

Microfinance Mobile Application for Field Agents

Functional Specification April 2014

Status: Draft Version 0.4

Bfsi Software Consulting Pvt. Ltd. Bangalore, India



Document Control

Author: Narayanaswamy.V.L		
Created on : 18-Sep-2013	Revision No :	
Updated by :	Reviewed by :	Approved by:
Updated on :	Reviewed on :	Approved on :

Version No.	Date	Author	Reviewed By	Status	Comment
0.1	15-Nov-13	Narayanaswamy		Draft	
0.2	21-Apr-14	Narayanaswamy		Draft	Changes related to Manual and Auto Disbursement handling
0.3	25-Apr-14	Narayanaswamy		Draft	Changes related to Agents agenda
0.4	29-Apr-14	Vinay Singh		Draft	Screenshots incorporated



Table of Contents

1	INTRODU	CTION	5
	1.1	ORGANIZATION OF THE DOCUMENT	5
	1.2	ACRONYMS AND ABBREVIATIONS	5
2	REQUIREI	MENT DESCRIPTION	6
	2.1	REQUIREMENTS OVERVIEW	6
	2.2	FUNCTIONAL APPROACH	8
	2.2.1	ADMIN FUNCTIONS	8
	2.2.1.1	AGENCY MANAGEMENT	8
	2.2.1.2	ROLE MANAGEMENT	. 10
	2.2.1.3	POLICY MANAGEMENT	. 11
	2.2.1.4	USER MANAGEMENT	. 14
	2.2.1.5		. 18
	2.2.1.6	DEVICE MANAGEMENT	. 18
	2.2.1.7	Agent Management	. 20
	2.2.1.8	LOAN ASSIGNMENT	. 22
	2.2.1.9	DISBURSEMENT SCHEDULE MAINTENANCE	. 24
	2.2.1.10	AGENT CASH SETTLEMENT	. 26
	2.2.1.11	AUTHORIZATION OF SYNCED TRANSACTIONS	. 27
	2.2.1.12	INTERFACE WITH CORE BANKING SYSTEM	. 28
	2.2.1.13	VIEW TRANSACTIONS	. 29
	2.2.1.14	CREDIT OFFICER DASHBOARD	. 31
		REPORT – PENDING DISBURSEMENTS FOR THE DAY	
	2.2.1.16	Audit Trail	. 32
	2.2.1.17	Multi-lingual	. 33
	2.2.2	MOBILE APPLICATION FUNCTIONS	. 34
	2.2.2.1	APP REGISTRATION	. 34
	2.2.2.2		. 34
	2.2.2.3		. 35
	2.2.2.4	Agents Dashboard	. 35
	2.2.2.5	SYNC DATA WITH INTERMEDIARY SERVER	. 36
	2.2.2.6	Agents Agenda	. 37
	2.2.2.7	Advances disbursement	. 39
	2.2.2.8	Advances repayment collection	. 43
	2.2.2.9	HANDLING UNPLANNED PREPAYMENTS	. 48
	2.2.2.10	TRANSACTIONAL ACTIVITY	. 50



	2.2.2.11	CASH POSITION	. 50
	2.2.2.12	CHANGE PASSWORD	. 52
	2.2.2.13	PREFERENCES SETUP	. 54
	2.2.2.14	Forgot password	. 54
	2.2.2.15	AUDIT TRAIL	. 55
	2.2.2.16	MULTI-LINGUAL	. 55
3	ASSUMPT	IONS & LIMITATIONS	. 56
4	RS TRAC	KER AND FS TAG MAPPING	. 57



1 INTRODUCTION

1.1 Organization of the Document

 \checkmark The first chapter of this document gives an introduction with brief background and organization of the document.

 \checkmark The second chapter covers the detailed specifications and approach of the enhancements.

 \checkmark The third chapter of this document provides details about Assumptions and limitations of the customization.

✓ The seventh chapter of this document gives details and relationship between the RS and this functional document

1.2 Acronyms and Abbreviations

CBS	Core Banking System			
Bfsi	Bfsi software consulting pvt. Ltd.			
LOV	List of Values			



2 REQUIREMENT DESCRIPTION

2.1 Requirements Overview

Microfinance is a general term to describe financial services to low-income individuals, or to those who do not have access to typical banking services. Microfinance is also the idea that low-income individuals are capable of lifting themselves out of poverty, if given access to financial services.

Apart from financing, many of the MFIs accept Micro-deposits also, which inculcate saving habits to individuals.

MFIs also engaged with their customers in exchanging foreign currency into local currency and vice versa.

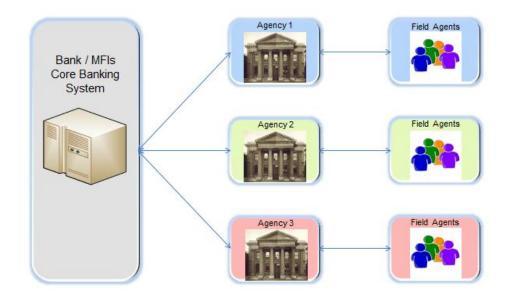
Currently, most of the MFIs work on paper-based workflow, in which field agent visits various customers and updates internal register in written about all disbursements and collections done for the day. Similarly, the currency exchanges done by field agents would be updated manually in a register. This process involves a lot of data entry errors between the actual data and the data given by field agent and the data fed in into core system at back office. There is also a delay in processing, and collecting loans using this strategy. Moreover MFI does not have any control over their field agents, who are dealing with cash given by MFI as in Loan disbursement, as well as cash given by customers as in Loan repayment.

To overcome above stated pain points, a solution is required for MFIs to automate various customer touch-point operations and to reduce the turnaround time for various processing. Solution should also reduce the risk of fraudulent third parties claiming themselves as a MFI agent, who collects money from MFI customers.

Admin Module Requirements:

A user interface of Admin module is required for MFI/Bank to perform certain administration activities.

There should be a facility in Admin module to maintain and track various agencies/partner networks of MFI/Bank as different entities. A typical structure is represented below:





Below admin functionalities are required to be available in web user interface:

- 1. User Management
- 2. Role Management
- 3. Location Management
- 4. Device Management
- 5. Agent Management
- 6. Cash Limits for Agents
- 7. Agent Cash Settlement
- 8. Authorization of Synced Transactions
- 9. Interface with Core Banking System

Mobile Application Requirements:

A mobile application is required for MFI field agents to perform below operations:

Security Management Operations

- A. Login into application
- B. Logout from application

Data Transfer Operations

C. Sync Data with Intermediary server

Customer Touch-point Operations

- D. Loan disbursement to customer
- E. Loan repayment collection from customer

Reports/Inquiries

- F. Agents Agenda
- G. Transactional Activity
- H. Cash Position Inquiry

Other Operations

- I. Change Password
- J. Preferences Setup



2.2 Functional Approach

To achieve the features stated in Requirements overview section above, a user interface will be developed for MFI Administrators to perform certain administration activities. A mobile application for Field agents will also be developed to perform various operations mentioned in Requirements overview section.

2.2.1 Admin Functions

Below functionalities will be developed as part of Admin module.

- 1. Agency Management
- 2. Role Management
- 3. Policy Management
- 4. User Management
- 5. Location Management
- 6. Device Management
- 7. Agent Management
- 8. Loan Assignment
- 9. Disbursement Schedule Maintenance
- 10. Agent Cash Settlement
- 11. Authorization of Synced Transactions
- 12. Interface with Core Banking System
- 13. View Transactions
- 14. Credit Officer Dashboard
- 15. Audit Trail
- 16. Multi-lingual

2.2.1.1 Agency Management

- ✓ Agency management is required if MFI/Bank has a tie-up with external agencies to perform various operations.
- ✓ Facility will be developed to maintain various external agencies in intermediary server.
- ✓ Below details would be maintained as part of Agency management in intermediary server:
 - o Agency Code
 - Agency Description
 - Address Line 1
 - o Address Line 2
 - o Address Line 3
 - o Address Line 4
 - Agency Contact number

Operations:

- ✓ Viewing details of an agency record would be allowed.
- ✓ Deletion of an agency record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of an agency record would be allowed.
- Closure of an agency record would be allowed. Once the record is closed and authorized, the particular agency cannot be used further. Closure of an agency would be allowed provided there are no agents mapped under the particular agency. If there are active agents



mapped to the particular agency is available, closure of an agency would not be allowed and an appropriate error message will be displayed.

✓ Authorization of an agency record would be allowed, provided if any of the operations such as creation, modification or closure performed on the particular agency record is in unauthorized status.

Screenshots:

List Agency

	108.1.253:9090/agei	ncyadmin/listAgencyDe	etails.xntml					ର୍ଟ
							Welcome VII Last Login :29	IAY SINGH -Apr-2014 12:41:29 Pi
tions	Agency Management							
etail	Agencies List					Search All Fields		Add A
tion Tracker	Agency Code ≎	Agency Description \$	Address Line1 \$	Address Line2 \$	Address Line3 \$	Address Postal Code 😂	Agency Contact Number 😂	Authorise \$
Data								
History	AG001	Agency 1	Address 1	City1	sada	560001	08022418072	Authorized
Thistory	AG002	Agency 2	Address 2	City		560002	08024312567	Authorized
	AG003	Agency 3QWE	AddE	AddE	E	5600010E	3455657687E	UnAuthorized
	AG004	Agency 4	Add1	Add2		32435354	324346573546	Authorized
ash Settlements	AG005	Agency 5	Add1	Add2		2436575	32423546567	Authorized
	DVSVDSVFDS	VDSVDSVDSVDSV	DSVDSVDSV	DSVDSVDSV	DSVDSVDSV	DSFVDSVDSVDS	3245464565467	UnAuthorized
ers	Nirmal	Nirmal	Nirmal	Nirmal	Nirmal	Nirmal	525423423	Authorized
	RELIANCE	TRENDS1	100 FEET ROADE	INDIRANAGAR	BANGALORE	560010	9972219288	Authorized
	asdf	asdf	asdfsa	adasd	asdasd	asd	4444444444	Authorized
Parameters					× 1 >> >-			
icture								
llocations								

Add Agency

@ 192.168.1.253:9090/age		
← → C 🗋 192.1	.68.1.253:9090/agencyadmin/addAgencyDetail.xhtml	Q 🕸 🗄
`		Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM
Transactions	Agency Management	
Loan Detail	New Agency Entry	Save Cancel
Transaction Tracker	Agency Code *	
Banking Data	Agency Description *	
CBS Job History Logistics	Address Line1 *	
	Address Line2 *	
Agents Agent Cash Settlements	Address Line3	
Agency	Address Postal Code *	
Customers	Agency Contact Number *	
Jevices		
System Parameters		
Isers		
nfrastructure		
gent Allocations		
Roles		
	Copyright BFS Consulting Private Ltd.	



2.2.1.2 Role Management

- ✓ Role determines the activities which a user can perform in intermediary server w.r.t various functions.
- ✓ A screen will be developed to maintain Roles in intermediary server.
- ✓ Below details would be maintained as part of Role management in intermediary server:
 - o Role ID
 - Role Description
 - Function ID Function ids of various screens available in intermediary server would be listed.
 - o Operations Facility to select desired operations against particular function id.

Operations:

- ✓ Viewing details of a role would be allowed.
- Deletion of a role record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of a role record would be allowed.
- ✓ Authorization of a role record would be allowed, provided if any of the operations such as creation or modification performed on the particular role record is in unauthorized status.

