ?>
<TSQueryBulkResponse>
  <Header>
    <DestinationBankCode>0XX</DestinationBankCode>
    <ChannelCode>1</ChannelCode>
    <BatchNumber>0XX0YY100911000000000001</BatchNumber>
    <NumberOfRecords>5</NumberOfRecords>
  </Header>

  <Record>
    <RecID>0XX0YY100913103301000000000001</RecID>
    <AccountNumber>2222000000012341</AccountNumber>
    <AccountName>Ajibade Oluwasegun1</AccountName>
    <Amount>1000.00</Amount>
    <ResponseCode>00</ResponseCode>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000002</RecID>
    <AccountNumber>2222000000012342</AccountNumber>
    <AccountName>Ajibade Oluwasegun2</AccountName>
    <Amount>1000.00</Amount>
    <ResponseCode>00</ResponseCode>
  </Record>

  <Record>
    <RecID>0XX0YY100913103301000000000003</RecID>
    <AccountNumber>2222000000012343</AccountNumber>
    <AccountName>Ajibade Oluwasegun3</AccountName>
    <Amount>1000.00</Amount>
    <ResponseCode>00</ResponseCode>
  </Record>
```



```
<Record>
  <RecID>0XX0YY100913103301000000000004</RecID>
  <AccountNumber>2222000000012344</AccountNumber>
  <AccountName>Ajibade Oluwasegun4</AccountName>
  <Amount>1000.00</Amount>
  <ResponseCode>00</ResponseCode>
</Record>

<Record>
  <RecID>0XX0YY100913103301000000000005</RecID>
  <AccountNumber>2222000000012345</AccountNumber>
  <AccountName>Ajibade Oluwasegun5</AccountName>
  <Amount>1000.00</Amount>
  <ResponseCode>00</ResponseCode>
</Record>
</TSQueryBulkResponse>
```

In the event that batch number is invalid or other errors, the response will be:

```
<?xml version="1.0" encoding="UTF-8" ?>
<TSQueryBulkResponse>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>1</ChannelCode>
  <BatchNumber>0XX0YY100911000000000001</BatchNumber>
  <NumberOfRecords>5</NumberOfRecords>
  <ResponseCode>14</ResponseCode>
</TSQueryBulkResponse>
```

032 Balance Enquiry Request

```
<?xml version="1.0" encoding="UTF-8" ?>
<BalanceEnquiryRequest>
  <SessionID>0XX0YY100913103301000000000001</SessionID>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>7</ChannelCode>
  <SpecialCode>xxxxxxxxxxxx</SpecialCode>
  <AccountName>Ajibade Oluwasegun</AccountName>
  <AccountNumber>2222000000012345</AccountNumber>
</BalanceEnquiryRequest>
```

033 Balance Enquiry Response

```
<?xml version="1.0" encoding="UTF-8" ?>
<BalanceEnquiryResponse>
  <SessionID>0XX0YY100913103301000000000001</SessionID>
  <DestinationBankCode>0XX</DestinationBankCode>
  <ChannelCode>7</ChannelCode>
  <SpecialCode>xxxxxxxxxxxx</SpecialCode>
  <AccountName>Ajibade Oluwasegun</AccountName>
```



