

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	INTRODUCTION.....	5
1.1	ORGANIZATION OF THE DOCUMENT.....	5
1.2	ACRONYMS AND ABBREVIATIONS.....	5
2	REQUIREMENT 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	LOCATION MANAGEMENT.....	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
2.2.1.15	REPORT – PENDING DISBURSEMENTS FOR THE DAY.....	32
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	LOGIN INTO APPLICATION.....	34
2.2.2.3	LOGOUT FROM APPLICATION.....	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	ASSUMPTIONS & LIMITATIONS.....	56
4	RS TRACKER AND FS TAG MAPPING.....	57

1 **INTRODUCTION**

1.1 **Organization of the Document**

- ✓ The first chapter of this document gives an introduction with brief background and organization of the document.
- ✓ The second chapter covers the detailed specifications and approach of the enhancements.
- ✓ 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.

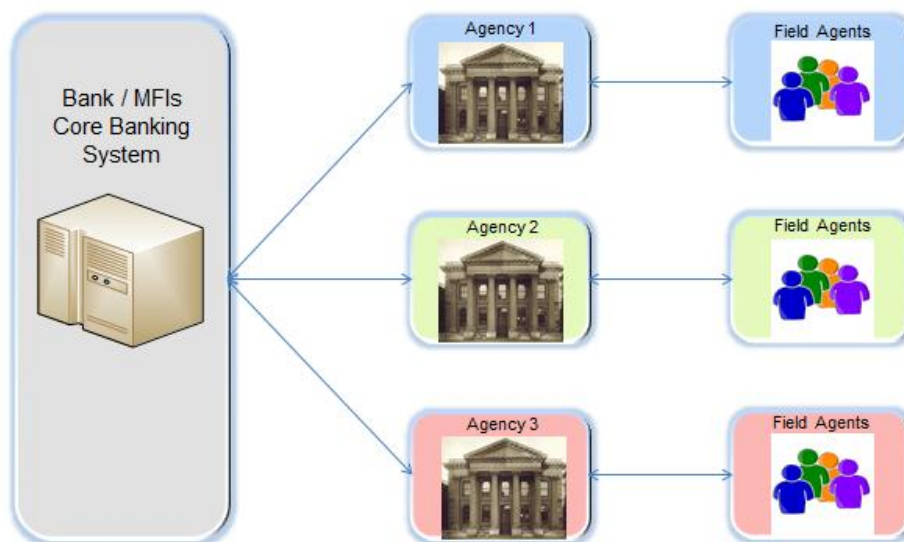
Currently, most of the MFIs work on paper-based workflow, in which field agent visits various customers and updates internal register in written about all disbursements and collections done for the day. Similarly, the currency exchanges done by field agents would be updated manually in a register. This 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:
 - Agency Code
 - Agency Description
 - Address Line 1
 - Address Line 2
 - Address Line 3
 - Address Line 4
 - Agency Contact number

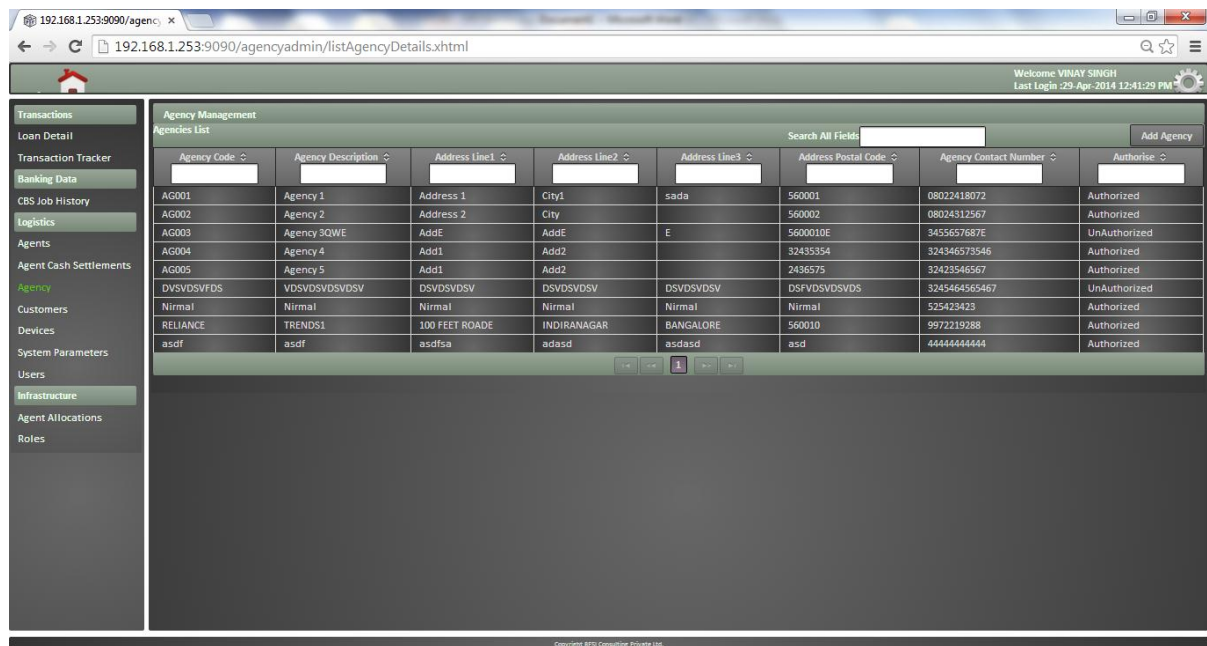
Operations:

- ✓ 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

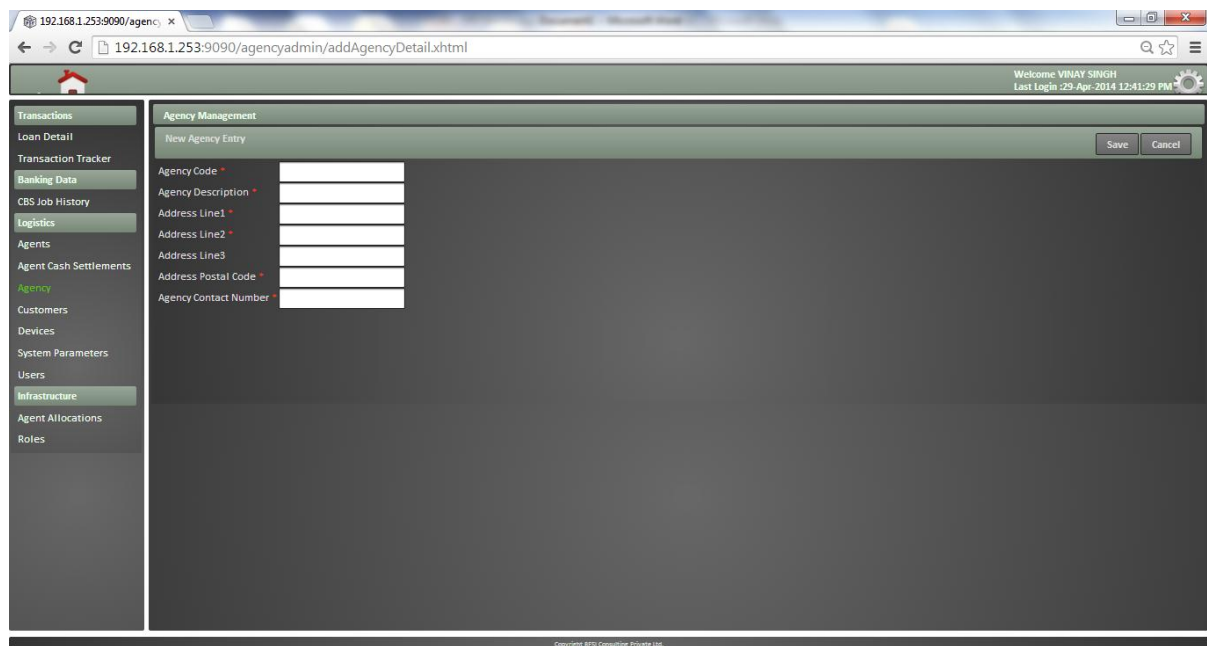
- mapped to the particular agency is available, closure of an agency would not be allowed and an appropriate error message will be displayed.
- ✓ Authorization of an agency record would be allowed, provided if any of the operations such as creation, modification or closure performed on the particular agency record is in unauthorized status.

Screenshots:

List Agency



Add Agency



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:
 - Role ID
 - Role Description
 - Function ID – Function ids of various screens available in intermediary server would be listed.
 - 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.

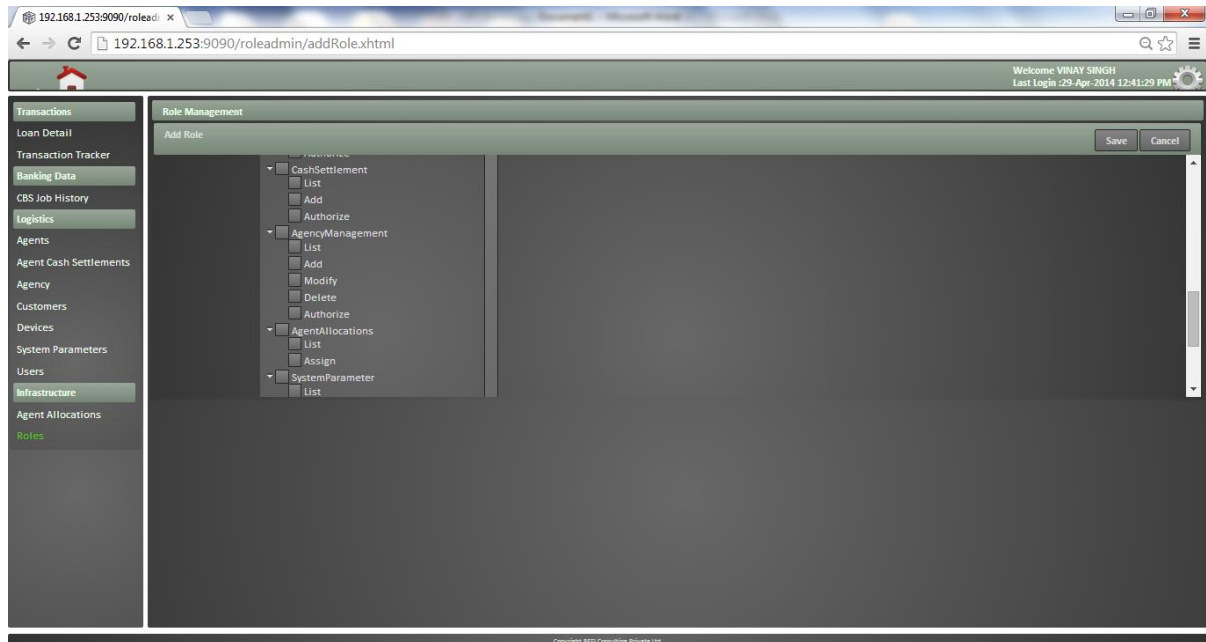
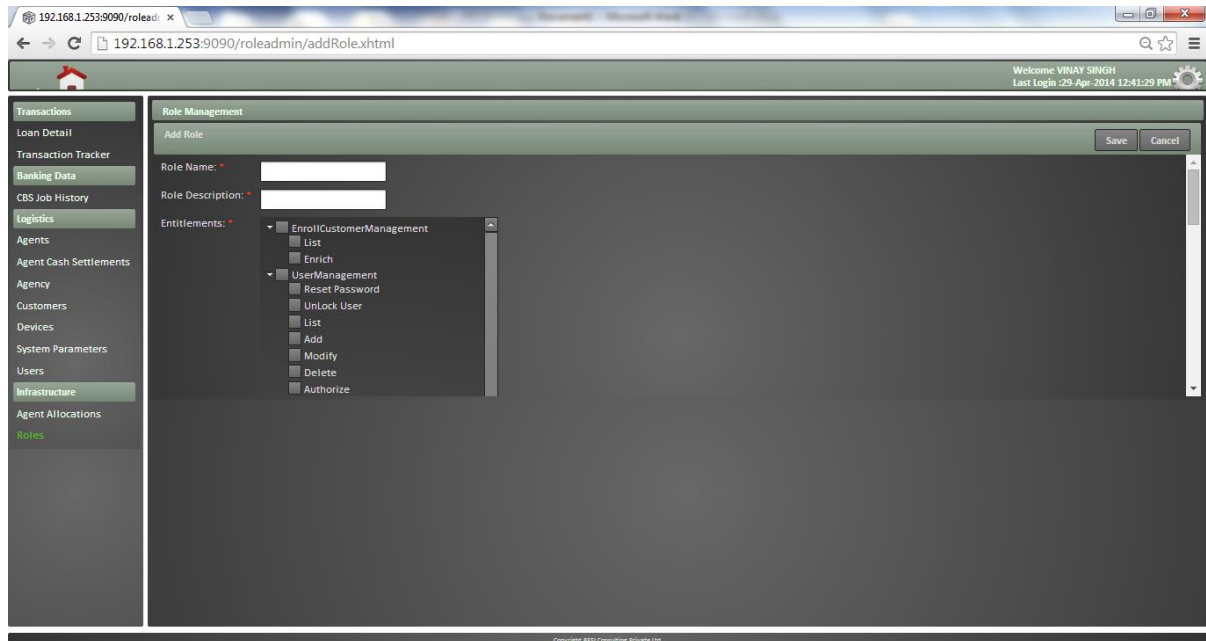
Screenshots:

List Role

The screenshot shows a web browser window displaying the 'Role Management' interface. The browser address bar shows '192.168.1.253:9090/roleadmin/listRoles.xhtml'. The interface includes a sidebar with navigation options like 'Transactions', 'Loan Detail', 'Banking Data', etc. The main content area is titled 'Role Management' and contains a table with the following data:

Role Name	Role Description	Status
ADMINISTRATOR	Administrator of the system	Authorized
ADMINMKR	Admin Maker Role	Authorized
Modify test	Modify test	Authorized
TESTROLE	TESTROLE	Authorized
ADMIN CHECKER	CHECKER OR AUTHORIZER	Authorized
check12	check123	Authorized
TESTROLE1	TESTROLE1	Authorized
ALLROLES	ALLROLES	Authorized
ROLE1	ROLE1	UnAuthorized
ROLE2	CASH SETTLEMENT	Authorized

Add Role



2.2.1.3 Policy Management

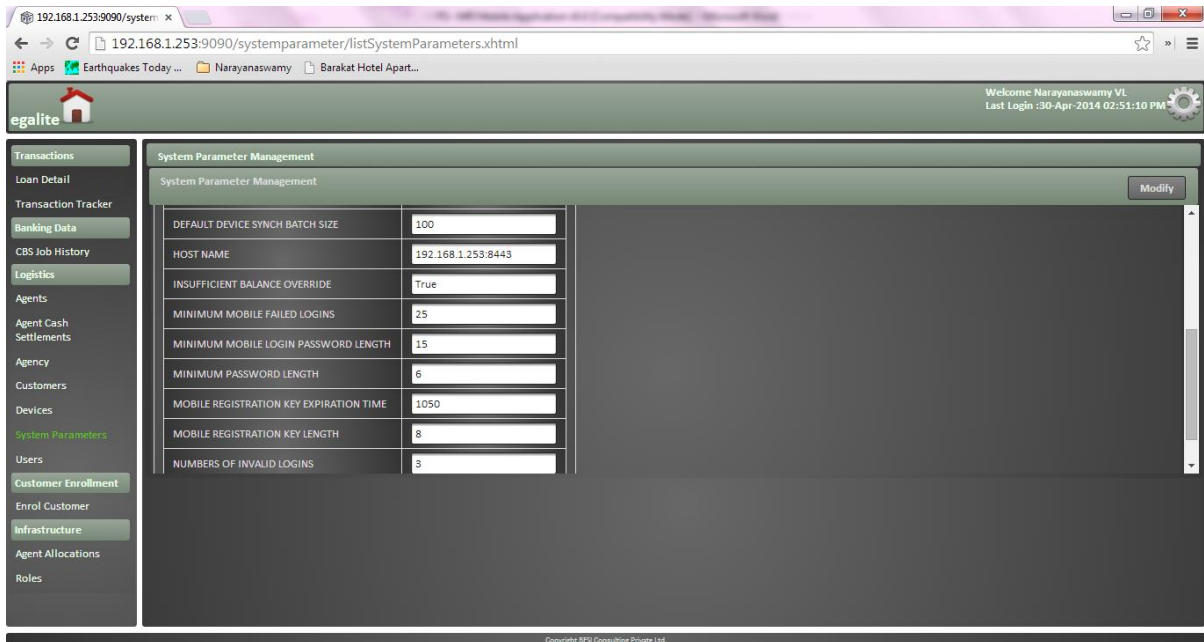
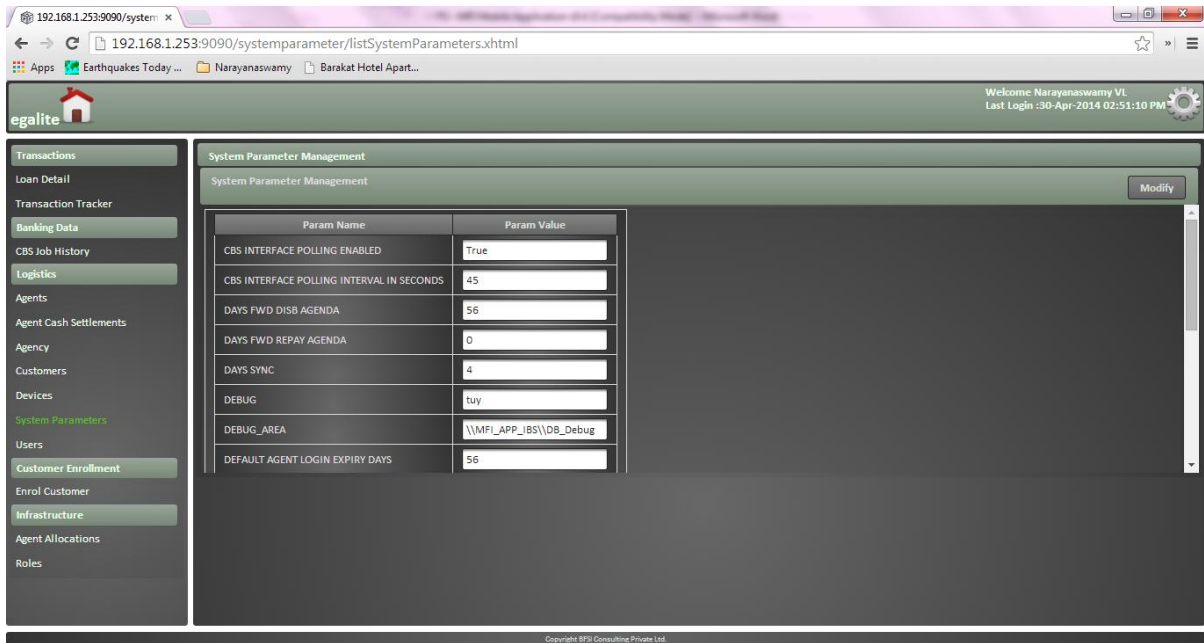
- ✓ There are several policies which Bank/MFI would like to enforce at different stages. Policy to setup a password is a typical example. In such case, MFI/Bank would like to define the characteristics of a password, to which passwords of all users should comply.
- ✓ Facility will be developed to maintain 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:

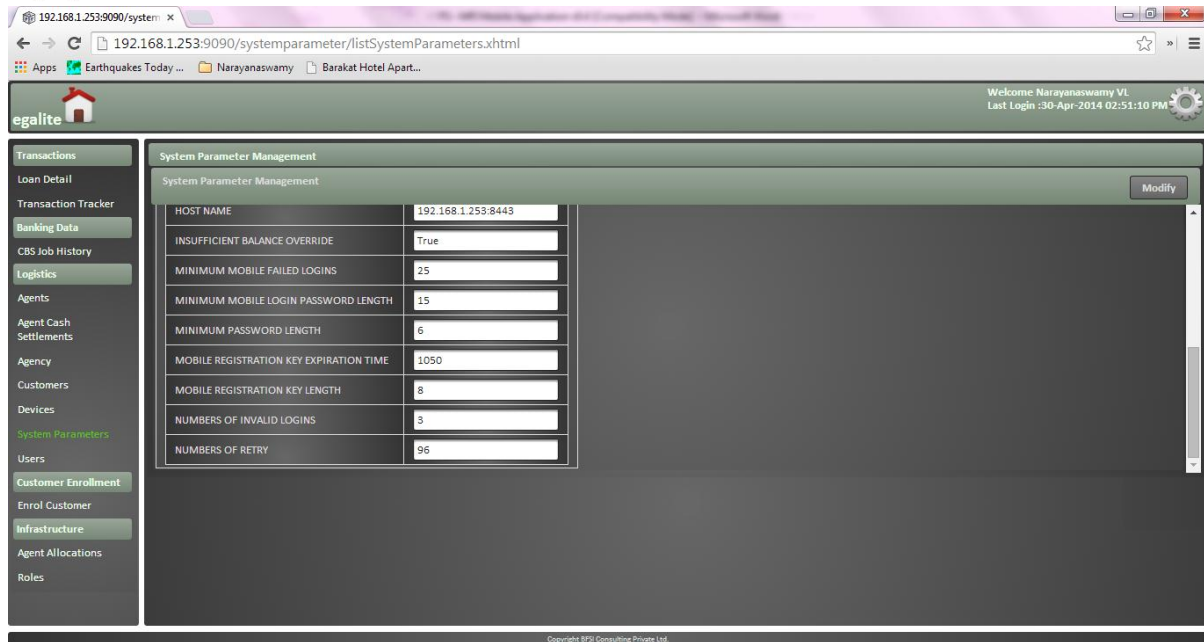
- Upper Case Allowed
- Maximum Upper Case Allowed
- Lower Case Allowed
- Maximum Lower Case Allowed
- Special Character Allowed
- Maximum Special Character Allowed
- Maximum Length
- Minimum Length
- ✓ Below details can be maintained as part of Password policy, which would be applicable for the Password of both User and Agent:
 - Upper Case Allowed
 - Maximum Upper Case Allowed
 - Lower Case Allowed
 - Maximum Lower Case Allowed
 - 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.

