

Report of the Inter-Ministerial Group

Framework for Delivery of Basic Financial Services Using Mobile Phones



The choice is not whether to embrace change or resist it
The choice is whether to drive change with a plan or be overtaken
by it without one

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1. Executive Summary

An Inter Ministerial Group (IMG) was constituted by the Cabinet Secretariat to enable finalization of a framework for delivery of basic financial services using mobile phones. The constitution of IMG assumes significance considering the growing number of mobile subscribers among the rural population and the disadvantaged sections. With mobile subscribers in rural areas far outstripping bank account holders, a large section of rural population now has access to mobile telephony but not to financial services. With the rural mobile subscriber base expected to grow significantly over the next few years, a system that enabled provision of basic financial services through the use of mobile phones could be a major step in the direction of reaching out to the unbanked sections of the country.

The IMG reached an agreement on the following key issues relating to delivery of basic financial services using mobile phones -

- i. The basic goals for delivery of basic financial services using mobile phones
- ii. The necessary conditions to be satisfied while achieving the set goals
- iii. The key players of the financial delivery mechanism, particularly for unbanked citizens.

Thereafter, the IMG identified the following three elements which would be a key part of the implementation infrastructure and processes and would be shared amongst various service providers as part of an optimal delivery framework -

- i. "Know Your Customer (KYC)" norms, processes and actual data pertaining to enrolment of new customers for services under the proposed framework. The IMG also decided to consult the MHA while arriving at the shareable KYC requirements
- ii. A ubiquitous infrastructure component (including human resources involved) for "cash-in" and "cash-out" operations at the village / local level.
- iii. An additional infrastructure component for facilitating management of large number of small-value accounts and micro-transactions involved in the delivery of basic financial services.

The IMG has prepared a framework for the delivery of basic financial services using mobile phones specifically focusing on the broad shareable elements identified

by IMG. The framework envisages creation of “Mobile linked No-Frills Accounts” by the Banks, which will have various transaction limits. The basic financial transactions on these accounts (cash deposit, credit customer’s mobile linked no-frills account, cash withdrawal, peer to peer transfer & balance inquiry) can be executed through a mobile based PIN system using “Mobile Banking POS” or through bio-metric based “micro ATMs” of the BCs (or the sub-agents of BCs). The IMG has identified the different stakeholders in the framework and has defined the roles of each of these stakeholders. The framework envisages sharing of the following elements:

- i. A simplified common template for the KYC requirements for the Mobile linked No-Frills Accounts which is acceptable to all service providers.
- ii. Cash-in / cash-out operations at the front end involving deposits and withdrawals into Mobile linked No-Frills Accounts. BCs (or the sub-agents of BCs) undertaking these operations will perform them on behalf of all Banks.
- iii. An Account Mapper that provides linkages between UID No, mobile number and the mobile linked no-frills account details.
- iv. An interoperable central payments switch that will facilitate real time transaction routing across BCs, Banks (or associated FIs and outsourcing partners of Banks), UIDAI, Account Mapper and mobile service providers
- v. Interoperable repositories at the national level for hosting and managing mobile linked no-frills accounts that may be created and managed by independent third party service providers / organisations on behalf of the participating Banks. Present RBI guidelines on outsourcing of financial services by banks permit banks to outsource data processing and back office related activities. The sharing of IT infrastructure for account maintenance for scaling up operations as envisaged above would be in line with such permissible outsourcing arrangements and should also facilitate inter-bank settlement. However, this would be subject to the banks adhering to extant outsourcing guidelines and the RBI guidelines on customer data confidentiality.

The framework contains the details of an indicative process of how the five basic transactions (Account opening, Cash Deposit, Cash Withdrawal, Peer to Peer Transfer & Balance Inquiry) will get executed through the shared infrastructure

proposed above using Mobile Banking POS / micro ATM equipment. An indicative process for facilitating payments under Government schemes to these mobile linked no-frills accounts has also been outlined. Lastly, the indicative process that can be followed by service providers in the interim period until the shared infrastructure is made available is also proposed.

In addition to the above, the IMG makes the following recommendations:

- i. RBI may constitute a Committee with key stakeholders to create a simplified common template for the KYC requirements for the Mobile linked No-Frills Accounts, based on the norms and associated verification procedures evolved by UIDAI, which will be shareable across service providers. Till such guidelines are finalized, the KYC requirements of "No Frills" accounts should remain applicable on the mobile linked no-frills accounts.
- ii. A committee comprising members from RBI, TRAI and DoT may be constituted to lay the standards for the m-PIN based Mobile Banking POS.
- iii. MSPs must provide prioritized services with respect to these transactions. The charges levied in this regard should be regulated by TRAI and through competitive market forces to ensure that they sufficiently cover costs incurred for secure communication without resulting in inordinate profits. A committee constituted by TRAI may also draw up guidelines to ensure high availability of associated communication services. TRAI should resolve all issues arising out of the provisioning and pricing of such services by the MSPs.
- iv. RBI could revise the following guidelines with respect to BCs (and the sub-agents of BCs) of mobile linked no-frills accounts
 - a. The stipulation that the BC or his sub-agent should be within 30 Km distance of a branch of the sponsoring Bank may be relaxed in cases where there is no branch of any Bank within a 30 km distance. The IMG notes that extant RBI guidelines on BC model provide for such relaxations only after consideration by the DCC/SLBC on merits "in respect of under-banked areas or where the population is scattered over large area and where the need to provide banking services is imperative but having a branch may not be viable, keeping in view the ability of the base branch of the bank making the request to exercise sufficient oversight on the BC." Given the fact that provision of

banking services to every citizen is now a national priority, IMG recommends that RBI consider general relaxation of the 30 km stipulation for all such cases where there is no branch of any bank within a 30 km distance.

- b. Organizations allowed to act as BCs may be allowed to act as BCs of one or more Banks in different locations. However, the individual sub-agents interfacing with the customer would be associated only with one bank, which has appointed the BC (who in turn has appointed the subagent) with regard to opening of mobile linked no-frills account. This bank will be known as the sponsoring/holding bank of the BC/ sub-agent.
- c. The sub-agents of BCs would be able to carry out basic banking transactions (except opening of the Bank account) for all banks and not be limited to the bank which has appointed the BC who in turn has appointed the sub-agent
- v. The IMG recommends that “for profit” corporate entities should be allowed to become BCs of the banks. However, it recognizes that the current RBI guidelines do not allow such a facility nor is RBI in favour of permitting the same. It nevertheless recommends that RBI may consider allowing “for profit” corporate entities to become BCs of the banks since in the model being proposed by the IMG, the BC does not have custody of the customer’s funds in his account even momentarily. Hence no dilution of the role of the banks was possible in this model even if “for-profit” corporate entities were to become BCs.
- vi. The report provides indicative figures with respect to the compensation for each player involved in implementation of the model, keeping in view the costs likely to be incurred by the player in completion of activities / transactions under this model. This could serve as the basis for initial assessment and apportionment of transaction fees to be levied to get the system started.
- vii. RBI may constitute a committee with necessary representation from DIT, UIDAI, MoRD and DoT, among others, to ensure transparency and fair play in the operations under this framework as well as to ensure that these operations remain viable for all stakeholders and do not get skewed in favour of a single stakeholder or a group of stakeholders. This committee would also review the transaction fees payable to different stakeholders under this model from time to time based on experiential information.

2. Definitions

- i) ATM – Automatic Teller Machine
- ii) BC – Business Correspondent
- iii) CBS – Core Banking Solution
- iv) DIT – Department of Information Technology
- v) DoP – Department of Posts
- vi) DOT – Department of Telecommunications
- vii) FI – Financial Institutions
- viii) IBA – Indian Bank Association
- ix) IDRBT – Institute for Development and Research in Banking Technology
- x) IMG – Inter Ministerial Group
- xi) IML – India Money Line
- xii) INFAST – Interoperable Infrastructure for Accounting Small Transactions
- xiii) IVR – Interactive Voice Response
- xiv) KYC – Know Your Customer
- xv) KYR – Know Your Resident
- xvi) MFI – Micro Finance Institution
- xvii) MoRD – Ministry of Rural Development
- xviii) MoU – Memorandum of Understanding
- xix) MSP – Mobile Service Provider
- xx) NPCI – National Payments Corporation of India
- xxi) NREGA – National Rural Employment Guarantee Act
- xxii) NREGS – National Rural Employment Guarantee Scheme
- xxiii) NSDL – National Securities Depository Ltd.
- xxiv) POS – Point of Sale
- xxv) RBI – Reserve Bank of India
- xxvi) REMIT – Real Time Micro Transactions
- xxvii) TRAI – Telecom Regulatory Authority of India
- xxviii) UID – Unique ID
- xxix) UIDAI – Unique Identification Authority of India
- xxx) USSD – Unstructured Supplementary Service Data

3. Introduction

Access to basic financial services continues to be an unrealized dream for millions of our citizens; even more so for the citizens in rural and remote areas. The National Sample Survey data reveals that 51.4% of nearly 89.3 million farmer households do not have access to any credit either from institutional or non institutional sources. Only 27% of farm households are indebted to formal sources. Only 13 per cent are availing loans from the banks in the income bracket of less than Rs. 50,000. A large percentage of rural population does not have a deposit account which means that they do not have access to even basic financial services. The Government of India, including RBI, has started a number of initiatives aimed at providing basic financial services for everyone. Despite these initiatives, the impact on the ground seems to be limited and non-uniform. RBI's directive to open 'No Frills Accounts' and use of Business Correspondents (BCs) to reach unbanked citizens has not improved the situation significantly as the number of active accounts continues to be small and Banks find it difficult to operate large number of tiny accounts and micro transactions profitably. In terms of citizens served, the outreach of a bank branch is limited. Currently, a bank branch in India serves about 16000 people – a number very high when compared to the developed countries.

The advent of the Mobile Technology, on the other hand, has made the single most important impact on the citizens, both rural and urban, in the last decade. Today, 500 million plus people have access to phone connectivity. India continues to be one of the fastest growing telecom markets in the world with 10-15 million new phone subscribers being added every month. Even though mobile technology was a late starter in rural areas, it has seen a faster growth in recent times. The low tariff and low cost of handset coupled with a clear value proposition for its users has been the drivers of the mobile growth

In this backdrop, mobile banking is being seen as an integral part of banking services. Realizing that there is a huge opportunity to provide basic financial services to the unbanked citizens of the country by riding on the mobile infrastructure, an Inter Ministerial Group (IMG) was constituted on 19th November, 2009 by the Cabinet Secretariat to work out the relevant norms and modalities and to enable finalization of a framework to allow financial transactions through mobile devices. The IMG was constituted with representatives from Department of Financial Services, Department of Posts,

Ministry of Rural Development, Planning Commission, UID Authority of India, TRAI, RBI, Department of Telecom and the Home Ministry and headed by the Secretary, Department of Information Technology with a clear mandate to submit its report and recommendations within two months of its constitution.

An indicative list of the issues that the IMG is likely to address as part of its deliberations is as follows:

- i) The type/types of transactions that could be allowed
- ii) The quantum of financial limits which may be imposed
- iii) Eligibility of the agencies involved
- iv) The role, responsibility and accountability of telecom service providers
- v) Regulatory issues to ensure accountability, auditability and traceability of money transfers
- vi) Need for inter-operability between various service providers and standards involving the agencies processes, transactions and formats involved
- vii) Interface with banking regulator
- viii) Safety of deposits
- ix) Security standards governing transactions
- x) Issues with respect to KYC-Know Your Customer provisions
- xi) Customer Protection, complaints & redressal mechanism
- xii) Linkages with the proposed Unique ID for residents
- xiii) Geographical coverage of services with respect to inclusion of border/sensitive areas
- xiv) Leveraging the
 - a. existing infrastructure established and operationalised by the telecom service providers across the country
 - b. electronic service delivery outlets in the form of Common Service Centres/Bharat Nirman kiosks being established across the country
 - c. existing infrastructure created by the States/any other agency
- xv) Any other issue with respect to conceptualization and operationalisation of the mobile-based basic financial services model

First meeting of IMG

The 1st meeting of the IMG was held on 3rd December, 2009, where an agreement was reached among all group members on the following key issues relating to delivery of basic financial services using mobile phones:

- i. The basic goals for delivery of basic financial services using mobile phones are:
 - a. Ability to deposit money in an account (cash-in)
 - b. Ability to transfer money
 - c. Ability to withdraw money (cash-out)
 - d. Ability to make transactions across service providers
 - e. Nationwide Coverage
- ii. The necessary conditions to be satisfied for achieving the set goals will include:
 - a. Adequate KYC Requirements
 - b. Adequate Authentication mechanism
 - c. Adequate Security Standards to cover
 - i. Safety of deposits
 - ii. End to End Security (i.e. Confidentiality, Authentication, Integrity and Non-Repudiation) of the entire electronic transaction chain
 - d. Customer Protection & Grievance Redressal
 - e. Adequate traceability subsuming Anti Money Laundering (AML) requirements in terms of
 - i. Originator of the Transaction
 - ii. Processor of the Transaction
 - iii. Receiver of the Transaction
- iii. The key players of the financial delivery mechanism, particularly for unbanked citizens will include
 - a. Banks and similar entities
 - b. Mobile Service Providers (MSPs)
 - c. Post Offices
 - d. Intermediaries such as BCs etc. who act as Cash-In & Cash-Out points and assist in the enrollment of new customers
 - e. Unique Identification Authority of India (UIDAI) (when operational)

The IMG, also, agreed to embark on a wider consultative exercise by inviting comments and suggestions from all stakeholders with respect to a model for financial service delivery that used mobile phones.

Second meeting of IMG

Subsequently, in the 2nd meeting of the IMG, held on 24th December, 2009, the group deliberated on the various suggestions and presentations made by the UID Authority of India, Department of Posts, Controller of Certifying Authorities and National Informatics Centre with respect to a suitable model for financial service delivery using mobile phones. Based on the discussions, the IMG has identified three elements which would be a key part of the implementation infrastructure and processes and would be shared amongst various service providers as part of an optimal delivery framework. These three elements that would be shared across implementations are:

- i. “Know Your Customer (KYC)” norms, processes and actual data pertaining to enrolment of new customers for services under the proposed framework. The IMG also decided to consult the MHA while arriving at the shareable KYC requirements.
- ii. A ubiquitous infrastructure component (including human resources involved) for “cash-in” and “cash-out” operations at the village / local level.
- iii. An additional infrastructure component for facilitating management of large number of small-value accounts and micro-transactions involved in the delivery of basic financial services.

The group also agreed on the following as additional features for any proposed model:

- i. the need for the model to have deep and wide outreach extending to every village or as close to that goal as possible,
- ii. the need for optimizing transaction costs vis-à-vis the total cost of delivering services,
- iii. the need to explicitly recognize costs currently incurred by the citizen in availing the services, for example traveling to another village, loss of wages, etc.

- iv. the need for interoperability amongst various categories of service providers and alternative delivery mechanisms
- v. mapping out in a transparent manner the actual costs incurred by each service provider in the transaction chain
- vi. reasonable, equitable and adequate incentives to all the players in the ecosystem taking into account the actual costs incurred by them in running the systems/services.
- vii. providing choices to the citizen
- viii. creating awareness among the citizens
- ix. promotion of financial literacy for making use of the new system

In order to take the process forward, the IMG also decided to form a sub-group, with representatives from UIDAI, DIT, and NPCI among others, to prepare a framework for the delivery of basic financial services using mobile phones.

