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Functional Specification Document

**(Migration\_Retail\_Personal\_Finance – LOS/LF)**

**(NEWGEN CONFIDENTIAL)**

**Newgen Software Technologies Ltd.**

**New Delhi, IND**

|  |  |
| --- | --- |
| **Review Summary** | |
| **ITEM SUBMITTED BY *Varun Arora*** | |
| **REVIEW TEAM:** | |
| **NAME** | **SIGNATURE** |
| *1. Requirement Task Force* |  |
| *2.* |  |
| *3.* |  |
| **REVIEW COMMENTS:** | |
| ACCEPTED :  NOT ACCEPTED:  REVIEW NOT COMPLETED:  *(Explanation)* | |

**Revision History**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Release**  **Date** | **Revision Number** | **Changes Made (Mention Sections Affected)** | **Author** | **Reviewed**  **By** | **Approved By** |
| **11 July 2024** | 1.0 | Initial Draft | Varun Arora |  |  |
| **01 Aug 2024** | 1.1 | Section 3 and Section 4 | Varun Arora |  |  |
| **12 Aug 2024** | 1.2 | Section 3 and Section 4  BRD Mapping given | Varun Arora |  |  |

**Signoff / Approval Sheet**

I/We have gone through the SRS Document “Functional Specification Document”.docx and found it to be acceptable. These base requirements have been refined & revised in the discussions with the contributors & final requirements have been described in this document. The final solution will be developed & implemented as per Gap Analysis Document prepared by Newgen & signed off by the Emkan Finance Company and Ejada Systems Company Limited, Kingdom of Saudi Arabia authorized signatory(s).

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Mr. Mr.**

Designation:Designation:

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# Introduction

## Purpose

Emkan Finance is a fully owned business entity by Al Rajhi Bank, one of the largest banks in the world based in the Kingdom of Saudi Arabia is Implementing Newgen product suite for automation of Personal Finance product as a part of LOS (Loan Origination System) project.

This gap study document details out the business requirement for following departments – Sales Department, Credit Department, Operation Department and Finance Department for Loan Origination and approval System. The automation of these processes will ensure operational efficiency and increased responsiveness along with reduced physical documents involvement and reduced movement of physical documents.

Newgen system is required to provide the following benefits which are aligned to its strategy:

* To improve and Monitoring turnaround time.
* Electronic transits of request & documents within system.
* More face time for customers as there is a substantial reduction in manual work.
* Capturing the audit trails of user activities.
* End to end process automation for origination and approval.
* Reduced operational costs.
* Enhanced credit decision-making.
* Integration with Multiple Systems.

## Document Conventions

|  |  |
| --- | --- |
| Abbreviation/Definition | Description |
| Newgen | Newgen Software Technologies Limited |
| Workitem | Application |
| LOS | Loan Origination System |
| iBPS | Newgen BPM solution |
| SRS | Software Requirement Specification |
| OD | OmniDocs -Newgen Enterprise wide Electronic Document Management Solution. |
| BAM | Business Activity Monitoring- Newgen Reporting solution |
| MDM | Newgen Master Data Management System |
| WI | WorkItem: A logical unit corresponding to request. |
| WS | Work Step: A logical unit for an activity in the business workflow. |
| RM | Relationship Manager |
| CM | Credit Manager (Level 1 Approver, Level 2 Approver) |
| DMS | Document Management System |
| Queue | BPM is a Queue based Workflow System i.e Work item flow from one Queue to another in a Process. A ‘Queue’ can be defined as a shared workbench of users performing similar operations |
| Indexing | The process of associating or tagging documents/folders with appropriate keywords/values/terms to allow for correct storage and quick retrieval |
| Index Parameter | Specific tag/field associated with a folder or document |
| Document Types | Categorization of documents by type as per business requirements |

## Intended Audience

**RACI Chart**

|  |  |  |
| --- | --- | --- |
| **\*** | Authorize | This individual has ultimate signing authority for any changes to the document |
| **R** | Responsible | This individual is responsible for creating this document |
| **A** | Accountable | This individual is accountable for the accuracy of this document |
| **C** | Consulted | Consulted This individual provides input (interviewee, etc.) |
| **I** | Informed | This individual must be informed of any changes |

