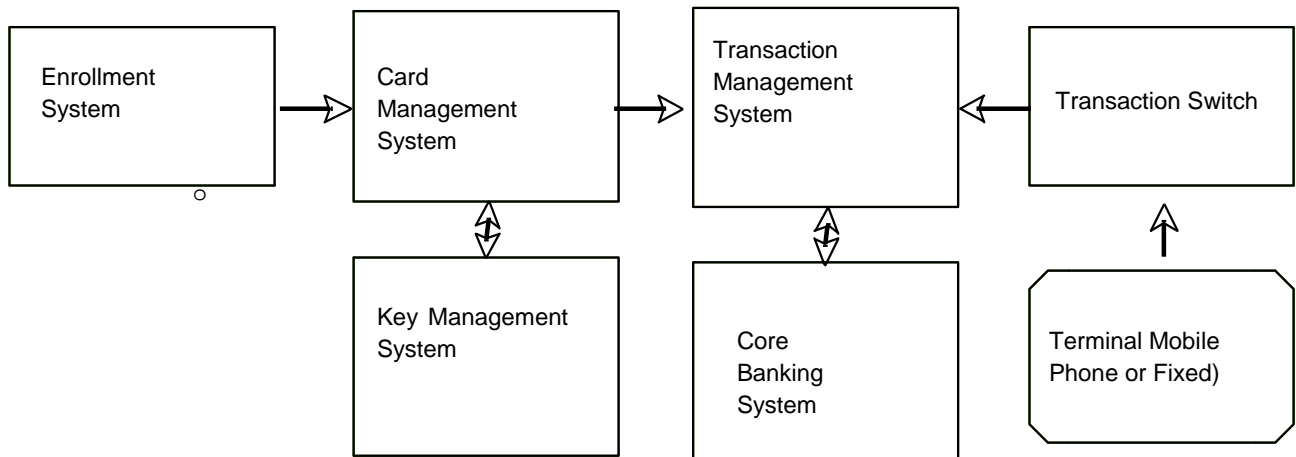


Broad Architecture of a Financial Inclusion Solution

Selection & use of IT-enabled financial inclusion solutions:

- The technology solutions available are of the following type :
 - Biometric card & POS Machines: the solution is based on a contact interface based 32K



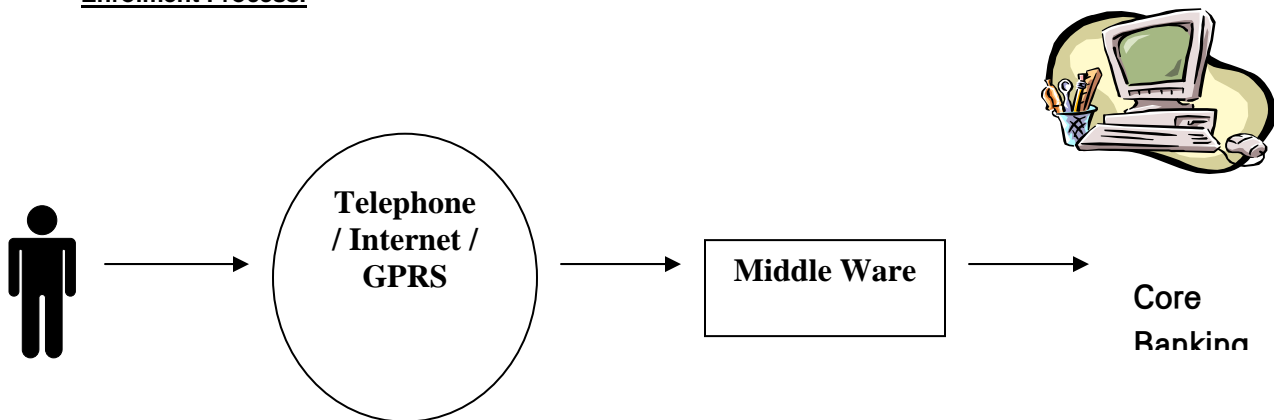
- JavaSmart Card / 32K Scosta Smart Card. A Card Management cum Transaction Management system connected in the field with Terminals are used providing solution.
 - Mobile-pin based: ALW: The solution is primarily based around a NFC (Near Field Communications) Mobile Phone. NFC is a technology that allows mobile phones to communicate with Smart Cards using the contactless interface. The solution has seen many changes in the field from issuing Contactless Java Smart Cards, to Desfire cards to now only a piece of plastic with a barcode.
 - Kiosk banking with the help of PC plus internet.
- The work flow envisaged would be as under :
 - service provider deploys manpower in the designated districts to enroll qualifying populations with their biometric (fingerprints, Photograph) and biographic (Name, Address etc..) data. This data is then fed into a Card Management System which becomes the centralized repository of all information related to all the enrolled persons.
 - A key Management System is connected with the Card Management System to generate cryptographic keys to ensure that the card once issued is not compromised. The card management system helps to manage the lifecycle of the cards that will be issued with life cycle steps like requested, produced, inuse, blocked, unblocked, terminated etc.. It is