Third meeting of IMG

In the 3rd and the final meeting of the IMG, held on 6th March, 2010, the group deliberated on the various recommendations made by the sub-group on the framework for delivery of basic financial service using mobile phones. Based on the discussions and suggestions amongst the members, the IMG agreed on the following:

- The transaction limits and exception reports as proposed under the model are only indicative and a final decision on them would have to be taken by RBI
- In order to ensure transparency as well as security of transactions, instantaneous debit/credit of BC's account should be made a necessary condition for technology-based financial transactions
- The common infrastructure components - Account Mapper and the Switch - need to be tightly coupled and the combined entity can even be established through outsourcing to provide required services. The concerned operations should be regulated by RBI in consultation with TRAI, DOT and DIT.
- RBI may review the guidelines to allow "for profit" corporate entities to become BCs of the banks since in the model being proposed by the IMG, the BC does not have custody of the funds in his account even

momentarily. Hence no dilution of the role of the Banks was possible in this model even if “for-profit” entities were to become BCs

- BCs / sub-agents of BCs should be allowed only within 30 km distance of a Bank Branch; however this condition would be relaxed in cases where there is no branch of any bank within a 30 km distance.
- The existing RBI guidelines regarding authenticity of the BCs are sufficient to ensure that the BC with whom a customer is performing a financial transaction is a genuine BC
- BCs can be allowed to be associated with multiple banks while the sub-agent of the BC will be associated with only one bank with regard to opening of bank accounts.
- IMG report should suggest indicative figures with respect to the compensation for each player involved at various levels / steps, keeping in view the costs likely to be incurred in implementation by the player for that activity. This could serve as the basis for initial assessment and apportionment of transaction fees to be levied to get the system started. Thereafter, these norms could be reviewed based on experiential information. A suitable mechanism could be put in place for this purpose.

The final report has been prepared based on the decisions taken by IMG during all its meetings as described above.

4. Stakeholders

The various stakeholders who are expected to play an important role in the model for delivery of basic financial services using mobile phones are as follows:

4.1 Reserve Bank of India (RBI) – The Reserve Bank of India is the central bank of India that formulates, implements and monitors policies and acts as the regulator and supervisor of the financial system. Further, RBI manages foreign exchange, issues currency, acts as a Banker to the Government of India and other Banks in India and performs a wide range of promotional functions to support national objectives. The RBI has been pursuing the goal of Financial Inclusion as a necessary condition for sustaining equitable growth and has introduced a number of measures such as “No frills” accounts, simplified KYC norms for “No Frills” accounts, 100% Financial Inclusion Drive, the Business Correspondent Model and so on. RBI is the designated Authority for the regulation and supervision of Payment System in India and for defining the Business Correspondent model.

4.2 Unique Identification Authority of India (UIDAI) - The Unique Identification Authority of India (UIDAI) has been created as an attached office of the Planning Commission. It has been mandated to develop and implement the necessary institutional, technical and legal infrastructure to issue unique identity numbers (UIDs) to Indian residents. UIDAI will partner with Government and other agencies in order to enroll residents. UIDAI will lay down the standards for all Departments, partners and registrars of UIDAI, which would include, but not limited to, biometric standards, demographic fields and their structures, etc. It is expected that this information will be accepted and used by entities such as Banks, Mobile Service Providers etc as part of their requirements to fulfill their Know Your Customer (KYC) Requirements. In addition, UIDAI will also provide real-time authentication of UIDs using biometrics, PIN and dynamic PIN to various stakeholders like banks, mobile service providers etc.

4.3 National Payments Corporation of India (NPCI) – National Payments Corporation of India (NPCI) is a Section 25 Company under Companies Act aimed at creating and operating for the benefit of all the member banks and their customers a high-volume low cost infrastructure for providing payment services at fraction of the present cost structure. NPCI proposes to build a 24x7 Real Time Remittance Processing System (IML) to give

customer convenience for instant payments and online transfers. This would replace the NEFT (National Electronic Fund Transfer) System in the near future; the NEFT is currently being operated by Reserve Bank of India on a batch mode. This system to be called “India Money Line (IML) System” would be made available on the Switch proposed to be set up by NPCI. The IML system would operate on a 24x7 basis facilitating real time funds transfer from the sending/remitting bank to the beneficiary bank. This service will be offered to all the Bank’s customers through various retail and alternate channels. NPCI is an important stakeholder since the IML switch being built by it can be leveraged for 24x7 Real Time processing of small value transactions through mobile devices, Mobile Banking POS & Micro ATMs.

4.4 Banks – Banks provide different types of financial services to the customers. These institutions are important stakeholders as they are currently responsible for opening and maintaining the existing “No Frills” accounts and would henceforth open and maintain Mobile linked No-Frills Accounts and provide mobile banking services on those accounts. Branchless banking, the model proposed in this paper envisages, open up the possibility of non-bank agencies providing banking functions Therefore the term Banks, where used in this document will refer to all banking institutions or agencies, including traditional banks, which may be authorized by RBI to take up banking services as also other institutions authorized by law to act as banks.

4.5 Mobile Service Providers (MSPs) – Mobile Services Providers (MSPs) are entities that provide services for mobile phone subscribers. Mobile phone penetration has been rapidly increasing in both urban and rural parts of the country. MSPs are important stakeholders as the infrastructure created by them provides a new channel for delivery of basic financial services to all customers. Also, the distribution and retail infrastructure operated by them for collecting and processing payments for mobile services can be leveraged for delivery of basic financial services.

4.6 Department of Post (DoP) – India Post provides postal and financial services to the residents of India. It has the largest distribution network with over 1,55,000 Post offices of which nearly 89% are located in rural areas. The distribution and retail infrastructure of the Department of Post can be leveraged for delivery of basic financial services. As Department of Post

already provides banking services to the customers, it can play a significant role in provision of basic financial services through mobile linked no-frills accounts.

4.7 Citizen – The citizen is the most important stakeholder in the entire system. The new system will help unbanked citizens of the country gain access to basic financial services through institutional channels. It will facilitate citizens in depositing, transferring and withdrawing money from and to the remote locations of the country at an optimal cost which is much lower than what is being currently spent by them for similar financial services. The term citizens where used in this document will refer to all the country’s residents, to the extent that the services concerned are sought to be made available to all Indian residents.

4.8 Government – The Government of India runs a number of welfare programs for the citizen such as National Rural Employment Guarantee Scheme (NREGS), Janani Suraksha Yojana etc. As part of these schemes, Government needs to transfer a large sum of money to the citizen with the help of intermediaries. However, this transfer of money is plagued by various problems like delays, leakages and the inability of the citizen to visit far flung places to collect his/her money. Therefore, Government becomes an important stakeholder of this system through which it can provide direct benefits to the citizen in real time without going through the intermediary channel.

4.9 Telecom Regulatory Authority of India (TRAI) – The Telecom Regulatory Authority of India (TRAI) has been created to provide a fair and transparent policy environment which promotes a level playing field and fair competition for the growth of telecommunication in the country. TRAI is responsible for issuing the necessary regulations, orders and directives to provide the required direction for the evolution of Indian telecom market from a Government owned monopoly to a multi operator multi service open competitive market. TRAI is a key stakeholder and will provide the necessary regulation for security and technical standards relating to the use of mobile communication as well as ensure that citizens are not overcharged for services such as SMS, USSD, voice calls etc. for providing the basic financial services on mobile devices.

5. Proposed Framework

5.1 Mobile linked No-Frills Account

A mobile linked no-frills account is much like a regular “No-Frills” bank account that can be operated using a mobile phone. The salient features of a mobile linked no-frills account are:

- 5.1.1 Customer will have to go through the shared KYC norms (based on the norms established by UIDAI for KYR) as prescribed by banks for opening a mobile linked no-frills account
- 5.1.2 Every mobile linked no-frills account will be held by a Bank. The customer will designate a primary mobile linked no-frills account to carry out the various transactions.
- 5.1.3 Banks may engage the services of a third party (for e.g.: existing institutions managing “no-frills” accounts for the banks) for management of mobile linked no-frills accounts, however Banks will remain the ultimate owners of the mobile linked no-frills accounts
- 5.1.4 Money will be stored in the mobile linked no-frills account and not in the user’s mobile
- 5.1.5 Mobile will only be a medium to access the money
- 5.1.6 Loss of cell-phone or SIM will not result in loss of money
- 5.1.7 Normal savings Bank interest will be payable on the Mobile linked No-Frills Account
- 5.1.8 All basic transactions (deposits, credits, withdrawals, balance enquiries, transfers) will be independent of the intermediate service providers
- 5.1.9 Transactions will be executed on a real time basis
- 5.1.10 The maximum value of each kind of transaction (deposit/withdrawal/transfer) will be Rs. 5,000 per day and Rs. 25,000 / month.
- 5.1.11 The minimum balance requirement for these mobile linked no-frills accounts will be zero
- 5.1.12 If the account balance in a mobile linked no-frills account exceeds Rs. 50,000, the account holder may be subjected to KYC for a normal bank

account (over and above the shared KYC used for opening the mobile linked no-frills account) by the Bank

5.1.13 If the sum of all deposit transactions in the Mobile linked No-Frills Account exceeds Rs. 1 Lakh in a year, the account holder may be subjected to full KYC by the Bank

5.1.14 Exception reports, for preventing money laundering, can be generated if:

- a. The total amount of all deposit transactions including incoming person to person money transfers is more than Rs 1,40,000 summed up for 6 consecutive months
- b. The total balance in the Mobile linked No-Frills Account (even after performing full KYC) exceeds Rs. 1 Lakh in a month
- c. Volume of transactions exceed threshold limits i.e. when the total amount of transaction of a type exceed predefined limits for a customer

5.1.15 Mandatory requirements like maintenance of paper passbooks, generation of printouts to confirm each transaction, etc will be relaxed in case of mobile linked no-frills accounts in order to reduce transaction costs. All these will be available on user request electronically with an option of printouts upon request.

5.1.16 Other characteristics of a mobile linked no-frills account will be similar to that of a regular “No-Frills” bank account

Note - The above mentioned requirements and monetary limits (5.1.10-5.1.16) are only indicative and suggestive. A final decision on these requirements and limits would be taken by RBI. RBI may, from time to time, issue necessary regulatory guidelines as appropriate

Under the model, BCs (and the sub-agents of the BCs) will also need to have parallel accounts within the same framework to be able to provide the financial services to the customers. However, these will not be mobile linked no-frills accounts and hence some of the norms defined above (for e.g.: daily/monthly transaction limits, exception reports etc.) for the mobile linked no-frills accounts of customers will not be applicable on the accounts of BCs (and the sub-agents of BCs). Providers of goods and services will also open regular accounts like BCs (or sub-agents of BCs) within the same framework (accessible by quoting a mobile number or some equivalent) into which payments can be received. The goods and service providers and government agencies can also initiate pull based transactions on the customers mobile.

5.2 Transactions permitted over a Mobile linked No-Frills Account

A customer can perform the following transactions over a mobile linked no-frills account:

5.2.1 Balance Enquiry

- a. Balance or Statement of last N transactions using a mobile phone or through a BC (or sub-agent of BC)

5.2.2 Deposit Cash

- b. Over the counter through a BC (or sub-agent of BC)

5.2.3 Credit Customer's Mobile linked No-Frills Account

- a. Transfer from a regular banking account to a mobile linked no-frills account
- b. Banks Credit citizen's mobile linked no-frills accounts for payments under various Government Schemes

5.2.4 Withdraw Cash

- c. Over the counter through a BC (or sub-agent of BC)

5.2.5 Transfer Money

- d. Person to Person transfer using either a mobile phone or through a BC (or sub-agent of BC)
 - a. Person to Person transfer for purchase of goods & services

While the above set of services is basic minimum set of services that should be provided through the mobile linked no-frills account, Banks are free to provide an expanded set of services should they choose to do so

5.3 Opening of Mobile linked "no-frills" Accounts

The opening of mobile linked no-frills accounts will be governed by the specifications and guidelines issued by the Banks. Banks can choose to engage the services of BCs, as is the current practice, to assist them in opening the mobile linked no-frills accounts and in providing the basic financial services to the customers. Banks can further engage BCs with a network of sub-agents (see Para 5.4 below) to scale up their operations in far flung regions of the country. RBI may constitute a Committee with key stakeholders to create a simplified common template for the KYC requirements for the Mobile linked

No-Frills Accounts, based on the norms and associated verification procedures evolved by UIDAI, which are acceptable to all service providers. It may be noted that RBI has already written to Department of Revenue, Ministry of Finance for changes in Rule 9 of the Prevention of Money Laundering Act (PMLA) to include UID as an officially valid document for KYC for small value accounts.

Pending operationalization of UID numbers in the country, a customer who has a mobile phone will be able to open a mobile linked no-frills account. For opening the mobile linked no-frills account, a customer can either visit the BC (or sub-agent of BC) or directly visit the bank branch. Once the mobile linked no-frills account is opened by the Bank, a mobile based pin (called m-pin) will be provided to the customer using which he/she can directly make financial transactions using his/her mobile.

Post the operationalization of UIDAI infrastructure and generation of UID numbers, a customer must present his UID number and biometrics for opening the mobile linked no-frills account. For enrollment of residents, UIDAI is expected to engage the services of Registrars for collecting the KYR and biometric attributes of Residents. The proposed arrangement envisages that such Registrars would sign a MoU with UIDAI to collect customer KYR and biometric data as per UIDAI specifications and guidelines. Banks may also be appointed by UIDAI as Registrars of UIDAI and may carry out the KYC and biometric formalities as per the agreed norms. Therefore a customer will have to obtain his UID number through a registrar of UIDAI before approaching the nearest BC (or sub-agents of BCs)/Bank branch for opening of his/her mobile linked no-frills account. In case the BC (or the sub-agent of BC) is also part of the registrar network of UIDAI, then the UID enrollment and mobile linked no-frills account opening processes can be performed by the customer with the same BC (or the sub-agent of BC).

5.4 Role of BC with a network of Sub-agents

Since every BC needs to be attached to a bank for performing banking operations, it may be difficult for each bank to identify individual BCs with requisite skills and subsequently manage a large number of BCs. The success of the proposed model relies heavily on the ability of the Banks to position sufficient number of BCs on the ground across the country to provide anytime, anywhere services. The inability to deploy sufficient cash outlets on

the ground through existing mechanisms of appointment of BCs may seriously impede the rollout of services. In this context, BC with a network of sub-agents may facilitate deployment of a large number of sub-agents interfacing with the customer on the ground. The BC with a network of sub-agents would be appointed by the Bank and would enable rapid scale up of the network of BCs for delivering basic financial services. The IMG recommends that “for profit” corporate entities should be allowed to become BCs of the banks. However, it recognizes that the current RBI guidelines do not allow such a facility nor is RBI in favour of permitting the same. It nevertheless recommends that RBI may consider allowing “for profit” corporate entities to become BCs of the banks since in the model being proposed by the IMG, the BC does not have custody of the customer’s funds in his account even momentarily. Hence no dilution of the role of the banks was possible in this model even if “for-profit” corporate entities were to become BCs.