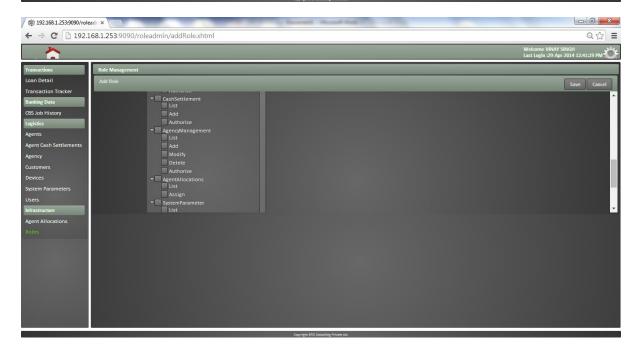
Screenshots:

List Role

Wekome VINAY SINGH	168.1.253:9090/rolea		the second deal that has a second deal of the	
Role Management AdMINISTRATOR	C 192.1	68.1.253:9090/roleadmin/listRoles.xhtml		ର 😭
Statul Search All Fields Add IF status Tracker Role Istance Company Role Description: Company Status Company Data AdMINISTRATOR Administrator of the system Authorized History AdMINISTRATOR Administrator of the system Authorized ADMINISTRATOR Administrator of the system Authorized administrator of the system Authorized Authorized administrator of the system Administrator of the system Authorized administrator of the system Administrator of the system Authorized administrator of the system Cocket RA Authorized Authorized administrator of the system Authorized Authorized administrator of the system Authorized Authorized administrator of the system Role Base Authorized administrator of the system Authorized Authorized administrator of the system Authorized Authorized adatore the system Authorized </th <th>`</th> <th></th> <th></th> <th>Wekome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM</th>	`			Wekome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM
teal Role Description: Status 0 Data Administrator of the system Authorized ADMINISTRATOR CHECKER OR AUTHORIZER Authorized Authorized CHECKER OR AUTHORIZER Authorized ALTORIZE CHECKER OR AUTHORIZER Authorized Authorized Authorized Authorized Alanoles FISTROLEI Authorized Alanoles Authorized Authorized ADMIN CHECKER CASH SETILEMENT Authorized Authorized CASH SETILEMENT Authorized Authorized CASH SETILEMENT Authorized	ons	Role Management		
Role Name: * Role Decirption: * Status * AdMinistrator of the system Administrator of the system Authorized ADMINISTRATOR Administrator of the system Authorized ADMINISTRATOR Administrator of the system Authorized Modify test Modify test Authorized Modify test Modify test Authorized ADMINISTRATOR TESTROLE Authorized ADMINISTRATOR ROLE1 UnAuthorized AUROLES AUROLES Authorized ROLE2 CASH SETLIEMENT Authorized ROLE2 CASH SETLIEMENT Authorized	ail	Roles List		Add R
Add Add istory Administrator of the system Authorized ADMINISTRA CHECKER OR AUTHORIZER Authorized Check12 check123 Authorized ALROLES ALROLES ALROLES Authorized ROLE1 Check12 Authorized Authorized ROL2 CASH STILLENT Authorized Authorized		Role Name: 🌣		
AdMINISTRATOR Administrator of the system Authorized ADMINISTRATOR Administrator of the system Authorized ADMINISTRATOR Administrator of the system Authorized Modify test Modify test Authorized Modify test Modify test Authorized ADMINISTRATOR CHECKER OR AUTHORIZER Authorized ADMINICHECKER CHECKER OR AUTHORIZER Authorized ADMINICHECKER CHECKER OR AUTHORIZER Authorized AUROLES ALROLES Authorized AUROLES ALROLES Authorized ROLE1 ROLE2 CASH SETLIEMENT Authorized				
ADMINANKR Admin Maker Role Authorized Modify test Modify test Authorized Modify test Modify test Authorized TESTROLE TESTROLE Authorized ADMIN CHECKER CHECKE RO & AUTHORIZER Authorized Check12 check123 Authorized IESTROLE1 TESTROLE1 Authorized ROLE1 ROLE1 ROLE1 UnAuthorized ROLE2 CASH STILLEMENT Authorized			Administrator of the system	Authorized
Modifytest Modifytest Authorized TESTROLE TESTROLE Authorized ADMIN OFLECKR OFCOSE OPA JUTIORIZER Authorized Check12 check123 Authorized TESTROLE1 TESTROLE1 Authorized ALROIES AlLROIES Authorized ROLE1 ROLE1 UnAuthorized ROLE2 CASH SFILIEMENT Authorized	listory			
rs TESTROLE Authorized ADMIN CHECKER CHECKER OR AUTHORIZER Authorized rs check122 check123 Authorized ALLROLES ALLROLES Authorized arameters ROLE1 ROLE1 UnAuthorized RoL2 CASH SETLIEMENT Authorized		Contraction of the second s		
Audmit Valuada Audmit Valuada Obecki 2 checki 23 Authorized rs TESTROLE1 Authorized Authorized ALLROLES ALLROLES Authorized Authorized arameters ROLE1 ROLE3 Authorized Authorized rameters ROLE2 CASH SETLIEMENT Authorized Authorized				
rs IESTROLE1 TESTROLE1 Authorized Authorized Authorized Authorized Authorized Authorized Authorized Authorized RoLE1 ROLE2 CASH SETLIEMENT Authorized Auth	sh Settlements	ADMIN CHECKER	CHECKER OR AUTHORIZER	Authorized
ALROLES ALLOLES Authorized Authorized ROLE1 ROLE1 ROLE1 UnAuthorized ROLE2 CASH SETLEMENT Authorized Authorized				Authorized
Araneters RoLE1 ROLE1 UnAuthorized RoLE2 CASH STILLEMENT Authorized Authorized Mrt LZ FF	5	TESTROLE1	TESTROLE1	Authorized
rameters ROLE2 CASH SETLLEMENT Authorized		ALLROLES	ALLROLES	Authorized
ROLE2 CASH SETLLEMENT Authorized		ROLE1	ROLE1	UnAuthorized
lure la	anameters	ROLE2	CASH SETLLEMENT	Authorized
me				
locations	ture			
	ocations			



192.168.1.253:9090/role	adi 🗙 🔚 ana ang ang ang ang ang ang ang ang ang	
← → C 🗋 192.1	168.1.253:9090/roleadmin/addRole.xhtml	९ ☆ =
· 🏠		Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM
Transactions	Role Management	
Loan Detail	Add Role	Save Cancel
Transaction Tracker Eanling Data CBS Job History Loginities Agents Agents Agents Agenty Customers Devices System Parameters Users	Role Name:* Role Description: * Entitlements:	Í
Infrastructure Agent Allocations Roles	Authorize	



2.2.1.3 Policy Management

- ✓ There are several policies which Bank/MFI would like to enforce at different stages. Policy to setup a password is a typical example. In such case, MFI/Bank would like to define the characteristics of a password, to which passwords of all users should comply.
- ✓ Facility will be developed to maintain various policies in intermediary server.
- ✓ Facility to maintain Policies for User id, Password and Device will be developed in intermediate server.
- ✓ Below details can be maintained as part of User id policy, which would be applicable for the User id of both User and Agent:



- Upper Case Allowed
- Maximum Upper Case Allowed
- Lower Case Allowed
- Maximum Lower Case Allowed
- o Special Character Allowed
- Maximum Special Character Allowed
- Maximum Length
- Minimum Length
- Below details can be maintained as part of Password policy, which would be applicable for the Password of both User and Agent:
 - Upper Case Allowed
 - Maximum Upper Case Allowed
 - Lower Case Allowed
 - Maximum Lower Case Allowed
 - o Special Character Allowed
 - Maximum Special Character Allowed
 - Maximum Length
 - Minimum Length
 - No of Consecutive Failed Logins Allowed
 - Password Expiry Days
 - First Character
- ✓ Below details can be maintained as part of Device policy:
 - No of Days for Mandatory Sync If a field agent has not synced his device with intermediary server beyond the given number of days, he will not be allowed to perform any transaction in his device, other than syncing with intermediary server.

Operations:

- ✓ Viewing details of a policy would be allowed.
- Deletion of a policy record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of a policy record would be allowed.
- ✓ Authorization of a policy record would be allowed, provided if any of the operations such as creation or modification performed on the particular policy record is in unauthorized status.



@ 192.168.1.253:9090/system ×		Million Application (117) resp	and, Mall Streed High	
← → C 🗋 192.168.1.25	3:9090/systemparameter/listSystemParame	eters.xhtml		☆ » =
🗰 Apps 🛛 💆 Earthquakes Today	🗀 Narayanaswamy 🛛 🗋 Barakat Hotel Apart			
egalite				Wekome Narayanaswamy VL Last Login :30-Apr-2014 02:51:10 PM
Transactions	System Parameter Management			
Loan Detail	System Parameter Management			Modify
Transaction Tracker				· · · · · · · · · · · · · · · · · · ·
Banking Data	Param Name	Param Value		
CBS Job History	CBS INTERFACE POLLING ENABLED	True		
Logistics	CBS INTERFACE POLLING INTERVAL IN SECONDS	45		
Agents	DAYS FWD DISB AGENDA	56		
Agent Cash Settlements	DAYS FWD REPAY AGENDA	0		
Agency				
Customers	DAYS SYNC	4		
Devices	DEBUG	tuy		
System Parameters	DEBUG_AREA	\\MFI_APP_IBS\\DB_Debug		
Users	DEFAULT AGENT LOGIN EXPIRY DAYS	56		
Customer Enrollment				•
Enrol Customer				
Infrastructure				
Agent Allocations				
Roles				
		Copyright BPSI Consulti	ng Private Ltd.	

192.168.1.253:9090/syst	tem ×	a set of the second second second	the Comparison States Street State	
← → C 🗋 192.1	168.1.253:9090/systemparameter/listSystemparameter	mParameters.xhtml		었 » =
🔢 Apps 🚾 Earthquakes	Today 🧰 Narayanaswamy 🕒 Barakat Hotel Apa	irt		
_{egalite}				Wekome Narayanaswamy VL Last Login :30-Apr-2014 02:51:10 PM
Transactions	System Parameter Management			
Loan Detail	System Parameter Management			Modify
Transaction Tracker			1	
Banking Data	DEFAULT DEVICE SYNCH BATCH SIZE	100		
CBS Job History	HOST NAME	192.168.1.253:8443		
Logistics	INSUFFICIENT BALANCE OVERRIDE	True	1	
Agents	MINIMUM MOBILE FAILED LOGINS	25		
Agent Cash Settlements	MINIMUM MOBILE LOGIN PASSWORD LENGTH	15		
Agency	MINIMUM PASSWORD LENGTH	6		
Customers				
Devices	MOBILE REGISTRATION KEY EXPIRATION TIME	1050		
System Parameters	MOBILE REGISTRATION KEY LENGTH	8		
Users	NUMBERS OF INVALID LOGINS	3		
Customer Enrollment				
Enrol Customer				
Infrastructure				
Agent Allocations				
Roles				
		Copyr	right BFSI Consulting Private Ltd.	



@ 192.168.1.253:9090/sy	ystem ×	· ···· ·······························	and a Comparison Made Street Made	
← → C 🗋 192	2.168.1.253:9090/systemparameter/listSyste	mParameters.xhtml		× 53
🔢 Apps 🛛 🚰 Earthquake	es Today 📋 Narayanaswamy 🕒 Barakat Hotel Ap	art		
~				Welcome Narayanaswamy VL Last Login :30-Apr-2014 02:51:10 PM
galite	-			
ransactions	System Parameter Management			
oan Detail	System Parameter Management			Modify
ransaction Tracker	HOST NAME	192.168.1.253:8443		
anking Data BS Job History	INSUFFICIENT BALANCE OVERRIDE	True	1	
ogistics	MINIMUM MOBILE FAILED LOGINS	25		
gents	MINIMUM MOBILE LOGIN PASSWORD LENGTH	15		
gent Cash ettlements	MINIMUM PASSWORD LENGTH	6		
gency	MOBILE REGISTRATION KEY EXPIRATION TIME	1050		
ustomers	MOBILE REGISTRATION KEY LENGTH	8		
Devices	NUMBERS OF INVALID LOGINS	3		
	NUMBERS OF RETRY	96		
Jsers Justomer Enrollment	LL			
nrol Customer				
frastructure				
gent Allocations				
oles				

2.2.1.4 User Management

- ✓ A screen will be developed to maintain Users in intermediary server. Either User details can be created in intermediary server or it can be pulled from core system, based on the availability of data in core system.
- ✓ Below details would be maintained as part of User management in intermediary server:
 - User ID (It should comply with User ID policy, if maintained)
 - User Name
 - Branch Code
 - Date of Birth
 - o Gender
 - o Communication Address Line 1
 - o Communication Address Line 2
 - Communication Address Line 3
 - o Communication Postal Code
 - o Permanent Address Line 1
 - o Permanent Address Line 2
 - o Permanent Address Line 3
 - o Permanent Postal Code
 - o Mobile Number
 - o Email ID
 - o Password (It should comply with Password policy, if maintained)
 - o User Start Date
 - User End Date
- User Status Status of the User based on which access to the application would be determined.
 - Enabled By default, the user status would be enabled. User should be allowed to login into application, only if the user status is enabled
 - Disabled User status can be changed to disabled, if the access to the application has to be restricted for the particular user. The user status can be changed to enabled again to provide access to the particular user.



 Locked – The user status would be changed to locked automatically, if the user has attempted to login into application with wrong password consecutively beyond the predefined number of times. In such cases, the user status has to be changed to enabled again manually to allow login into application with correct password.

Mapping Roles to User:

- \checkmark There will be subsystem to map roles to a user.
- ✓ Facility to map more than one role to a user would be developed, based on which access rights for various functions and allowed operations on those functions would be determined.

Operations:

- ✓ Viewing details of a user would be allowed.
- Deletion of a user record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of a user record would be allowed.
- ✓ Closure of a user record would be allowed.
- ✓ Authorization of a user record would be allowed, provided if any of the operations such as creation, modification or closure performed on the particular user record is in unauthorized status.

Reset User Password:

A screen would be developed to reset the password of a user. Typically this would be done by an administrator user, who can reset the password of a user, based on users request, in case if they had forgotten their password.