Screenshots:





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
 - Gender
 - Communication Address Line 1
 - Communication Address Line 2
 - Communication Address Line 3
 - Communication Postal Code
 - Permanent Address Line 1
 - Permanent Address Line 2
 - Permanent Address Line 3
 - Permanent Postal Code
 - Mobile Number
 - Email ID
 - Password (It should comply with Password policy, if maintained)
 - 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:

- ✓ 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:

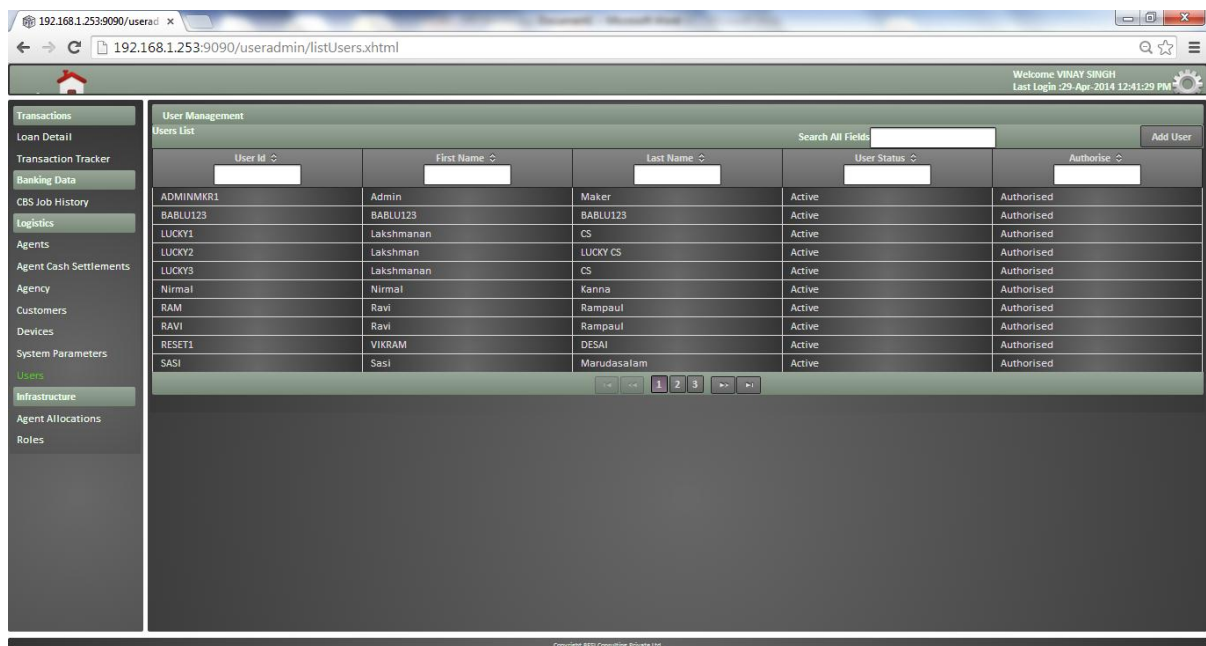
- ✓ Viewing details of a user would be allowed.
- ✓ Deletion of a user record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of a user record would be allowed.
- ✓ 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:

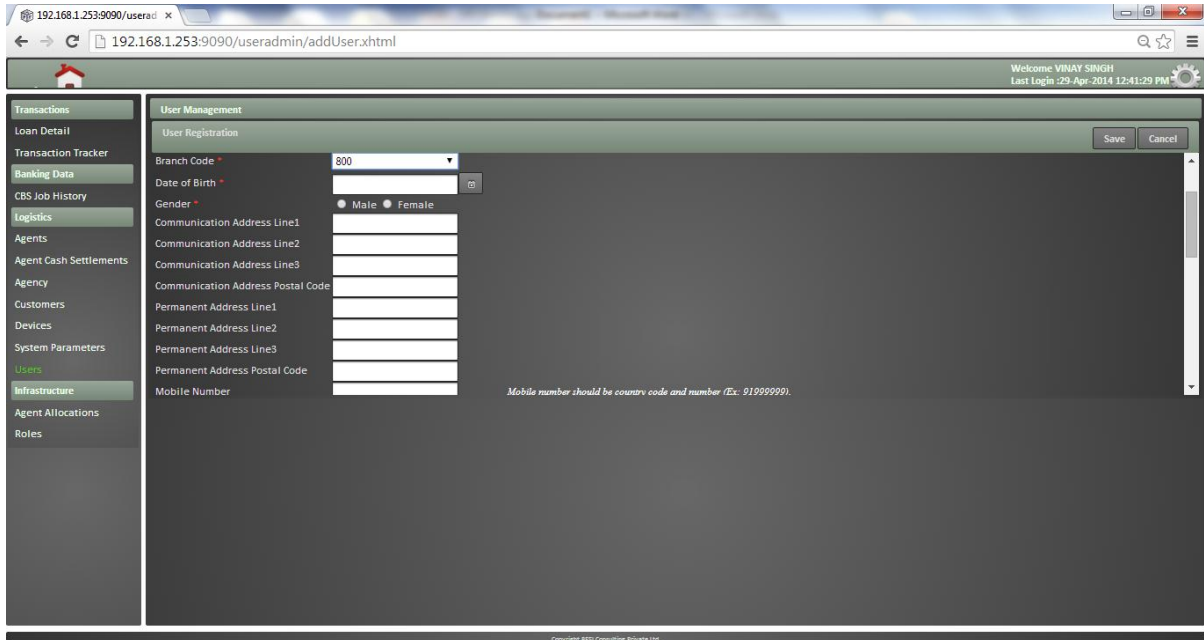
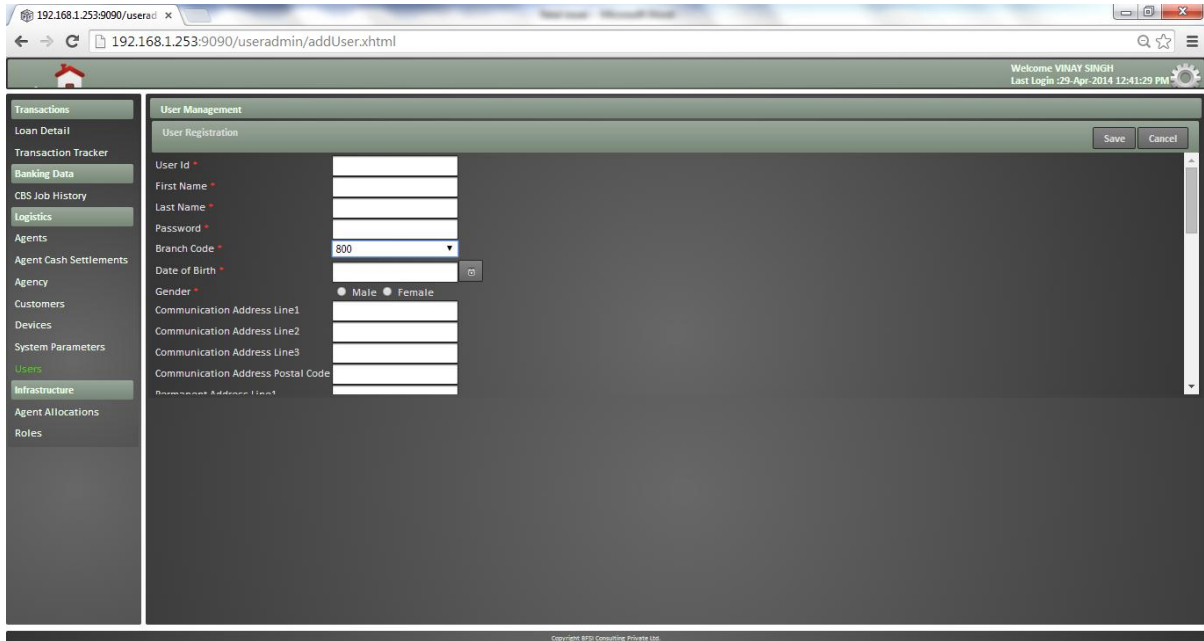
- ✓ A screen would be developed to reset the password of a user. Typically this would be done by an administrator user, who can reset the password of a user, based on users request, in case if they had forgotten their password.

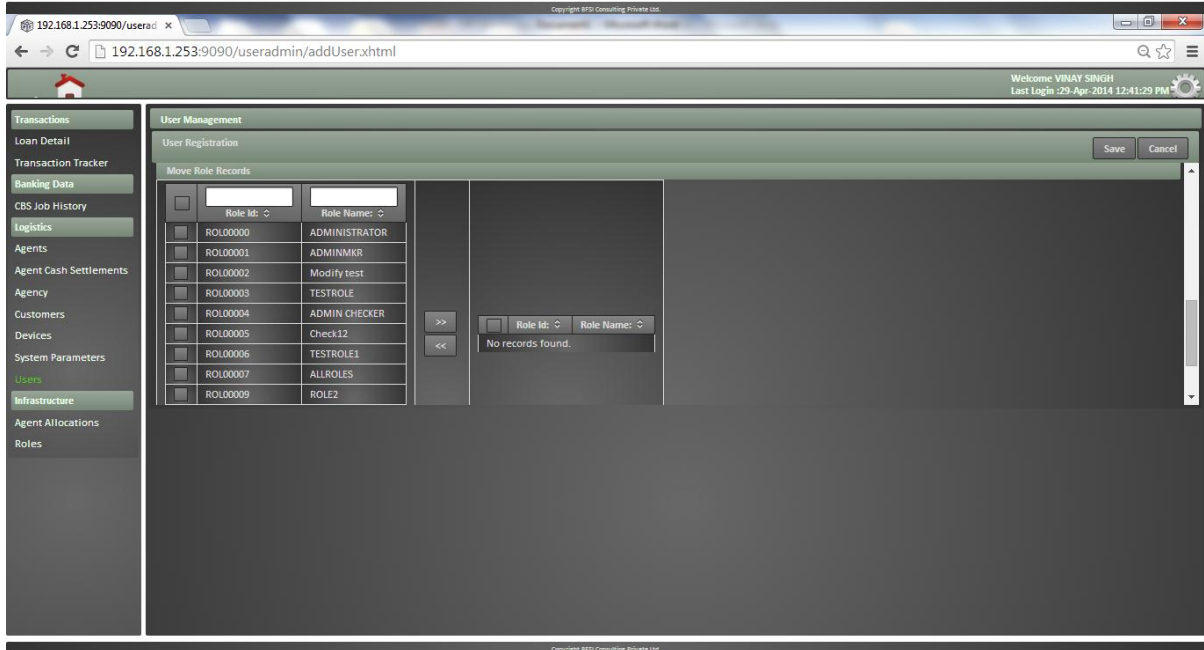
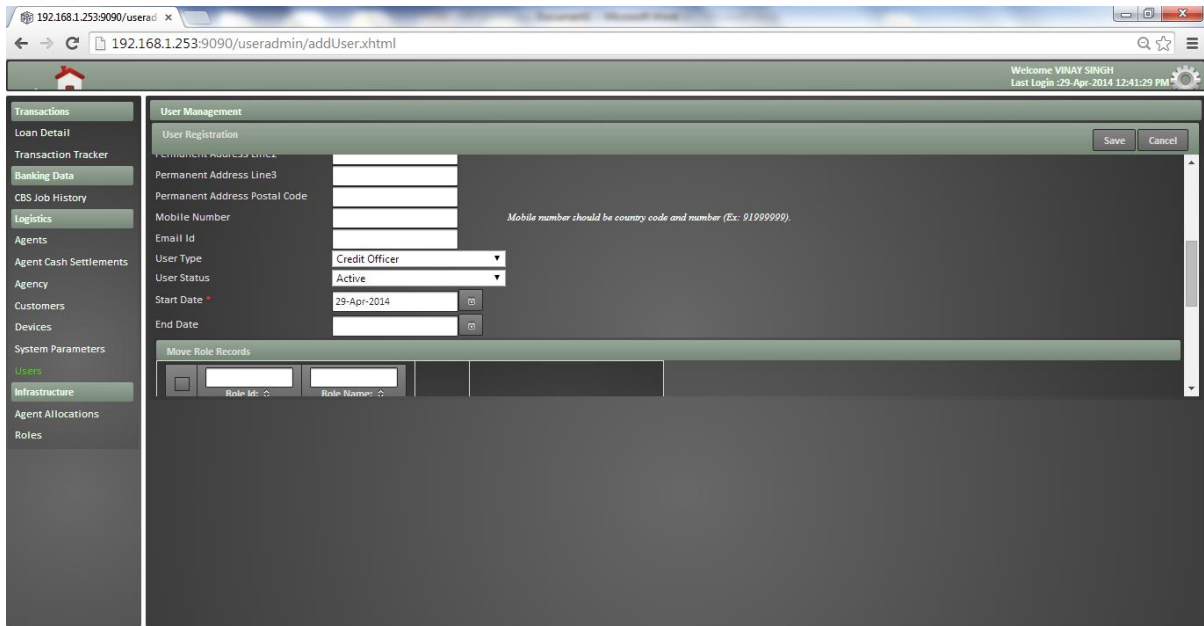
Screenshots:

List Users

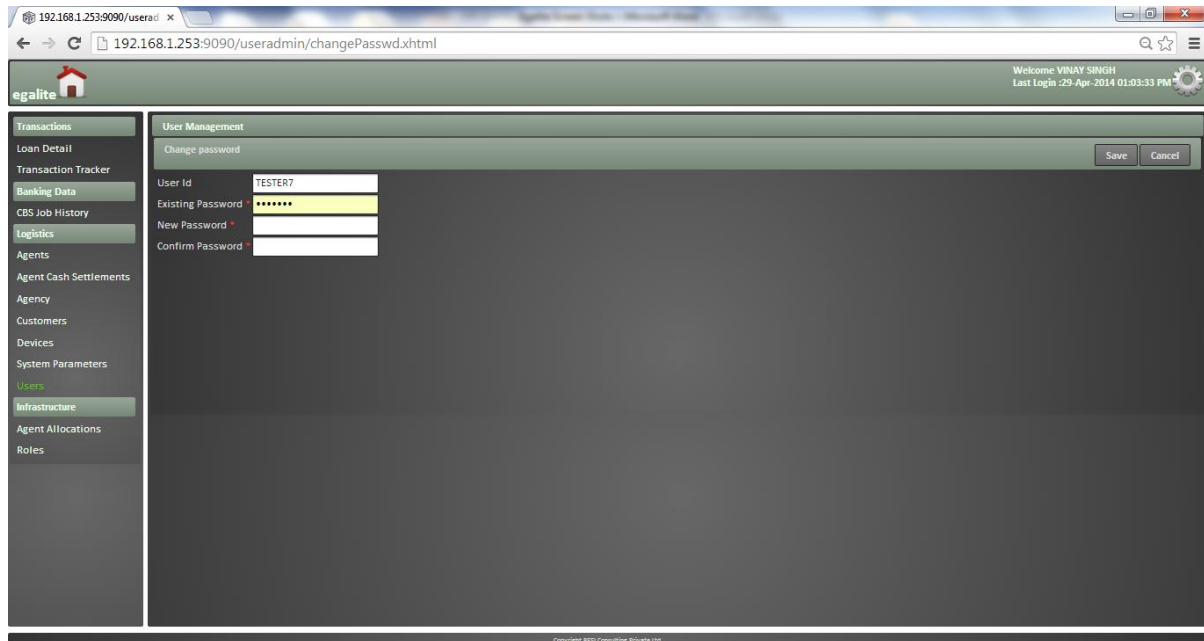


Add user





Reset/Change password



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
 - Landmark
 - 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
- Device Type
- Unique ID
- Issued Date
- Issued By
- 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.
 - Active – Data sync would be allowed between intermediary server and agents devices, only if the status of the particular device is in active status.
 - 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.
- ✓ Deletion of a device 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 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.

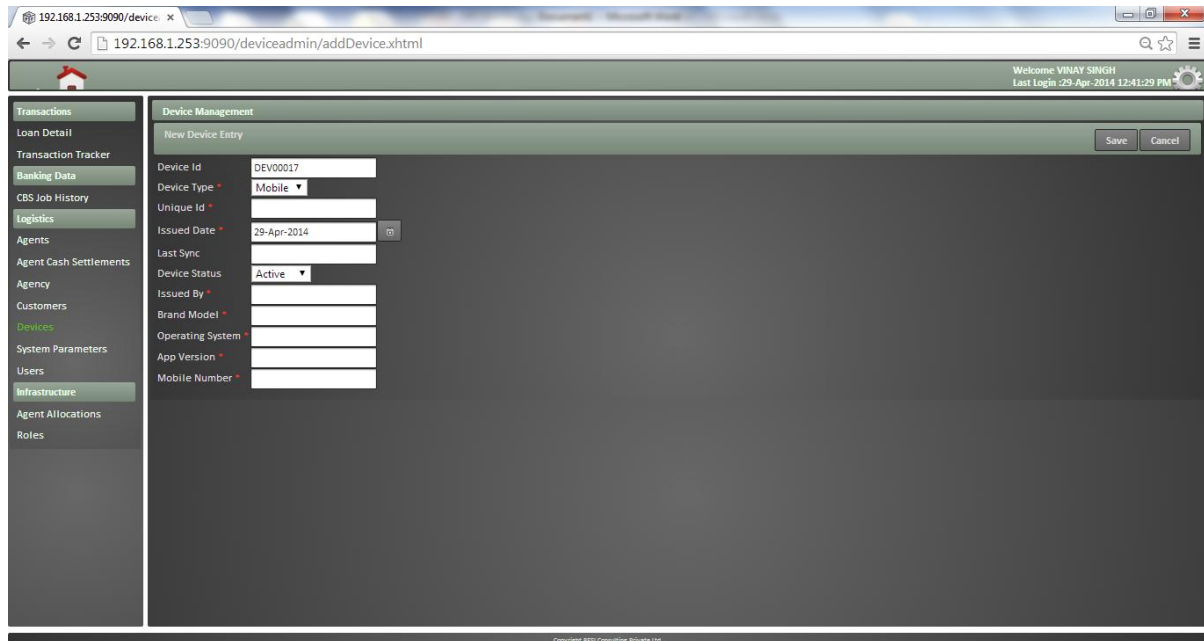
Screenshots:

List devices

The screenshot shows a web browser window displaying a 'Device Management' page. The page has a navigation menu on the left and a main content area with a table of devices. The table has columns for Device Id, Device Type, Unique Id, Issued Date, Last Sync, Device Status, Issued By, Brand Model, Operating System, and App Version. There are 11 rows of data in the table.

Device Id	Device Type	Unique Id	Issued Date	Last Sync	Device Status	Issued By	Brand Model	Operating System	App Version
DEV00001	Tablet	Com123	01-Mar-2014		Inactive	Swamy1	Samsung	Android	Beta
DEV00002	Mobile	A1B2CC3D4	03-Mar-2014		Active	Tsdghgqwss	asfdgfn	asfdghjf	asdhgjf
DEV00004	Mobile	1233333	12-Mar-2014		Active	Vinay	Note2	Android	4.2
DEV00005	Mobile	dsasdd	12-Mar-2014		Active	adads111	sdaddd	sadsdd	sadsdd
DEV00006	Tablet	31243567586	13-Mar-2014		Active	Swamy	Samsung	Android	Beta
DEV00007	Mobile	1233333	14-Mar-2014		Active	Swamy	Samsung	Android	Beta
DEV00008	Tablet	123334	18-Mar-2014		Active	qgbfadbfb	bfbdlL	fbdfbdf	dbfd
DEV00009	Mobile	@#SSR%*^&&	18-Mar-2014		Active	sfvdsvefsdf	dsfdfsfd	asfdfsfsdfsf	dsfdfsfsdfsf
DEV00010	Mobile	@#S%*^&&	19-Mar-2014		Active	wfwqwf	wqf	qwfwqwf	qwfwqwf
DEV00011	Mobile	3564586	19-Mar-2014		Active	Swamy1	Nexus	Android	Beta

Add device



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
 - Date of Birth
 - Gender
 - Agent Type
 - Credit Officer
 - Cash Limit
 - Device ID
 - Communication Address Line 1
 - Communication Address Line 2
 - Communication Address Line 3
 - Communication Postal Code
 - Permanent Address Line 1
 - Permanent Address Line 2
 - Permanent Address Line 3
 - Permanent Postal Code
 - Mobile Number
 - Email ID
 - Password (It should comply with Password policy, if maintained)
 - 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

Agent ID	First Name	Last Name	Credit Officer	Device	Agent Type	Agent Status	Registration Status	Registration Key	Expired Time
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
AGT00003	Ramans	Santoshas	Nirmal		Credit Officer	Active	UnRegistered	050390	26-Mar-2014 05:57:51
AGT00004	asefasdfg	asdfsadf	Nirmal	DEV00007	Credit Officer	Active	UnRegistered		
AGT00005	adasd	sadsad	RAM		Credit Officer	Active	UnRegistered		
AGT00006	ASDSAD	ASDASD	RAM		Credit Officer	Active	UnRegistered		
AGT00007	Siva	AB	RAM	DEV00006	Field Agent	Active	UnRegistered		
AGT00008	Field	Agent	SWAMY2		Field Agent	Active	UnRegistered		
AGT00009	Narayanaswamy	Viswanathan	ADMINMKR1	DEV00004	Field Agent	Active	UnRegistered		
AGT00010	Abdul	Kalam	SWAMY1		Field Agent	Active	UnRegistered		

Add Agent

The screenshot shows a web browser window with the URL `192.168.1.253:9090/agentadmin/addAgent.xhtml`. The page title is "Agent Management" and the user is logged in as "VINAY SINGH". The left sidebar contains a navigation menu with categories like Transactions, Banking Data, Logistics, Agents, and Infrastructure. The main content area is titled "Agent Registration" and contains the following fields:

- Agent Id: AGT00015
- Credit Officer: ADMINMKRL
- Agency Code: AG001
- Agent Type: Credit Officer
- Agent Status: Active
- Cash Limit: 0
- Device: Select
- User Name: AGT00015
- First Name:
- Last Name:
- Date of Birth:
- Gender: Male Female

The screenshot shows the same web browser window, but with the "Add Agent" form scrolled down to reveal additional fields:

- Date of Birth:
- Gender: Male Female
- Address Line1:
- Address Line2:
- Address Line3:
- Address Postal Code:
- Mobile Number: Mobile number should be country code and number (Ex: 91999999).
- Email Id:
- Start Date: 29-Apr-2014
- End Date:
- Language: English

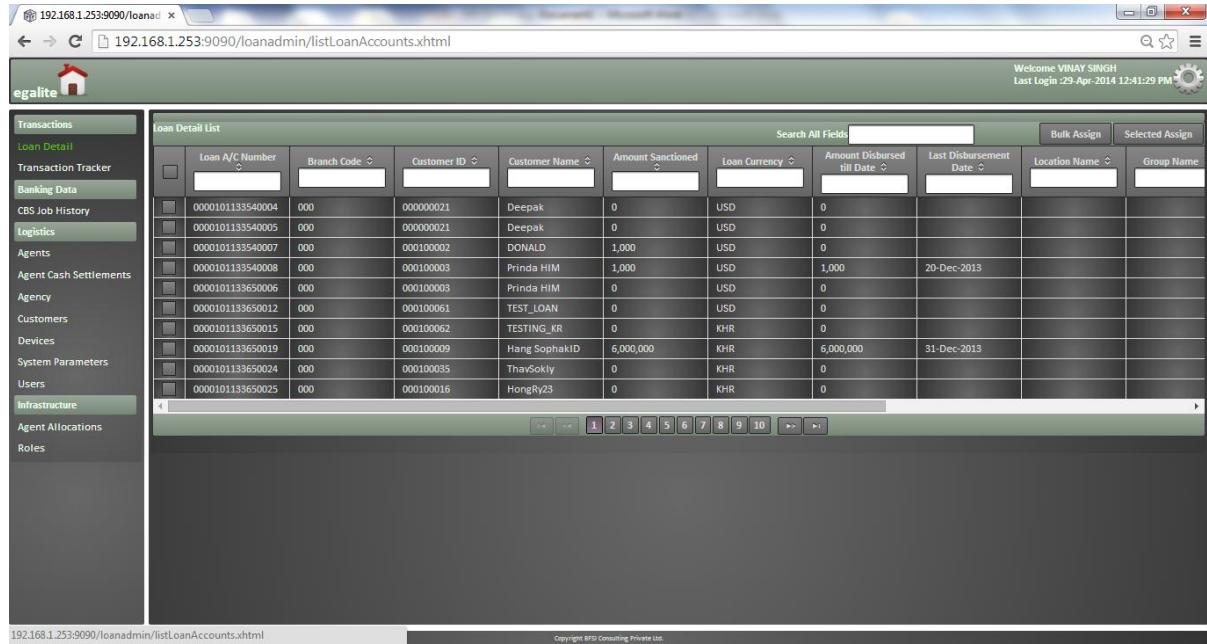
2.2.1.8 Loan Assignment

- ✓ 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.