The role, responsibilities and features of a BC with a network of sub-agents are:

- 5.4.1 Attached to one or more banks for opening Mobile linked No-Frills Accounts through his network of sub-agents. (However, the individual sub-agents of a BC authorized by the Banks to assist them in undertaking KYC formalities may need to be associated with a designated base bank branch. Also, all sub-agents of the BC will have association with a particular Bank for maintaining their covering deposits for cash-in / cash-out operations).
- 5.4.2 Assists the banks in undertaking due diligence of the sub-agents with respect to the fulfillment of the relevant stipulated criteria.
- 5.4.3 Provides the necessary orientation, training and supervision of the sub-agents to help them play their role under the proposed framework.
- 5.4.4 Facilitates Cash Management by sub-agents.
- 5.4.5 Responsible for the activities of individual sub-agents of their network. However, all the financial transactions (deposit, withdrawal, transfer) carried out by the sub-agents will be immediately reflected in the bank accounts of the sub-agents and the customer.
- 5.4.6 Promote usage of mobile linked no-frills accounts using mobiles /UIDs among the people through media campaigns

- 5.4.7 Wherever authorized, can assist the Registrar for performing the KYR and biometric formalities for UIDAI in addition to opening up a Mobile linked No-Frills Account

5.5 Role of Individual BCs (or sub-agents of BCs) for Mobile linked No-Frills Accounts

Individual BCs and the sub-agents deployed by a BC would play a very important role in terms of providing all necessary services to the customer. In this respect the BCs (or the sub-agents of BCs) for mobile linked no-frills accounts would have the following role and responsibilities:

- 5.5.1 Will act as a Cash-In/Cash-Out outlet for all banks
- 5.5.2 May support either or both M-Pin or biometric based cash operations.
- 5.5.3 May assist the designated bank branch of which he is the BC in undertaking KYC formalities for opening bank accounts. However, the Bank will continue to be responsible for the KYC.
- 5.5.4 The BCs (or the sub-agents of BCs) will be able to provide all basic banking services (refer para 5.2) to the customers relating to other banks. Account opening service will remain limited to the parent (owning) branch.
- 5.5.5 Interface with the customer, provide basic handholding and play a role in promoting financial literacy

In order to scale up the BC network so as to achieve the overall goal of delivering basic financial services, RBI could revise the following guidelines with respect to BCs (and sub-agents of BCs) of mobile linked no-frills accounts

- 5.5.6 The stipulation that the BC or his sub-agent should be within 30 Km distance of a branch of the sponsoring Bank may be relaxed in cases where there is no branch of any Bank within a 30 km distance.
- 5.5.7 Organizations allowed to act as BCs may be allowed to act as BCs of one or more Banks. However, the individual sub-agents interfacing with the customer would be associated only with one Bank, which has been involved in his appointment, with regard to opening of mobile linked no-frills account. This Bank will be known as the sub-agent's sponsoring/holding bank.

5.5.8 The sub-agents of BCs would be able to carry out basic banking transactions (except opening of the Bank account) for all banks and not be limited to the Bank which has appointed the sub-agent.

5.6 Infrastructure Components

5.6.1 UIDAI

UIDAI is setting up the infrastructure for enrolment and storage of the resident's demographic as well as Biometric information. UIDAI will also provide real-time online authentication of identities in a cost effective and ubiquitous manner through micro ATMs incorporating a finger-print reader. This infrastructure will be available to all the stakeholders / agencies for conducting authentication of a resident.

5.6.2 Banks

Banks are running their own Core Banking Solutions (CBS) to host all bank accounts of the customer. Banks may also create a repository for managing the mobile linked no-frills accounts as proposed in this model. Alternatively, banks may outsource the management of mobile linked no-frills accounts to a third party authorized by them.

5.6.3 REMIT (Real-time Micro Transactions) Switch

REMIT switch will be an interoperable central payments switch that will facilitate real time transaction routing between BCs, Banks (including other associated FIs and INFAST), UIDAI, Account Mapper and mobile service providers. REMIT will help in executing large volume of small value transactions across banks in real time and at low cost. For this purpose, REMIT will follow standard banking protocols in order to ensure security of transactions. It will use industry standard messaging standards such as ISO 8583 so that it is compatible with the infrastructure already in use.

The REMIT switch will have to be capable of talking to the UID authentication service so that it can verify the identity of the customer. Once the customer's identity is verified, REMIT then needs to contact the Account Mapper to obtain the bank account of the customer to proceed with the transaction. The other features of REMIT are:

- Maintains a log of all transactions
- Interfaces with UIDAI for authentication
- Interfaces with Account Mapper to derive the bank account details
- Provides automated Reports to Banks / MSPs & Regulatory / Intelligence Agencies
- Provides Interbank settlement data and facility with appropriate bank servers / INFAST / servers of other financial institutions where the mobile linked no-frills accounts are being managed

A similar switch (IML) is currently being built by NPCI which among other things will undertake switching in respect of mobile based transactions across Banks. The same switch may be enhanced / customized to enable the kind of transactions proposed under this model. The IML switch being created by NPCI is currently in the RFP stage and is likely to be operational by March, 2011

5.6.4 Account Mapper

The Account Mapper is essentially a table which has three attributes: UID Number, Bank Account Number (including the branch routing number) and the mobile phone number, (if there is one) of the account holder. Given a UID or mobile number, it can provide the linked mobile linked no-frills account number. The only limitation is that in such cases the mapping based on mobile numbers will only link to a single bank account. REMIT connects to the Account Mapper to obtain details pertaining to a specific customer after he/she has been authenticated. The Account Mapper will be operated by a trusted entity that will ensure the privacy of data. It may be operated by organizations such as NPCI, NSDL or by a third party under the supervision of RBI. In any case, the common infrastructure components - Account Mapper and the Switch - need to be coupled and the combined entity can even be established through outsourcing to provide required services. The concerned operations should be regulated by RBI in consultation with TRAI, DOT and DIT.

Till such time the Account Mapper is developed and becomes operational, alternative mechanisms of linking the customer's UID

number, mobile number and mobile linked no-frills account details may be explored by the stakeholders involved. The account mapper may thus be visualized as a service that exists as part of the delivery framework that maps the reference to a mobile number or a UID number to a mobile linked no-frills account in a particular server.

5.6.5 INFAST (Interoperable Infrastructure for Accounting Small Transactions)

INFAST can be created as an additional infrastructure for creating and managing mobile linked no-frills accounts. While micro transactions can be managed without creating a centralized repository for mobile linked no-frills accounts, IMG discussions highlighted the need for a shared limited version of CBS that can act as an accelerator, bring in huge efficiencies and economies of scale and provide enormous cost optimization to all the stakeholders. The creation of INFAST would significantly reduce the load on the switching infrastructure as it will have to route the transactions only to INFAST instead of switching to the Issuing and the Receiving Banks. The chances of failure of a transaction due to non responsiveness on the part of one of the parties will also be minimal. Services provided by INFAST will be particularly relevant for smaller cooperative banks operating at the regional level; such banks may not have sufficient resources to invest in a centralized CBS but are committed to delivering financial services to the disadvantaged sections. It will ensure that such Banks are also in a position to leverage technology, connect to the framework and deliver services. INFAST may be created and managed by organizations such as NPCI or NSDL or by an independent third party service provider on behalf of all the participating Banks under the supervision of RBI. Besides the micro ATM / Mobile Banking POS front-ends envisaged in this report, the INFAST services will also be accessible through other front-end technology solutions that may evolve in future for financial transactions.

While a single INFAST repository to be shared by all Banks would be ideal, the architecture advanced under this framework does allow multiple such repositories to evolve and interoperate.

Present RBI guidelines on outsourcing of financial services by banks permit banks to outsource data processing and back office related activities. The sharing of IT infrastructure for account maintenance for scaling up operations as envisaged above would be in line with such

permissible outsourcing arrangements and should also facilitate inter-bank settlement. However, this would be subject to the banks adhering to extant outsourcing guidelines and the RBI guidelines on customer data confidentiality

While all transactions under the proposed IMG framework should allow real-time payments to the beneficiary, the requirement for inter-bank transactions to go through the central payments (REMIT) switch will be reduced in case of inter-bank transactions originating and terminating within the same repository.

Services delivered by shared repositories will include the following:

- Create and maintain Mobile linked No-Frills Accounts
 - Name, Address, Mobile No, UID No, Bank A/c No, Messaging Language, Agent Code etc.
- Maintain a log of all transactions as per the established banking norms
- Provide privileged accounts for BCs (or sub-agents of BCs) and providers of Goods and Services for performing high value transactions
- Allow balance updating of BC (or sub-agent of BC) accounts directly by Banks
- Allow Banks to directly credit customer's mobile linked no-frills accounts (with respect to Government Schemes)
- Derive the bank account details based on the mobile number or UID No
- Provide automated Reports to Banks / MSPs & Regulatory / Intelligence Agencies
- Interface with the participating banks' core banking solutions and provide Interbank settlement facility
- Provide periodic individual account transaction feed to the banks
- Provide Online facility for monitoring the accounts by banks

5.6.6 Micro ATM

A Micro ATM is a small device that will be available with the BCs in order to facilitate Cash Deposits and Cash Withdrawals for the customer. This device will facilitate financial transactions using biometrics based authentication. A Micro ATM will have the following capabilities:

- Mobile Network Connectivity
- Fingerprint Scanner (required only for biometric based authentication)
- Printer (using permanent ink that does not fade)
- Speaker (optional)
- Display with Keypad (optional)
- Other optional capabilities like voice enabled IVR etc. provided by the manufacturer

The micro ATM will connect to the REMIT switch using mobile network for processing all forms of transactions. Work is currently underway, at UIDAI, with regard to framing standards for Micro ATMs that will be used for processing biometric based financial transactions. The Micro ATMs based on UID standards are also expected to provide additional capability of a PIN based authentication as an alternative to the biometric authentication of the customer. The standards for the Micro ATM device are expected to be released by the Indian Banks Association (IBA), Institute for Development and Research in Banking Technology (IDRBT) and the UIDAI.

5.6.7 Mobile Banking POS

Mobile Banking POS is a mobile phone at the hands of a BC that will enable him to facilitate the basic financial transactions, as proposed under this report, for the customer. This device will facilitate financial transactions purely using an m-PIN based authentication method. A Mobile Banking POS will have the following capabilities:

- Mobile Network Connectivity
- Printer (optional)
- Speaker (optional)
- Other optional capabilities like voice enabled IVR etc. provided by the manufacturer

The Mobile Banking POS will connect to the REMIT switch using mobile network for processing all forms of transactions. In order to arrive at suitable specifications of a Mobile Banking POS, it is recommended that a committee comprising members from RBI, TRAI and DoT be constituted to prescribe the standards for the m-PIN based Mobile Banking POS.

5.7 Transaction Processes

There are two ways that a customer can open and operate a mobile linked no-frills account which are as under -

- a) Mobile based using m-pin through Mobile Banking POS
- b) Biometric (fingerprint) based through Micro ATMs

The first model is based on the premise that the customer has a mobile phone and is comfortable using the device for mobile transactions. Under this model, for cash-in and cash-out operations, the customer will approach a BC (or a sub-agent of BC) who would be equipped with a mobile-ATM. The transaction will be undertaken using M-PIN-based authentication.

As an alternative, under the second model, where the customer does not have a mobile or is not comfortable enough in using a mobile for financial transactions, the customer can access services through a Micro ATM at the hands of a BC (or sub-agent of BC) using biometric/PIN based authentication.

It may be noted that the PIN based authentication at Micro ATMs is a completely different feature as compared to m-pin based authentication under Mobile Banking POS. While the PIN in the Micro ATM will be issued by UIDAI to provide an alternative mechanism of customer authentication in addition to the biometric based authentication, the m-pin proposed in the Mobile Banking POS model will be issued directly by the banks and will be unique for each mobile linked no-frills account.

In both cases mentioned above, there are five basic transactions that a customer can perform:

- a) Account Opening
- b) Cash Deposit
- c) Cash Withdrawal
- d) Money Transfer
- e) Balance Enquiry

It may also be noted that in case of the first model i.e. “Mobile based using m-pin through Mobile Banking POS”, the transactions pertaining to “Money Transfer” and “Balance Enquiry” can be performed directly by the customer through his/her mobile phone without requiring the assistance of a BC.

The indicative process of each of the above five transactions in both mobile based and fingerprint based methods is outlined in Annexure A & B respectively

5.8 Government Payments

The Government of India runs a number of schemes involving payments to the citizen such as the National Rural Employment Guarantee Scheme (NREGS), Janani Suraksha Yojana etc. In order to cut down the intermediaries, Government has decided to directly credit the benefits into the beneficiary accounts. However, the fact that a large section of the population does not have bank accounts makes this a difficult task for the government. Even where citizens have managed to open a Bank account, he/she incurs significant indirect costs such as transportation, loss of wages etc. to avail the benefit of the Government scheme. The inability of the citizen to withdraw money from his Bank account at his convenience and at low costs remains the biggest challenge of adoption of this mechanism of Government payments through bank accounts.

The ability to access the Mobile linked No-Frills Account through mobile devices and the ability to deposit and withdraw money anywhere, anytime by the citizen will enable the Government in solving the “last mile” problem in reaching the benefits to the poor. In order to get Government Payments directly to the Mobile linked No-Frills Account, the citizen first needs to register the Mobile linked No-Frills Account with the Government Agency

managing the Scheme. The Government Agency then credits the money into the citizen’s Mobile linked No-Frills Account and informs him of the transaction on his mobile device. The citizen can, thereafter, transfer or withdraw this money through his mobile device or through a BC (or a sub-agent of BC). In fact, from the Government’s perspective only UID number / mobile number needs to be known and the money can be transferred to the beneficiaries’ account using Account Mapper.

An indicative process of registration and transfer of funds to mobile phone linked mobile linked no-frills accounts is mentioned in detail in Annexure C.

5.9 Customer Service and Redressal

Since banks will be the ultimate owners of the mobile linked no-frills accounts, therefore, they will necessarily put in place appropriate mechanism for handling customer grievances. For this purpose, banks may choose to engage the services of their existing BCs (or sub-agents of BCs) or any other third party. Banks will further have to define service levels for addressing customer grievances in order to ensure that the grievances are addressed in a time bound manner.

5.10 Role of various players in service delivery

The role of various players/stakeholders involved in the delivery of basic financial services in the proposed model is as described in the table below:

Service	Players Involved	Services Provided
Opening a Mobile linked no-frills account	BC / Sub-agent	Collection of customer details (mobile number, UID, biometrics, KYC) and correspondence with the Bank. Address customer grievances.
	Bank	Open & Maintain Mobile linked No-Frills Accounts, Address customer grievances
	INFAST	Open & Maintain Mobile linked No-Frills Accounts, Address customer grievances
	Account Mapper	Storage of linking data with mobile number, UID and mobile linked no-frills account details

Service	Players Involved	Services Provided
	UIDAI	Allotment of UID Number; resident authentication services
	Mobile Service Provider	Communication and messaging services between BCs, Account Mapper, UIDAI, REMIT and Bank / INFAST
Cash Deposit	BC / Sub-agent	Cash handling;
	Bank	Actual transaction processing, A/c maintenance; Address customer grievances, call centre, BC supervision, provide for direct crediting of BC accounts through regular banking transactions to enable customer deposits to be accepted
	INFAST	Actual transaction processing, A/c maintenance; Settlement between participating banks; Address customer grievances
	Account Mapper	Storage of linking data with mobile number, UID and mobile linked no-frills account details
	UIDAI	resident authentication services
	REMIT / NPCI	Enable routing of transaction between BC, Account Mapper, UIDAI and Bank / INFAST
	Mobile Service Provider	Communication and messaging services between BCs, Account Mapper, UIDAI, REMIT and Bank / INFAST
Cash Withdrawal	BC / Sub-agent	Correspondence between customer and the bank; Cash handling
	Bank	Actual transaction processing, A/c maintenance; Address customer grievances, call centre, BC supervision
	INFAST	Actual transaction processing, A/c maintenance; Settlement between participating banks; Address customer grievances
	Account Mapper	Storage of linking data with mobile number, UID and mobile linked no-frills account details
	UIDAI	Resident authentication services
	REMIT / NPCI	Enable routing of transaction between BC, Account Mapper, UIDAI and Bank / INFAST

Service	Players Involved	Services Provided
	Mobile Service Provider	Communication and messaging services between BCs, Account Mapper, UIDAI, REMIT and Bank / INFAST
Money Transfer	BC / Sub-agent	Correspondence between customer and the bank; Address customer grievances
	Bank	Actual transaction processing, A/c maintenance; Address customer grievances, call centre
	INFAST	Actual transaction processing, A/c maintenance; Settlement between participating banks; Address customer grievances
	Account Mapper	Storage of linking data with mobile number, UID and mobile linked no-frills account details
	UIDAI	Resident authentication services
	REMIT / NPCI	Enable routing of transaction between BC, Account Mapper, UIDAI and Bank / INFAST
	Mobile Service Provider	Communication and messaging services between BCs, Account Mapper, UIDAI, REMIT and Bank / INFAST
Balance Enquiry	BC / Sub-agent	Correspondence between customer and the bank
	Bank/INFAST	Actual transaction processing, A/c maintenance; Address customer grievances
	Account Mapper	Storage of linking data with mobile number, UID and mobile linked no-frills account details
	UIDAI	Resident authentication services
	REMIT / NPCI	Enable routing of transaction between BC, Account Mapper, UIDAI and Bank / INFAST
	Mobile Service Provider	Communication and messaging services between BCs, Account Mapper, UIDAI, REMIT and Bank / INFAST

Note - Grievance Redressal is envisaged to be an activity of BC, INFAST and Banks. However, the actual mechanism for Grievance Redressal may be worked out and agreed upon amongst the Banks, INFAST and BC

While INFAST would provide the back-end accounts repository, the Bank or the BC would need to engage a Technology Provider who would build, develop and maintain the front-end applications for the Banks, train the BC, interface the

application with INFAST / Bank server, resolve interface issues and application-related problems.