Screenshots:

List Users

	-				Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:2
ns	User Management				
ail	Users List			Search All Fields	
on Tracker ata	User Id 🗇	First Name 🗢	Last Name ≎	User Status 🗢	Authorise 🗢
istory	ADMINMKR1	Admin	Maker	Active	Authorised
istory	BABLU123	BABLU123	BABLU123	Active	Authorised
	LUCKY1	Lakshmanan	cs	Active	Authorised
	LUCKY2	Lakshman	LUCKY CS	Active	Authorised
sh Settlements	LUCKY3	Lakshmanan	cs	Active	Authorised
	Nirmal	Nirmal	Kanna	Active	Authorised
	RAM	Ravi	Rampaul	Active	Authorised
	RAVI	Ravi	Rampaul	Active	Authorised
arameters	RESET1	VIKRAM	DESAI	Active	Authorised
numerers	SASI	Sasi	Marudasalam	Active	Authorised
			123 P> PI		
ure					
ocations					



192.168.1.253:9090/use	rad ×	
← → C 🗋 192.1	168.1.253:9090/useradmin/addUser.xhtml	ର 🏡 🚍
		Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM
Transactions	User Management	
Loan Detail	User Registration	Save Cancel
Transaction Tracker Banking Data CBS Job History Logistics Agents Agents Agents Agents Castomers Devices System Parameters Users Infrastructure Agent Allocations Roles	User Id * First Name * Last Name * Password * Pass	

← → C 192.168.1.253:9090/useradmin/addUser.xhtml	द ☆ =
	423 =
Wekome VINAY SINGH Last Login 229-Apr-2014	12:41:29 PM ÖF
Transactions User Management	
Loan Detail User Registration	we Cancel
Transaction Tracker Branch Code - 800 V	
Banking Data of Birth	
CBS Job History Gender * Male Female	
logistics Communication Address Line1	
Agents Communication Address Line2	
Agent Cash Settlements Communication Address Line3	
Agency Communication Address Postal Code	
Customers Permanent Address Line1	
Devices Permanent Address Line2	
System Parameters Permanent Address Line3	
Users Permanent Address Postal Code	
Infrastructure Mobile number chould be country code and number (Ex. 9199999).	*
Agent Allocations	
Roles	

enabling expertise

192.168.1.253:9090/use		
← → C 🗋 192.1	168.1.253:9090/useradmin/addUser.xhtml	Q ☆ =
~		Welcome VINAY SINGH
		Last Login :29-Apr-2014 12:41:29 PM
Transactions	User Management	
Loan Detail	User Registration	Save Cancel
Transaction Tracker Banking Data	Permanent Address Line3	
CBS Job History	Permanent Address Postal Code	
Logistics	Mobile Number (Ex: 9199999).	
Agents	Email Id	
- Agent Cash Settlements	User Type Credit Officer	
Agency	User Status Active T	
Customers	Start Date * 29-Apr-2014 @	
Devices	End Date 6	
System Parameters	Mave Role Records	
Users		
Infrastructure	Role Id: C Role Name: C	· · · · · · · · · · · · · · · · · · ·
Agent Allocations		
Roles		
	Copyright #310 Consulting Private Uds.	
🖉 🍿 192.168.1.253:9090/use		
← → C 🗋 192.1	168.1.253:9090/useradmin/addUser.xhtml	ର୍ମ୍ଯ ≣
~		Welcome VINAY SINGH
		Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM
Transactions	User Management	
Loan Detail	User Registration	Save Cancel
Transaction Tracker	Move Role Records	·
Banking Data		
CBS Job History	Role M: Control Role Name: Control Role Name	
Logistics Agents	ROL00000 ADMINISTRATOR	
Agent Cash Settlements	R0L00001 ADMINMKR R0L00002 Modify test	
Agency	ROL00002 Modify test ROL00003 TESTROLE	
Customers	BOLID0004 ADMIN CHECKER	
Devices	R0L00005 Check12 Role Id: Role Name:	
System Parameters	ROL00006 TESTROLE1	
Users	ROL00007 ALLROLES	
Infrastructure	ROL00009 ROLE2	



Reset/Change password

192.168.1.253:9090/us	erad ×	And I was been descent that I would be	
← → C 🗋 192	168.1.253:9090/useradmin/changePasswd.xhtml		Q 났 🔳
egalite			Welcome VINAY SINGH Last Login :29-Apr-2014 01:03:33 PM
Transactions Loan Detail Transaction Tracker Baading Data Cols Job History Logistics Agent Cash Settlements Agent Cash Settlements Customers Devices System Parameters Users Agent Allocations Roles	User Id TESTER7 Existing Password Confirm Password Confir		Save Cancel

2.2.1.5 Location Management

- ✓ There can be several locations in a village and those locations are to be maintained, in order to map it to a field agent, if required.
- ✓ A screen will be developed to maintain Locations in intermediary server.
- ✓ Below details would be maintained as part of Location management in intermediary server:
 - Location ID
 - Location Name
 - o Landmark
 - o Branch Code

Operations:

- ✓ Viewing details of a location would be allowed.
- ✓ Deletion of a location record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of a location record would be allowed.
- ✓ Authorization of a location record would be allowed, provided if any of the operations such as creation or modification performed on the particular location record is in unauthorized status.

2.2.1.6 Device Management

- ✓ Devices which will be used by field agents to capture transactions details, are to be maintained in intermediary server. E.g.: Mobile device, Laptop, etc.,
- ✓ A screen will be developed to maintain Devices in intermediary server.
- ✓ Below details would be maintained as part of Device management in intermediary server:



- - Device ID 0 Device Type 0
 - Unique ID
 - 0 Issued Date
 - Issued By
 - o Brand Model
 - Operating System
 - App Version
 - Mobile Number
- Device Status Status of the Device based on which syncing of data between intermediary ~ server and device would be allowed.
 - o Active Data sync would be allowed between intermediary server and agents devices, only if the status of the particular device is in active status.
 - 0 Inactive - Data sync would not be allowed between intermediary server and agents devices, if the status of the particular device is in inactive status.
- ✓ Last Sync Date Date and time would be updated automatically, whenever a device has been synced successfully with intermediary server.

Operations:

- Viewing details of a device would be allowed. \checkmark
- ✓ Deletion of a device record would be allowed provided if the record has not been authorized for the first time.
- 1 Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of a device record would be allowed.
- ✓ Authorization of a device record would be allowed, provided if any of the operations such as creation or modification performed on the particular device record is in unauthorized status.

Screenshots:

List devices

actions Device Man Detail Devices List action Tracker ng Data Det bitstory DEV00001 tics DEV00002 Cash Settlements DEV00006 DEV00007 DEV00007 DEV00007 DEV00007 DEV00007	I Device Type Tablet Mobile Mobile Tablet	Unique Id © Com123 A182CC3D4 1233333 dsaasd	Issued Date 0 01-Mar-2014 03-Mar-2014 12-Mar-2014	Last Sync 🗢	Device Status 0	Search All Fields Issued By ≎ Swamy1	Brand Model \$	Welcome VINAY S Last Login :29-Apr Operating System	
Detail Devices List action Tracker Devices k ng Data Devices k ob History Devoool bs Devoool ts Devoool cCash Settlements Devooool cY Devoool Devooool Devooool Devooool Devooool Devooool Devooool Devooool Devooool Devooool Devooool Devoool Devooool	I Device Type Tablet Mobile Mobile Tablet	Com123 A1B2CC3D4 1233333	01-Mar-2014 03-Mar-2014	Last Sync 🗘	Inactive	Issued By ≎			(Constanting
Detail Device k ag Data Device k ab History DEV00001 bis DEV00002 ts DEV00005 OEV00005 DEV00005 cy DEV00007 DEV00007 DEV00007 pev00007 DEV00007 option DEV00007	Tablet Mobile Mobile Mobile Tablet	Com123 A1B2CC3D4 1233333	01-Mar-2014 03-Mar-2014	Last Sync 🗢	Inactive	Issued By ≎			(Constanting
Image Data DCLV00001 bb History DEV00001 sc DEV00002 s DEV00002 s DEV00005 DEV00005 DEV00005 SY DEV00007 DEV00007 DEV00007	Tablet Mobile Mobile Mobile Tablet	Com123 A1B2CC3D4 1233333	01-Mar-2014 03-Mar-2014	Last Sync ≎	Inactive				App Version
b History DEV00001 ss DEV00002 cash Settlements DEV00005 p Ev00006 DEV00007 ners DEV00007	Mobile Mobile Mobile Tablet	A1B2CC3D4 1233333	03-Mar-2014			Swamy1			
Stock DEV00002 DEV00002 DEV00004 DEV00005 DEV00006 DEV00006 DEV00006 DEV00007 DEV00007 DEV00008 DEV00008	Mobile Mobile Mobile Tablet	A1B2CC3D4 1233333	03-Mar-2014			Swamy1			
Cash Settlements DEV00004 DEV00005 DEV00006 DEV00007 DEV00008	Mobile Mobile Tablet	1233333		1			Samsung	Android	Beta
ash Settlements DEV00005 DEV00006 DEV00007 Pers DEV00008	Mobile Tablet	17515002200000	12-Mar-2014		Active	fsdgfhgqwss	asfdgnf	asfdhgjf	asdhgjf
DEV00006 DEV00007 Prs DEV0008	Tablet	dsaasd			Active	Vinay	Note2	Android	4.2
DEV00006 DEV00007 DEV00008			12-Mar-2014		Active	adads111	sdaddd	sadsd	sadsd
ers DEV00008	A REAL PROPERTY AND A REAL	31243567586	13-Mar-2014		Active	Swamy	Samsung	Android	Beta
DEVOCOS	Mobile	1233333	14-Mar-2014		Active	Swamy	Samsung	Android	Beta
051/00000	Tablet	123334	18-Mar-2014		Active	dgbfdbfdb	bfdbLL	fdbfdbf	dbfd
DEVOUUS	Mobile	@#\$\$R%%^&&	18-Mar-2014		Active	sfvdsvsdfsdf	dsfdsfdsfd	dsfdsfdsfdsfdsf	dsfdsfdsfdsfs
Parameters DEV00010	Mobile	@@#\$%%^^&&	19-Mar-2014		Active	wfwfqwf	wqfqf	qwfwqqwf	qwfwqfqfqf
DEV00011	Mobile	3564586	19-Mar-2014		Active	Swamy1	Nexus	Android	Beta
icture 4									
llocations				· · · · 1	12				



.168.1.253:9090/de	68.1.253:9090/deviceadmin/addDevice.xhtml	
G [] 192.	08.1.253:9090/deviceadmin/addbevice.xntmi	
		Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PW
ions	Device Management	
tail	New Device Entry	Save
tion Tracker	Device Id DEV00017	
Data	Device Type Mobile V	
History	Unique Id *	
	Issued Date 29-Apr-2014 0	
ash Settlements	Last Sync	
ash Settlements	Device Status Active	
ers	Issued By *	
	Brand Model	
Parameters	Operating System *	
	App Version *	
cture	Mobile Number *	
llocations		

2.2.1.7 Agent Management

- ✓ A screen will be developed to maintain Agents in intermediary server. Either Agent details can be created in intermediary server or it can be pulled from core system, based on the availability of data in core system.
- ✓ Below details would be maintained as part of Agent management in intermediary server:
 - Agent ID (It should comply with User ID policy, if maintained)
 - Agent Name
 - Agency Code
 - o Date of Birth
 - $\circ \quad \text{Gender}$
 - Agent Type
 - o Credit Officer
 - o Cash Limit
 - Device ID
 - Communication Address Line 1
 - Communication Address Line 2
 - Communication Address Line 3
 - Communication Postal Code
 - o Permanent Address Line 1
 - Permanent Address Line 2
 - o Permanent Address Line 3
 - o Permanent Postal Code
 - Mobile Number
 - o Email ID
 - o Password (It should comply with Password policy, if maintained)
 - o Agent Start Date
 - Agent End Date
 - Agent Language
- ✓ Agent Status Status of the Agent based on which access to the mobile application would be determined.



- Enabled By default, the agent status would be enabled. Agent should be allowed to login into application, only if the agent status is enabled
- Disabled Agent status can be changed to disabled, if the access to mobile application has to be restricted for the particular agent. Restriction to access mobile application would work only after the agent status changed in intermediate server has been synced with device. The agent status can be changed to enabled again to provide access to the particular user, provided the changed agent status has been synced with device again. Device sync would not be allowed with agents device, if the agent status is disabled.
- Locked The agent status would be changed to locked automatically, if the user has attempted to login into application with wrong password consecutively beyond the predefined number of times. The locked status would be updated in intermediary server upon device data sync. In such cases, agent would be using forgot password option available in mobile application to retrieve his password.

Mapping Locations to Agent:

- ✓ There will be subsystem to map locations to an agent.
- ✓ Facility to map more than one location to an agent would be developed.

