



CENTRAL BANK OF NIGERIA

**REGULATORY FRAMEWORK
FOR
MOBILE MONEY SERVICES
IN NIGERIA**

July 2021

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1.0 Introduction

A robust payments system is vital for effective monetary policy implementation and the promotion of economic efficiency. The introduction of mobile telephony in Nigeria, its rapid growth and adoption and the identification of person to person payments as a practical strategy for financial inclusion, has made it imperative to adopt the mobile channel as a means of driving financial inclusion of the unbanked. These factors underscore the decision of the Central Bank of Nigeria to issue this regulatory framework to create an enabling environment for the orderly introduction and management of mobile money services in Nigeria. The Framework defines the regulatory environment as a policy path towards achieving availability, acceptance and usage of mobile payment services.

Mobile payment has evolved as a veritable channel for facilitating the growth of commerce. The use of the mobile phone for the initiation, authorization and confirmation of the transfer of value out of a current, savings or stored value account has been recognized as a development that is expanding the growth of commerce among both the financially included and non-included units in the economy.

This regulatory framework addresses business rules governing the operation of mobile money services, and specifies basic functionalities expected of any mobile money service and solution in Nigeria. It identifies the participants and defines their expected roles and responsibilities in providing mobile money services in the system. In addition, it sets the basis for the regulation of services offered at different levels and by the participants.

The overriding vision of achieving a nationally utilized and internationally recognized payments system necessitates strategies to bring informal payment transactions into the formal system.

This framework has identified two models for the implementation of mobile money services namely;

- a. Bank Led – Bank and/or its Consortium as Lead Initiator
- b. Non-bank Led- A corporate organisation duly licensed by the CBN as Lead Initiator

The CBN recognizes the importance of Mobile Network Operators (MNOs) in the operations of mobile money services and appreciates the criticality of the infrastructure they provide. However, the telco-led model (where the lead initiator is an MNO), shall not be operational in Nigeria.

Its exclusion will enable the CBN have full control of monetary policy operations, minimise risks and ensure that the offerings of financial services are driven by organizations that have been licensed by the CBN to do so.

2.0 Objectives

The objectives of the regulatory framework are as follows:

- a. Provision of an enabling environment for the adoption of mobile money services in reducing cash dominance in the Nigerian economy.
- b. Ensure a structured and orderly development of mobile money services in Nigeria, with clear definition of various participants and their expected roles and responsibilities.
- c. Specification of the minimum technical and business requirements for the various participants recognized for the mobile money services industry in Nigeria.
- d. Provision of the basis for broad guidelines for the implementation of processes and flow of mobile money transactions, from initiation to completion.
- e. Promoting safety and effectiveness of mobile money services and thereby enhance user confidence in the services.

3.0 Scope

To achieve the above stated objectives, two types of mobile money services are identified for operation in Nigeria:

- a. **The Bank-led Model:** This is a model where a bank either alone or a consortium of banks, whether or not partnering with other approved organizations, seeks to deliver banking services by leveraging on the mobile payments system. This model shall be applicable in a scenario where the bank operates on stand-alone basis or in collaboration with other bank(s) and any other approved organization. The Lead Initiator shall be a bank or a consortium of banks.
- b. **The Non-bank led Model:** This model allows a corporate organization that has been duly licensed by the CBN to deliver mobile money services to customers. The Lead Initiator shall be a corporate organization (other than a deposit money bank, a national primary mortgage bank, a national microfinance bank or a telecommunication company subsidiary) specifically licensed by the CBN to provide mobile money services in Nigeria.

4.0 Participants in the Mobile Money System

This framework shall **guide** the activities of Participants in the provision of mobile money services.

Participants are grouped into six (6) categories:

4.1 Regulators

4.2 Mobile Money Operators

4.3 Infrastructure providers

4.4 Other Service Providers

4.5 Consumers

4.6 Mobile Money Agents

4.1 Regulators

The Regulators for this purpose are the Central Bank of Nigeria (CBN) and the Nigerian Communications Commission (NCC).

4.2 Mobile Money Operators

These are organizations that are licensed by the Central Bank of Nigeria to provide the system for the mobile money services. The organizations approved to perform the role of Mobile Money Operations are Banks and Corporate Organizations.

All approved Mobile Money Operators are required to provide:

- a. The infrastructure (hardware, software, switching and security) for mobile money services;
- b. Business continuity and disaster recovery plans, to ensure services are always available at all times.
- c. 99.99% system availability and ensure all signed-on participating institutions follow same rule.

Mobile Money Operators are required to connect to the National Central Switch (NCS) for the purpose of ensuring interoperability of all schemes in the system. A scheme operator can either be a bank or a licensed corporate organization.

The Mobile Money Operators are the Lead initiators for the mobile scheme and shall be responsible for ensuring that the various solutions and services within an approved mobile payment scheme meets the entire regulatory requirements as defined in this framework and as may be specified from time to time.

The Lead initiator (as an entity and as representative of other partners) shall be legally responsible and accountable to the Central Bank of Nigeria and the end user. All advertisements and public pronouncements on their scheme shall emanate and be issued by the Lead Initiator only.

4.2.1 Banks

The roles of the bank as an MMO include:

- a. Provision of all financial services for the operation of the mobile money service.
- b. Verification, approval and accountability for the credibility and integrity of their partner organizations and recommending same to the CBN for approval.

4.2.2 Non-Bank Mobile Money Operators

The roles of Non-bank Mobile Money Operators include:

- a. The provision and management of the technology required to deliver mobile payment services to the subscriber.
- b. The provision of the agent network required to extend all the proposed services to the marketplace.

4.3 Infrastructure Providers

These are organizations providing infrastructure that enable switching, processing and settlement facilities for mobile money services. Settlement here refers to Inter-Scheme Settlement.