the duty of the card management system to keep all other systems in the network informed about the status of the card. For example, if a card is blocked centrally, it should be refused in the payment network if someone tries to use it.

- Once the data is approved by the bank, the same is sent to a card manufacturer to manufacture cards with physical and electrical personalization in the smart card. These cards are then sent to the card holder whose data was enrolled originally. The BC network is equipped with a terminal capable of reading and writing to the card all information related to the transaction values. This terminal is capable of verifying the card holders identity by comparing the fingerprint collected and if established, allowing the transaction to go forward.
- The terminals are connected to the transaction server over the network (GSM/CDMA GPRS network). The transaction is uploaded over this network to the centralized transaction server via a Transaction switch.
- If a particular BC location does not have a data connectivity, the transactions are stored of in the terminal and the BC then goes to a location where network is available and uploads the transaction information. The Transaction information is pushed by the services provider to the Core banking solution specially deployed by the bank for their financial inclusion customers.

BC Model – Operational Process Flow :

Enrolment Process.

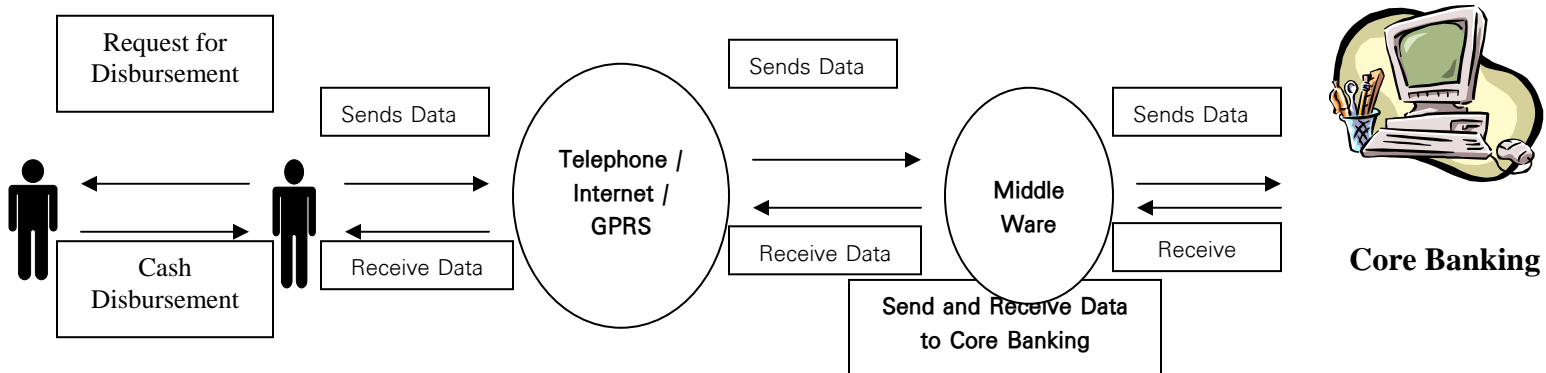


In the enrolment stage, the business correspondent goes to the prospect with handheld device:

- 1) Details of the account holder is entered in the handheld device.
- 2) Finger print of the account holder is taken.
- 3) A smart card is issued to the account holder once the enrollment is completed.