Operations:

- ✓ Viewing details of an agent would be allowed.
- Deletion of an agent record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of an agent record would be allowed.
- ✓ Closure of an agent record would be allowed.
- ✓ Authorization of an agent record would be allowed, provided if any of the operations such as creation, modification or closure performed on the particular agent record is in unauthorized status.

Screenshots:

List Agents

tions	Agent Managemen List of Agents						_		7	
etail		1	1	1	-	4	Search All Fields			Add
ction Tracker	Agent Id ≎	First Name 💲	Last Name \$	Credit Officer \$	Device \$	Agent Type 💲	Agent Status 🗢	Registration Status \$	Registration Key 😂	Expired Time
History										
	AGT00001	asefasdf	asdfsadf	RAM		Field Agent	Active	UnRegistered	412671	16-Apr-2014 10:30:52
	AGT00002	VXCCV	ASSA	RAVI	DEV00002	Field Agent	Active	UnRegistered	791425	25-Mar-2014 07:51:27
sh Settlements		-		1			1 200	1 mer 20 mi		26-Mar-2014
	AGT00003	Ramans	Santoshas	Nirmal		Credit Officer	Active	UnRegistered	050390	05:57:51
	AGT00004	asefasdfg	asdfsadf	Nirmal	DEV00007	Credit Officer	Active	UnRegistered	1.000	
rs	AGT00005	adasd	sadsad	RAM		Credit Officer	Active	UnRegistered		
	AGT00006	ASDSAD	ASDASD	RAM		Credit Officer	Active	UnRegistered		
arameters	AGT00007	Siva	AB	RAM	DEV00006	Field Agent	Active	UnRegistered		
	AGT00008	Field	Agent	SWAMY2		Field Agent	Active	UnRegistered		
ture	AGT00009	Narayanaswamy	Viswanathan	ADMINMKR1	DEV00004	Field Agent	Active	UnRegistered		
ocations	AGT00010	Abdul	Kalam	SWAMY1		Field Agent	Active	UnRegistered		
1						2				



Add Agent

192.168.1.253:9090/age	enta ×	the second strengthened manufactory of the	
← → C 🗋 192.1	L68.1.253:9090/a	/agentadmin/addAgent.xhtml	ସ 🛣 🔳
`			Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM
Transactions	Agent Managemen	nt	
Loan Detail	Agent Registration		Save Cancel
Transaction Tracker	Agent Id	AG700015	
Banking Data	Credit Officer *	ADMINMKR1 •	
CBS Job History	Agency Code	AG001 T	
Logistics	Agent Type *	Credit Officer	
Agents	Agent Status *	Active	
Agent Cash Settlements	Cash Limit	0	
Agency	Device	Select	
Customers	User Name *	AGT00015	
Devices	First Name *		
System Parameters	Last Name *		
Users	Date of Birth		
Infrastructure	Gender •		·
Agent Allocations			
Roles			
		Copyright 855 Consulting Private Ltd.	
••••••••••••••••••••••••••••••••••••••			
192.168.1.253:9090/age	enta ×	the second second band had held by other	
← → C 🗋 192.1	L68.1.253:9090/a	/agentadmin/addAgent.xhtml	ର 🏫 🚍

← → C 🗋 192.1	168.1.253:9090/agentadmin/addAgent.xhtml	ର ☆ =
· .		Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM
Transactions	Agent Management	
Loan Detail	Agent Registration	Save Cancel
Transaction Tracker	Date of Birth *	
Banking Data	Gender* Male Female	
CBS Job History Logistics	Address Line1	
Agents	Address Line2	
Agent Cash Settlements	Address Line3	
Agency	Address Postal Code	
Customers	Mobile Number Mobile number should be country code and number (Ex: 9199999). Email Id	
Devices	Start Date 29-Apr-2014 @	
System Parameters		
Users	End Date (9) Language * English T	
Infrastructure	contraction in the second s	
Agent Allocations		
Roles		

2.2.1.8 Loan Assignment

- ✓ All the loans accounts which are created in core system but not assigned to any of the field agents yet, are to be assigned to one of the field agents by relevant credit officers, in order to service the particular loan account.
- ✓ A view would be provided for credit officer to see all unassigned loan accounts for which the particular credit officer is responsible.
- ✓ A screen will be developed to assign a field agent to a loan account.



- ✓ Once a loan account has been mapped to a field agent, servicing details of the particular loan account such as disbursement and repayment collection details would be automatically sent to the relevant field agents device based on the schedule upon syncing.
- ✓ Below details would be maintained as part of Loan assignment in intermediary server:
 - o Advances Number
 - o Agent ID

Screenshots:

List loans

Loan D	etail List			Search All Fields			All Fields	Bulk Assign		
	Loan A/C Number ♦	Branch Code 🗘	Customer ID 🗘	Customer Name 🗘	Amount Sanctioned	Loan Currency 🗘	Amount Disbursed till Date 🗢	Last Disbursement Date 💲	Location Name \$	
	0000101133540004	000	00000021	Deepak	0	USD	0			
	0000101133540005	000	00000021	Deepak	0	USD	0			
	0000101133540007	000	000100002	DONALD	1,000	USD	0			
	0000101133540008	000	000100003	Prinda HIM	1,000	USD	1,000	20-Dec-2013		
	0000101133650006	000	000100003	Prinda HIM	0	USD	0			
	0000101133650012	000	000100061	TEST_LOAN	0	USD	0			
	0000101133650015	000	000100062	TESTING_KR	0	KHR	0			
	0000101133650019	000	000100009	Hang SophakID	6,000,000	KHR	6,000,000	31-Dec-2013		
	0000101133650024	000	000100035	ThavSokly	0	KHR	0			
	0000101133650025	000	000100016	HongRy23	0	KHR	0			
4					234567	8910				
	_							_		

Bulk Assign

	233.9090/Ioanaumin/buikAge	ntAllocations.xhtml			Q 52
1				Welcome Last Logir	VINAY SINGH 1 :29-Apr-2014 12:41:29 PM
	nt Allocations Management gent Allocations			Search All Fields	Save
Tracker	Loan A/C Number 🗧	Customer Name 🗧	Credit Officer 💲	Agent Id Select Agent to assign 🔻	Agent Name
ory	333MF01140031004	Meas Sovanary	SWAMY1	Select Agent to assign AGT00001 ~ asefasdf	
	333MF01140033002	Sambath LeakheNa	SWAMY1	AGT00002 ~ VXCCV	
	333MF02140034003	CHAN RITA	SWAMY2	AGT00005 ~ adasd AGT00009 ~ Narayanaswamy	
Settlements	333MF02140034004	CHAN RITA	SWAMY2	AGT00010 ~ Abdul	
	333MF02140034010	CHAN RITA	SWAMY2	AGT00011 ~ vinay AGT00012 ~ TESTER	
	333MF02140034509	DETH Chansreyroth	SWAMY2	AGT00013 ~ Vinay	
			14 × 1 18 80	AGT00014 ~ SWETHA	
meters					
itions					



				Welcome	Narayanaswamy VL 🗸
				Last Login	:30-Apr-2014 02:51:10 PM
an Detail	Agent Allocations Management				
	sign Agent		Search All F	Fields	Save Cancel
ansaction Tracker	Loan A/C Number 000	Customer Name 🕏	Credit Officer 💲	Agent ID	Agent Name
S Job History	0000101133650026	Jesica		Select 🔹	
gistics	0000101133650030	Prinda HIM		Select T	
ents ent Cash Settlements	0000101133650038	HongRy23		Select 🔹	
ency	0000101133650040	K-TEST13-Loan		Select 🔻	
stomers	0000101133650042	SEM Sokha1		AGT00013 ~ Vinay	
vices	0000101133650049	Meas Leakhena		Select AGT00001 ~ asefasdf	
stem Parameters	0000101140010001	Deepak		AGT00002 ~ VXCCV AGT00005 ~ adasd	
ers	0000101140030007	Sok Rathana		AGT00009 ~ Narayanaswamy AGT00010 ~ Abdul	
rol Customer	0000101140030008	Sok Rathana		AGT00011 ~ vinay AGT00012 ~ TESTER	
rastructure	0000101140030010	Samposh Kang		AGT00013 ~ Vinay AGT00014 ~ SWETHA	
ent Allocations			123456789		
les					

2.2.1.9 Disbursement Schedule Maintenance

- ✓ A screen will be developed wherein a user of MFI/Bank can maintain the disbursement schedule for a loan account.
- ✓ The disbursement schedule can be maintained for the disbursements to be done today or for future disbursements.
- ✓ Based on the disbursement schedule maintained, the particular loan account would be queued in agenda of the respective agent to perform disbursement on field.
- A new list screen will be developed in intermediary server to display all manual disbursement loans.
- ✓ List screen will display below fields
 - Loan account number
 - Branch code
 - Customer id
 - Customer name
 - Currency
 - Amount sanctioned
 - Amount disbursed till date
 - Location name
 - Group name
 - Credit officer
 - Agent id
 - Sync status
- User can double-click on any loan account to view the details of the particular loan. Below details will be displayed in the details screen:
 - o Branch code
 - Loan account number
 - Customer id
 - Customer name



- Location id
 Location name
- Location name
- Group flag
- Group id
- Agent id
- Currency
- Amount sanctioned
- Sanctioned date
- Amount disbursed till date
- Last disbursement date
- Disbursement status
- Overdue status
- Overdue date
- Last repayment date
- Next repayment date
- There will be an option developed in above mentioned detail screen to maintain disbursement schedule for the particular loan.
- Upon the disbursement schedule maintenance option has been invoked by user, a new screen will be displayed to maintain disbursement schedule for the particular loan.
- Below fields would be available as part of Disbursement schedule maintenance:
 - Loan account number (Read-only field)
 - Customer name (Read-only field)
 - Currency (Read-only field)
 - Amount sanctioned (Read-only field)
 - Disbursement date (Input field)
 - Disbursement amount (Input field)
- ✓ There will be options available in disbursement schedule maintenance screen to save or cancel the schedule maintained by the user. If user cancelled the disbursement schedule, the record would not be saved. However if the user has saved the disbursement schedule, the record would be saved and displayed in the details screen mentioned above.
- All the disbursement schedules maintained for a manual disbursement loan will be displayed in different rows in Disbursement schedule block of loan detail screen mentioned above.
 - Below details will be displayed in Disbursement schedule block:
 - Disbursement date
 - Disbursement amount
- ✓ There will be a view button available next to each and every disbursement schedule record.
- When user clicks on view option of a particular disbursement schedule row, a screen will open where below fields will be displayed as read-only.
 - Loan account number
 - Customer name
 - o Currency
 - Amount sanctioned
 - Disbursement date
 - Disbursement amount
- There will be options available to Modify, Delete and Authorize the Disbursement schedule maintained. Delete option will be enabled only before authorization. Authorization option will be enable only if the record is in unauthorized status.
- User can click on modify button to modify the disbursement date and/or disbursement amount. These will become editable, upon user clicks on modify button. User can save or cancel the modification done.
- User can delete a disbursement schedule record before authorization. After the record has been deleted, it should be removed from the view of disbursement schedule block available in loan details screen mentioned above.
- Based on disbursement schedule maintained, the particular loan account will be queued in agenda of respective agent to perform actual disbursement to customer on the field.
- ✓ Only authorized disbursement schedules will be synced with respective agents device.



- In case if the disbursement schedule maintained in intermediary server has been modified, the modified data will be synced with respective agents device on subsequent sync session, and as a result, data in agents agenda will be modified accordingly.
- System will not allow modifying disbursement schedules for which the disbursement date is less than today (back dated).

Operations:

- ✓ Viewing details of disbursement schedule would be allowed.
- Deletion of a disbursement schedule record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of a disbursement schedule record would be allowed.
- ✓ Authorization of a disbursement schedule record would be allowed, provided if any of the operations such as creation or modification performed on the particular disbursement schedule record is in unauthorized status.

2.2.1.10 Agent Cash Settlement

- ✓ A screen will be developed for MFI/Bank user to capture the cash settlements done with agents.
- ✓ Both the operations such as cash handover to agent as well as cash handover by agent will be handled in the same screen.
- ✓ Below details would be maintained as part of Agent cash settlement in intermediary server:
 - o Agent ID
 - o Currency
 - Current cash position (Should be automatically populated based on Agent id and Currency)
 - Cash handover to Agent / Cash handover by Agent (Radio option)
 - Handover amount
- ✓ Based on the handover type, whether it is cash handover to agent or cash handover by agent, the current cash position of the particular agent would be automatically recalculated internally, after the record has been saved.
- ✓ System would allow saving the record, even if there is a shortage or overage.