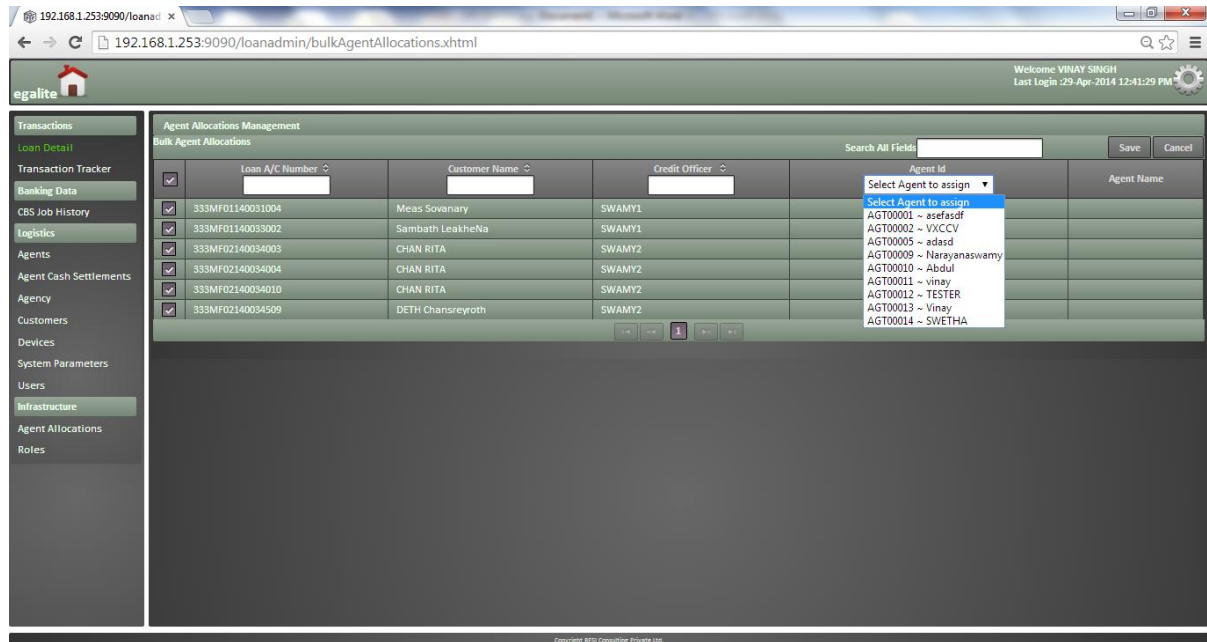
- ✓ Once a loan account has been mapped to a field agent, servicing details of the particular loan account such as disbursement and repayment collection details would be automatically sent to the relevant field agents device based on the schedule upon syncing.
- ✓ Below details would be maintained as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

Screenshots:

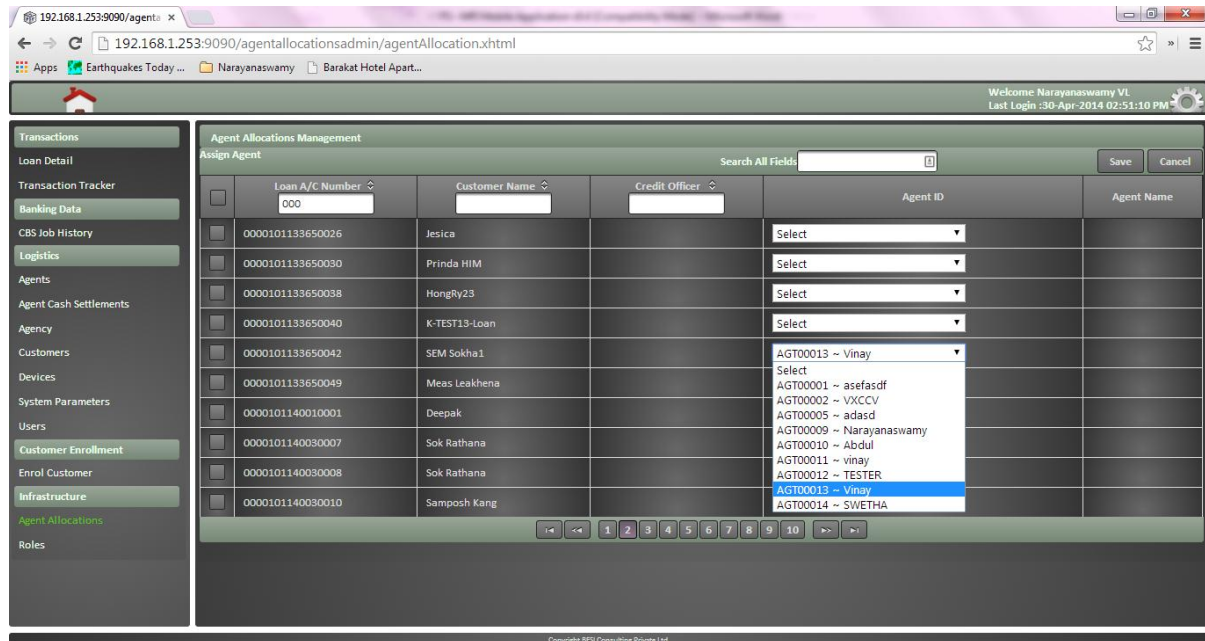
List loans



Bulk Assign



Select Assign



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:

- Branch code
- Loan account number
- Customer id
- Customer name

- Location id
- 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
 - 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

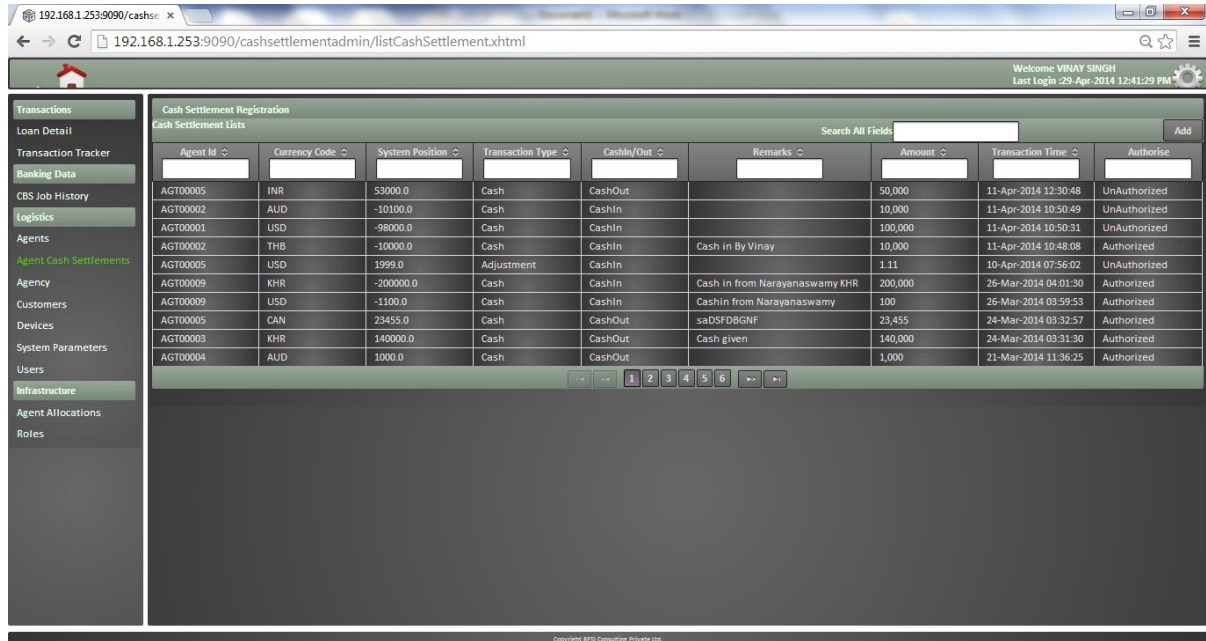
- ✓ A screen will be developed for MFI/Bank user to capture the cash settlements done with agents.
- ✓ Both the operations such as cash handover to agent as well as cash handover by agent will be handled in the same screen.
- ✓ Below details would be maintained as part of Agent cash settlement in intermediary server:
 - Agent ID
 - 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:

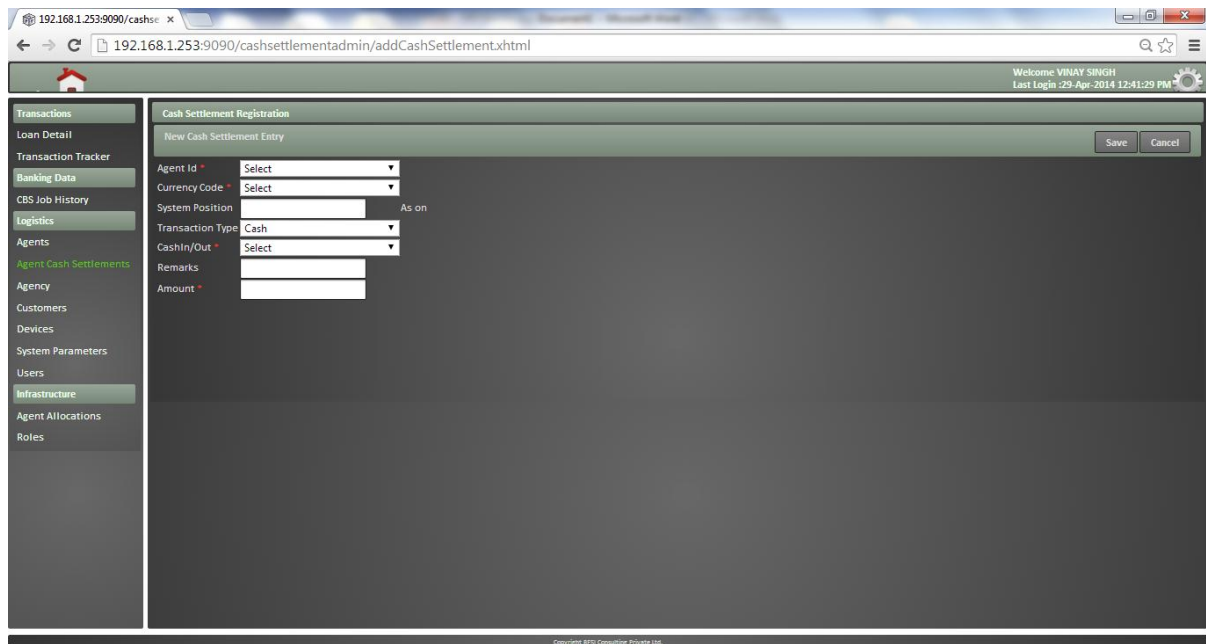
- ✓ Viewing details of agents cash settlement would be allowed.
- ✓ Deletion of agents cash settlement record would be allowed provided if the record has not been authorized for the first time.
- ✓ Deletion of the record can only be done by the maker who has created the record.
- ✓ Modification of agents 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.