- 4) To upload the details and open the account, the BC connects the handheld device to the internet (through telephone / GPRS connectivity) with the middle ware.
- 5) The enrolment process logic is defined in the middleware, which stores the intelligence of speaking to the core banking system.

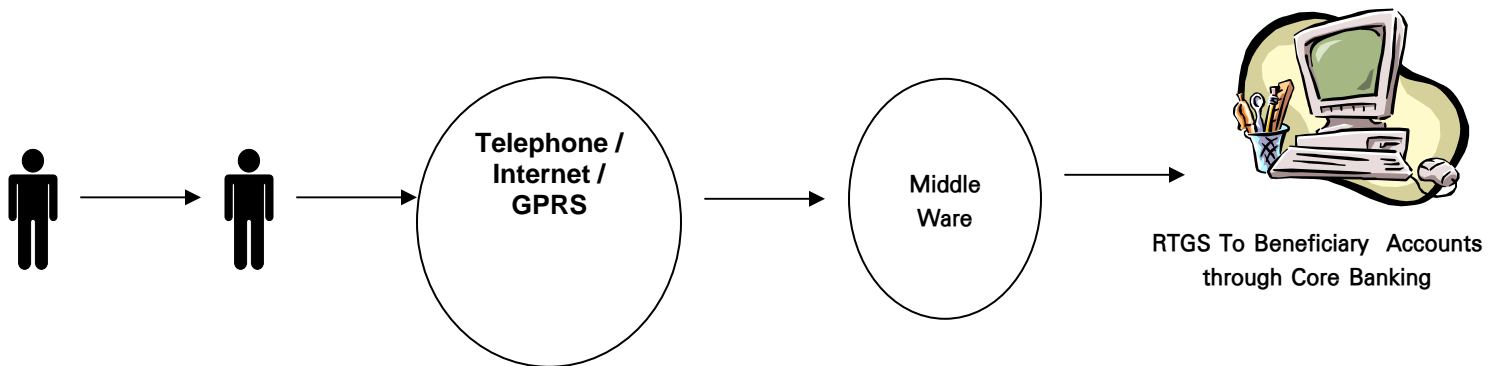
Collection and Disbursement Process :



Collection and Disbursement:

- 1) To initiate the transaction the account holder requests for withdrawal of money from his account, to the BC.
- 2) The BC takes the request of withdrawal, enters the account holder's details, authenticates the account holder through finger print / smart card, and forwards the withdrawal request to the core banking through the internet.
- 3) The accounting entry is adjusted in the account holders account, in the core banking system, and the details are forwarded to the handheld.
- 4) The BC hands over the cash to the account holder.
- 5) After the completion of the transaction, the BC hands over a print out of the transaction to the account holder.

Cash Transfer Process :



In the Cash Transfer stage, Client Request the Business Correspondent to Transfer Cash to Respective Beneficiary Account :

- 1) Client Request the Business Correspondent to transfer the amount to Respective Beneficiary Account.
- 2) Details of the account holder is entered in the handheld device.
- 3) Finger print of the account holder is taken.
- 4) Upload the details and sends the Request to the Middleware through telephone / GPRS connectivity (Middleware sends the requested data to necessary destination and approve the transaction and sends to the data to core banking for RTGS).
- 5) The process logic is defined in the middleware, which stores the intelligence of speaking to the core banking system.