Operations:

- ✓ Viewing details of agents cash settlement would be allowed.
- ✓ Deletion of agents cash settlement record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of agents cash settlement record would be allowed.
- ✓ Authorization of agents cash settlement record would be allowed, provided if any of the operations such as creation or modification performed on the particular agents cash settlement record is in unauthorized status.



List Agent cash settlements

								Welcome VINAY S	
-	_							Last Login :29-Apr	2014 12:41:29 P
ons	Cash Settlement R	egistration							
ail	Cash Settlement Lists					Search All	Fields		
n Tracker	Agent Id 💲	Currency Code \$	System Position \$	Transaction Type \$	Cashin/Out \$	Remarks \$	Amount \$	Transaction Time 🗘	Authoris
ata									
story	AGT00005	INR	53000.0	Cash	CashOut		50,000	11-Apr-2014 12:30:48	UnAuthorize
story	AGT00002	AUD	-10100.0	Cash	CashIn		10,000	11-Apr-2014 10:50:49	UnAuthorized
	AGT00001	USD	-98000.0	Cash	Cashin		100,000	11-Apr-2014 10:50:31	UnAuthorized
	AGT00002	тнв	-10000.0	Cash	Cashin	Cash in By Vinay	10,000	11-Apr-2014 10:48:08	Authorized
Settlements	AGT00005	USD	1999.0	Adjustment	Cashin		1.11	10-Apr-2014 07:56:02	UnAuthorize
	AGT00009	KHR	-200000.0	Cash	CashIn	Cash in from Narayanaswamy KHR	200,000	26-Mar-2014 04:01:30	Authorized
	AGT00009	USD	-1100.0	Cash	Cashin	Cashin from Narayanaswamy	100	26-Mar-2014 03:59:53	Authorized
i se	AGT00005	CAN	23455.0	Cash	CashOut	saDSFDBGNF	23,455	24-Mar-2014 03:32:57	Authorized
l li	AGT00003	KHR	140000.0	Cash	CashOut	Cash given	140,000	24-Mar-2014 03:31:30	Authorized
ameters	AGT00004	AUD	1000.0	Cash	CashOut		1,000	21-Mar-2014 11:36:25	Authorized
					123	4 5 6			
ure									
ocations									

Add Cash Settlements

192.168.1.253:9090/cas	ahse x	
← → C 🗋 192.:	168.1.253:9090/cashsettlementadmin/addCashSettlement.xhtml	ର୍ମ୍ଯ ≡
		Welcome VINAY SINGH Last Login :29-Apr-2014 12:41:29 PM
Transactions	Cash Settlement Registration	
Loan Detail	New Cash Settlement Entry	Save Cancel
Transaction Tracker	Agent Id * Select T	
Banking Data	Currency Code Select V	
CBS Job History	System Position As on	
Logistics	Transaction Type Cash	
Agents	Cashin/Out * Select •	
Agent Cash Settlements	Remarks	
Agency	Amount *	
Customers		
Devices		
System Parameters		
Users		
Infrastructure		
Agent Allocations		
Roles		
	Copyright BSS Consulting Private Ltd.	

2.2.1.11 Authorization of Synced Transactions

- ✓ A screen will be developed wherein a user of MFI/Bank can authorize transactions done by field agents, after it has been synced with intermediate server.
- ✓ There would be different queues as below:



- Unauthorized transactions
- o Authorized transactions
- Hold transactions
- Transactions sent to core system
- ✓ User would be able to view the complete transaction details captured by field agent, in order to authenticate the transaction.
- ✓ User would be able to authorize transactions in bulk, by selecting all the relevant transactions and authorize.
- ✓ Facility to setup business rules for auto-authorization would be provided. Below are the list of business rules:
 - Auto-authorize all transactions
 - Auto-authorize loan disbursement transactions
 - \circ Auto-authorize transactions if loan repayment amount is same as loan repayment due amount
 - No Auto-authorization of transactions
- ✓ Based on the business rule selected, auto-authorization of transactions would be done after data has been synced with intermediate server from agents devices.
- ✓ Only authorized transactions will be pushed to core system, during exchange of data between intermediary server and core system.
- ✓ User can also mark erroneous transactions as hold, so that those transactions would not be sent to core system. Moving transactions into hold queue rather than leaving it in unauthorized status, will help the MFI/Bank to track these transactions in a better way.
- ✓ For erroneous transactions, the correct entry can be again initiated from agents device and synced with intermediate server and in turn finally sent to core system. Otherwise, the correct entry can also be posted directly in core system.

2.2.1.12 Interface with Core Banking System

- ✓ A screen will be developed wherein a user of MFI/Bank can initiate data exchange between intermediate server and core system.
- ✓ Data exchange would retrieve the latest data from core system and update in intermediate server as well as send the authorized transaction data from intermediate server to core system.
- ✓ After the latest data from core system has been made available in intermediary server, field agents can start syncing data between intermediary server and their devices.
- ✓ All the field agents transactional data for the day should have been essentially synced between their devices and intermediary server, before pushing data from intermediary server to core banking system.
- ✓ Whenever a data exchange has been triggered from intermediary server, be it in the start of the day or at the end of the day, the process of pulling data from core system as well pushing data to core system will happen.
- ✓ Latest data pertaining to below entities would be pulled from core system, as part of data exchange between intermediate server and core system:
 - Customer
 - o Loans



tions	CBS Job Management								
etail	CBS Job History	Job History Search All Fields Start							
tion Tracker	Job Id 😂	Start Time 💲	Started By \$	End Time 💲	No of Loan Fetched 🗇	No of Customer Fetched 🗘			
Data	JOB2014042900001	29-Apr-2014 11:36:40	TESTER7	29-Apr-2014 11:38:07	178	21			
History	JOB2014042500003	25-Apr-2014 04:01:35	SWAMY1	25-Apr-2014 04:01:38	13	0			
THE STOLY	JOB2014042500002	25-Apr-2014 01:51:52	SWAMY1	25-Apr-2014 01:51:54	0	0			
	JOB2014042500001	25-Apr-2014 01:50:14	SWAMY1	25-Apr-2014 01:50:15	0	0			
	JOB2014042400008	24-Apr-2014 06:55:21	SWAMY1	24-Apr-2014 06:55:22	0	0			
ash Settlements	JOB2014042400007	24-Apr-2014 05:30:45	SWAMY1	24-Apr-2014 05:30:46	0	0			
	JOB2014042400005	24-Apr-2014 02:21:38	SWAMY1	24-Apr-2014 02:21:39	0	0			
rs	JOB2014042400005	24-Apr-2014 02:03:17	SWAMY1	24-Apr-2014 02:03:18	0	0			
	JOB2014042400004	24-Apr-2014 01:42:51	SWAMY1	24-Apr-2014 01:42:52	0	0			
	JOB2014042400003	24-Apr-2014 01:42:37	SWAMY1	24-Apr-2014 01:42:38	0	0			
arameters				< < 123 ►> ►I					
cture				CBS Job History Detail					
llocations		Job Id		Record Id		Record Type			
	No records found.								

Auto disbursement process:

- Loan can be created in core banking system with disbursement mode as auto disbursement along with one or more disbursement schedules.
- ✓ After such loan accounts are created and authorized in core banking system, the disbursements would happen automatically according to the disbursement schedules maintained for the respective loan accounts.
- Below accounting entries would be posted by core banking system automatically when there is an auto disbursement happens for a loan account.

Loan asset GL	Dr	<disbursement amount=""></disbursement>
Loan disbursement suspense GL	Cr	Oisbursement amount>

- ✓ In such cases, when there is a disbursement happened for a loan account on a given date according to the schedules maintained, the disbursement details would be synced with Intermediary server in order to include it in respective agents agenda.
- ✓ After the particular loan account is available in respective agents disbursement agenda, the agent will be able to pick the loan account and do the disbursement transaction in his device.
- ✓ If the disbursement has happened and subsequently the loan account has been reversed in core system, the reversal status need to be synced with intermediary server and further any pending disbursements or repayments associated to the particular loan account should be removed from respective agents agenda.

2.2.1.13 <u>View Transactions</u>

- ✓ User of MFI/Bank would be able to view loan transactions done by field agents, after their transactional data has been synced with intermediate server.
- ✓ A screen will be developed with below search criteria, based on which transactions will be listed.



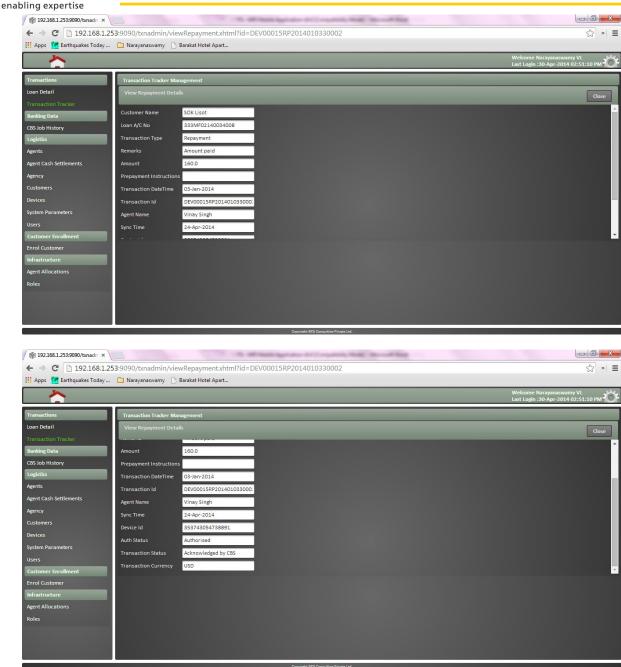
- o Field agent
- Transaction type (Loan disbursement or Loan repayment)
- Period (From date and To date)
- Maximum number of days between from and to date and Maximum number of past days within which transaction can be displayed are to be configurable parameters.
- ✓ For example, assume today's date is 03-Dec-2013, and maximum number of days between from and to date is configured as 2, and maximum number of past days is configured as 7. In such scenario, at any point in time, user can only view 2 consecutive days transactions. Also viewing of transactions beyond 27-Nov-2013 would not be possible in this case, since maximum number of past days has been configured as 7.

Screenshots:

List Transactions

Apps 🛛 🚰 Earthquakes Toda	iy 📋 Narayanaswamy [Barakat Hotel Apart							
~							We Las	lcome Narayanaswam t Login :30-Apr-2014 0	/ VL 2:51:10 PM
ransactions	Transaction Tracker N	Aanagement							
oan Detail	List of Transaction Track							rch All Fields	
	Customer Name 🗢	Loan A/C No 🗘	Amount \$	Transaction Type 💲	Agent Name 💲	Credit Officer \$	Transaction DateTime ≎	Sync Time 💲	Transactic
anking Data							Dutenine		
BS Job History ogistics	SOK Lisot	333MF02140034008	160.0	Repayment	Vinay Singh		03-Jan-2014	24-Apr-2014	Acknowled CBS
gents	Sophal Nguon	333MF02140034011	1550.0	Disbursement	Vinay Singh		03-Jan-2014	25-Apr-2014	Processing
gent Cash Settlements	HAN KIMSREANG	333MF02140034012	183.0	Repayment	Vinay Singh		03-Jan-2014	25-Apr-2014	Acknowled CBS
;ency	Sophal Nguon	333MF02140034013	1650.0	Disbursement	Vinay Singh		03-Jan-2014	25-Apr-2014	Processin
ustomers	HAN KIMSREANG	333MF02140034014	195.0	Repayment	Vinay Singh		03-Jan-2014	25-Apr-2014	Acknowler CBS
evices	•								000
stem Parameters				[4] <	12 -				
sers									
ustomer Enrollment									
rol Customer									
frastructure									
ent Allocations									
oles									

Transaction detail



2.2.1.14 <u>Credit Officer Dashboard</u>

✓ A dashboard will be introduced for Credit officer, wherein below features would be developed:

- Unassigned loan accounts Loan accounts which are mapped to the particular credit officer, however unassigned to any of the field agent
- Agent-wise loan accounts Number of loan accounts mapped to each and every agent who are associated with the particular credit officer
- Agent-wise scheduled transactions Number of transactions scheduled for each and every agent who are associated with the particular credit officer
- Overdue loan accounts Linked loan accounts and overdue amount in which repayments are overdue



2.2.1.15 Report – Pending Disbursements for the day

- A new report will be made available in intermediary server to display list of loan account and details, for which disbursement is pending for the day.
- This report will aid the Bank/MFI teller to settle the cash with field agent for the disbursements which he need to do for the day.
- The result in the report will contain both auto disbursement loans (initiated in core system) and manual disbursement loans (maintained in intermediary server).
- Agent id will be given as an input parameter to generate this report
- This report can be generated for a specific agent, if particular agent id is given as input parameter. Alternatively, this report can also be generated to know the total disbursements need to be done for the day across all agents, by providing the input parameter as ALL for field agent id.
- After the actual disbursement of cash has happened to customer, the corresponding disbursement record will be removed when the report is generated again.
- Report will have below field as output:
 - Loan account number
 - Customer name
 - Disbursement amount
 - Credit officer
 - Field agent
 - Total disbursement amount for the day It should display the sum of all the disbursements displayed in the report