Screenshots:

List Agent cash settlements



Add Cash Settlements



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
- 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
 - 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.

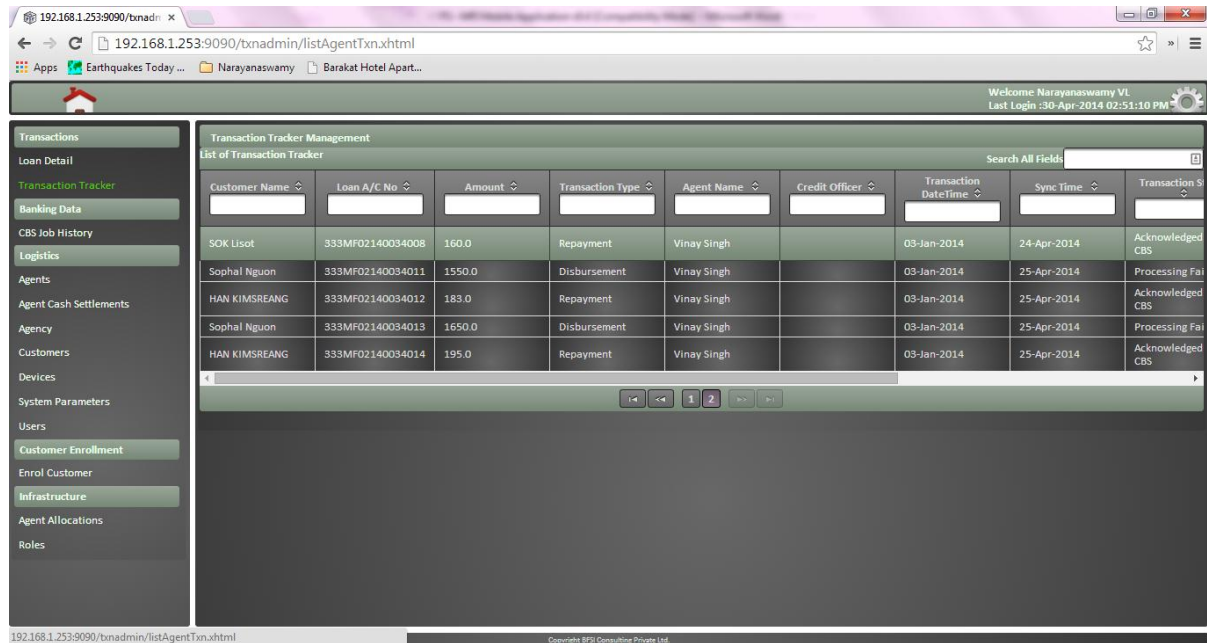
2.2.1.12 Interface with Core Banking System

- ✓ 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
 - Loans

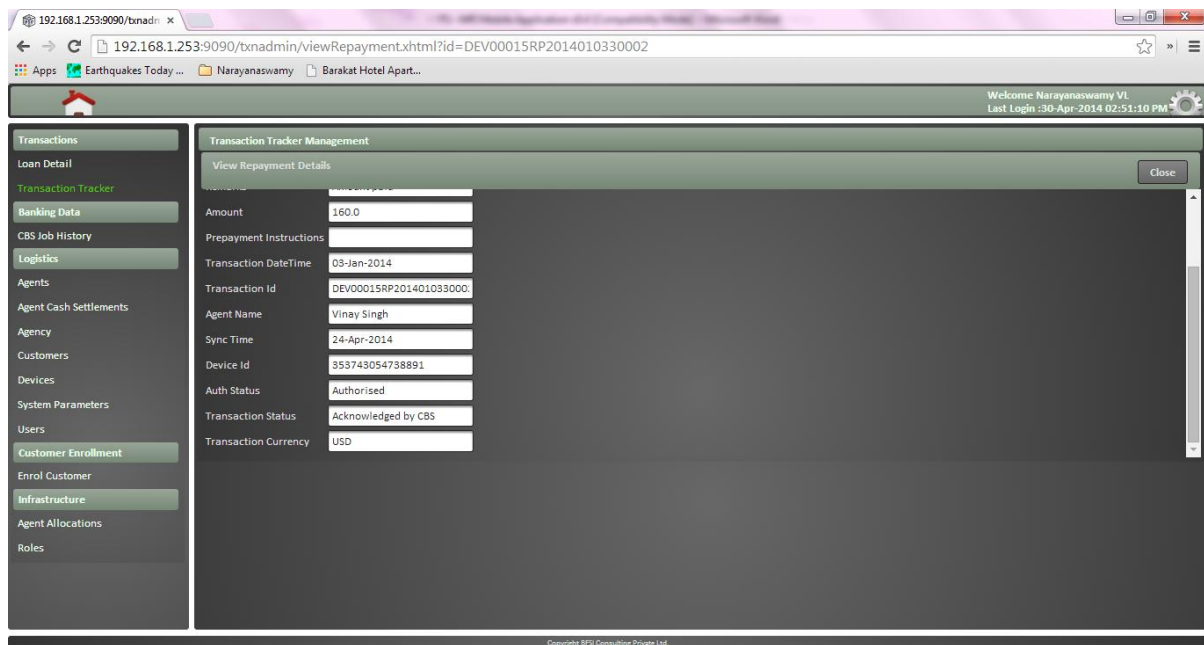
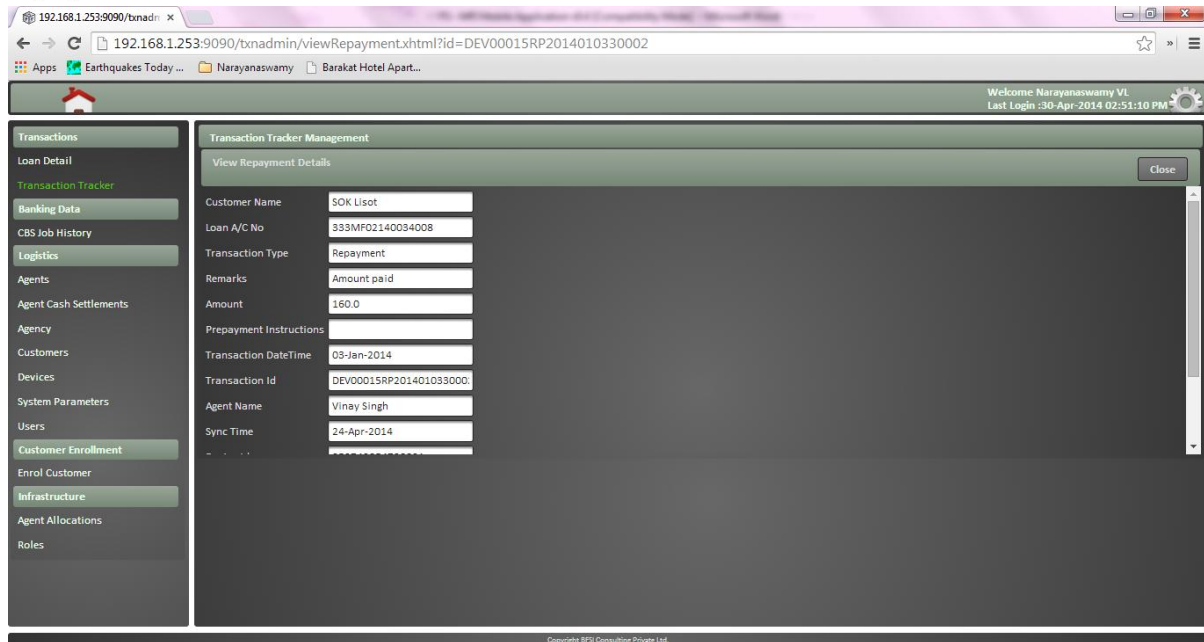
- Field agent
- Transaction type (Loan disbursement or Loan repayment)
- Period (From date and To date)
- ✓ Maximum number of days between from and to date and Maximum number of past days within which transaction can be displayed are to be configurable parameters.
- ✓ For example, assume today's date 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



Transaction detail



2.2.1.14 Credit Officer Dashboard

- ✓ 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

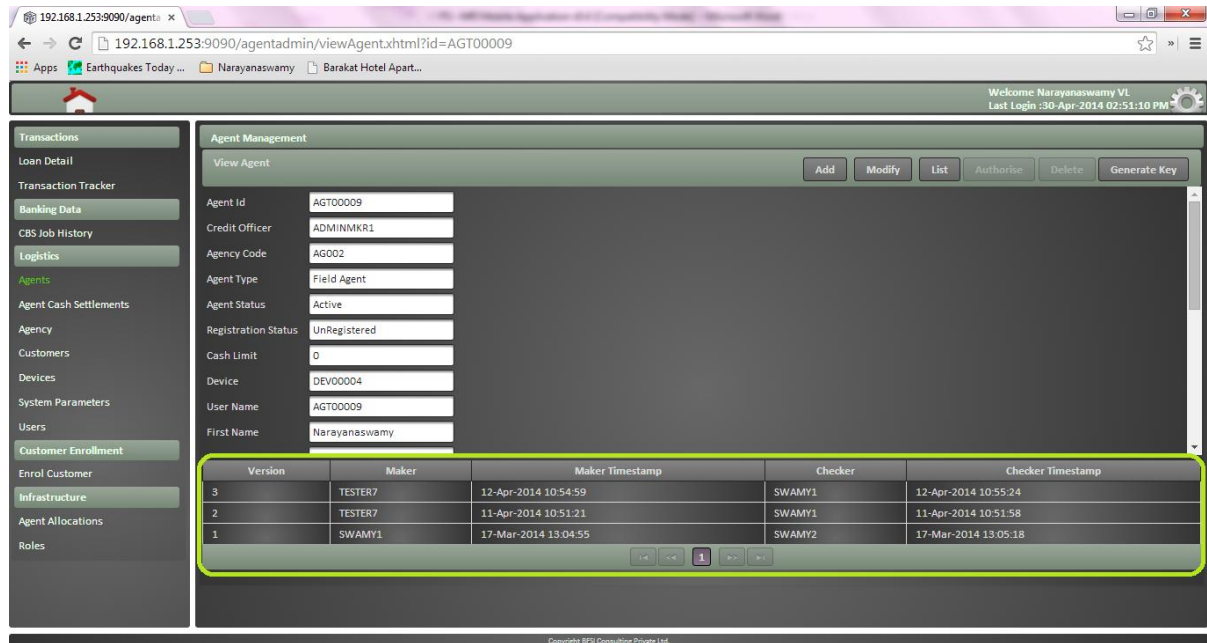
2.2.1.15 Report – Pending Disbursements for the day

- ✓ 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 Audit Trail

- ✓ 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.