4.3.1 Telecommunications: Telecommunication companies play the important role of providing the infrastructure to drive the exchange of messages for mobile payments.

4.3.2 Inter -Scheme Settlement: The role of Inter-Scheme Settlement Provider shall be to provide net positions of transactions across schemes to the inter-bank settlement system to affect the finality of payment for services consummated across two different Schemes by various participants.

4.4 Other Service Providers:

The CBN recognizes that, with the evolution of the mobile money system, spin-off services would be identified by MMOs which can be outsourced to entities with specialized skills and resources to support such services in a more efficient and effective manner.

The service providers may employ the infrastructures of the MMOs to provide services to the end users.

4.5 Consumers

These are end users of mobile money services.

4.6 Mobile Money Agents

The activities of Mobile Money Agents shall be guided by the provisions of the Guidelines on Agent Banking and Agent Banking Relationship in Nigeria.

5.0 The Nigerian Mobile Money System

Mobile money system in Nigeria refers to the various components required to deliver mobile money services to the banking and non-banking community. The providers of these services and solutions shall be required to operate within the defined regulatory framework specified in this document and any other regulation/guideline issued by the CBN.

The CBN is responsible for defining and monitoring the mobile money systems in Nigeria.

6.0 Mobile Money Scenarios

The following scenarios are the methods through which mobile money can be carried out in Nigeria:

- a. Bank Account Based
- b. Card Account Based
- c. Stored Value (e-Wallet) Account Based

6.1 Bank Account Based

This is a scenario where the mobile money system drives transactions through the

bank accounts of customers. These accounts include current, savings, domiciliary, etc.

6.1.1 Types of Bank Account Based

The types of Bank Account Based scenario shall include, but not limited to Pull-based account transactions (debits through a mobile money solution) and push-based account transactions (credits through a mobile money solution). A pull-based transaction shall be authorized by the account holder via a verifiable mode before the transaction is consummated.

6.1.2 Card Account Based

This is a scenario where a payment card is linked to a mobile phone for the purpose of initiating and concluding payment transactions.

6.2 Types of Card – Driven Payments

The types of card – driven payments recognized by this framework are:

- a. Credit
- b. Debit, and
- c. Pre-Paid

6.3 Stored Value Account Based

This is a scenario where a mobile money system drives transaction through a system-based account that shall comply with the standards defined within this framework.

6.3.1 Types of Stored Value Account

The various options recognized by this framework include Re-loadable Stored Value Account, Pre-paid Account, etc.

7.0 Mobile Money Processes

The Mobile Money Operators shall provide a detailed payments management process that covers the entire solution delivery, from user registration and management, Agent recruitment and management, Consumer protection/dispute resolution procedures, Risk management process to transaction settlement. These processes shall cover the scope of the value chain across all the participants in the mobile money ecosystem.

8.0 Infrastructure

The core infrastructure for providing a National mobile payment system comprises of transaction processing, clearing and settlement platforms and agent network. The responsibility for the provision and management of these platforms is shared amongst the various stakeholders/service providers.

9.0 Settlement

The settlement finality for mobile money shall leverage the NIBSS Infrastructure and the CBN Real Time Gross Settlement (RTGS). The Infrastructure shall facilitate instant payment to the end users and settlement of the Scheme providers on a T+1 cycle for the mobile money system.

10.0 Scheme Dispute Resolution

NIBSS shall provide the dispute resolution platform for the mobile payment systems for the use of participants in resolving inter scheme transaction disputes. The dispute resolution process will be aligned with the global best practices for arbitration.

11.0 Risk Management

In view of the peculiarity of the operations of other licensed providers and the unique risks associated with their operations, the regulatory framework hereby specifies the following requirements to mitigate risks arising from their activities.

The MMOs must ensure that risk mitigation techniques are in place to minimize operational, liquidity, technical, fraud, financial and money laundering risks. The mobile payment system shall not be susceptible to sustained operational failures as a result of system outages. A risk compliance officer must be assigned by the MMOs, who are to provide internal risk management oversight. The CBN will review the risk management programme, including all the controls that are in place to manage the risks on a periodic basis.

12.0 Technology

The technology implemented for mobile money services shall comply with the standards and requirements on international best practice for mobile money services. The technology to be deployed is expected to be reliable, user friendly, safe and secure. All MMOs are to interconnect through NIBSS to ensure interoperability.

13.0 User Interface

13.1 The user interface shall at the minimum, be menu driven.

13.2 The user interface shall not provide access to confidential information.

13.3 PIN shall be encrypted at the point of entry.

14.0 Know Your Customer (KYC) and Customer Due Diligence (CDD) Requirements

All MMOs shall comply with the provisions of extant laws.

15.0 Anti-Money Laundering Regulation

In addition to the provisions of the requirements prescribed in the KYC Guidelines, the CBN AML document shall also apply to mobile money services.

The regulatory authorities reserve the right to change the criteria for suspicious transactions reporting in respect of mobile money as it deemed fit. Such amendments shall be communicated by appropriate channels to the mobile money operators and other stakeholders.

16.0 Consumer Protection and Dispute Resolution

To build confidence in the mobile money system, a dispute resolution mechanism shall be put in place.

17.0 Mobile Money Savings Wallets in Nigeria

Mobile Money Operators may offer savings wallet services to meet the demands of the unbanked in Nigeria, the modalities for the operation of savings wallets in Nigeria is as detailed in the Guidelines.

**Central Bank of Nigeria, Abuja
July 2021**

APPROVED



CENTRAL BANK OF NIGERIA

GUIDELINES

ON

MOBILE MONEY SERVICES

IN NIGERIA

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1.0 PREAMBLE

In exercise of the powers conferred on the Central Bank of Nigeria (CBN) by Section 47(2) of the CBN Act, 2007, to promote and facilitate the development of efficient and effective system for the settlement of transactions, including the development of electronic payment systems; and

Pursuant to its mandate of promoting a sound financial system in Nigeria, the CBN hereby issues the following Guidelines for Mobile Money Services in Nigeria.