Also, where the BC is an organization, it will need to deploy, manage and supervise the sub-agent network.

MSPs must provide prioritized services with respect to these transactions. The charges levied in this regard should be regulated by TRAI and through competitive market forces to ensure that they sufficiently cover costs incurred for secure communication without resulting in inordinate profits. A committee constituted by TRAI may also draw up guidelines to ensure high availability of associated communication services. TRAI should resolve all issues arising out of the provisioning and pricing of such services by the MSPs.

5.11 Ensuring security of transactions

As mobile phones are proposed to be utilized for making financial transactions, it is important to ensure the security of financial transactions over the mobile network. RBI has defined a set of “Technology and Security Standards” as part its guidelines on “Mobile Banking Transactions in India – Operative Guidelines for Banks”, issued in October 2008. These guidelines are sufficient and adequate for the current requirements.

Additionally, to ensure transparency as well as security of financial transactions, instantaneous debit/credit of BC’s account should be made a necessary condition for technology-based financial transactions. Further, in order to ensure that a BC with whom a customer is performing the financial transaction is a genuine BC, the existing RBI guidelines regarding authenticity of the BCs are sufficient.

5.12 Revenue sharing between various players

Revenues earned through this model are required to be shared between different players so as to make the system sustainable as well as profitable for all stakeholders. The following table describes a recommended structure for sharing of revenues between various players in the whole ecosystem:

Services / Players	A/C Opening	Deposit	Withdrawal	Transfer / Remittance	Balance Enquiry
BC with a network of Sub-agents	Compensation to at least cover marketing and management costs	Compensation to at least cover deployment and management of sub-agent network, cash management costs, which will include cost of maintaining 100% coverage for all transactions, adequate liquidity to avoid running out of cash at the sub-agent retail outlet as also the costs of secure movement of cash from remote retail outlets to the bank			None
Individual BCs/Sub-agents of BCs	Compensation to at least cover KYC, customer education costs	Compensation to at least cover cash management costs, which will include costs of maintaining 100% coverage for all transactions, adequate liquidity to avoid running out of cash at the BC retail outlet as also the costs of secure movement of cash from remote retail outlets to the Bank.			Compensation to cover transaction costs
Bank	Interest Income				
Technology Provider	Build, develop and maintain the front-end applications for the Banks, train the BC, interface the application with INFAST / Bank server, resolve interface issues and application-related problems				
MSP	Collects and retains service fee for Connectivity, Secure mobile based communication, Security etc. Charges should not differentiate between "Home" BC Network and others.				
INFAST	Opex from Banks derived on the basis of number of A/Cs managed / transactions executed				
REMIT / NPCI	Opex from Banks derived on the basis of number of transactions executed				
Account Mapper	Opex from Banks derived on the basis of number of transactions executed				
UIDAI	May charge Fee from Bank, MSPs etc. for sharing KYC	May charge fee from Banks for providing authentication services.			
	Service Fee to Banks, MSPs etc. in case KYC is done by them initially for UID				

As will be seen from the above matrix, the primary shareable sources of revenue in the entire model are from:

1. Interest income accruing to Banks from customer deposits. Additionally, the nature of the pre-paid model requires that customer transactions are completely secured by parallel deposits kept by BCs ensuring that far greater interest income would accrue to Banks than they would normally enjoy for similar transactions occurring on regular accounts.
2. Possible transaction charges (for the basic transactions indicated above) which can again be directly debited to the customer's account at the Bank's end.
3. Communication charges levied and collected by the MSPs. These charges will be regulated by TRAI and through competitive market forces to ensure that they sufficiently cover costs incurred for secure communication without resulting in inordinate profits.

Therefore the compensation for activities undertaken by the BC / Sub-agents, INFAST and the REMIT switch will need to be paid out of the revenues at 1 to 3 above. It may be noted that the operations of the Banks and MSPs from which the above revenues would be derived are already intrinsic to what they do with their existing infrastructure and do not involve creation of any systems or processes for reaching out and delivering services to the poor over the "last mile." It is the other players and activities which are key to financial service delivery to the "unbanked" and unless they are adequately compensated out of the incremental revenues accruing from the operations, the proposed model will not achieve the required results. It is for the same reason that it is recommended that BCs should include "for profit" corporate entities.

Indicative figures with respect to the compensation for each player involved in implementation of the model, keeping in view the costs likely to be incurred by the player in completion of activities / transactions under this model is provided at Annexure E . This could serve as the basis for initial assessment and apportionment of transaction fees to be levied to get the system started.

Further, it is recommended that RBI may constitute a committee with necessary representation from DIT, UIDAI, MoRD and DoT, among others, to ensure transparency and fair play in the operations under this framework as

well as to ensure that these operations remain viable for all stakeholders and do not get skewed in favour of a single stakeholder or a group of stakeholders. This committee would also review the transaction fees payable to different stakeholders under this model from time to time based on experiential information.

5.13 Interim Working Model until the shared infrastructure is created

An interim model needs to be put in place that provides citizen access to the basic financial services on their mobile devices until the shared infrastructure as described earlier in this model is created and becomes operational. This interim solution will also need to enable a smooth transition to the desired ubiquitous interoperable “end-state” solution under the proposed framework. While some changes will still be required in the current scheme of things to promote adoption, no dependencies will be created. The interim mechanism should be able to leverage the existing processes with only minor modifications that enable a smooth transition to the ubiquitous interoperable solution. In the Interim period, banks may be allowed to:

- i. Open Mobile linked No-Frills Accounts, which are accessible on Mobile devices, as per the current “No Frills” account opening process and within the current RBI guidelines on “No Frills” accounts or as per the norms and guidelines defined for mobile linked no-frills accounts in Para 5.3
- ii. Provide basic financial services through mobile devices on already opened “No Frills” accounts
- iii. Charge an appropriate fee to the customers for accessing these services on the mobile phones
- iv. Share a part of the service fee obtained from the customer with the other players who are providing the front end services, connectivity and secure mobile based communications to compensate him adequately for the costs incurred by them and the efforts put by them in opening and managing the accounts, providing connectivity and handling cash. Operationalisation of the model should create win-win situation for all the players concerned.
- v. Appoint a BC, which can be “for profit” corporate entities, for deployment of a network of sub-agents who would interface with the customer on the ground (see Para 5.4).

- vi. Form partnerships with other Banks, Outsourcing Partners and Financial Institutions, Post Offices and MSPs to provide such services in a closed system which can be migrated to an interoperable system as and when shared infrastructure such as REMIT, INFAST and Account Mapper are operationalized.
- vii. Host the mobile linked no-frills accounts with Bank Outsourcing Partners with Banks assuming all the risks associated with such outsourcing (as is the current practice). The partners will assist banks in servicing the customer and providing financial services on these Mobile linked No-Frills Accounts through mobile devices.
- viii. Tie up with MSPs (or other value added service providers) for leveraging their connectivity to route the customer transactions to their systems and for sending of messages to the customers on their mobiles.

5.13.1 Transaction Process

The following basic financial services should be provided on all “No Frills” accounts in the interim period as well:

- a) Account Opening
- b) Cash Deposit
- c) Cash Withdrawal
- d) Money Transfer
- e) Balance Enquiry

An indicative process of each of the above five services in the interim period is outlined in detail in Annexure D

5.14 Transition from Interim State to the End State

The interim period is only an intermediate step to reach the desired ubiquitous interoperable “end-state” solution under the proposed framework. As part of the transition process, each of the standalone interim systems will be migrated to common shareable infrastructure to create an interoperable system.

The transition from the Interim State to REMIT / Account Mapper will be as under

- ii. Bank or Outsourcing Partners of Banks (like MFIs and other FIs or third Party agencies) will migrate Mobile linked No-Frills Account details, UID number & mobile number to the Account Mapper
- iii. In case UID numbers are not yet allotted, the UID numbers will be updated in the Account Mapper by the Banks when allotted
- iv. Mobile linked No-Frills Account databases of Banks or Outsourcing Partners of Banks (like MFIs and other FIs or third Party agencies) will be connected to the REMIT switch

The transition from the Interim State to INFAST will be as under

- i. Banks or Outsourcing Partners of Banks (like MFIs and other FIs or third Party agencies) will migrate their mobile linked no-frills account details to INFAST
- ii. INFAST will be connected to the REMIT switch

6. Recommendations

The following are the recommendation of the Inter Ministerial Group (IMG):

1. Mobile linked No-Frills Accounts will be created by the Banks. The mobile linked no-frills accounts will have daily and monthly transaction limits. The basic financial transactions on these accounts (cash deposit, credit customer's mobile linked no-frills account, cash withdrawal, peer to peer transfer & balance inquiry) can be executed through a mobile based m-PIN system using Mobile Banking POS or through a biometric based system using micro ATMs of the BCs (or sub-agents of BCs).
2. The current RBI guidelines on technology and security standards for mobile banking as well as the guidelines for ensuring authenticity of the BCs are sufficient and will be applicable to these mobile linked no-frills accounts.
3. The following common infrastructure will need to be created to enable real time transaction processing, to ensure interoperability and to reduce costs
 - a. An account mapper that provides linkages between UID No, mobile number and the mobile linked no-frills account
 - b. An interoperable central payments switch that will facilitate real time transaction routing amongst BCs (or sub-agents of BCs), Banks (or associated FIs and outsourcing partners of Banks), UIDAI, account mapper and mobile service providers.
 - c. Interoperable repositories at the national level for hosting and managing mobile linked no-frills accounts that may be created and managed by independent third party service providers / organisations on behalf of the participating Banks. Present RBI guidelines on outsourcing of financial services by banks permit banks to outsource data processing and back office related activities. The sharing of IT infrastructure for account maintenance for scaling up operations as envisaged above would be in line with such permissible outsourcing arrangements and should also facilitate inter-bank settlement. However, this would be subject to the banks adhering to extant outsourcing guidelines and the RBI guidelines on customer data confidentiality.
4. In the interim period, mobile linked no-frills accounts may be opened by banks as per the existing guidelines on "No Frills" accounts. Mobile linked No-Frills Account services will be made available on the existing "No Frills"

accounts. Access to these mobile linked no-frills accounts may be provided to the citizens on mobile devices through a PIN based mechanism.

5. RBI may constitute a Committee with key stakeholders to create a simplified common template for the KYC requirements for the Mobile linked No-Frills Accounts, based on the norms and associated verification procedures evolved by UIDAI, which will be shareable across service providers. Till such guidelines are finalized, the KYC requirements of "No Frills" accounts should remain applicable on the mobile linked no-frills accounts.
6. A committee comprising of members from RBI, TRAI and DoT may be constituted to lay the standards for the m-PIN based Mobile Banking POS.
7. MSPs must provide prioritized services with respect to these transactions. The charges levied in this regard should be regulated by TRAI and through competitive market forces to ensure that they sufficiently cover costs incurred for secure communication without resulting in inordinate profits. A committee constituted by TRAI may also draw up guidelines to ensure high availability of associated communication services. TRAI should resolve all issues arising out of the provisioning and pricing of such services by the MSPs.
8. To promote adoption, Government payments under various schemes will be directly credited to these mobile linked no-frills accounts once the citizen registers the mobile linked no-frills account with the Government agency providing such benefits.
9. A Compensation based incentive system for all players needs to be evolved for effective implementation as indicated in Para 5.12.
10. RBI could revise the following guidelines with respect to BCs (and sub-agents of BCs) of mobile linked no-frills accounts
 - a. The stipulation that the BC or his sub-agent should be within 30 Km distance of a branch of the sponsoring Bank may be relaxed in cases where there is no branch of any Bank within a 30 km distance. The IMG notes that extant RBI guidelines on BC model provide for such relaxations only after consideration by the DCC/SLBC on merits "in respect of under-banked areas or where the population is scattered over large area and where the need to provide banking services is imperative but having a branch may not be viable, keeping in view the ability of the base branch of the bank making the request to exercise sufficient oversight on the BC." Given the fact that provision of banking services to every citizen is now a national priority, IMG recommends that RBI consider a general relaxation of the 30 km

stipulation for all such cases where there is no branch of any bank within a 30 km distance.

- b. Organizations allowed to act as BCs may be allowed to act as BCs of one or more Banks in different locations. However, the individual sub-agents interfacing with the customer would be associated only with one bank, which has appointed the BC (who in turn has appointed the subagent) with regard to opening of mobile linked no-frills account. This bank will be known as the sponsoring/holding bank of the BC/sub-agent.
 - c. The sub-agents of BCs would be able to carry out basic banking transactions (except opening of the Bank account) for all banks and not be limited to the bank which has appointed the BC who in turn has appointed the sub-agent.
11. The IMG recommends that “for profit” corporate entities should be allowed to become BCs of the banks. However, it recognizes that the current RBI guidelines do not allow such a facility nor is RBI in favour of permitting the same. It nevertheless recommends that RBI may consider allowing “for profit” corporate entities to become BCs of the banks since in the model being proposed by the IMG, the BC does not have custody of the customer’s funds in his account even momentarily. Hence no dilution of the role of the banks was possible in this model even if “for-profit” corporate entities were to become BCs.
 12. The report provides indicative figures with respect to the compensation for each player involved in implementation of the model, keeping in view the costs likely to be incurred by the player in completion of activities / transactions under this model. This could serve as the basis for initial assessment and apportionment of transaction fees to be levied to get the system started
 13. RBI may constitute a committee with necessary representation from DIT, UIDAI, MoRD and DoT, among others, to ensure transparency and fair play in the operations under this framework as well as to ensure that these operations remain viable for all stakeholders and do not get skewed in favour of a single stakeholder or a group of stakeholders. This committee would also review the transaction fees payable to different stakeholders under this model from time to time based on experiential information.

7. Conclusion

The IMG was constituted to enable finalization of a framework for delivery of basic financial services using mobile phones. The IMG has evolved a framework that envisages creation of mobile linked no-frills accounts by citizens in Banks. These mobile linked no-frills accounts will be created and managed by the banks and citizens will be able to access these accounts through their mobile devices. Mobile connectivity and shared infrastructure will be leveraged by the Banks to provide anytime, anywhere banking to citizens in a cost optimal manner. However, the success of such a model rests on creating an appropriate incentive mechanism for all the players involved in the service delivery.