Screenshots:



2.2.1.17 Multi-lingual

- ✓ 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

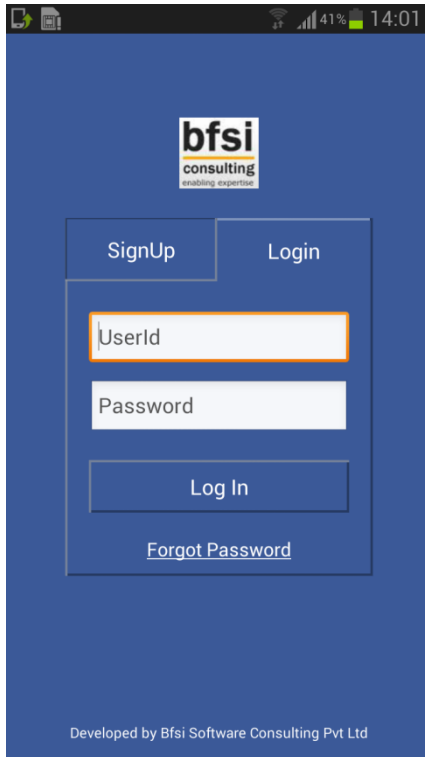
- ✓ Agent downloads application and installs it in his device.
- ✓ First time login into the application by agent should be done only through online mode.
- ✓ Agent id, password entered in the device by agent would be sent to intermediary server along with the unique id of the device.
- ✓ The integrity 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:



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

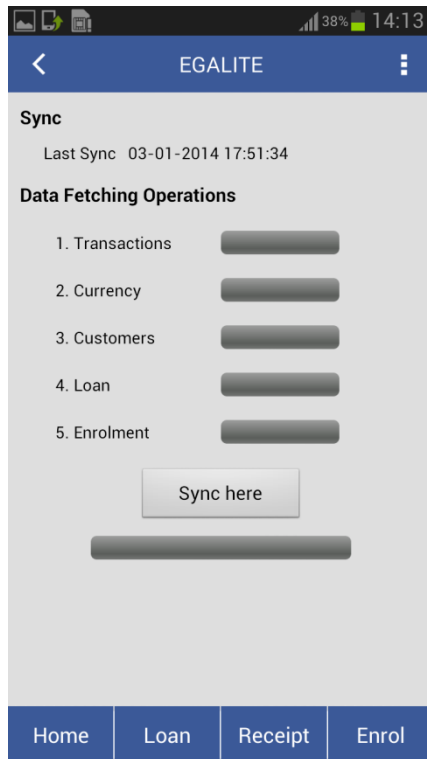
2.2.2.5 Sync data with intermediary server

- ✓ 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:



2.2.2.6 Agents Agenda

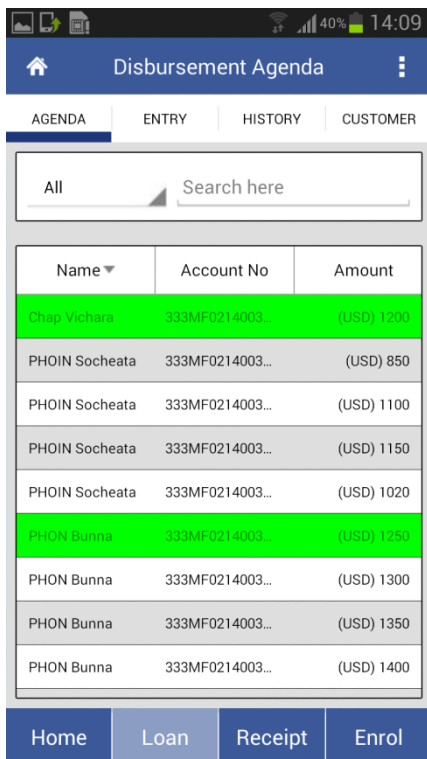
- ✓ Agent will go to customers locality and do field activities such as loan disbursement and loan repayment collection
- ✓ Agents Agenda for the day would help agents to know their field activities which they have to perform on any given day.
- ✓ Facility would be developed for field agents to view 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.

Screenshots:



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

2.2.2.7 Advances disbursement

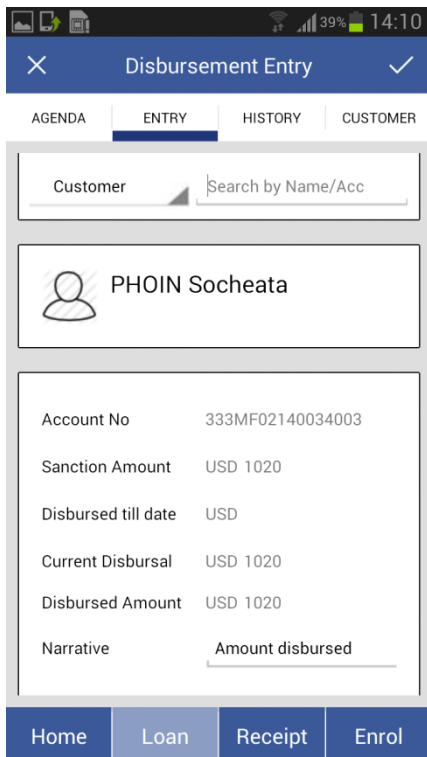
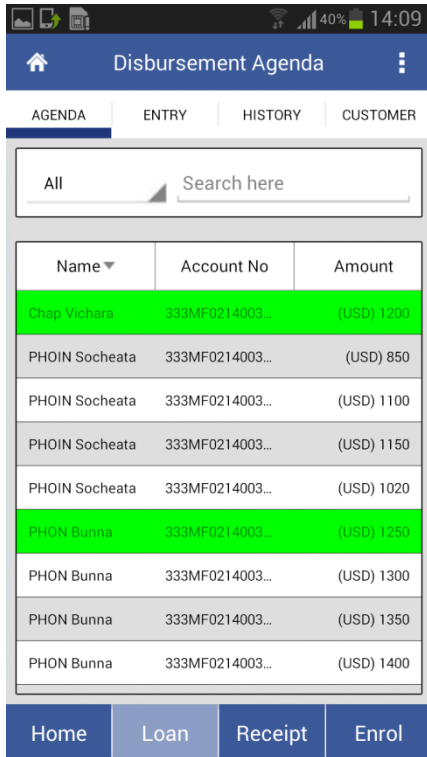
- ✓ Agent can view the loan disbursements to be done for the day in the proposed application of his device.
- ✓ Agent can select any one of the loan account to disburse the amount against the particular loan account.
- ✓ Once a particular loan account has been selected from agenda, below would be displayed as part of loan details:
 - Advances number (Loan account number)
 - Currency
 - 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

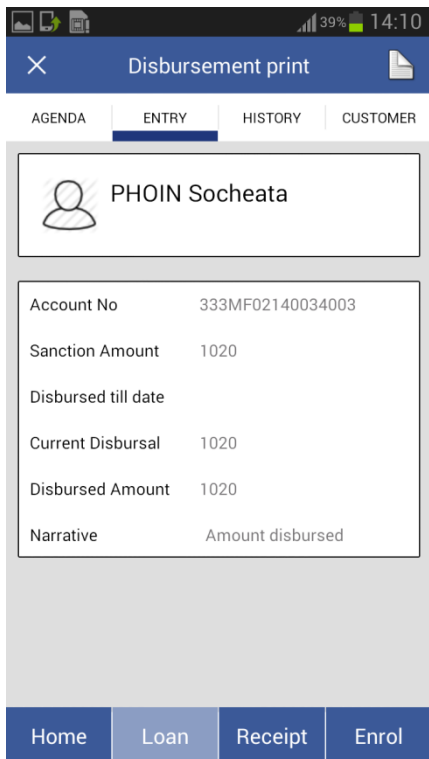
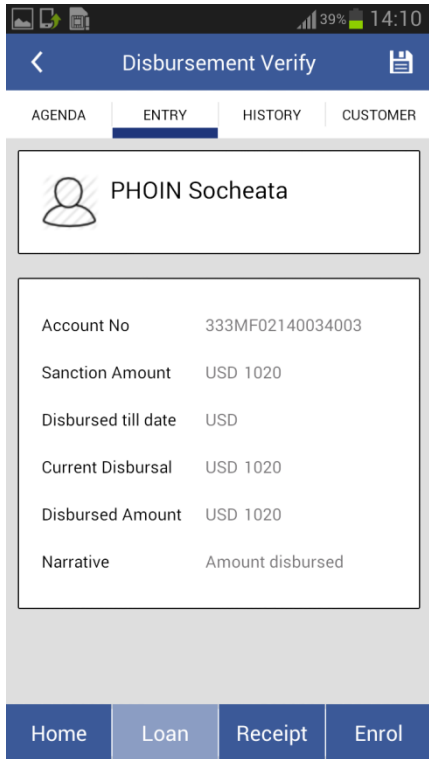
- Advances number
- Currency
- Sanctioned amount
- Amount disbursed till date
- Disbursement amount
- Narrative
- ✓ After agent viewed the details of the transaction in verification screen, agent can do any one of the below:
 - Back – In case if agent wants to modify the narrative, he can use the back option in his device, so that control would be going back to the previous screen, where he can change narrative and initiate the transaction.
 - 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
 - Sanctioned amount
 - Amount disbursed till date (excluding current disbursement)
 - 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.

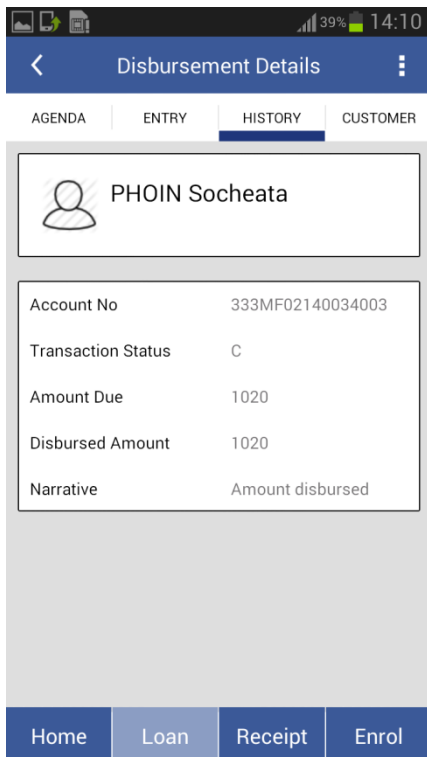
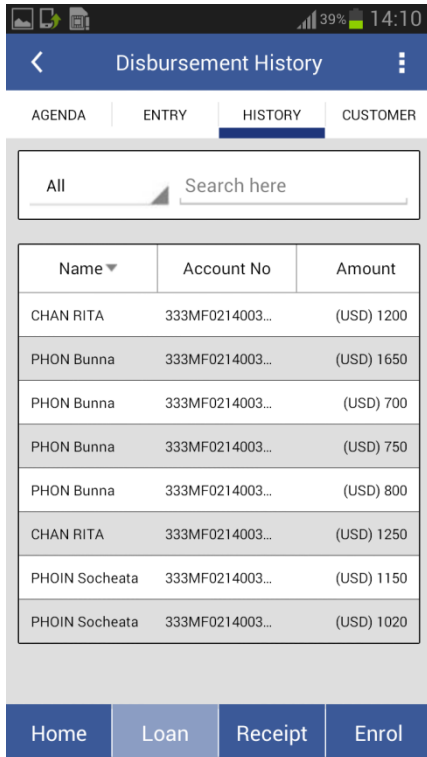
Deletion of a disbursement:

- ✓ 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.

Screenshots:







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.