2.0 INTRODUCTION

The introduction of mobile telephony in Nigeria, its rapid growth and adoption, and the identification of person to person payments as a practical strategy for financial inclusion, has made it imperative to adopt the mobile channel as a means of driving financial inclusion of the unbanked. These factors underscore the decision of the Central Bank of Nigeria to issue these guidelines, to create an enabling environment for the orderly introduction and management of mobile money services in Nigeria.

This guideline addresses business rules governing the operation of mobile money services, and specifies basic functionalities expected of any mobile payment service and solution in Nigeria. It identifies the participants and defines their expected roles and responsibilities in providing mobile money services in the system. In addition, it sets the basis for the regulation of services offered at different levels and by the participants.

These guidelines have identified two models for the implementation of mobile money services namely;

- a. Bank Led – Bank and/or its Consortium as Lead Initiator
- b. Non-bank Led- A corporate organisation duly licensed by the CBN as Lead Initiator

3.0 OBJECTIVES

The objectives of the guidelines are as follows:

- a. To ensure a structured and orderly development of mobile money services in Nigeria, with clear definition of various participants and their expected roles and responsibilities.

- b. Specification of the minimum technical and business requirements for the various participants recognized for the mobile money services industry in Nigeria.
- c. To promote safety and effectiveness of mobile money services and thereby enhance user confidence in the services.

4.0 SCOPE

To achieve the above stated objectives, this Guideline covers models, agent network, business rules, roles and responsibilities of participants under mobile money services in Nigeria.

5.0 MODELS

Two models of mobile money services are identified for operation in Nigeria:

- a. The Bank-led Model: This is a model where a bank either alone or a consortium of banks, whether or not partnering with other approved organizations, seeks to deliver banking services, leveraging on the mobile payments system. This model shall be applicable in a scenario where the bank operates on stand-alone basis or in collaboration with other bank(s) and any other approved organization. The Lead Initiator shall be a bank or a consortium of banks.
- b. The Non-bank led Model: This model allows a corporate organization that has been duly licensed by the CBN to deliver mobile money services to customers. The Lead Initiator shall be a corporate organization (other than a deposit money bank, a national primary mortgage bank, a national microfinance bank or a telecommunication company) specifically licensed by the CBN to provide mobile money services in Nigeria.

6.0 AGENCY NETWORK

The provisions of the Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria shall apply to Mobile Money Agent Network.

7.0 BUSINESS RULES

7.1 Licensing

All Mobile Money Operators (MMOs) shall:

- a. Be licensed by the CBN on such terms and conditions as the Bank may determine from time to time.
- b. Be issued a unique Scheme Code by the NIBSS for managing interoperability.
- c. Be issued unique short codes by the NCC.
- d. Ensure that all telecommunication equipment are type-approved by the NCC.
- e. Register users of its scheme based on technology standards and the requirements of these Guidelines.
- f. Ensure that the registration processes within its mobile money scheme shall fulfil the entire KYC requirements specified in these Guidelines.
- g. The total outstanding (unspent) balance which represents Mobile Money Subscribers' unspent funds shall be insured up to the applicable coverage level by the NDIC.

7.2 Permissible and Non-Permissible Activities

7.2.1 Permissible Activities

Mobile Money Operators shall carry out the following activities:

- a. Wallet creation and management;
- b. E-money issuing;
- c. Agent recruitment and management;
- d. Pool account management;
- e. Non-bank acquiring as stipulated in the regulatory requirements for non-bank merchant acquiring in Nigeria;
- f. Card Acquiring; and
- g. And any other activities that may be permitted by the CBN.

7.2.2 Non-Permissible Activities

Mobile Money Operators shall not carry out the following activities:

- a. Grant any form of loans, advances and guarantees (directly or indirectly);
- b. Accept foreign currency deposits;
- c. Deal in the foreign exchange market except as prescribed in Section 4.1 (ii & iii) of the extant Guidelines for Licensing and Regulation of Payment Service Banks in Nigeria;
- d. Insurance underwriting;
- e. Accept any closed scheme electronic value (e.g. airtime) as a form of deposit or payment;
- f. Establish any subsidiary;
- g. Undertake any other transaction which is not prescribed by these Guidelines; and
- h. And any other activities that may be prohibited by the CBN.

7.3 Activation

- a. The Mobile Money System shall require a registered user to activate the service before the commencement of transactions with a security code (e.g. PIN/Password, etc.).
- b. The Mobile Money Operators shall ensure that the activation process is not compromised or altered within its infrastructure.

7.4 Transactions

- a. All transactions initiated and concluded within the mobile payment system shall have a unique transaction reference issued by the system.
- b. All transactions shall have the following elements: Transaction reference number, payer and payee phone numbers, transaction amount, transaction date and time stamps, and other relevant transaction details and unique identifiers.
- c. Where transaction involves merchants, the following details shall be provided in

addition to (b) above merchant category, merchant addresses and codes.

- d. Each transaction detail logged within the payment system shall contain a valid description as in 7.3. (b).
- e. No airtime deductions shall be made in respect of charges on any transaction.
- f. Notwithstanding the settlement banks submitted at time of application, MMOs shall be required to notify CBN of changes to its settlement bank arrangements.
- g. All obligations arising from mobile payment transactions shall be settled into settlement accounts held with Deposit Money Banks. MMOs shall maintain separate accounts for their other business activities.
- h. Mobile money transactions shall be bank-account based, card-account based, and stored value based.