Annexure – A –Indicative Transaction Processes using m-Pin

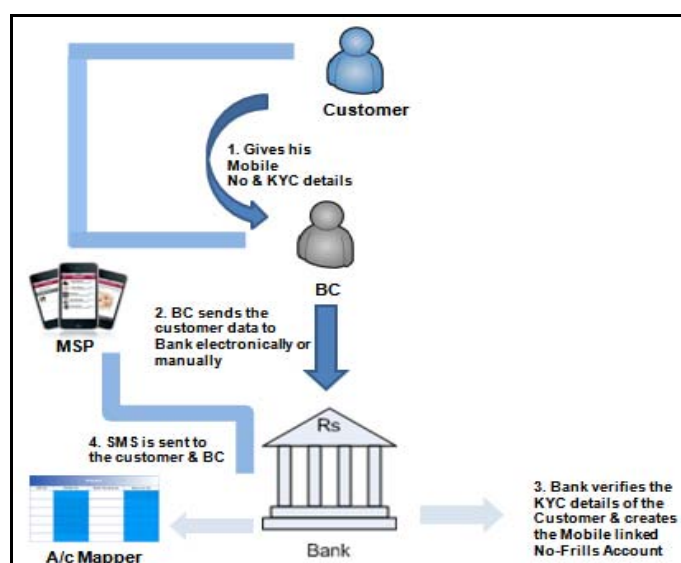
(The following transaction flows are subject to change based on emerging requirements and technology imperatives to meet the overall objectives)

a. Account Opening

The process for opening a Mobile linked No-Frills Account is as follows:

Pre-UID Stage¹

- I. Customer gives his mobile number and KYC details (as per the shared KYC norms finalized for mobile linked no-frills accounts) to the BC
- II. BC sends the customer data to the Bank
- III. Bank creates the mobile linked no-frills account after being satisfied with the KYC of the customer
- IV. Bank then sends a confirmation message to both the customer as well as the BC on their mobiles
- V. Bank further sends a m-pin to the customer on his mobile for making further transactions with his/her mobile linked no-frills account
- VI. Bank also sends the bank account details and customer's mobile number to the Account Mapper for record purposes

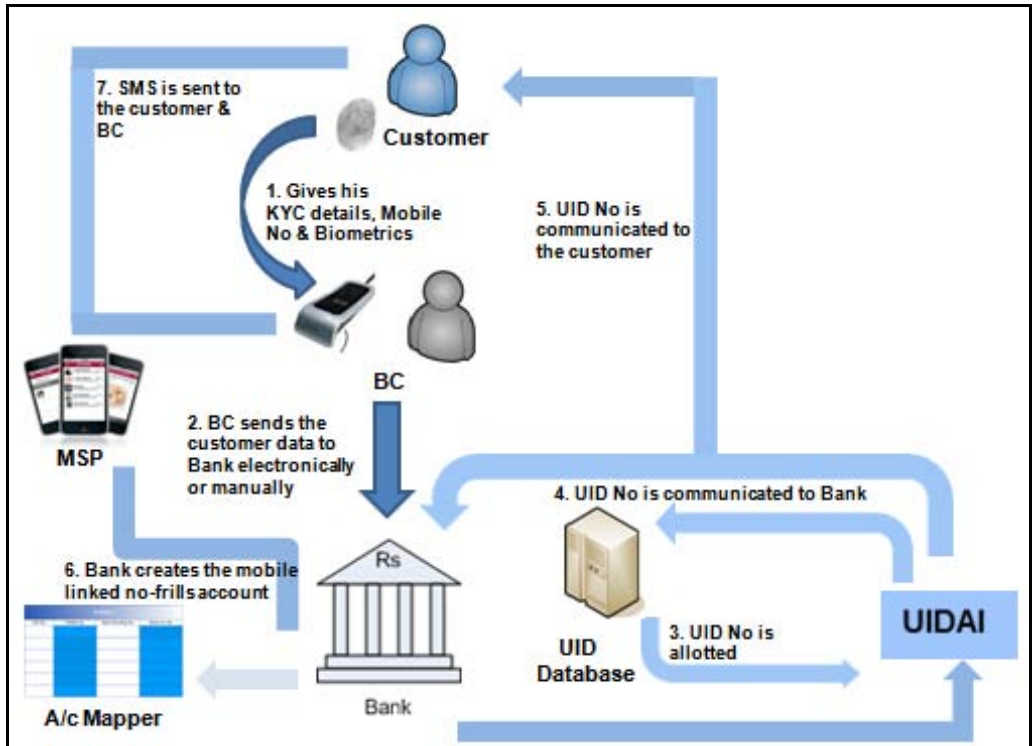
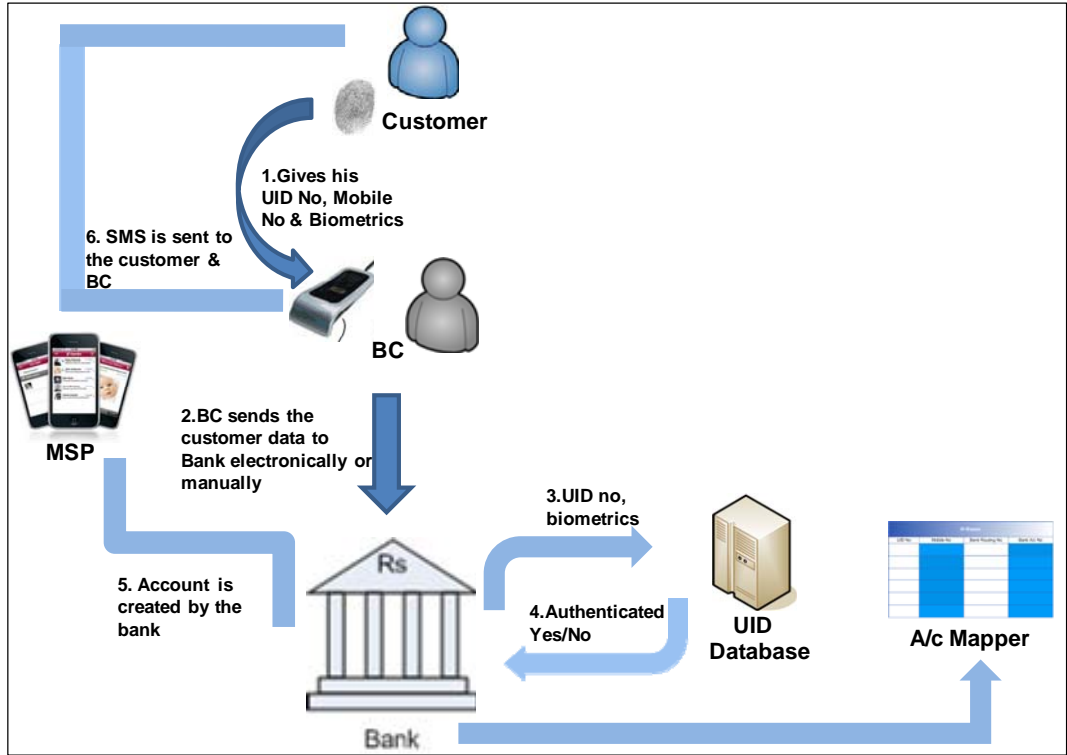


¹ Pre UID stage refers to period before establishment of infrastructure for issuing UIDs

Post-UID Stage²

- I. Customer gives his UID number (if already allotted), biometrics (for UID authentication in case UID is already allotted), mobile number and other KYC details (as per the shared KYC norms finalized for mobile linked no-frills accounts) to the BC
- II. BC sends the customer data to the Bank
- III. In case the customer has provided the UID then the bank verifies the UID as well as the biometrics of the customer with the UIDAI server
- IV. In case the customer has not yet obtained his/her UID number from UIDAI, the bank forwards the KYC and biometric details of the customer to the UIDAI Server which internally generates the UID number of the customer and communicates the same to the customer and the bank
- V. The mobile linked no-frills account is created in the bank and both the customer as well as the BC are intimated via a message on their mobiles
- VI. Bank sends a m-pin to the customer on his mobile for making further transactions with his/her mobile linked no-frills account
- VII. Bank also sends the bank account details and customer's mobile number and UID number to the Account Mapper for record purposes

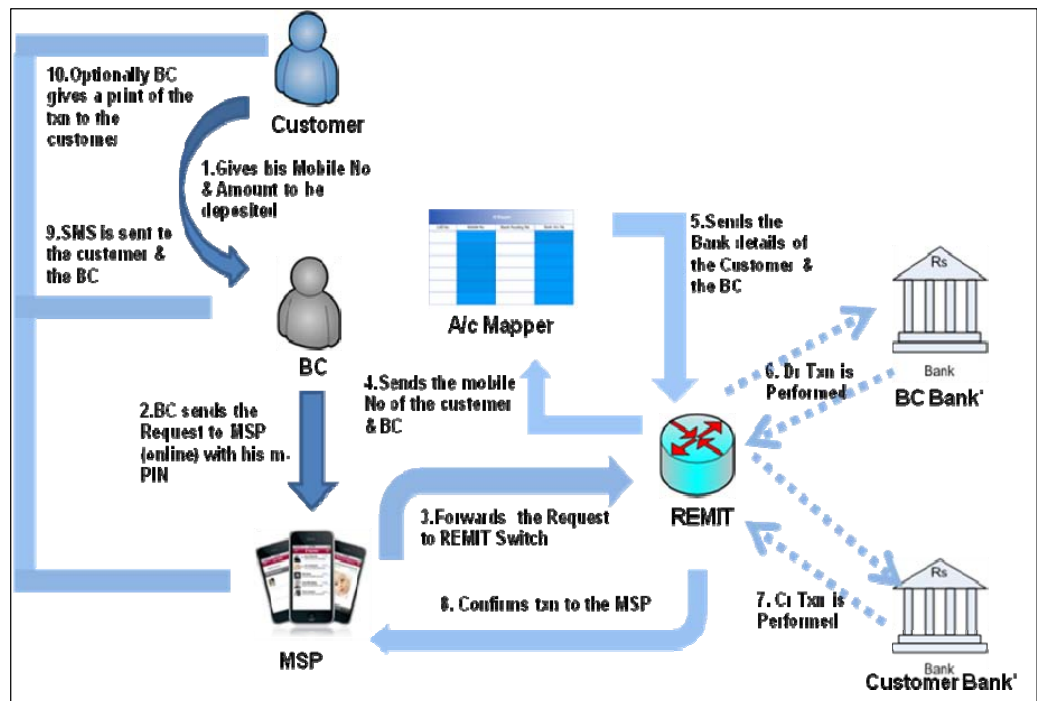
² Post UID stage is used to refer to the period after establishment of infrastructure for issuing UIDs



b. Cash Deposit

The process for depositing cash into a mobile linked no-frills account is as follows:

- I. Customer gives his mobile number and the cash to be deposited to the BC
- II. BC sends the customer details along with his own m-pin to REMIT switch via his mobile
- III. REMIT switch sends the mobile number of the customer as well as of the BC to Account Mapper
- IV. Account Mapper sends back the bank account details of the customer and the BC to REMIT switch
- V. REMIT switch sends the debit instruction for the requested amount to the BC's bank
- VI. BC's bank verifies the BC's m-pin
- VII. Upon successful verification, BC's bank debits the BC's account with the specified amount and confirms the transaction to REMIT switch
- VIII. Upon receipt of confirmation from BC's bank, REMIT switch sends the credit instruction to the customer's bank
- IX. Customer's bank credits the customer's mobile linked no-frills account with the specified amount and confirms the transaction back to REMIT switch
- X. REMIT switch sends back a confirmation message to the BC as well as the customer via mobile service provider

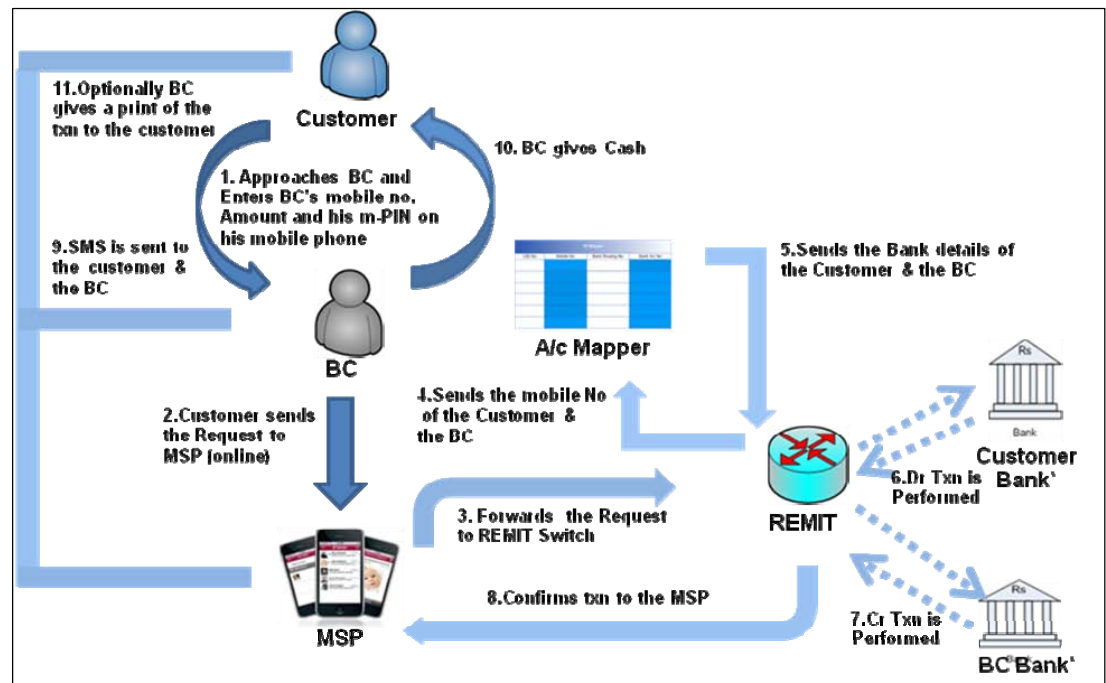


c. Cash Withdrawal

The process for cash withdrawal is as follows:

- I. Customer approaches a BC and asks for his mobile number
- II. Customer sends the withdrawal request by specifying the amount, his own m-pin and the BC's mobile number to the REMIT switch using his mobile
- III. REMIT switch sends the mobile number of the customer as well as mobile number of the BC to Account Mapper
- IV. Account Mapper sends back the bank account details of the customer and the BC to REMIT switch
- V. REMIT switch sends the debit instruction for the requested amount to the customer's bank
- VI. Customer's bank verifies the customer's m-pin
- VII. Upon successful verification, customer's bank debits the customer's account with the specified amount and confirms the transaction to REMIT switch
- VIII. Upon receipt of confirmation from customer's bank, REMIT switch sends the credit instruction to the BC's bank

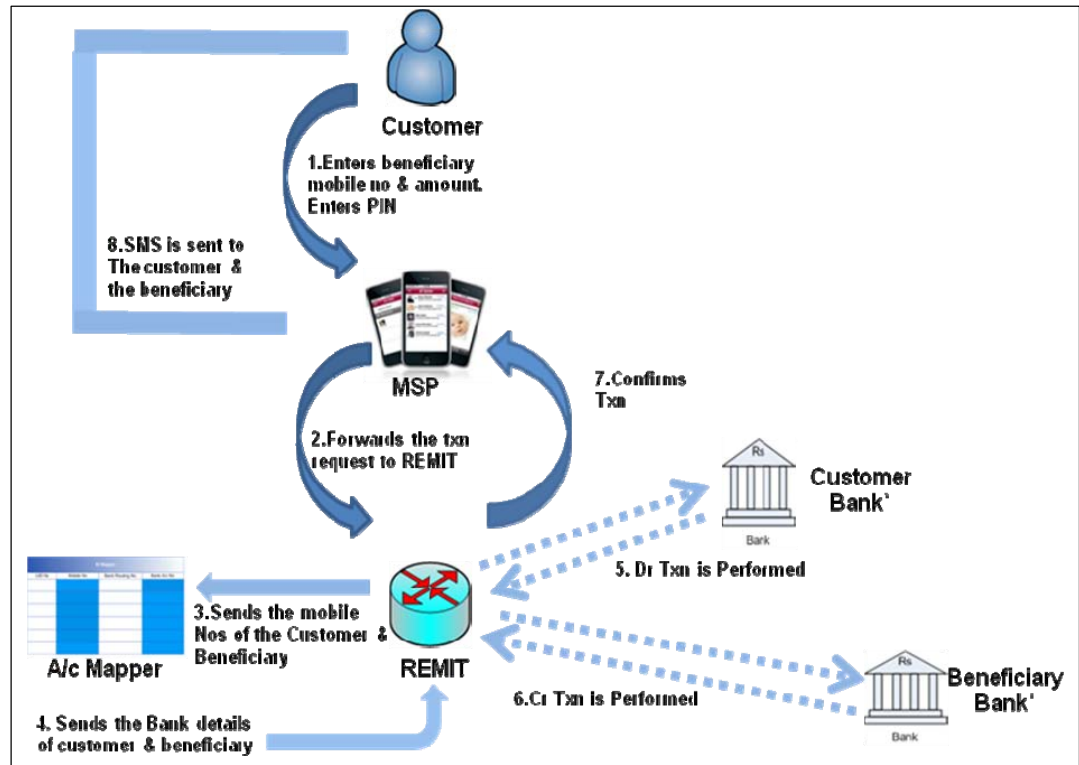
- IX. BC's bank credits the BC's account with the specified amount and confirms the transaction back to REMIT switch
- X. REMIT switch sends back a confirmation message to the BC as well as the customer via mobile service provider
- XI. BC hands over the equivalent cash to the customer



d. Transfer Money to another mobile linked no-frills account

- I. Customer sends the beneficiary's mobile number, the amount to be credited and his own m-pin to REMIT switch via his mobile
- II. REMIT switch sends the customer's as well as beneficiary's mobile number to the Account Mapper
- III. Account Mapper sends back the accounts details of both the customer as well as beneficiary to the REMIT switch
- IV. REMIT switch sends the debit instruction for the requested amount to the customer's bank
- V. Customer's bank verifies the customer's m-pin
- VI. Upon successful verification, customer's bank debits the customer's account with the specified amount and confirms the transaction to REMIT switch