2.2.1.16 <u>Audit Trail</u>

- ✓ Audit trail such as user id, date and time as well as the changes done on any of the maintenances would be recorded.
- ✓ Recording of audit trail is applicable for all operations including create, modify, close and authorize, except delete operation.
- ✓ Audit trail would be stored in Intermediary server. It will not be handed off to Core system.



		in/viewAgent.xhtml?id=A	GT00009		5⁄2 ×
Apps 🚺 Earthquakes Tod	lay 📋 Narayanaswamy	Barakat Hotel Apart			
<u> </u>					Welcome Narayanaswamy VL Last Login :30-Apr-2014 02:51:10 PM
ansactions	Agent Managemen	t			
an Detail	View Agent			Add Modify	List Authorise Delete Generate Key
ansaction Tracker	and the second s				
inking Data	Agent Id	AGT00009			
IS Job History	Credit Officer	ADMINMKR1			
ogistics	Agency Code	AG002			
	Agent Type	Field Agent			
ent Cash Settlements	Agent Status	Active			
ency	Registration Status	UnRegistered			
istomers	Cash Limit	0			
evices	Device	DEV00004			
stem Parameters	User Name	AGT00009			
sers	First Name	Narayanaswamy			
nrol Customer	Version	Maker	Maker Timestamp	Checker	Checker Timestamp
	3	TESTER7	12-Apr-2014 10:54:59	SWAMY1	12-Apr-2014 10:55:24
	2	TESTER7	11-Apr-2014 10:51:21	SWAMY1	11-Apr-2014 10:51:58
ent Allocations	1	SWAMY1	17-Mar-2014 13:04:55	SWAMY2	17-Mar-2014 13:05:18
ent Allocations ples			14 ×4 1		

2.2.1.17 <u>Multi-lingual</u>

✓ Multi-lingual capability would be supported. Screens would be multi-lingual enabled.



2.2.2 Mobile Application Functions

Below functionalities will be developed as part of Mobile application features.

- 1. App registration
- 2. Login into application
- 3. Logout from application
- 4. Agents dashboard
- 5. Sync data with intermediary server
- 6. Agents agenda
- 7. Advances disbursement to customer
- 8. Advances repayment collection from customer
- 9. Handling unplanned prepayments
- 10. Transactional activity
- 11. Cash position inquiry
- 12. Change password
- 13. Preferences setup
- 14. Forgot password
- 15. Audit trail
- 16. Multi-lingual

2.2.2.1 App Registration

- ✓ Agent downloads application and installs it in his device.
- ✓ First time login into the application by agent should be done only through online mode.
- ✓ Agent id, password entered in the device by agent would be sent to intermediary server along with the unique id of the device.
- ✓ The integrity between agent id, password and device unique id would be validated in intermediary server.
- ✓ After the validation is successful, agent details and device details would be automatically downloaded into the particular device from intermediary server along with basic system parameters.
- ✓ After the download of agent details, device details and system parameters are successful, agent would be forced to change his password.
- ✓ Agent would enter the old password (current password), new password and retype of new password in his device.
- ✓ Agents current password would be validated and upon successful validation, new password would get updated in his device and it would be sent to intermediary server.
- ✓ After the password change is successful, login page will be shown again and agent has to login with the new password (changed password).
- ✓ After the login validation is successful, agent needs to initiate sync for other data such as customer and loan from his device, so that agent related customer and loan details would be downloaded into agents device from intermediary server.

2.2.2.2 Login into application

- ✓ Upon the proposed application is launched in agents device, a login screen should appear wherein agent can input his agent id and password.
- ✓ Validations w.r.t. user id and password would be done against the user credentials stored in the particular device of the field agent.



✓ System would allow the field agent to login into application, only after the validation is successful. Otherwise, an error message will be shown, in case if the validation is not successful.

Screenshots:

cons	SI ulting expertue:	14.01
SignUp	Login	
UserId		
Password		
Log	g In	
<u>Forgot P</u>	assword	
Developed by Bfsi Soft	ware Consulting Pvt	Ltd

2.2.2.3 Logout from application

- ✓ Field agent would be able to logout from the application at any point in time, provided he is not in the course of performing any other operation.
- ✓ In case if the field agent is in the middle of performing any operation and if he wants to logout from the application, either he has to complete or he has to cancel the operation, which he is currently performing.

2.2.2.4 Agents Dashboard

- ✓ A dashboard will be developed for agent to view it in his device.
- ✓ Dashboard would contain various widgets to display below details:
 - Cash position:
 - Agents current cash position would be displayed for all the currencies which he is holding.
 - Cash position widget would display cash opening, cash in, cash out and current cash
 - Last sync:
 - Date and time of latest data sync between the particular device and intermediary server will be displayed.
 - Pending tasks:



- A widget will be developed to display the percentage of tasks which are pending out of all the tasks scheduled for the particular agent for the day.
- Direct Functions:
 - Icons would be displayed to represent selected functions for direct access.
 - By this way, agent can directly access the particular screen without navigating to any additional menus

2.2.2.5 Sync data with intermediary server

- ✓ Latest data from intermediary server is required to be available in field agents device while performing various customer touch-point operations in mobile application such as loan disbursement or loan repayment collection.
- ✓ Similarly, the transactional data captured by field agents are to be pushed to intermediary server, in order to send it to core system, so that further processing can be done.
- ✓ To accommodate these requirements, a facility in mobile application to sync data (both push and pull) between agents device and intermediary server.
- ✓ Data exchange between agents device and intermediary server would be in encrypted manner.
- ✓ All the data captured during the day by field agents should be transmitted to core system, only then the details would be recorded and relevant accounting entries will be posted in core system.
- ✓ Core system should receive this data before EOD process for the day starts in core banking. Hence field agents should push the data captured in their mobile device to Intermediary server before the stipulated time defined by the MFI/Bank.
- ✓ After the days transactional data of all field agents are synced with Intermediary server, the collective data can be sent from Intermediary server to core banking system, before the start of EOD process in core.
- ✓ Pushing the data from Intermediary server to core system can be done through a scheduled job or manually by invoking an option. It can be sent once in a day or multiple times in a day, based on MFI/Banks requirement.
- ✓ Only agent related customer and loan data would be pulled from intermediary server to store it in agents device, based on the linkage between loan account and field agent.
- ✓ While data is getting synced in agents device, the update on sync completion percentage should be displayed in notification bar of the device.

Handling Disbursement transactions:

- After the disbursement transaction has been done at customers end through proposed mobile solution by field agent, the data would be synced between respective agents device and intermediary server.
- These disbursement transactions could have been done for auto disbursement loans, or manual disbursement loans, or both.
- ✓ Once the transactional data for disbursements are available in intermediary server, only manual disbursement loan transactions need to be synced with core system in order to initiate a manual disbursement for the particular loan account in core system, so that relevant accounting entries would get posted, however auto disbursement loan transactions need not be synced further with core system, as the accounting entries have already been posted for auto disbursement loan transactions.
- After manual disbursement loan transactions are synced between intermediary server and core system, a manual disbursement transaction record would get created in core system for respective loan accounts based on the transaction data synced, and further accounting entries would get posted automatically by core system.



Screenshots:

🖿 🗗 📑		i lin	88% 📕 14:13
<	EGA	LITE	:
	ncy		
5. Enroli	nent		
	Sync	here	•
Home	Loan	Receipt	Enrol

2.2.2.6 Agents Agenda

- ✓ Agent will go to customers locality and do field activities such as loan disbursement and loan repayment collection
- ✓ Agents Agenda for the day would help agents to know their field activities which they have to perform on any given day.
- ✓ Facility would be developed for field agents to view agenda in their device, in order to perform field activities.
- ✓ Agenda would be displayed in agents device based on the loan disbursement and loan repayment schedules of the loans which are mapped to the particular field agent.
- ✓ Agenda for loan disbursement would be displayed based on the disbursement schedule maintained in intermediary server.
- ✓ Loan account number, Customer name and disbursement due amount would be displayed as part of agents agenda of loan disbursement.
- ✓ Loan account number, Customer name and repayment due amount would be displayed as part of agents agenda of loan repayment.
- ✓ If there are more than one schedule which are due for a particular loan, amounts which are due across various components of all the unpaid schedules of a particular loan should be grouped together and displayed as a single due amount in agents repayment agenda. In such cases, each and every unpaid schedules of the particular loan should not be shown as individual schedules in repayment agenda screen.
- In case if there is more than one loan account of the same customer for which the repayment is due, agenda should not be grouped on customer level, however it has to be grouped on loan account level.
- ✓ In loan repayment agenda, there would be an option for field agent to select due, overdue or Both due and overdue based on which the list of loan accounts would be displayed in the agenda.



- ✓ If agent has selected the option as due, only the loan repayments which are due but not overdue would be displayed.
- ✓ If agent has selected the option as overdue, only loan repayments which are overdue would be displayed. Repayment amount will include amount due and amount overdue.
- ✓ However if agent has selected the option as both due and overdue, loan repayments which are due as well as loan repayments which are overdue would be displayed.
- ✓ Field agent would be able to input loan account number or customer number in a search field available in agents agenda screen. Loan account which matches the search string would be listed. If customer number is entered as search string, loan accounts of the particular customer number would be listed.
- ✓ Agent would be able to give a date range based on which agenda would be displayed.

Handling Auto disbursements:

- Details of the latest disbursement triggered in core system for auto disbursement loans would be synced between core system and intermediary server.
- ✓ Further, these disbursement details would to be synced between intermediary server and respective agents device, and as a result these disbursements will form part of agents disbursement agenda.
- Once the particular loan account is available in respective agents disbursement agenda, the agent would be able to pick the loan account and do the disbursement transaction in his device.
- ✓ If the disbursement has happened and subsequently the loan account has been reversed in core system, the reversal status would be synced with intermediary server and further any pending disbursements or repayments associated to the particular loan account should get removed from respective agents agenda, on subsequent sync session.

🖿 🎝 📑			t ())	.11 4	0% 🛑 14:09	
ŕ	Disb	ursem	ent Ager	nda	:	
AGENDA	E	NTRY	HISTOR	Y	CUSTOMER	
All Search here						
Name	r	Acco	ount No		Amount	
Chap Vichara	a	333MF0	214003		(USD) 1200	
PHOIN Soch	eata	333MF0	214003		(USD) 850	
PHOIN Soch	eata	333MF0	214003		(USD) 1100	
PHOIN Soch	eata	333MF0	214003		(USD) 1150	
PHOIN Soch	eata	333MF0	214003		(USD) 1020	
PHON Bunna		333MF0	214003		(USD) 1250	
PHON Bunna	ı	333MF0	214003		(USD) 1300	
PHON Bunna	1	333MF0	214003		(USD) 1350	
PHON Bunna	1	333MF0	214003		(USD) 1400	
Home	L	oan	Receip	ot	Enrol	



ing expertise							
🖬 🕞 💼 📪 🖓 📮 14:11							
🏠 Rej	payment Agend	a					
AGENDA ENTRY HISTORY CUSTOMER							
All	Search here						
Name 🔻	Account No	Amount					
PHOIN Socheata	333MF0214003	(USD) 116.62					
PHOIN Socheata	333MF0214003	(USD) 112.05					
PHON Bunna	333MF0214003	(USD) 133.77					
PHON Bunna	333MF0214003	(USD) 140.63					
PHON Bunna	333MF0214003	(USD) 149.78					
PHON Bunna	333MF0214003	(USD) 156.64					
PHON Bunna	333MF0214003	(USD) 162.35					
PHON Bunna	333MF0214003	(USD) 170.36					
PHON Bunna	333MF0214003	(USD) 174.93					
Home L	oan Receip	ot Enrol					

2.2.2.7 Advances disbursement

- ✓ Agent can view the loan disbursements to be done for the day in the proposed application of his device.
- ✓ Agent can select any one of the loan account to disburse the amount against the particular loan account.
- ✓ Once a particular loan account has been selected from agenda, below would be displayed as part of loan details:
 - Advances number (Loan account number)
 - Currency
 - o Sanctioned amount
 - Amount disbursed till date
 - Disbursement amount (Amount to be disbursed now)
- Agent can also view customer details as below:
 - Photo of the customer
 - Client id (Customer id)
 - Client name (Customer name)
 - Address
 - Mobile number
- ✓ A button "Disburse" would be introduced below loan details to disburse the scheduled amount to customer.
- ✓ There would be a field introduced below disbursement amount, for agent to capture narrative if required.
- ✓ Agent would not be allowed to change the disbursement amount in the proposed application. He can only disburse the amount which has been scheduled for disbursement.
- ✓ After agent has initiated disbursement in his device, a verification screen would be displayed for agent to view the details in order to confirm the transaction. Below details would be displayed as part of verification screen:
 - Client name



- Advances number
- Currency
- Sanctioned amount
- Amount disbursed till date
- Disbursement amount
- o Narrative
- ✓ After agent viewed the details of the transaction in verification screen, agent can do anyone of the below:
 - Back In case if agent wants to modify the narrative, he can use the back option in his device, so that control would be going back to the previous screen, where he can change narrative and initiate the transaction.
 - o Confirm Agent can click on confirm to proceed with the transaction
 - Cancel If agent wants to cancel the initiation, he can click on cancel, in order to not initiate the disbursement transaction.
- ✓ After agent confirms the disbursement initiation in his device, a confirmation screen would be displayed with below details:
 - Field agents name
 - Advances number
 - Currency
 - o Sanctioned amount
 - Amount disbursed till date (excluding current disbursement)
 - o Date of disbursement
 - Disbursement amount
- ✓ There would be an option available in confirmation screen to print 3 copies of advice through external printer with the details displayed in confirmation screen for the disbursement done.
- ✓ Agent can get a signature / thumb impression from the customer in printed advice as a receipt for the loan disbursement done.