7.5 Rules of Operation for Mobile Payment Transactions

7.5.1 Bank Account Based

Rules of Operations for bank account-based Transactions

- a. Transactions shall be originated via a bank's banking application into the mobile wallet.
- b. The bank account-based relationships shall comply with the existing account opening standards and practice in the Nigerian banking system.
- c. The transaction activities generated shall be traceable, monitored and logged within the mobile money system.
- d. Access to the account through the Mobile Money System shall be via a secured channel that meets the defined standards, as specified in these guidelines.
- e. Authorisation of transactions originating from or terminating on these accounts shall be based on the standards approved by the Central Bank of Nigeria.

7.5.2 Card Account Based

This is a scenario where a payment card is issued and linked to a mobile phone account subject to the appropriate KYC and the Guidelines on the Issuance and Usage of Cards in Nigeria.

a. Types of Card – Driven Payments

The types of card – driven payments recognized by these guidelines are:

- i. Credit
- ii. Debit, and
- iii. Pre-Paid

b. Rules of Operations for Card Based Transactions

- i. The Card Account based transactions shall be based on an infrastructure that relies on the global 3DES secure architecture at the minimum.
- ii. The card shall be issued by a CBN approved Card issuing Organization.
- iii. The card system shall comply with the existing regulation and standard for cards.
- iv. All Card Account based transactions must be authenticated against the originating Card Management System.
- v. The transaction activities generated shall be traceable, monitored and logged.

7.5.3 Stored Value Account

a. Types of Stored Value Account

The various options recognized by these guidelines include Re-loadable Stored Value Account, Pre-paid Account, etc.

b. Rules of the Operations for Stored Value Account

- i. All system-based accounts shall have an identification system that generates unique identifier per user account within the Mobile Payments System.
- ii. These accounts shall only be accessible through the Mobile Money System.
- iii. The user may specifically request for other means of access to his/her system-based account other than as specified in 7.5.1(d) above. However, the liability of the user shall be clearly stated before granting such request.
- iv. Where a mobile money service provider accepts, transmits, processes or stores card transactions and/or data, it shall comply with the PCIDSS standards.

- v. The Mobile Money System account unit shall comply with all the standards and requirements defined in these guidelines.
- vi. All system-based account shall be tied to a settlement account with a licensed deposit- taking institution. The settlement account shall be funded to the tune of the total amount of the system-based accounts on the scheme.

7.6 Mobile Payments Processes

The MMOs shall put in place detailed processes that cover the entire solution delivery, from user registration and management, agent recruitment and management, Consumer protection, dispute resolution procedures, Risk management processes, to transaction settlement.

These processes shall cover the scope of the value chain across all the participants in the mobile money ecosystem.

8.0 ROLES AND RESPONSIBILITIES OF PARTICIPANTS

8.1 BANKS

The role/responsibilities of banks as Scheme Operators shall include:

- a. Provision of all financial services for the operation of the mobile money service.
- b. Verification, approval and accountability for the credibility and integrity of their partner organizations.
- c. Seeking and obtaining necessary approvals from relevant regulatory authorities.
- d. The deployment and delivery of the mobile money services to the customer.
- e. Ensuring that the mobile money service meets all specified mobile money standards as provided in these Guidelines.
- f. Putting in place adequate measures to mitigate all the risks that could arise, following the deployment and use of its mobile money service.
- g. Facilitating remittances to both scheme and non-scheme recipients.
- h. Providing financial, clearing and settlement services to the mobile money system.

- i. Educating the customers on the appropriate use of the service and ensuring the deployment of adequate channels for enquiries and complaints.

8.2 NON-BANK MOBILE MONEY OPERATORS

The roles/responsibilities of Non-bank Mobile Money Operators shall include:

- a. The provision and management of the solution required to deliver mobile money services to the subscriber.
- b. Ensuring that the proposed services meet all the regulatory standards and requirements specified in these Guidelines; the deployment and delivery of the mobile money solutions to the customer.
- c. Educating the customers on appropriate use of the solution and ensuring the deployment of adequate channels for enquiries and complaints.
- d. Ensuring that international inflow messages shall at a minimum be conveyed to the recipients by secure SMS.
- e. Ensuring that the mobile money system provides transaction monitoring and reporting in compliance with this Guideline.
- f. Providing access for on-the-spot assessment and verification of its transactions by the CBN on demand basis.
- g. Providing a monthly assessment report on the performance in prescribed format, and the submission of same to the Director, Payments System Management Department of the CBN.
- h. Keeping records of transactions emanating from the organization's mobile money system for a minimum of seven (7) years.
- i. Ensuring that the mobile money services comply with specified standards as stated in these Guidelines.
- j. Putting in place adequate measures to mitigate all the risks that could arise from the deployment and use of its mobile money services.
- k. Ensuring that they establish connection with the NCS for the purpose of interoperability.

8.3 INFRASTRUCTURE PROVIDERS

These are organizations providing infrastructure that enable switching, processing and settlement facilities for mobile money services. Settlement here refers to Inter- Scheme Settlement. Infrastructure providers are to comply with "Guidelines on Transactions Switching in Nigeria" and "Guidelines on Operations of Electronic Payment Channels in Nigeria".

8.4 Mobile Network Operators (MNOs):

Their role shall be guided by the following provisions:

- a. Providing telecommunication network infrastructure for the use of Mobile Money Operators;
- b. Ensuring that a secure communication channel based on the minimum technology standard stipulated in these Guidelines are implemented;
- c. That MNOs shall not give preferential treatment to any Financial institutions including, DMB, MMO or PSB over another in terms of required access, traffic and pricing;
- d. Ensuring that its customers are free to use any mobile money scheme service of their choice;
- e. Shall not receive deposits from the public, except in respect of the airtime billing of their customers;
- f. Shall not allow the use of the airtime value loaded by their customers for purposes of payments or to transfer monetary value;
- g. Shall ensure seamless interconnection between MMOs; and
- h. Shall not engage in any conduct which has a purpose or effect of anti-competition in any aspect of mobile money services.