```
<AccountNumber>2222000000012345</AccountNumber>  
< AvailableBalance>1000.00</AvailableBalance>  
<ResponseCode>00</ResponseCode>  
</BalanceEnquiryResponse>
```

It is important to note that the Session ID (in Single Item) and RecID (in Bulk items) Numbers are 30 characters in length and will follow the format below:

Char 1 – 3: Senders bank's code

Char 4 – 6: Destination 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)

It is important to note that Batch Number in bulk item transactions is 24 characters in length and will follow the format below:

Char 1 – 3: Sender Bank's code

Char 4 – 6: Destination 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)

The amount is the exact figure in two decimal places and without comma to separate thousands.

Also the bank code in the format above is based on the codes Central Bank of Nigeria (CBN) issued to all the banks.

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
1.	nameenquirysingleitem	010 Name Enquiry – Single Item



2.	fundtransfersingleitem_dc	012 Fund Transfer (Direct Credit) – Single Items
3.	fundtransfersingleitem_dd	014 Fund Transfer (Direct Debit) – Single Items
4.	nameenquirybulkitem	016 Name Enquiry – Bulk Items
5.	fundtransferbulkitem_dc	018 Fund Transfer (Direct Credit) – Bulk Items
6.	fundtransferbulkitem_dd	020 Fund Transfer (Direct Debit) – Bulk Items
7.	nameenquirynotification	022 Bulk Name Enquiry Notification
8.	fundtransfnotification_dc	024 Bulk Fund Transfer Notification (Direct Credit)
9.	fundtransfnotification_dd	026 Bulk Fund Transfer Notification (Direct Debit)
10.	txnstatusquerysingleitem	028 Transaction Status Query (Single Transaction)
11.	txnstatusquerybulkitem	030 Transaction Status Query (Bulk Transaction)
12.	balanceenquiry	032 Balance Enquiry

7. 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. Response Codes

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

Codes	Descriptions
00	Approved or completed successfully
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
91	Beneficiary Bank not available
92	Routing error
94	Duplicate transaction
96	System malfunction

9. Direct Debit Implementation

NIBSS Faster Payments supports Direct Debit instructions based on pre-arranged Mandates properly executed by the account holder. This is typically a case where instead of a customer (most times corporate) requesting to transfer money from his or her own account to a beneficiary's account, the same customer is requesting that funds should be recovered from his or her subscribers' account's into the corporate's account. In this case a Direct Debit mandate will be required to consummate this transaction.



NIBSS has developed a Centralized Mandate Management System (MMS) which warehouses all industry Direct Debit mandates in electronic form, as uploaded by individual banks. The NFP processor (at NIBSS) would validate all received NFP Direct Debit transactions against the MMS, and only Direct Debit transactions with valid mandates would be routed to the destination bank for treatment. This will free banks from Mandate Management logistics which has hampered the success of direct debits over the years.

10. Message Security

The security of the message exchange between NFP and the banks is of great importance, to stem the incidence of fraud and unauthorized access. The NFP Web Service message security system is based on the renowned PGP technology. NIBSS shall make available to every bank the NFP 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 NFP and the integrating banks. This security mechanism would ensure the safety of NFP messages between Banks and NIBSS.

11. 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 NFP, and effect settlement on a next-day basis as it is done with card payments.

12. 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	YYY.YY	Transaction Fee
NFP Payable Account	Credit	NXXXX.XX + YYY.YY	Total amount debited



			from customer's account
--	--	--	-------------------------

Below are the suggested accounting entries at beneficiary bank at transaction time:

Account	Action	Amount	Remark
NFP 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 bank at settlement time:

Account	Action	Amount	Remark
NFP 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.
NFP Mirror Account	Credit	NY.YY	Share of the transaction fee that belongs to NFP.
NFP Mirror Account	Credit	NXXXX.XX	Actual transaction value

Below are the suggested accounting entries at beneficiary bank at settlement time:

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



13. Reports

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

14. Dispute Resolution

Dispute Resolution will be based on the Procedure below:

- a. The Sender lodges complaint(s) with his/her bank.
- b. The Sender's bank 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 bank logs the issue on the NFP Dispute Resolution System (DSR).
- d. DSR stores the disputes and alerts the Beneficiary's Bank.
- e. The Beneficiary's Bank receives the alert and verifies dispute from the transaction traces and logs.
- f. The Beneficiary's Bank through the DSR responds with a 'complaint valid' or 'complaint invalid'.
- g. If response is not received from the Beneficiary's Bank within 72 hours, NIBSS would recover the contested fund automatically from the Beneficiary's Bank back to the Sender's Bank.
- h. If the response from the Beneficiary's Bank is 'complaint invalid', no further action will be taken. However, if there is a repeat lodgement by the Sender's Bank 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 Bank is 'complain valid', it would notify the DRS which, would based on this instruction, recover funds from the Beneficiary's Bank to the Sender's Bank for final disbursement to the Sender.

15. Requirements from Banks

For integration to NFP, 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 NFP Mirror Account and NFP Transaction Split Settlement (TSS) Account.
5. Banks are required to provide NIBSS Faster 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, where necessary.