Deletion of a disbursement:

- ✓ There would be a facility to view the disbursements done and from the list of disbursements done, agent would be allowed to delete a transaction in his device.
- ✓ Agent would be able to view the complete transaction details before deleting the transaction.
- ✓ For deletion of a disbursement also, agent would be able to print 3 copies of advice with cancelled status included in addition to the details mentioned in the original receipt.
- ✓ Field agent can get a signature / thumb impression from the customer in printed advice generated for deletion of disbursement as a receipt for the loan disbursement deletion done.



ng expertise						
				0% 🛑 14:0		
^ C	isburser	nent Agen	ıda			
AGENDA	ENTRY	HISTORY	(CUSTOMER		
All	Se	arch here				
Name 🔻	Acc	count No		Amount		
Chap Vichara	333MF	0214003		(USD) 1200		
PHOIN Sochea	ta 333MF	0214003		(USD) 850		
PHOIN Sochea	ta 333MF	0214003		(USD) 1100		
PHOIN Sochea	ta 333MF	0214003		(USD) 1150		
PHOIN Sochea	ta 333MF	0214003		(USD) 1020		
PHON Bunna	333MF	0214003		(USD) 1250		
PHON Bunna	333MF	0214003		(USD) 1300		
PHON Bunna	333MF	0214003		(USD) 1350		
PHON Bunna	333MF	0214003		(USD) 1400		
PHON Bunna 333MF0214003 (USD) 1400						
Home	Loan	Receip	ot	Enrol 9% – 14:1		
- C , D ×	Disburse	ement Entr	л 1 (З' ry	9% 📕 14:10		
		() t	л 1 (З' ry			
- C , D ×	Disburse	ement Entr	ry r	D% 📕 14:1 CUSTOMER		
AGENDA	Disburse	ement Entr	ry r	D% 📕 14:1 CUSTOMER		
AGENDA	Disburse Entry	ement Entr	ry r	D% 📕 14:1 CUSTOMER		
AGENDA	Disburse Entry	ement Entr HISTORY Search by N	ame	eustomer /Acc		
AGENDA Customer	Disburse ENTRY	Search by N	ame	eustomer /Acc		
AGENDA Customer	Disburse ENTRY HOIN Se o mount	Sement Entr HISTORY Search by N Search by N Socheata	ame	eustomer /Acc		
Account Ne Sanction A	Disburse ENTRY HOIN St Do mount till date	Search by N Search by N Search ata	ame	eustomer /Acc		
AGENDA AGENDA Customer Account Ne Sanction A Disbursed	Disburse ENTRY HOIN So mount till date cbursal	Search by N Search by N Search by N Socheata	ame	eustomer /Acc		
AGENDA Customer Q Account Ne Sanction A Disbursed Current Dis	Disburse ENTRY HOIN So mount till date cbursal	Search by N Search by N Search by N Socheata	ame	9% <mark> 14:1</mark> 1 сизтомен /Acc		
AGENDA Customer Account Na Sanction A Disbursed Current Dis Disbursed	Disburse ENTRY HOIN So mount till date cbursal	Search by N Search by N Search by N Socheata 333MF02144 USD 1020 USD 1020 USD 1020 USD 1020	ame	9% <mark> 14:1</mark> 1 сизтомен /Acc		



				39% 🛑 14:1
<	Disburs	eme	ent Verify	
AGENDA	ENTRY		HISTORY	CUSTOME
8	PHOIN S	Soc	heata	
Account	No	333	3MF021400	34003
Sanction	Amount	US	D 1020	
Disburse	d till date	US	D	
Current D	isbursal	US	D 1020	
Disburse	d Amount	US	D 1020	
Narrative		Am	ount disbur	sed
Home	Loan		Receipt	Enrol
Home		sem		Enrol
] [} 🖻		sem	al.	
AGENDA	Disburs		all ent print HISTORY	39% 🛑 14:1
AGENDA	Disburs Entry PHOIN S	Soc	all ent print HISTORY	39% 1 4:1
AGENDA	Disburs ENTRY PHOIN S	Soc	HISTORY heata MF0214003	39% 1 4:1
AGENDA	Disburs ENTRY PHOIN S o mount	Soc	HISTORY heata MF0214003	39% 1 4:1
AGENDA AGENDA Account No Sanction A Disbursed	Disburs ENTRY PHOIN S o mount till date	Soc	HISTORY HISTORY heata MF0214003	39% 1 4:1
AGENDA AGENDA ACCOUNT NO Sanction A Disbursed Current Dis	Disburs ENTRY PHOIN S o mount till date	333 102	HISTORY HISTORY heata MF0214003 0	39% 1 4:1



			4 = 1.4.14				
م میں 14:10 Cisbursement History							
<	Disburse	ment Histo	ory				
AGENDA	ENTRY	HISTORY	CUSTOMER				
All Search here							
Name 🔻	Ac	ccount No	Amount				
CHAN RITA	(USD) 1200						
PHON Bunna	(USD) 1650						
PHON Bunna	333M	IF0214003	(USD) 700				
PHON Bunna	333M	IF0214003	(USD) 750				
PHON Bunna	333M	IF0214003	(USD) 800				
CHAN RITA	333M	IF0214003	(USD) 1250				
PHOIN Soche	eata 333M	IF0214003	(USD) 1150				
PHOIN Soche	eata 333M	IF0214003	(USD) 1020				
Home	Loan	Receip	, ₁(39% <mark>-</mark> 14:1(
AGENDA	Disburse	ement Deta HISTORY					
8	PHOIN S	Socheata					
Account No			2140034003				
\bigcirc)		2140034003				
Account No	o n Status	333MF02	2140034003				
Account No Transaction) n Status e	333MF02 C	2140034003				
Account No Transaction Amount Du) n Status e	333MF02 C 1020 1020	2140034003 disbursed				
Account No Transactior Amount Du Disbursed A) n Status e	333MF02 C 1020 1020					

2.2.2.8 Advances repayment collection

✓ Agent can view the loan repayment collections to be done for the day in the proposed application of his device.



enabling expertise

- \checkmark Agent can select any one of the loan account to collect the repayment amount against the particular loan account.
- ✓ Once a particular loan account has been selected from agenda, below would be displayed as part of loan details:
 - Advances number (Loan account number) 0
 - Currency 0
 - Sanctioned amount 0
 - Amount disbursed
 - Principal outstanding
 - o Amount due
- Agent can view component-wise breakup of due amount. Below details would be displayed as part of component-wise breakup:
 - Date
 - o Component name
 - o Schedule amount
 - Amount paid
 - o Pending amount
- Agent can also view customer details as below:
 - Photo of the customer
 - Client id (Customer id)
 - Client name (Customer name)
 - Address \circ
 - o Mobile number
- A field would be introduced for agent to input the actual repayment amount given by \checkmark customer. This repayment amount can be lesser, more or equal to the actual due amount.
- \checkmark There would be a field introduced below repayment amount, for agent to capture narrative if required.
- There would be a facility given for field agent to select anyone of the below options for recomputation basis, in case if customer pays more than the due amount:
 - Change EMI 0
 - Repayment holiday 0
- Based on the re-computation basis selected by agent in his device, further processing would \checkmark be done in core system after the transaction has been handed over to core system.
- After agent has initiated repayment collection in his device, a verification screen would be displayed for agent to view the details in order to confirm the transaction. Below details would be displayed as part of verification screen:
 - o Client name
 - o Advances number
 - Currency
 - o Sanctioned amount
 - Amount disbursed 0
 - Principal outstanding
 - o Amount due
 - Repayment amount 0
 - Narrative 0
- After agent viewed the details of the transaction in verification screen, agent can do anyone of the below:
 - Back In case if agent wants to modify the repayment amount or narrative, he can use \circ the back option in his device, so that control would be going back to the previous screen, where he can change repayment amount or narrative and initiate the transaction.
 - Confirm Agent can click on confirm to proceed with the transaction 0
 - Cancel If agent wants to cancel the initiation, he can click on cancel, in order to not initiate the repayment collection transaction.
- After agent confirms the repayment collection initiation in his device, a confirmation screen \checkmark would be displayed with below details:

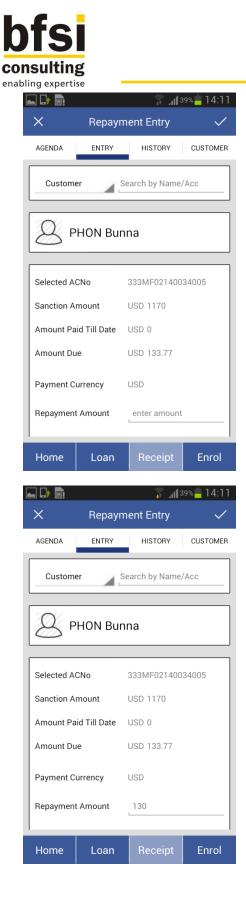


- o Field agents name
- Advances number
- Currency
- Sanctioned amount
- Amount disbursed
- Principal outstanding (excluding current repayment)
- Amount due
- o Date of repayment
- o Repayment amount
- ✓ There would be an option available in confirmation screen to print 3 copies of advice through external printer with the details displayed in confirmation screen for the repayment collection done.
- ✓ Agent can get a signature / thumb impression from the customer in printed advice as a receipt for the loan repayment collection done.

Deletion of a repayment:

- ✓ There would be a facility to view the repayment collections done and from the list of repayments done, agent would be allowed to delete a transaction in his device.
- ✓ Agent would be able to view the complete transaction details before deleting the transaction.
- ✓ For deletion of a repayment collection also, agent would be able to print 3 copies of advice with cancelled status included in addition to the details mentioned in the original receipt.
- ✓ Field agent can get a signature / thumb impression from the customer in printed advice generated for deletion of repayment collection as a receipt for the loan repayment deletion done.