8.5 CONSUMERS

They shall have rights/responsibilities as follows:

- a. Ease of enrolment
- b. Ease of use (SMS, USSD, STK, IVR, etc.)

- c. Privacy, Trust and Security of transaction
- d. Convenience
- e. Accessibility to funds on completion of transaction process
- f. Real time transfer of value
- g. Easy and prompt access to dispute resolution process
- h. Ensure the protection of PIN / Password
- i. Ensure prompt reporting of fraud cases, errors and complaints
- j. Ensure proper confirmation of transaction details and recipients' mobile phone numbers at all times before authorizing transactions.
- k. Comply with all security rules as provided by the scheme operator
- l. Escalate complaints to the Consumer Protection Departments of the Central Bank of Nigeria, if resolution of complaints is unduly delayed.

9.0 NOMINEE/SETTLEMENT ACCOUNT

- a. MMOs shall appoint and notify CBN of their settlement banks.
- b. All obligations arising from mobile money transactions shall be settled into settlement accounts held with Deposit Money Banks. MMOs shall maintain separate accounts for their other business activities.
- c. The settlement accounts with the deposit money banks shall be opened as Nominee Accounts on behalf of the customers of the Mobile Money Operators. The operations of the account shall be guided by the following conditions:
 - i. The account shall not be interest bearing;
 - ii. No right of set-off;
 - iii. Debit transactions into the account shall only be for settlement related transactions; and
 - iv. No bank charge of any form shall apply to the account.
- d. The settlement account shall not be used, under any guise or purpose, as

collateral for negotiation of loans by the organisation.

- e. The balance on the settlement account shall always be equal to the total outstanding (un-spent) balance of all holders of the e-money.
- f. Mobile Money Operators shall be required to reconcile on a daily basis, the balances in their pool accounts and make weekly returns to the Director, Payments System Management Department of the CBN.
- g. All customer transactions shall be traceable; auditable and can be validated.
- h. Remittance inflow messages shall, at a minimum, be conveyed to the recipient through SMS.

10.0 OPERATIONS OF SAVINGS WALLET

10.1 Modalities for Implementation

If an MMO intends to provide a savings wallet service, it shall notify the Bank and where the Bank has no objection, the MMO shall have the following responsibilities:

10.1.1 Pre-Operations

An MMO offering a Savings wallet service shall operate a Savings Wallet Principal Pool Account and a Savings Wallet Interest Pool Account in a settlement bank with the funds having NDIC protection under the pass-through insurance arrangement.

10.1.2 Investment Operations

- a. Funds on saving wallets shall be invested in only the Nigerian Treasury Bills (NTB);
- b. MMOs shall be treated as mandate customers of CBN for NTB subscription through the CBN NTB window;
- c. MMOs shall have a process to determine appropriate cash balance on its Savings Wallet Principal Pool Account that will meet its savings wallets customers' withdrawal requirements at every point in time; and
- d. At every point in time, MMOs shall ensure that the sum of the principal amount invested and the balance on the Savings wallet principal pool account with the

settlement bank equals the sum of outstanding balances of savings wallet holders.

10.1.3 Interest Distribution

- a. Fees and charges for the management of the investment shall not be more than 10% of interest income on savings wallet funds investment;
- b. Where an MMO operates a savings wallet, i.e., a wallet earning interest, it shall expressly inform subscribers of the following:
 - i. The minimum balance on the savings wallet that qualify to earn interest.
 - ii. The allowable number of withdrawals to be entitled to earn interest.
 - iii. The minimum savings period to earn interest.
 - iv. The applicable balance that would earn interest.
 - v. The procedure for determining interest amount distributable to subscribers which should stipulate the minimum percentage of interest income to be distributed to subscribers and the proportion to be retained by the MMO, if applicable.
 - vi. The applications of section 10.1.3 (b) (i) to (v) in distributing interest shall be automated.
- c. On no account whatsoever, shall a Mobile Money savings wallet account holder suffer diminution in the principal sum on his/her wallet as a result of fees or charges;
- d. Deposit Money Banks serving as settlement banks are prohibited from off-setting any other transactions of the MMO, including the transaction wallet pool accounts, against the savings wallet principal pool accounts and savings wallets interest pool account; and

MMOs shall comply with the minimum disclosure requirements on the financial statements as stipulated by the Bank;

11.0 SETTLEMENT

- a. The settlement process to be deployed by Mobile Money Operators shall ensure compliance with the settlement standards and requirements defined in these Guidelines.
- b. The MMO shall ensure that its mobile money infrastructure fully complies with the clearing and settlement rules for finality of settlement.
- c. The scheme operator shall, on a daily basis request for its settlement positions from its bankers for reconciliation of transactions.
- d. All inter scheme settlements shall be routed through the inter-bank settlement system.
- e. The scheme operator shall ensure that all settlement information details are preserved for reference for a minimum period of seven (7) years.
- f. The scheme operator shall maintain a minimum shareholder funds of N2,000,000,000.00 (Two Billion Naira Only) unimpaired by losses at all times or such other amount as may be prescribed by the CBN from time to time.

11.1 Operating Rules for Scheme Settlement Operator

Nigeria Inter-bank Settlement System Plc (NIBSS) shall:

- a. Provide net settlement positions of all Inter-Scheme service providers and effect final settlement using the CBN Real Time Gross Settlement (RTGS) on (T+1) cycle.
- b. Provide statistical reports to the regulatory bodies and participants as may be prescribed from time to time.
- c. Maintain audit trail and transaction log of all transactions consummated on the scheme.
- d. Provide the infrastructure (hardware, software, switching and security) to link all inter scheme providers.
- e. Provide business continuity/disaster recovery plans to ensure services are available at all times.