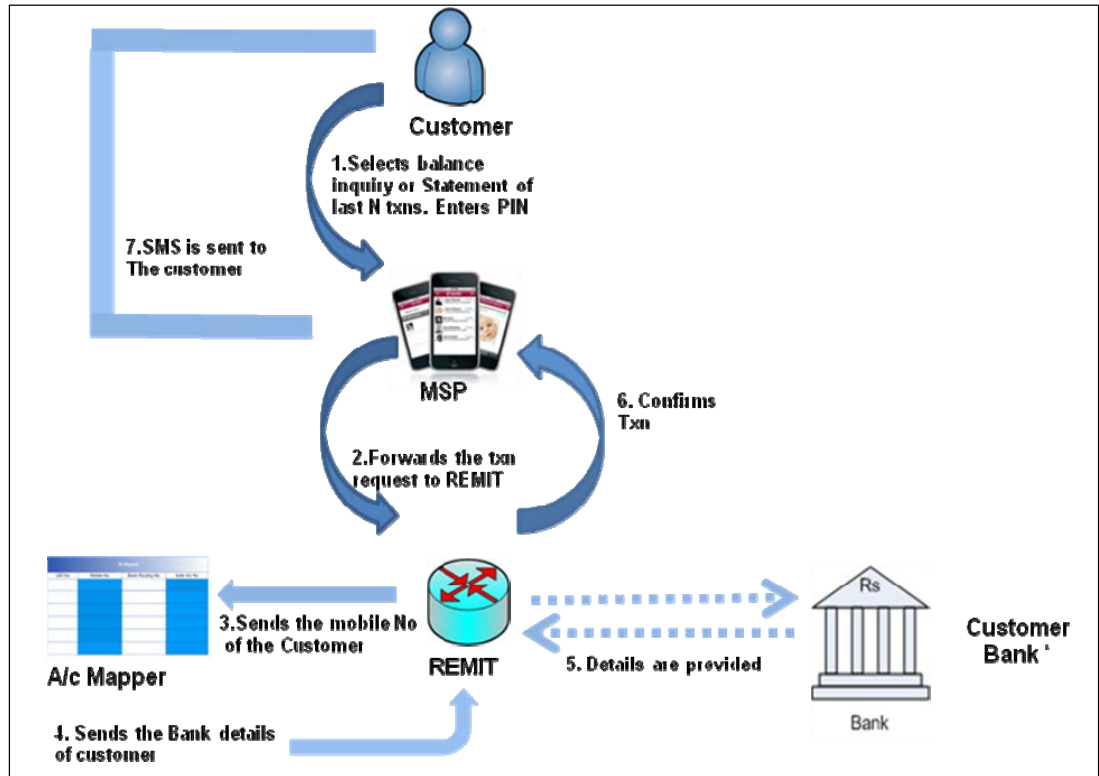
- VII. Upon receipt of confirmation from customer's bank, REMIT switch sends the credit instruction to the beneficiary's bank
- VIII. Beneficiary's bank credits the beneficiary's account with the specified amount and confirms the transaction back to REMIT switch
- IX. REMIT switch sends back a confirmation message to the customer as well as the beneficiary via mobile service provider



e. Balance Enquiry

- I. Customer sends the request for balance enquiry along with his/her m-pin to REMIT switch using his mobile
- II. REMIT sends the customer's mobile number to the Account Mapper
- III. Account Mapper sends back the customer's bank account details to the REMIT switch
- IV. REMIT switch sends the balance enquiry request to the customer's bank

- V. Customer's bank verifies the customer's m-pin
- VI. Upon successful verification, customer's bank sends back the balance details to the REMIT switch
- VII. REMIT switch sends the balance details to the customer via mobile service provider



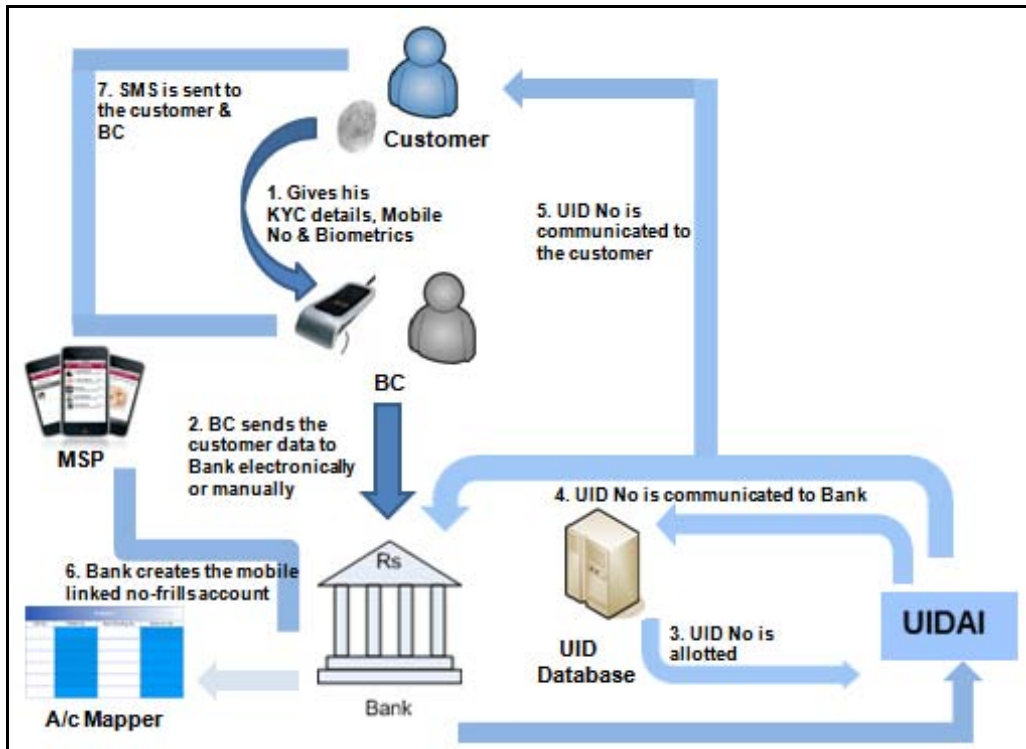
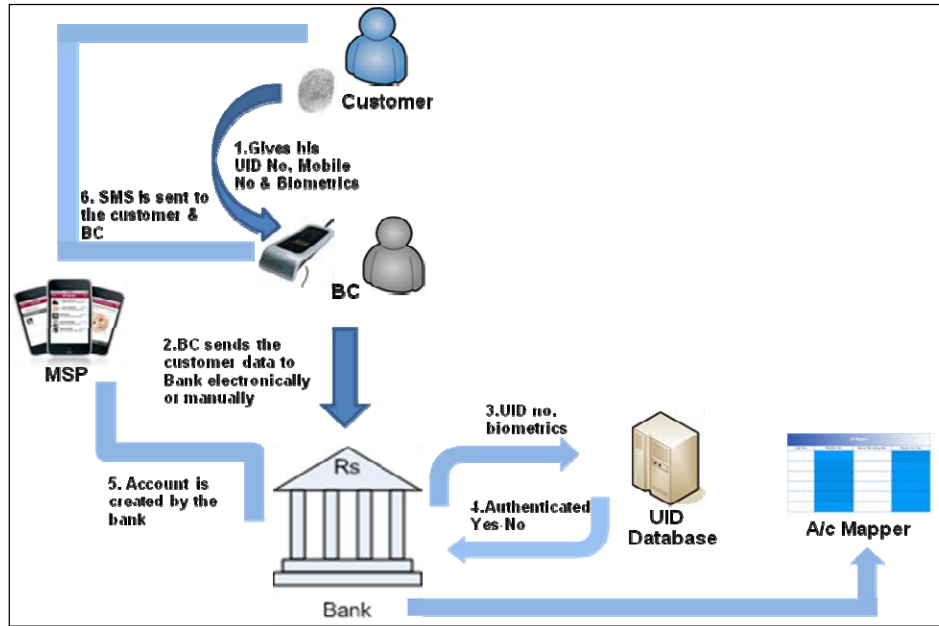
Annexure – B –Indicative Transaction Processes using Biometrics (fingerprint)

(The following transaction flows are subject to change based on emerging requirements and technology imperatives to meet the overall objectives)

a. Account Opening

The process for opening a Mobile linked No-Frills Account is as follows:

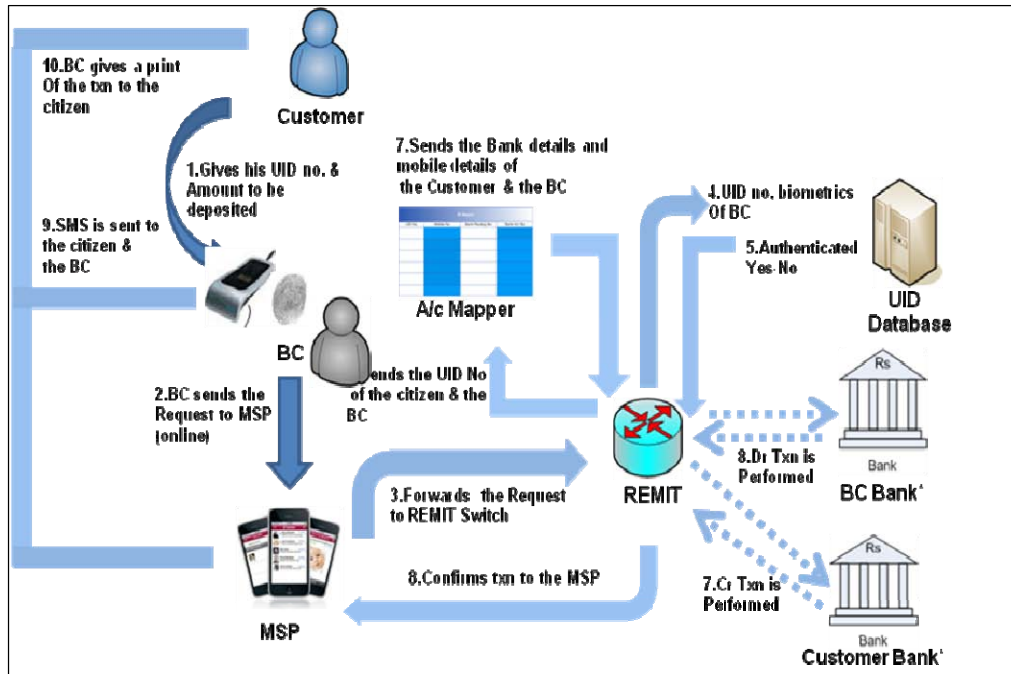
- I. Customer gives his UID number (if already allotted), biometrics and other KYC details to the BC
- II. BC sends the customer data to the Bank either manually or through Micro ATM
- III. In case the customer has provided his UID number, the bank verifies the UID as well as the biometrics of the customer with the UIDAI server
- IV. In case the customer has not yet obtained his/her UID number from UIDAI, the bank forwards the KYC and biometric details of the customer to the UIDAI Server which internally generates the UID number of the customer and communicates the same to the Bank and the customer
- V. The mobile linked no-frills account is created in the bank and the BC is intimated via a message on the micro ATM
- VI. Bank also sends the bank account details and customer's UID number to the Account Mapper for record purposes



b. Cash Deposit

The process for depositing cash into a mobile linked no-frills account is as follows:

- I. Customer gives his UID number and the cash to be deposited to the BC
- II. BC sends the customer details, amount to be deposited, his own UID number and biometric information to REMIT switch via micro ATM
- III. REMIT switch sends the UID number and the biometric information of the BC to the UIDAI server for authentication
- IV. UIDAI server sends the authentication yes/no back to REMIT switch
- V. Upon successful verification, REMIT switch sends the UID number of the customer and the UID number of the BC to Account Mapper
- VI. Account Mapper sends back the bank account details of the customer and the BC to REMIT switch
- VII. REMIT switch sends the debit instruction for the requested amount to the BC's bank
- VIII. BC's bank debits the BC's account with the specified amount and confirm the transaction to REMIT switch
- IX. Upon receipt of confirmation from BC's bank, REMIT switch sends the credit instruction to the customer's bank
- X. Customer's bank credits the customer's mobile linked no-frills account with the specified amount and confirms the transaction back to REMIT switch
- XI. REMIT switch sends back a confirmation message to the BC on the micro ATM
- XII. BC further gives a print of the transaction to the customer

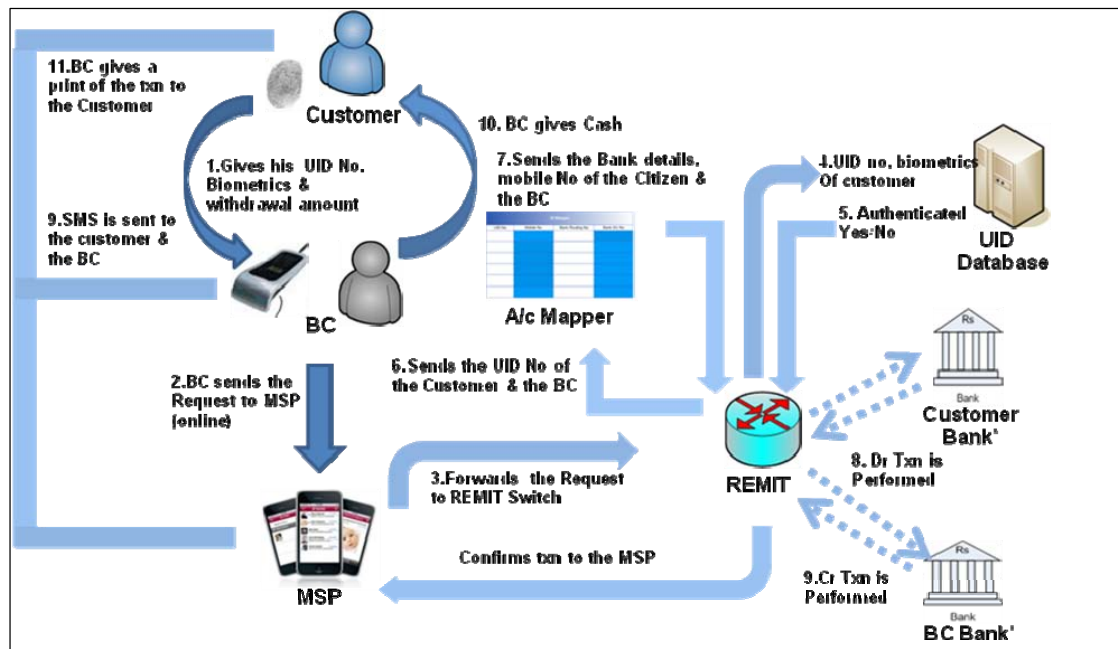


c. Cash Withdrawal

The process for cash withdrawal is as follows:

- I. Customer approaches a BC and gives his UID number, biometric information and the cash to be deposited to the BC
- II. BC sends the customer information, amount to be withdrawn and his own UID number to REMIT switch
- III. REMIT switch sends the UID number and the biometric information of the customer to UIDAI server for authentication
- IV. UIDAI server sends back the authentication yes/no to Account Mapper
- V. Upon successful verification, REMIT switch sends the UID number of the customer as well as UID Number of the BC to Account Mapper
- VI. Account Mapper sends back the bank account details of the customer and the BC to REMIT switch
- VII. REMIT switch sends the debit instruction for the requested amount to the customer's bank
- VIII. Customer's bank debits the customer's account with the specified amount and confirms the transaction to REMIT switch

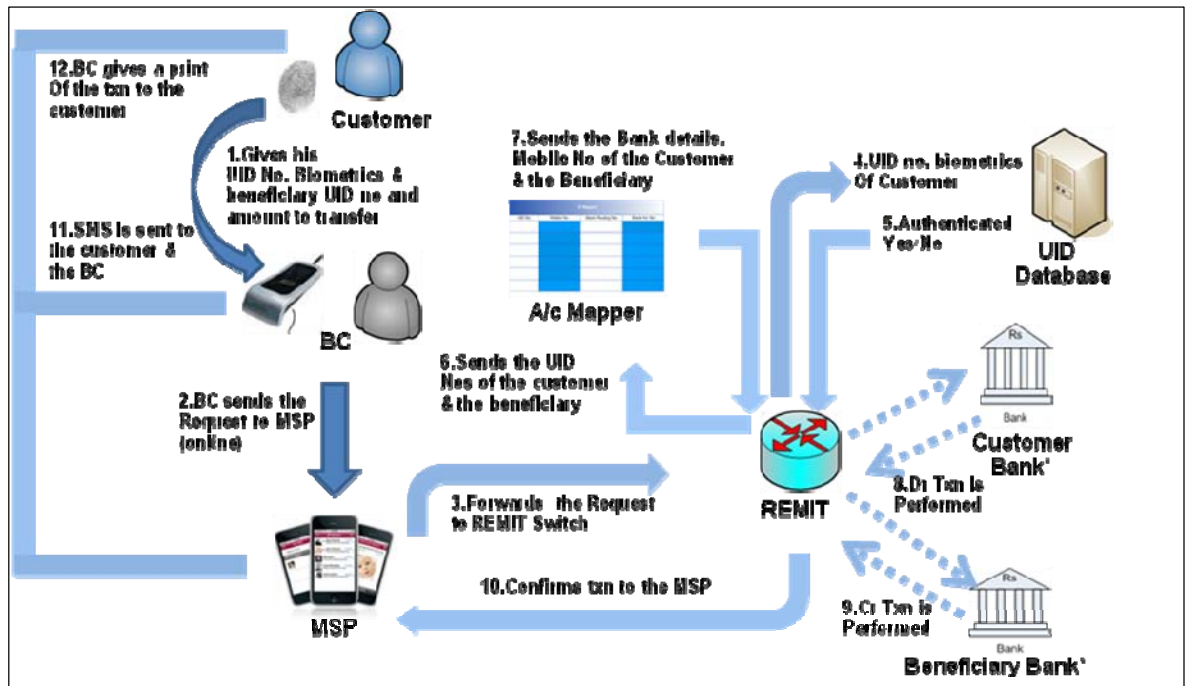
- IX. Upon receipt of confirmation from customer's bank, REMIT switch sends the credit instruction to the BC's bank
- X. BC's bank credits the BC's account with the specified amount and confirms the transaction back to REMIT switch
- XI. REMIT switch sends back a confirmation message to the BC on micro ATM
- XII. BC hands over the equivalent cash to the customer
- XIII. BC further gives a print of the transaction to the customer if requested



d. Transfer Money to another mobile linked no-frills account

- I. Customer visits a BC and provides his UID, biometric information, cash to be transferred and the beneficiary's UID number to the BC
- II. BC sends the customer details along with beneficiary information to REMIT switch through micro ATM
- III. REMIT switch sends the customer's UID number and biometric information to UIDAI server for authentication
- IV. UIDAI server sends the authentication yes/no back to REMIT switch

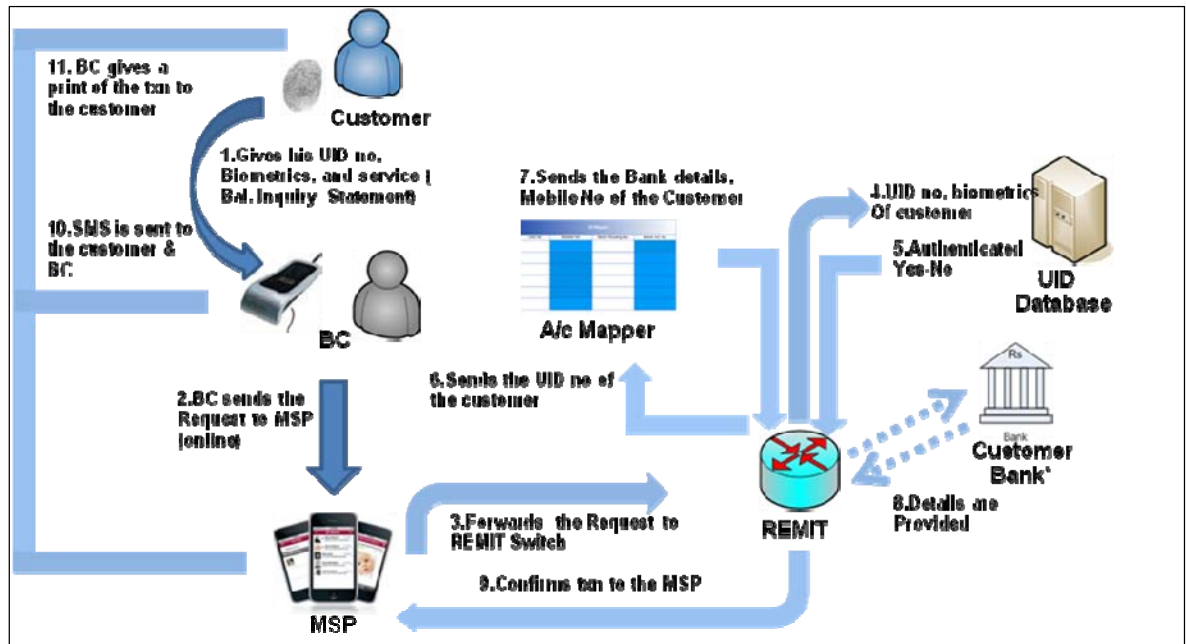
- V. Upon successful verification, REMIT switch sends the UID number of the customer and the UID number of the beneficiary to Account Mapper
- VI. Account Mapper sends back the accounts details of both the customer as well as beneficiary to the REMIT switch
- VII. REMIT switch sends the debit instruction for the requested amount to the customer's bank
- VIII. Customer's bank debits the customer's account with the specified amount and confirms the transaction to REMIT switch
- IX. Upon receipt of confirmation from customer's bank, REMIT switch sends the credit instruction to the beneficiary's bank
- X. Beneficiary's bank credits the beneficiary's account with the specified amount and confirms the transaction back to REMIT switch
- XI. REMIT switch sends back a confirmation message to the BC on his micro ATM
- XII. BC gives a print out of the transaction to the customer if requested



e. Balance Enquiry

- I. Customer visits a BC and provides his UID number, biometric information and requests for balance enquiry
- II. BC sends the customer information to REMIT switch through his micro ATM
- III. REMIT switch sends the customer's UID number and biometric information to UIDAI server for authentication
- IV. UIDAI server sends the authentication yes/no back to REMIT switch
- V. Upon successful verification, REMIT switch sends the customer's UID number to the Account Mapper
- VI. Account Mapper sends back the customer's bank account details to the REMIT switch
- VII. REMIT switch sends the balance enquiry request to the customer's bank
- VIII. Customer's bank sends back the balance details to the REMIT switch
- IX. REMIT switch sends the balance details to the customer to the BC's micro ATM

X. BC gives a print out of the balance statement to the customer



Annexure – C –Indicative Processes for Government Payments

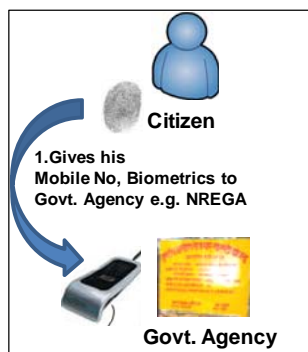
(The following transaction flows are subject to change based on emerging requirements and technology imperatives to meet the overall objectives)

a. Registration Process

The detailed process of registration of the Mobile linked No-Frills Account with the Government Agency is as follows:

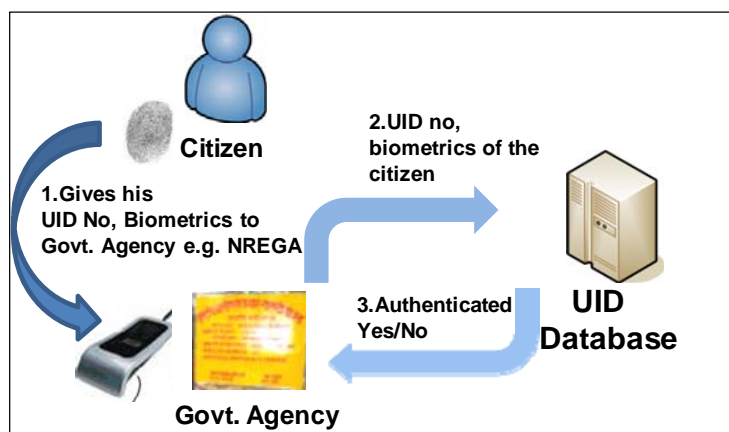
Pre-UID Stage

- I. Citizen approaches the Government Agency for registration of his mobile linked no-frills account
- II. He/she gives his mobile no and mobile linked no-frills account number
- III. The Government agenda updates the customer's Mobile linked No-Frills Account details in the Government scheme database



Post-UID Stage

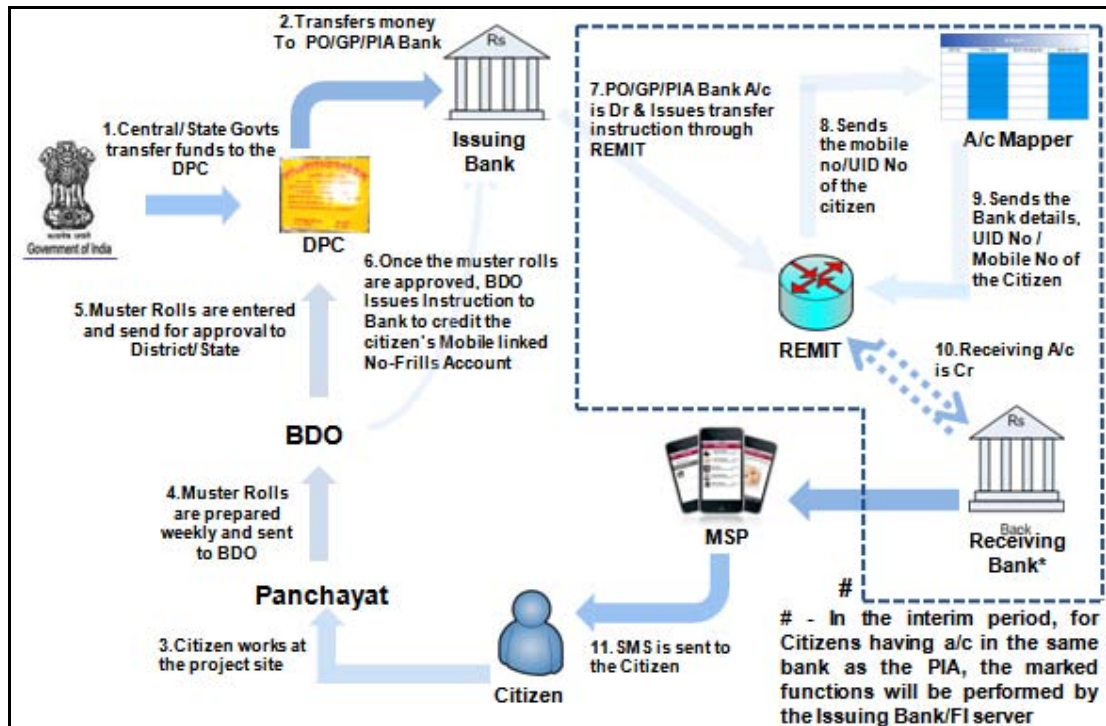
- I. Citizen approaches the Government Agency for registration of his mobile linked no-frills account
- II. He/she gives his mobile no, mobile linked no-frills account number, UID No., biometrics
- III. The Government authenticates the citizen with UIDAI by providing the citizen details, UID no and biometrics
- IV. Once the citizen has been authenticated, his Mobile linked No-Frills Account details are updated in the Government scheme database against his other personal details



b. Transfer of funds to the citizen

The detailed process of transfer of funds from the Government Agency Account to the citizen is as follows – (explained for NREGS)

- I. Centre/ State transfers funds to DPC (District Project Coordinator)
- II. DPC transfer funds to the account of Program Officer/Gram or Village Panchayat/Project Implementing Agency
- III. Attendance rolls of the workers are recorded on “Muster Rolls” on a daily basis at the project site. The “Muster Rolls” are consolidated at the Gram Panchayat on a weekly basis. The “Muster Rolls” are then forwarded to the Block Development Office (BDO) for entry into the system and approval at the District and the State level.
- IV. Once approved, BDO issues instructions to the Bank to credit the workers’ salary into the Mobile linked No-Frills Accounts electronically or otherwise.
- V. Once the salary is credited, a message is sent by the bank to the worker to inform him of the transaction.



c. Use of funds by the citizen

Once the money is deposited into the citizen's Mobile linked No-Frills Account, the money can be transferred or withdrawn by the citizen as already explained under m-pin based and biometric based models earlier.