L ک 🗟 🕞 🕞 🕞 🕞 🕞 🕞 🕞 🕞 🕞 🖌 🕞 🕞 🖌 🕞 🖌 🖌 🖌 🖌								
AGENDA	ENTRY	HISTORY	CUSTOMER					
All	All Search here							
Name	Acc	ount No	Amount					
PHOIN Soch	eata 333MF	0214003	(USD) 116.62					
PHOIN Soch	eata 333MF	0214003	(USD) 112.05					
PHON Bunna	a 333MF	0214003	(USD) 133.77					
PHON Bunna	a 333MF	0214003	(USD) 140.63					
PHON Bunna	a 333MF	0214003	(USD) 149.78					
PHON Bunna	a 333MF	0214003	(USD) 156.64					
PHON Bunna	a 333MF	0214003	(USD) 162.35					
PHON Bunna	a 333MF	0214003	(USD) 170.36					
PHON Bunna	a 333MF	0214003	(USD) 174.93					
Home	Loan	Receipt	Enrol					





AGENDA ENTRY	HISTORY	CUSTOME
	Inna	
Account No	333MF02140034	005
Sanction Amount	USD 1170	
Amount Paid Till Date	USD 0	
Payment Currency	USD	
Amount Due	USD 133.77	
Repayment Amount	130.0	
Narrative	Amount repaid	
Home Loan	Receipt	- 10 (10 (10 (10 (10 (10 (10 (10 (10 (10
	چ اڑھ yment Print	Enrol
X Repay	کی روز کر کرد yment Print HISTORY	1 4:1
AGENDA ENTRY	کی میں 39% yment Print HISTORY (0)	La 14:1
AGENDA ENTRY Name PHON BUR Account No	<mark>کی از ع</mark> ود yment Print HISTORY (nna 333MF02140034	La 14:1
AGENDA ENTRY Name PHON Bur Account No Sanction Amount	Image: State Stat	La 14:1
AGENDA ENTRY Name PHON Bur Account No Sanction Amount Amount Paid Till Date	© (1)39% yment Print HISTORY (1) hISTORY	La 14:1
AGENDA ENTRY AGENDA ENTRY Name PHON Bur Account No Sanction Amount Amount Paid Till Date Payment Currency	© (39% yment Print HISTORY (0) 100 100 100 100 1170 USD 0 USD 0 USD	La 14:1
AGENDA ENTRY AGENDA ENTRY AGENDA ENTRY AMMe PHON BUR Account No Sanction Amount Amount Paid Till Date Payment Currency Amount Due		La 14:1
AGENDA ENTRY AGENDA ENTRY Name PHON Bur Account No Sanction Amount Amount Paid Till Date Payment Currency Amount Due Repayment Amount	©	La 14:1
AGENDA ENTRY AGENDA ENTRY AGENDA ENTRY AMMe PHON BUR Account No Sanction Amount Amount Paid Till Date Payment Currency Amount Due		La 14:1



J 🕞 💼 👘						
			all 39% 📕 14:12			
<	Repayı	ment Histor	y I			
AGENDA	ENTRY	HISTORY	CUSTOMER			
All		Coorob boro				
All Search here						
Name	me 💌 Account No Amount					
PHON Bunna	3331	333MF0214003 USD 169.36				
PHON Bunna	3331	MF0214003	USD 170			
PHON Bunna	3331	MF0214003	USD 175			
PHON Bunna	3331	VF0214003	USD 125			
PHON Bunna	3331	MF0214003	USD 130.2			
PHON Bunna	3331	VF0214003	USD 148.63			
PHON Bunna	3331	VF0214003	USD 140			
PHON Bunna	3331	MF0214003	USD 156.64			
PHON Bunna	3331	VF0214003	USD 130			
□ 						
) [} 🖻 <	Repay	🗊 ment Detail				
	Repay		s i			
<	ENTRY	ment Detail	s			
<	ENTRY	PHON Bunna	s			
AGENDA	ENTRY Name	PHON Bunna	S CUSTOMER			
AGENDA ACCOUNT NO	ENTRY Name	HISTORY PHON Bunna 333MF	S CUSTOMER			
AGENDA ACCOUNT NO Transaction	ENTRY Name	PHON Bunna 333MF P	S CUSTOMER 02140034005 33.77			
AGENDA ACCOUNT NO Transaction Amount Du	ENTRY Name	PHON Bunna 333MF P (USD) 1 (USD) 1	S CUSTOMER 02140034005 33.77			
AGENDA ACCOUNT NO Transaction Amount Du Repayment	ENTRY Name	PHON Bunna 333MF P (USD) 1 (USD) 1	S CUSTOMER 02140034005 33.77 30.0			

2.2.2.9 Handling unplanned prepayments

✓ Sometimes, customer would want to do a prepayment on their loans for which there is no due on a given day.



- ✓ In such cases, agent can go to unplanned prepayment screen in his device and input loan account number or customer number in a search field. Loan account which matches the search string would be listed. If customer number is entered as search string, loan accounts of the particular customer number would be listed.
- ✓ Agent can select any one of the loan account to collect the prepayment against the particular loan account.
- ✓ Once a particular loan account has been selected, below would be displayed as part of loan details:
 - Advances number (Loan account number)
 - \circ Currency
 - o Sanctioned amount
 - o Amount disbursed
 - Principal outstanding
- ✓ Agent can also view customer details as below:
 - Photo of the customer
 - Client id (Customer id)
 - Client name (Customer name)
 - o Address
 - o Mobile number
 - A field would be introduced for agent to input the prepayment amount given by customer.
- There would be a field introduced below prepayment amount, for agent to capture narrative if required.
- ✓ There would be a facility given for field agent to select anyone of the below options for recomputation basis:
 - Change EMI
 - o Repayment holiday
- Based on the re-computation basis selected by agent in his device, further processing would be done in core system after the transaction has been handed over to core system.
- ✓ After agent has initiated prepayment collection in his device, a verification screen would be displayed for agent to view the details in order to confirm the transaction. Below details would be displayed as part of verification screen:
 - Client name
 - o Advances number
 - Currency
 - Sanctioned amount
 - o Amount disbursed
 - Principal outstanding
 - o Prepayment amount
 - Narrative
- After agent viewed the details of the transaction in verification screen, agent can do anyone of the below:
 - Back In case if agent wants to modify the prepayment amount or narrative, he can use the back option in his device, so that control would be going back to the previous screen, where he can change prepayment amount or narrative and initiate the transaction.
 - Confirm Agent can click on confirm to proceed with the transaction
 - Cancel If agent wants to cancel the initiation, he can click on cancel, in order to not initiate the prepayment collection transaction.
- ✓ After agent confirms the repayment collection initiation in his device, a confirmation screen would be displayed with below details:
 - Field agents name
 - Advances number
 - Currency
 - Sanctioned amount
 - Amount disbursed
 - Principal outstanding (excluding current prepayment)



- Date of prepayment
- Prepayment amount
- There would be an option available in confirmation screen to print 3 copies of advice through external printer with the details displayed in confirmation screen for the prepayment collection done.
- ✓ Agent can get a signature / thumb impression from the customer in printed advice as a receipt for the loan prepayment collection done.

Deletion of a prepayment:

- ✓ There would be a facility to view the prepayment collections done and from the list of prepayments done, agent would be allowed to delete a transaction in his device.
- \checkmark Agent would be able to view the complete transaction details before deleting the transaction.
- ✓ For deletion of a prepayment collection also, agent would be able to print 3 copies of advice with cancelled status included in addition to the details mentioned in the original receipt.
- ✓ Field agent can get a signature / thumb impression from the customer in printed advice generated for deletion of prepayment collection as a receipt for the loan prepayment deletion done.

2.2.2.10 <u>Transactional activity</u>

- ✓ Facility for agents would be developed in proposed application to view past transactions which the particular agent had done.
- ✓ Agent would be able to see the completed transactions based on the criteria selected by agent.
- ✓ Below is the list of various search criteria which would be available in Agents transactional activity screen:
 - Transaction type (Options: All, Loan Disbursement and Loan Repayment)
 - Date Range: From and To
 - Transaction Currency
 - Transaction Amount Range: From and To
- ✓ Results would be displayed based on the search criteria selected by agent.
- ✓ Maximum period for fetching the past transactions would be parameterized in Intermediary server. For example, if maximum period is defined as 7 calendar days in Intermediary server, agent should only be able to view the transactions of past 7 days including current date transactions.

2.2.2.11 Cash position

- ✓ A screen would be developed for agents to view their cash position currency-wise.
- ✓ If agent is holding amount in more than one currency, the amount would be displayed currency-wise for all the currencies which agents holds.
- ✓ Agents current cash position would be arrived based on the open cash, and considering the transactions which he has done for the day.
- ✓ Below details would be displayed in cash position screen:
 - Currency
 - Opening cash
 - Cash in



- o Cash out
- Current cash position
- ✓ If there is more than one currency, there would be an option available in the screen for agent to navigate to the next currency, till all the currencies are displayed.
- ✓ Similarly, there would also be an option to view the previous currency, till the first currency has been reached.
- ✓ Cash settlement done in intermediary server would be reflected in respective agents device after the subsequent sync of device with intermediary server.

🜵 📥 🞝 🖩	Ì	4 اند ^ش ر	14:07 💈				
<	EGA	LITE					
0							
Settings							
Language (Language (Select Application Language)						
English	h 🔿 Khm	er					
Theme (Se	lect Applicati	on Theme)					
 Light 	O Dar	k					
Debug Mod	le	OFF					
Change Pa	ssword						
Set Cash P	osition						
Home	Loan	Receipt	Enrol				



Ý 📥 🞝 📄	se		
	Ì	اللہ 🏺	14:07
×	EGA	LITE	~
Currency			
USD			
Position			
2000			
Hame	1	Dessist	Frend
Home	Loan	Receipt	Enrol
L 🔓 💼		¹ الد 🛱	14:08
	Vir		
	¥ ''	iay	
	Welcom	e Vinay	
La	Welcom		
La	Welcom	e Vinay	
	Welcom ast Login 03-0	e Vinay	3
EUR	Welcom ast Login 03-0 0	e Vinay	3
EUR	Welcom ast Login 03-0 0	e Vinay	3 0.0 0.0
EUR RNG AUD	Welcom ast Login 03-0 0 0	e Vinay 1-2014 19:56:1	3 0.0 0.0
EUR RNG AUD CNY	Welcom Isst Login 03-0 0 0 0	e Vinay 1-2014 19:56:1	3 0.0 0.0 0.0 0.0
EUR RNG AUD CNY USD	Welcom Inst Login 03-0 0 0 0 0 0	e Vinay 1-2014 19:56:1	3 0.0 0.0 0.0 0.0 2815.46
EUR RNG AUD CNY USD	Welcom Inst Login 03-0 0 0 0 0 0	e Vinay 1-2014 19:56:1	3 0.0 0.0 0.0 0.0 2815.46
EUR RNG AUD CNY USD	Welcom Inst Login 03-0 0 0 0 0 0	e Vinay 1-2014 19:56:1	3 0.0 0.0 0.0 0.0 2815.46
EUR RNG AUD CNY USD	Welcom Inst Login 03-0 0 0 0 0 0	e Vinay 1-2014 19:56:1	3 0.0 0.0 0.0 0.0 2815.46
EUR RNG AUD CNY USD	Welcom Inst Login 03-0 0 0 0 0 0	e Vinay 1-2014 19:56:1	3 0.0 0.0 0.0 0.0 2815.46
EUR RNG AUD CNY USD	Welcom Inst Login 03-0 0 0 0 0 0	e Vinay 1-2014 19:56:1	3 0.0 0.0 0.0 0.0 2815.46

2.2.2.12 Change password

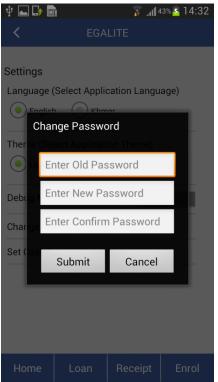
- ✓ A screen would be developed for field agent to change his password in his device.
 ✓ Below field would be available in the screen:



- Old password
- New password
- Retype new password
- ✓ After agent keyed in old and new passwords, the old password would be validated with the password stored in agents device.
- ✓ If the password matches, then the new password entered by agent would be stored in agents device.
- ✓ New password would be sent to intermediary server when there is a data sync initiated from agents device.

🜵 📥 🕞 🖩	Ì	hr 🗟	14:32				
<	EGA	LITE					
Settings							
Language (Select Application Language)							
English	h 🔘 Khm	er					
Theme (Se	lect Applicati	on Theme)					
 Light 	Dar	k					
Debug Mod	le	OFF					
Change Pa	ssword						
Set Cash P	osition						
Home	Loan	Receipt	Enrol				





2.2.2.13 Preferences setup

Direct functions setup:

- ✓ A facility would be developed for field agent to mark frequently used screens as direct functions, so that agent can quickly access any of these screens without navigating to any further menus.
- ✓ Icons would be displayed to represent the direct functions setup by the agent.

Location context:

- ✓ A facility would be developed for field agent to set his location context in his device, based on which agenda would be filtered.
- ✓ For example, if he needs to go to two locations and perform 100 transactions today, out of which 55 transactions are to be done in Location A, and 45 transactions are to be done in Location B.
- ✓ In such case, if he wants to view only the pending transactions of Location A, he should be able to do so by setting up the location context as Location A.
- ✓ Location context will work only if relevant location is tagged to each and every customer or to a loan account.

2.2.2.14 Forgot password

✓ A facility in application login screen would be developed for field agent to retrieve their existing password or to get a new password, in case if they had forgotten their password.



2.2.2.15 <u>Audit trail</u>

- ✓ Audit trail such as agent id, date and time of the transaction would be recorded for each and every transaction done by the agent through proposed application.
- ✓ Recording of Audit trail would be applicable for delete operation also.
- ✓ Audit trail details would also be sent to intermediary server as part data sync.
- ✓ However, it is not required to be handed off to Core system.

2.2.2.16 <u>Multi-lingual</u>

✓ Multi-lingual capability would be supported. Screens would be multi-lingual enabled.



3 ASSUMPTIONS & LIMITATIONS

1. Every time while agent logs in into proposed application, agents device gets updated based on the date and time provided by the mobile network provider.



4 RS TRACKER AND FS TAG MAPPING

Sr No	RS Tracker Number	FS Tracker Number
1	RS - Application for MFI Admin	FS - MFI Mobile Application
2	RS - Mobile Application for Microfinance Loans	FS - MFI Mobile Application



© 2013 bfsi software consulting pvt.ltd - All rights reserved. No part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of bfsi software consulting pvt.ltd