- f. Provide 99.99% for system reliability and availability to ensure that all signed-on participating institutions align with same rules.
- g. Facilitate MMO's connection to the National Central Switch (NCS) for the purpose of interoperability.
- h. Ensure that the mobile payments system is interoperable with the network infrastructure of different MNOs, solution providers, MMOs and the NCS.

11.2 Inter -Scheme Settlement

The role of NIBSS as Inter-Scheme Settlement Provider shall be to provide net positions of transactions across schemes to the inter-bank settlement system to affect the finality of payment for services consummated across two different Schemes by various participants.

11.3 Forms of Settlement

There are two transaction scenarios that come into play. These scenarios On-us and Not on-us transactions:

11.3.1 On-Us Transactions

- a. These are payment transactions in which all parties involved in the transaction cycle are of the same scheme, i.e., Issuer, Acquirer, Merchant and Consumer.
- b. Transactions are not routed through a switch except where an external processor is involved, e.g., Airtime Recharge Transactions and Bills payment.

These set of transactions do not require settlement.

11.3.2 Not-on-Us/Remote-on-Us Transactions

- a. These are payment transactions where an Acquirer Terminal is used by other Issuers.
- b. The role of the Inter-Scheme Settlement Providers shall be to provide a net position of all participants, the acquirer and the issuer, which consummate services across schemes to the inter-bank settlement system to affect the finality of payment.

11.4 Final Settlement

For finality of settlement between participating institutions, settlement providers shall provide settlement information of their participants to the final settlement system. Final Settlement shall be done through the CBN Real Time Gross Settlement (RTGS) by effecting the net positions provided by the Nigeria Central Switch and the inter-bank settlement system.

12.0 TRANSACTION SECURITY STANDARDS

12.1 Mobile Money solutions deployed shall adhere to the following minimum standards:

- i. The minimum encryption standard is 3DES encryption. Encryption shall be on an end-to-end basis;
- ii. ISO 8583;
- iii. EMV standards in the case of Card payment related transactions;
- iv. PCIDSS -Payment Card Industry Data Security Standard;
- v. All subsequent routing of messages to the Mobile Money Operators' servers must be with the highest level of security with dedicated connectivity like leased lines (E1 links) / VPNs;
- vi. That any sensitive information stored in third party systems is restricted with appropriate encryption and hardware security standards as contained in these Guidelines;
- vii. All transactions on an account shall be allowed only after authentication of the mobile number and the PIN associated with it;
- viii. That mobile payments application shall not allow the option of saving the PIN either on the handset or on the application;
- ix. All account(s) activated by the consumer on mobile application(s) shall be linked to mobile phone number(s);
- x. The PIN shall not travel in plain text during the transaction;

- xi. That proper system of verification of the phone number shall be implemented;
- xii. The payment authorisation message from the user's mobile phone shall, at the minimum, be 3DES encrypted and checked for tampering by the scheme operator. It shall not be possible for any interceptor to change the contents of the message;
- xiii. There shall exist, a security policy duly approved by the Board of Directors of the organisation providing the service;
- xiv. Segregation of duty of Security Officer / Group dealing exclusively with information systems security and Information Technology Division which implements the computer systems;
- xv. The Information Systems Auditor shall conduct periodic audit of the system to ensure adherence to the specified security standards;
- xvi. Logical access controls to data, systems, application software, utilities, telecommunication lines, libraries, system software, etc. exists; and
- xvii. At the minimum, there shall be in place, the use of proxy server type of firewall so that there is no direct connection between the Internet and the Mobile Money Operators' systems. For sensitive systems, an inspection firewall shall be implemented to thoroughly inspect all packets of information, compare past and present transactions and enable a real time security alert.

13.0 INFRASTRUCTURE

The core infrastructure for providing a national mobile payment system comprises of transaction processing, clearing and settlement platforms. The responsibility for the provision and management of these platforms shall be that of the Lead Initiator.

14.0 RISK MANAGEMENT

- 14.1** In view of the peculiarity of the operations of the MMOs and the unique risks associated with their operations, these Guidelines hereby specifies the following requirements to mitigate risks arising from their activities.

- a. The MMOs shall ensure that risk mitigation techniques are in place to minimize operational, liquidity, technical, fraud, financial and money laundering risks;
- b. The mobile payments system shall not be susceptible to sustained operational failures, as a result of system outages;
- c. A risk management officer shall be assigned by the MMOs, who is to provide internal risk management oversight;
- d. The CBN will review the risk management programme, including all the controls that are in place to manage the risks from time to time; and
- e. The MMOs shall ensure strict adherence to the risk management governance provisions specified in extant Code of Corporate Governance as may be applicable to MMOs.

14.2 Credit and Settlement Risk

The central role of the settlement infrastructure requires that MMOs shall:

- a. Ensure that the mobile payment settlement platform automatically generates transaction settlement information/records.
- b. Adopt standard messaging formats as provided by NIBSS, for all schemes for settlement purposes.
- c. Maintain audit trail and settlement log for a minimum of seven (7) years.
- d. Fulfill other conditions that may be reviewed by the regulatory authorities from time to time.

14.3 Business Continuity Risk

MMOs shall:

- a. Maintain proper backup infrastructure.
- b. Implement a disaster recovery and business continuity plan.

- c. Periodically test the effectiveness of the backup infrastructure and business continuity plan.