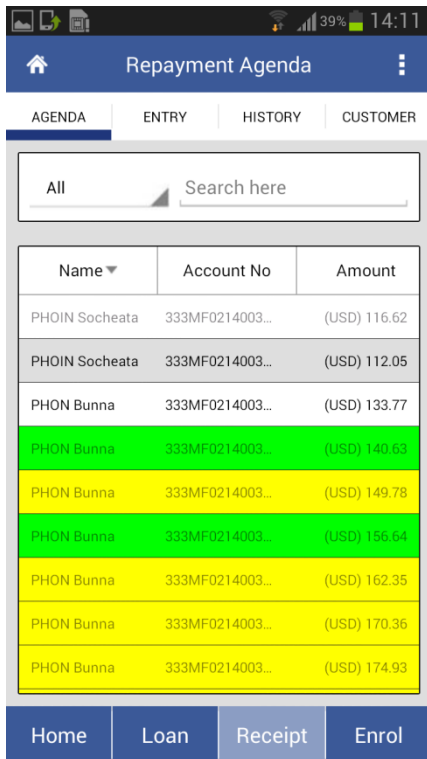
- ✓ Agent can select any one of the loan account to collect the repayment amount against the particular loan account.
- ✓ Once a particular loan account has been selected from agenda, below would be displayed as part of loan details:
 - Advances number (Loan account number)
 - Currency
 - Sanctioned amount
 - Amount disbursed
 - Principal outstanding
 - Amount due
- ✓ Agent can view component-wise breakup of due amount. Below details would be displayed as part of component-wise breakup:
 - Date
 - Component name
 - Schedule amount
 - Amount paid
 - Pending amount
- ✓ Agent can also view customer details as below:
 - Photo of the customer
 - Client id (Customer id)
 - Client name (Customer name)
 - Address
 - Mobile number
- ✓ A field would be introduced for agent to input the actual repayment amount given by customer. This repayment amount can be lesser, more or equal to the actual due amount.
- ✓ 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 re-computation basis, in case if customer pays more than the due amount:
 - Change EMI
 - 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 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:
 - Client name
 - Advances number
 - Currency
 - Sanctioned amount
 - Amount disbursed
 - Principal outstanding
 - Amount due
 - Repayment 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 repayment 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 repayment 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 repayment 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 repayment)
- Amount due
- Date of repayment
- 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.

Screenshots:



Repayment Entry

AGENDA ENTRY HISTORY CUSTOMER

Customer Search by Name/Acc

PHON Bunna

Selected ACNo	333MF02140034005
Sanction Amount	USD 1170
Amount Paid Till Date	USD 0
Amount Due	USD 133.77
Payment Currency	USD
Repayment Amount	enter amount

Home Loan Receipt Enrol

Repayment Entry

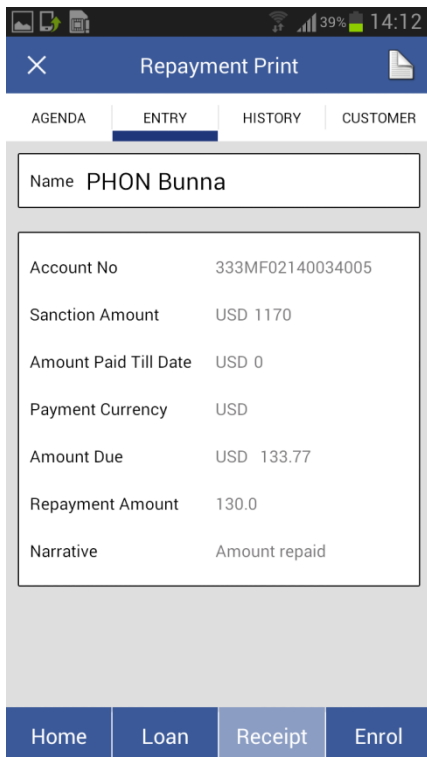
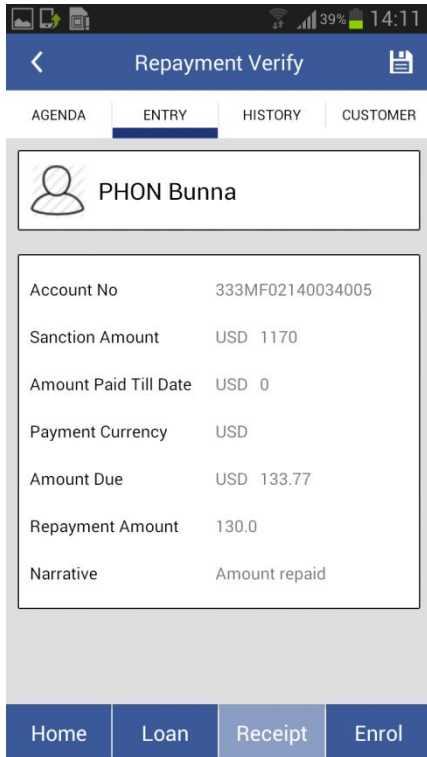
AGENDA ENTRY HISTORY CUSTOMER

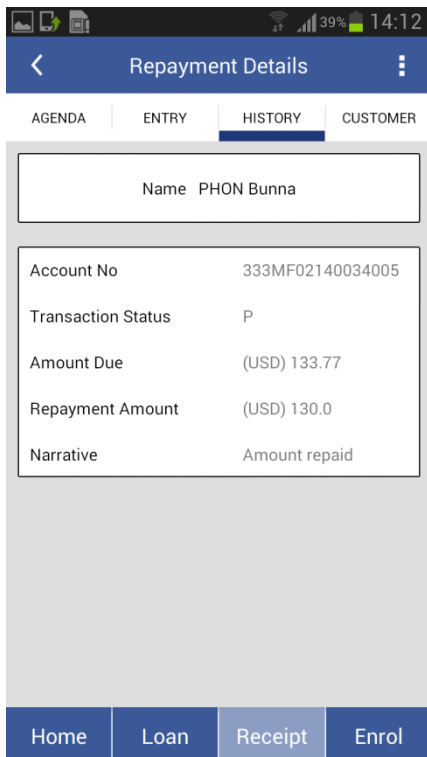
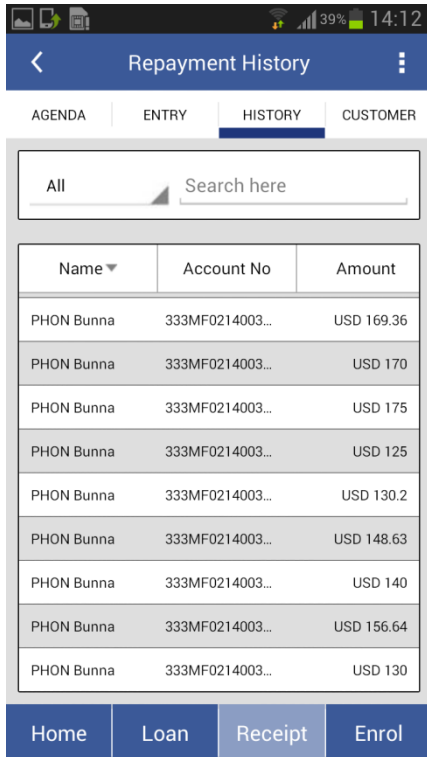
Customer Search by Name/Acc

PHON Bunna

Selected ACNo	333MF02140034005
Sanction Amount	USD 1170
Amount Paid Till Date	USD 0
Amount Due	USD 133.77
Payment Currency	USD
Repayment Amount	130

Home Loan Receipt Enrol





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)
 - Currency
 - Sanctioned amount
 - Amount disbursed
 - Principal outstanding
- ✓ Agent can also view customer details as below:
 - Photo of the customer
 - Client id (Customer id)
 - Client name (Customer name)
 - Address
 - 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 re-computation basis:
 - Change EMI
 - 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
 - Advances number
 - Currency
 - Sanctioned amount
 - Amount disbursed
 - Principal outstanding
 - 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.
- ✓ 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 **Transactional activity**

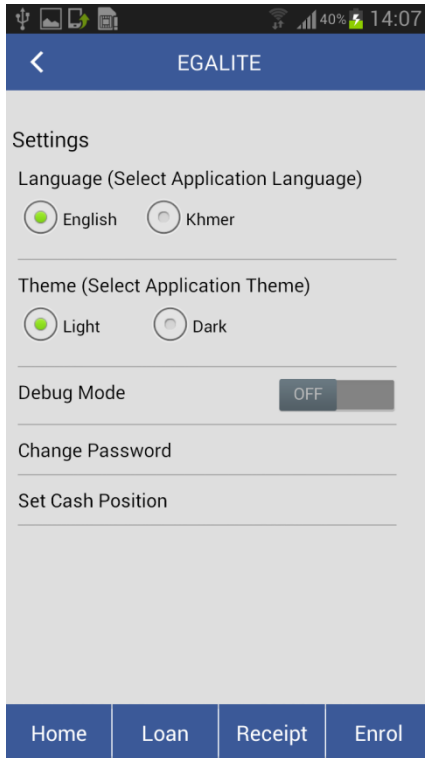
- ✓ Facility for agents would be developed in proposed application to view past transactions which the particular agent had done.
- ✓ Agent would be able to see the completed transactions based on the criteria selected by agent.
- ✓ Below is the list of various search criteria which would be available 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.

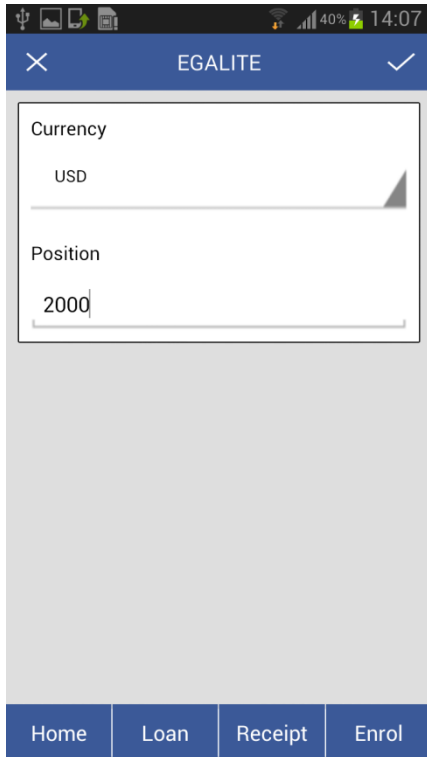
2.2.2.11 **Cash position**

- ✓ 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

- 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.

Screenshots:



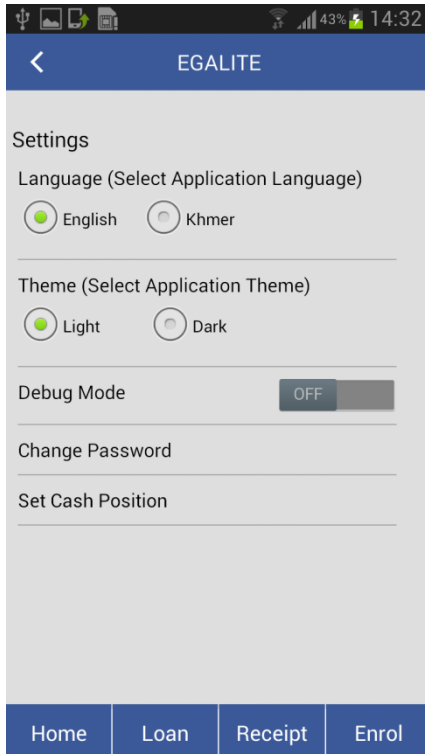


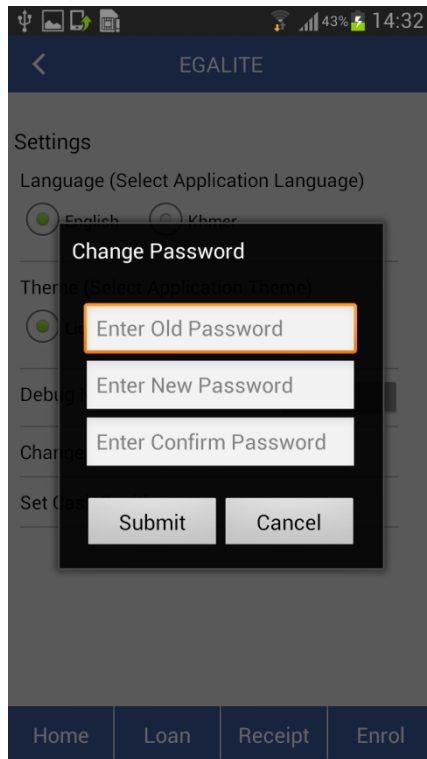
2.2.2.12 Change password

- ✓ 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.

Screenshots:





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 **Audit trail**

- ✓ 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 **Multi-lingual**

- ✓ 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