Annexure – D – Indicative Transaction Processes during the Interim Period

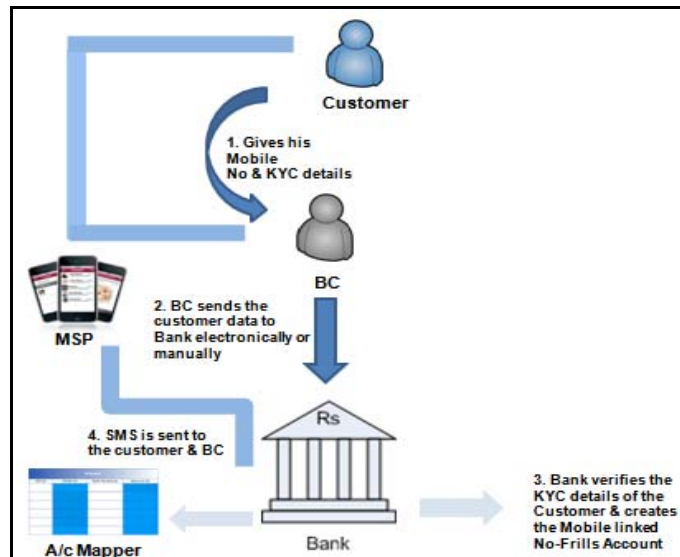
The transaction request in the interim period will be sent either to the Banks own CBS or the FI's server to whom mobile linked no-frills account transactions are outsourced. All such transaction request will be facilitated by the customer's MSP to the customer Bank. In case of mobile linked no-frills accounts being hosted in the outsourced server of the FI, bank approved process with respect to end of the day settlements and communication of transaction details will be carried as is being done currently. Reference to SMS may also mean USSD or any other "Secure mobile based communication"

(The following transaction flows are subject to change based on emerging requirements and technology imperatives to meet the overall objectives)

a. Account Opening

The process for opening a Mobile linked No-Frills Account is as follows:

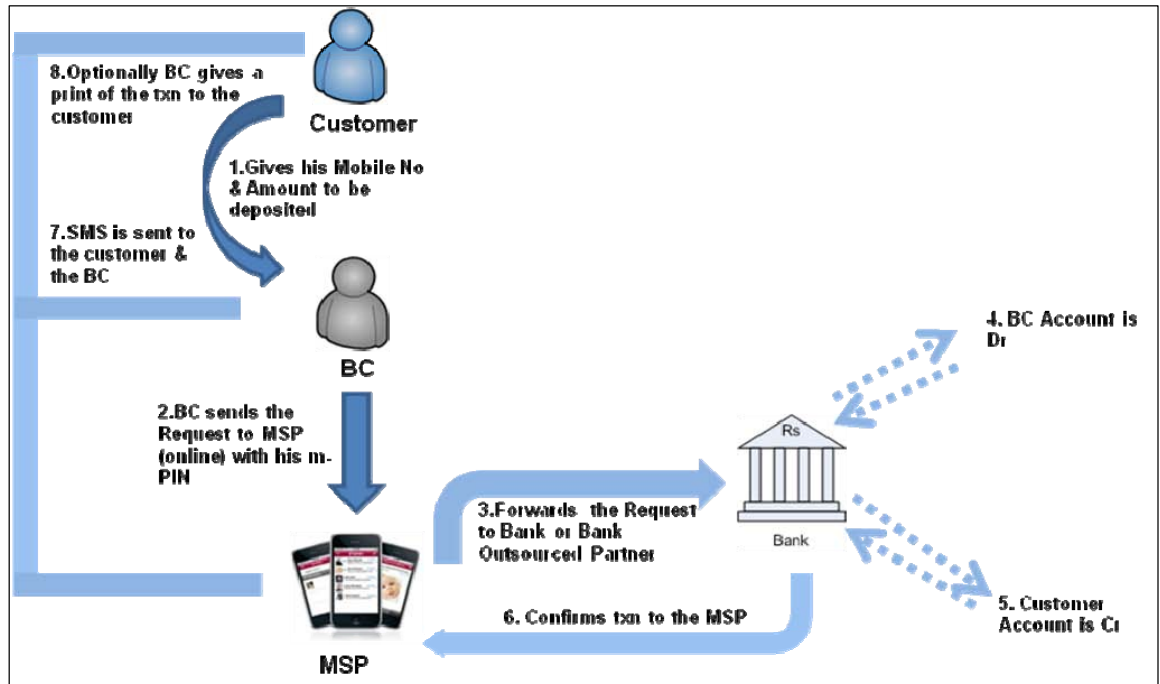
- I. Customer provides his KYC details (as per existing norms for the "No-Frills" Accounts or those decided by the Banks for opening mobile linked no-frills accounts), Mobile no to the BC of the bank in which the customer wants to open his Mobile linked No-Frills Account. (The BC will also have an account in that Bank to which he is attached)
- II. BC sends the customer data to the Bank (or bank outsourced partners) either manually or electronically as per the current process for opening of the "No Frills" accounts.
- III. Bank (or Bank outsourced partners) opens the Mobile linked No-Frills Account for the customer.
- IV. The customer and the BC are informed of the opening of the Mobile linked No-Frills Account on his mobile phone number.
- V. An m-PIN to perform the basic transactions through a mobile device will be provided to the customer by the Bank



b. Cash Deposit

The process for depositing cash into a mobile linked no-frills account is as follows:

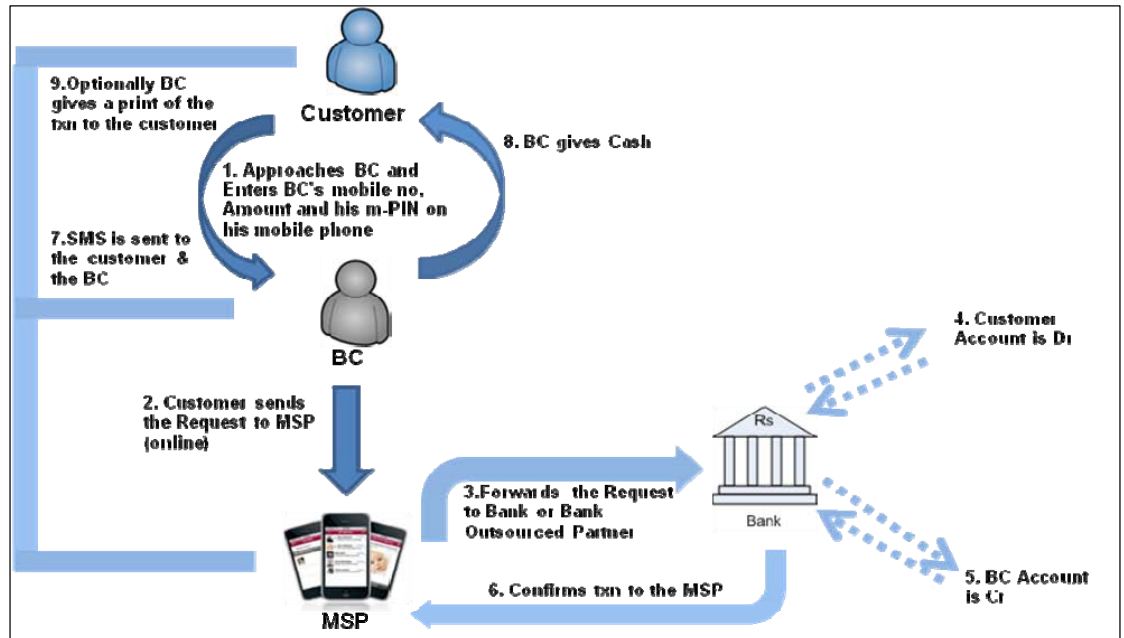
- I. Customer gives his mobile number and the cash to be deposited to the BC of the bank in which the customer holds the Mobile linked No-Frills Account
- II. BC sends the transaction request using his mobile to the Bank to which he and customer both are attached.
- III. Once the Bank receives the transaction request, the Bank will complete the transaction (i.e. debit BC's account & credit customer's account).
- IV. Once the transaction is completed, the Bank or the Bank Outsourced Partner will send a SMS to both the customer and the BC to confirm the transaction



c. Cash Withdrawal

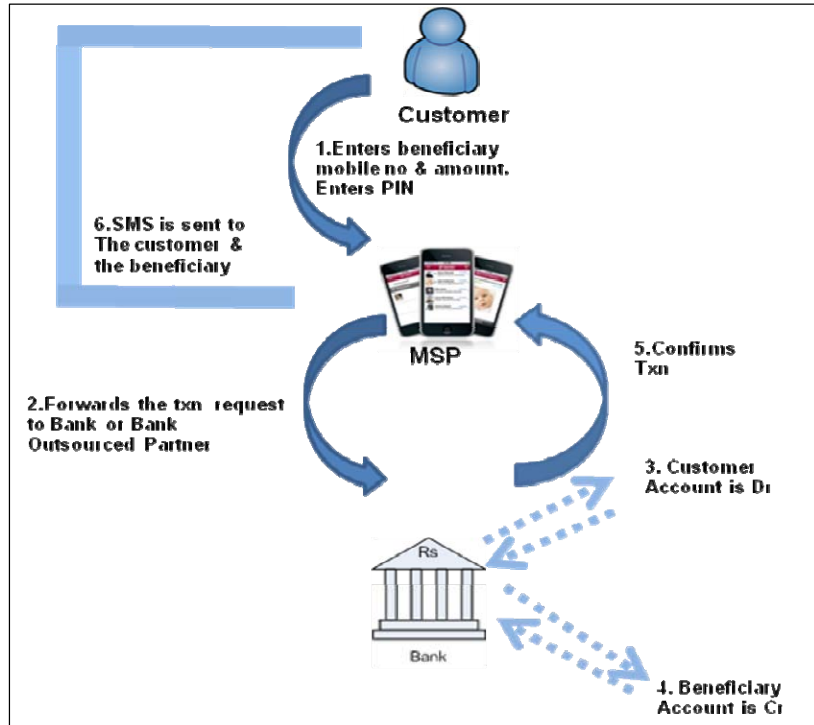
The process for cash withdrawal is as follows:

- I. Customer approaches a BC of the bank in which he has a Mobile linked No-Frills Account and asks for his mobile number
- II. Customer initiates the withdrawal request by sending a message to the Bank and specifying the amount, his m-pin and the BC's mobile number
- III. Once the Bank receives the transaction request, the Bank will complete the transaction (i.e. debit customer's Account & credit BC's Account) if both the BC & the customer's data is with the bank or will forward the request to its outsourced partner for the completion of the transaction.
- IV. Once the transaction is completed, the Bank or the Bank Outsourced Partner will send a SMS to both the customer and the BC to confirm the transaction
- V. On receiving the confirmation request, the BC will hand over the equivalent cash to the customer



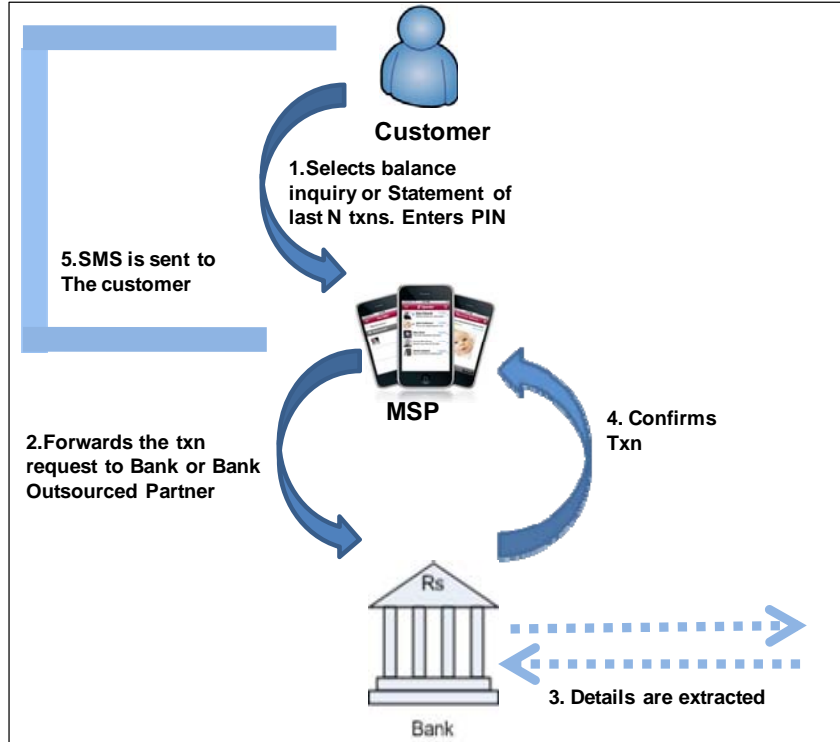
d. Transfer Money to another mobile linked no-frills account

- I. Customer initiates the transfer request on his mobile device by providing the beneficiary's mobile number, the amount to be transferred and his m-pin.
- II. The customer's MSP will transmit the request to the customer's Bank.
- III. Once the Bank receives the transaction request, the Bank will complete the transaction (i.e. debit customer's account & credit beneficiary's account) if both the customer's & the beneficiary's accounts are with the bank or will forward the request to its outsourced partner for the completion of the transaction.
- IV. Once the transaction is completed, the Bank or the Bank Outsourced Partner will send a message to both the customer and the BC to confirm the transaction



e. Balance Enquiry

- I. Customer initiates the request for balance enquiry on his mobile device by providing his m-pin
- II. The customer's MSP will transmit the request to the customer's Bank.
- III. Once the Bank receives the transaction request, the Bank will complete the transaction if the customer's account is with the bank or will forward the request to its outsourced partner for the completion of the transaction.
- IV. Once the transaction is completed, the Bank or the Bank Outsourced Partner will send a SMS to the customer to confirm the transaction



Annexure - E -Indicative Costs and Compensation

In order to ensure transparency and fair play in the operations under this framework as well as to ensure that these operations remain viable for all stakeholders, the IMG had agreed that its report should contain indicative compensation for each player involved in implementation of the model, keeping in view the costs likely to be incurred by the player in completion of activities / transactions under this model. The IMG recognized the difficulties involved in the exercise; it nevertheless felt that the suggested compensation structure could serve as the basis for initial assessment and apportionment of transaction fees to be levied to get the system started. Further, it is recommended that RBI may constitute a committee with necessary representation from DIT, UIDAI, MoRD and DoT, among others, to ensure transparency and fair play in the operations under this framework as well as to ensure that these operations remain viable for all stakeholders and do not get skewed in favour of a single stakeholder or a group of stakeholders. This committee would also review the transaction fees payable to different stakeholders under this model from time to time based on experiential information.

The indicative cost and compensation structure has been based on projections over a 5 year period with the following assumptions:

Component	Assumption
REMIT	<ol style="list-style-type: none"> 1. The Capex on the REMIT switch will be around Rs. 6 crores and this cost is amortized over 5 years. 2. The Opex will be around 25% of Capex
Account Mapper	<ol style="list-style-type: none"> 1. The Capex on the account mapper will be around Rs. 9 crores and this cost is amortized over 5 years. 2. The Opex will be around 25% of Capex
INFAST	<ol style="list-style-type: none"> 1. The Capex on INFAST will be around Rs. 200 Crores and this cost is amortized over 5 years. 2. The Opex will be around 25% of Capex
BCs	<ol style="list-style-type: none"> 1. The cost of a Micro ATM is assumed at Rs. 12500 which is depreciated over a period of three years. The machine currently retails at around Rs 20,000/, but the UIDAI expects costs to come down with volumes 2. The agents with micro-ATM machines are assumed to increase from 20% of the number deployed initially to 50% by Year 5

Based on the above cost and revenue assumptions, the following indicative compensation matrix for each stakeholder is suggested.

Stakeholder	Suggested Compensation (Per transaction)	Paid By	Comments
REMIT	0.4 paise	Bank	
Account Mapper	0.6 paise	Bank	
INFAST	20 paise	Bank	
MSP	Prioritized Secure communication charges not exceeding Re 1 per transaction (a transaction may contain multiple messages)	BC / Mobile linked no-frills account holder (depending on the charging model)	
BCs with mobile banking POS	Minimum of Rs. 2.25 or 1.4% of the transaction amount	Bank	Viability of the BC needs to be ensured on a per transaction basis. As the number of transactions increase over a period of time, a lesser compensation may be paid to the BC (suggested compensation by year 5 - around 1%)
BCs with Micro ATMs	Minimum of Rs. 3 or 2.25% of the transaction amount	Bank	Viability of the BC needs to be ensured on a per transaction basis while the cost of Micro ATM will be recovered over a period of time. As the number of transactions increase over a period of time, a lesser compensation may be paid to the BC (suggested compensation by year 5 - around 1.2%)
Tech Vendor	Not exceeding Re 1	Bank	
Bank	2% transaction fees. Additionally, it would earn an interest income on the deposits. It is expected to make payments to the other players (except MSPs) from the above revenues	Transaction fees borne by the mobile-linked no-frills account holder, which can be partly or wholly offset by the Bank. Contribution from other sources could also be considered in consultation with the Committee created to ensure fair play and transparency.	After providing for various operational costs relating to supervision, call centre operations, etc the Banks would still make a profit by operating the model as suggested.