14.4 Business Continuity Plan (BCP)

MMOs shall:

- a. Have, well documented and tested business continuity plans approved by the board, that address all aspects of the mobile money business, to take care of business disruptions and ensure system availability and recoverability:
 - i. Both data and software should be backed up periodically.
 - ii. Recovery and business continuity measures, based on the criticality of the systems, shall be in place and a documented plan with the organization and assignment of responsibilities of the key decision-making personnel shall exist.
 - iii. An off-site back up is required for recovery from major failures / disasters to ensure business continuity. Depending on criticality, different technologies based on backup, hot sites, warm sites or cold sites should be available for business continuity.
 - iv. Develop and implement comprehensive risk management framework to identify, monitor and control risks. This should provide the strategy to resolve potential problems that may result from internal and external interdependencies.
- b. Comply with laid down minimum technology standards as specified in this document.
- c. Ensure proper/adequate back up of data as may be required by their operations.
- d. Ensure that the Mobile Money infrastructure BCP is tested through a fail-over process, at least twice a year.

14.5 The BCP shall be:

- a Based on a comprehensive Business Impact Analysis and Risk Assessment;
- b Documented in a written programme;
- c Reviewed and approved by the board and senior management, at least annually;
- d Disseminated to employees;
- e The responsibility of the MMO, where it is outsourced to a third-party;
- f Flexible to respond to unanticipated threat scenarios and changing internal conditions;
- g Focused on the impact of various threats that could potentially disrupt operations rather than on specific events;
- h Developed based on valid assumptions and an analysis of interdependencies;
- i Effective in minimizing service disruptions and financial loss through the implementation of mitigation strategies;
- j Ensure that processing priorities can be adequately implemented and that business operations can be resumed in a timely manner;
- k Monitor closely mobile traffic and system capacity to ensure that any service degradation due to capacity problems are addressed promptly;
- l To ensure that the BCP is reviewed by external auditors at least annually and a copy of the report forwarded to the CBN latest March 31st of the following year;
- m Ensure employees are trained and aware of their roles in the implementation of the BCP;
- n Ensure the fail over is tested, at least quarterly, and enterprise wide BCP on yearly basis;
- o Review the BCP testing programme and test results on a regular basis; and
- p Ensure the BCP is continually updated to reflect the current operating environment.

15.0 TECHNOLOGY

The technology implemented for mobile money services shall comply with the following standards and other requirements outlined in the provisions of these Guidelines.

Standards

a. Modularity of Technologies

- i. The MMOs shall ensure that the minimum technology standards for communication are met (Interoperability and Interconnectivity).
- ii. Only secure channels shall be used in providing mobile money services.
- iii. The mobile money services shall ensure non-repudiation.

b. Reliability

- i. Payment instruction shall be consistently executed. In the event of failure, reversal shall be immediate and automatic.
- ii. Consumers shall get immediate value for every successful transaction.

c. User Interface

- i. The user interface shall, at the minimum, adhere to the security requirements as stated in the guideline.
- ii. The user interface shall not provide access to confidential information.
- iii. PIN shall be encrypted at the point of entry.

16.0 KNOW YOUR CUSTOMER (KYC) AND CUSTOMER DUE DILIGENCE (CDD) REQUIREMENTS

- i. All MMOs shall comply with the provisions of extant laws.
- ii. The transaction and balance limit for Mobile Money Wallet shall be as follows:

KYC Level	Daily Cumulative transaction limit (Outflow) (₦)	Cumulative Balance Limit (₦)
1	50,000	300,000, in line with the three-tiered KYC
2	200,000	500,000, in line with the three-tiered KYC
3	5,000,000	Unlimited, as provided in the three - tiered KYC

iii. All MMOs shall comply with the provisions of extant laws on CBN AML/CFT Regulation. The Bank may determine the transaction limits from time to time.

17.0 CERTAINTY OF MOBILE TRANSACTIONS

For the purpose of establishing certainty of transactions through mobile money, MMOs shall ensure the following:

- a. Summary of transaction requested must be displayed to the user for confirmation. The transaction summary shall include, the phone numbers of the paying user and receiving user, transaction description, the transaction amount, date and time and a unique transaction identifier. By confirming the summary, the user commits to the transaction.
- b. Option for the user to save such transaction summary.
- c. Upon completion of the transaction, the user receives an electronic receipt which shall conform to the transaction summary earlier displayed and the option for saving the electronic receipt shall be available to the user.
- d. The electronic summary of transaction and the electronic receipt should be securely logged, and the log maintained online for a minimum period of three (3) months and subsequently archived for a minimum period of seven (7) years. However, if a complaint arises before the expiration of the seven (7) years, the log in respect of such pending complaints shall be maintained until the case is completely resolved or discharged.
- e. Regulatory authorities, Law Enforcement Agencies or Arbiters are granted access to the log, when required, for the purpose of certifying a printed copy for evidential purposes.

18.0 CONSUMER PROTECTION MEASURES

MMOs shall comply with the following minimum requirements:

- a. Ensure that customers understand the transactions they are entering, and adequate disclosures are made.
- b. Ensure that a channel of communication is in place 24/7 to entertain enquiries and complaints in a language understood by customers.
- c. Clearly display charges for services through its agents. Factor in the vulnerability of the lower end of the society in product and services design. There should be adequate consumer education activities to ensure that consumers are sensitized on the services.
- d. Ensure that appropriate consumer protection mechanisms are put in place against loss of service, fraud and privacy of customer information to enhance confidence in the mobile money services.
- e. Provide the leading role in dispute resolutions and take necessary steps to reach other agencies in the ecosystem that are relevant to resolving disputes.
- f. Resolve customer complaints within a reasonable time and not later than 48 hours from the date of reporting or lodging the complaint with the MMO.
- g. Be held responsible for the actions and inactions of their agents.

19.0 DISPUTE RESOLUTION MECHANISMS

Disputes arising between institutions within the mobile money scheme shall be settled as follows:

- a. The institutions shall settle disputes within 14 days.
- b. If resolution is not achieved, after (a) above, institutions may thereafter settle the dispute in accordance with the provisions of the Arbitration and Conciliation Act, Cap A18, Laws of the Federation of Nigeria, 2004.

20.0 CESSATION OF MOBILE PAYMENT SERVICE

- a. Any MMO wishing to exit from the mobile payments system shall notify the CBN in writing regarding the intention for the discontinuation, 120 days before ceasing its operations;

- b. The CBN shall have powers to order any MMO exiting from the mobile payments system to meet its outstanding obligations.

21.0 RESOLUTION OF FAILED MOBILE MONEY OPERATORS

- a. The NDIC shall provide deposit insurance to cover and guarantee the mobile money deposit wallet subscribers.
- b. In the event of the failure of the settlement bank, the NDIC shall give effect to the maximum coverage level prescribed in the NDIC Framework for the Establishment of Pass through Deposit Insurance for subscribers of Mobile Money Operators in Nigeria.
- c. The CBN in the event of failure of a Mobile Money Operator shall facilitate the assumption of the deposit liability of the failed Mobile Money Operator by another Mobile Money Operator or any other Financial Institution as it deems fit; and
- d. In the event of (c) above, the subscribers' funds in the pool account shall be transferred to the Mobile Money Operator appointed to assume the liability.

22.0 STATUTORY RETURNS

MMOs shall, at the end of every month and not later than the 14th day of the next month, submit to the CBN, data and other information on mobile money operations including:

- i. Nature, value and volume of transactions;
- ii. Incidents of fraud;
- iii. Nature and number of customer complaints and remedial measures taken; and
- iv. Any other information as may be prescribed by the CBN.

23.0 ANNUAL REPORTING

MMOs shall make available to the CBN their audited annual returns within the first three months after the year end or 31st of March.

24.0 REMEDIAL MEASURES

If an MMO or its agent fails to comply with these Guidelines, the CBN may take any corrective action against the MMO as may be prescribed from time to time.

25.0 SANCTIONS

In addition to the use of remedial measures in Section 21, the CBN may impose any or all of the following sanctions against an MMO, its board of directors, officers or agents:

- a. Withholding Corporate approvals;
- b. Financial penalties;
- c. Suspension from mobile money operation; and
- d. Revocation of the mobile money operation license.

26.0 REVIEW OF THE GUIDELINES

This Guideline shall be reviewed from time to time by the Central Bank of Nigeria.

27.0 GLOSSARY OF TERMS

- a. **CBN RTGS:** The Real Time Gross Settlement (RTGS) System deployed by the Central Bank of Nigeria which effects settlement of transfer among banks on real time and gross basis.
- b. **CBN:** A deposit taking institution duly licensed by the Central Bank of Nigeria.
- c. **Interoperability:** A situation in which payment instruments belonging to a given scheme may be used in systems installed by other schemes.
- d. **Inter-Scheme Operation:** Inter-Scheme operations are mobile payments consummated across two different schemes by various participants.
- e. **Intra-Scheme Operations:** Intra-Scheme operations are mobile payments that are consummated within a service provider's scheme.
- f. **Issuer:** An entity which receives payment in exchange for value distributed in the system and which is obligated to pay/redeem transactions or balances presented to it.
- g. **Mobile Money Operators:** Provide the infrastructure for the mobile payment systems for the use of participants that are signed-on to their scheme.
- h. **NCC:** Refers to the Nigeria Communications Commission with Regulatory powers over the telecommunication companies (Telcos)
- i. **Service Providers:** Employ the infrastructure of the scheme operator to provide services to end users.
- j. **Settlement Infrastructure Providers:** Organizations providing infrastructure that enables message exchange, switching and settlement facilities for mobile money services.
- k. **NIBSS:** Nigeria Inter-Bank Settlement System Plc (*NIBSS*) was incorporated in 1993 and is owned by all licensed banks including the Central Bank of Nigeria (CBN). It commenced operations in June 1994.
- l. **3DES:** Triple (3) Data Encryption Standard: is a symmetric-key block cipher, which applies the DES cipher algorithm three times to each data block

- m. **Nominee Account:** Account set up by a Nominee (MMO) for settlement of customer transactions held on behalf of the individual customers (the 'beneficial owner') under a custodial agreement.
- n. **Licensed Corporate Organizations:** Companies licensed by the Corporate Affairs Commission (CAC) under the Companies and Allied Matters Act 2004 (CAMA), to carry business in Nigeria.
- o. **Infrastructure Providers:** These are organizations providing infrastructure that enable switching, processing and settlement facilities for mobile money services. Settlement here refers to Inter-Scheme Settlement.
- p. **PCIDSS:** Payment Card Industry Data Security Standard - The Payment Card Industry Data Security Standard is an information security standard for organizations that handle branded credit cards from the major card schemes. The PCI Standard is mandated by the card brands but administered by the Payment Card Industry Security Standards Council.
- q. **SMS:** Short Message Service - SMS is a text messaging service component of most telephone, Internet, and mobile device systems. It uses standardized communication protocols that let mobile devices exchange short text messages. An intermediary service can facilitate a text-to-voice conversion to be sent to landlines
- r. **USSD:** Unstructured Supplementary Service Data - Unstructured Supplementary Service Data, sometimes referred to as "quick codes" or "feature codes", is a communications protocol used by GSM cellular telephones to communicate with the mobile network operator's computers
- s. **STK:** Systems Tool Kit - Systems Tool Kit, often referred to by its initials STK, is a physics-based software package from Analytical Graphics, Inc. that allows engineers and scientists to perform complex analyses of ground, sea, air, and space platforms, and share results in one integrated environment
- t. **IVR:** Interactive Voice Response - Interactive voice response is a technology that allows humans to interact with a computer-operated phone system through the use of voice and DTMF tones input via a keypad.
- u. **Savings Wallet Principal Pool Account:** which shall hold all funds on holder's savings wallet .

- v. **Saving Wallet Interest Pool Account:** which shall hold interest accruing from the investment of the funds of the savings wallet holders.

Central Bank of Nigeria, Abuja

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APPROVED