| **Name** | **Position/Department** | **\*** | **R** | **A** | **C** | **I** |
| --- | --- | --- | --- | --- | --- | --- |
| **Ejada** | | | | | | |
| Mohammed Moharram | Program Manager | X |  |  |  |  |
| Basem Zidan | Technical Program Manager |  | X |  | X | X |
| Mohammed Omar Eid | Design Authority Lead |  | X |  | X | X |
| Islam Ali | Service Delivery Manager |  | X |  | X | X |
| **Newgen** | | | | | | |
| Mr. Harjan Singh Cheema | Delivery Head – EMEA |  |  |  |  | X |
| Mr. Ravi Prakash Pandey | Project Manager - Newgen |  | X |  |  | X |
| Mr. Sri Prakash Rai | Technical Project Leader |  | X | X | X |  |
| Mr. Varun Arora | Senior Business Analyst (Functional) |  | X | X | X |  |
| Mr. Simranjeet Singh | Senior Business Analyst |  | X | X | X |  |

## References

| **Name of the document** | **Version No.** | **Source from** |
| --- | --- | --- |
| BSDD LOS Drop1\_v0.5.docx | 0.5 | Accenture |
| Business Requirement \_LOS BRD01\_New Application Screen\_v0.3 | 0.3 | Accenture |
| Business Requirement \_LOS BRD02\_Application\_data\_entry\_v0.2 | 0.2 | Accenture |
| Business Requirement \_LOS BRD03\_Underwritering Queue\_v0.2 | 0.2 | Accenture |
| Business Requirement \_LOS BRD04\_Offering to Disbursement\_v0.2 | 0.2 | Accenture |
| Business Requirement \_LOS BRD05\_Enquiries\_v0.2 | 0.2 | Accenture |

**Notes:-**

* All documents mentioned in references (in section 1.4) have been considered and will be referenced as part of the Requirement Analysis.
* All documents embedded in the Requirement Analysis are important and will be referenced for the respective applicable sections.

# Overall Description

## Scope of Work

### In Scope

* Loan Origination System for Personal Finance (Branch Initiation, Compliance Approval and Credit Approval, and If there is any exceptional approval required, application will be routed to their queue)
* Product and Sub Product are mentioned in below table for Drop 1

|  |  |  |
| --- | --- | --- |
| **Product** | **Sub Product** | **Drop** |
| Personal Finance | Micro Finance | Drop 1 |
| Personal Finance | Top-up ARB, Top-up Other | Drop 1 |
| ~~Personal Finance~~ | ~~Direct Personal Finance~~ | ~~Drop 2~~ |
| Refinance | Refinance | Drop 1 |

* Loan Fulfillment (Buy Commodity/Contract Generation/Sell Commodity/Contract Signing/Sanad Signing)

## Solution Features

**Workflow based Movement**

The solution allows the flow of Credit approval as per the workflow approved by the Product stakeholders of Emkan as well as Ejada. The solution will route the work item (transaction) based on the workflow configured in the system. Small changes in the workflow can be catered later on also and can be introduced into the system with minimal effort.

**Master Data Management**

The solution comes with a Master data Management tool wherein the master data of the application can be easily configured. Product types, Sub Product Types, Country, Currency etc tables can easily be created in the master database and can also be altered later on with minimal effort.

**Paperless Circulation of Credit Proposal**

Credit Proposal will be circulated to all the stakeholders as per the workflow configured into the system in a completely paperless environment. Not only the Credit Proposal but all the relevant documents attached into the system will also flow along with the Credit Proposal.

**Document Generation**

Document generation based on their purpose can be generated automatically through the system on a single click of a button. Unified Contract Generation, Direct Debit Generation etc. can be generated through the system.

**Decision and Remarks/Comments History**

Decision & Remarks/Comments entered by each user of the system will be recorded by the system. Subsequent users in the workflow will be able to see the decision and remarks entered by the previous user of the workflow. This feature helps to achieve the overall transparency in the Credit approval process.

**Document Archival**

The solution allows the documents collected from the customer to be archived into the system. Document Management System which comes along with the solution will store all the customer documents, Credit Proposal, Memo etc as per the defined folder structure.

**Reporting & Dashboard**

The solution comes along with Newgen Business Activity Monitoring tool which is a reporting solution from Newgen. Customized reports can be generated from this tool with minimum effort. Management dashboard can also be created through reporting tool to have a greater visibility of the entire process.

## User Classes and Characteristics

There are following Users who would be using the system.

**Workstep/Stages** are the Queues at which the users or user group are given rights in order to perform the activity as listed in acceptance criteria.

**User group** are the group of users assigned to the queue. If any user needs to perform the activity, for example CRO – Chief Risk officer approval then user will be added to the group “Decision management” and the queue is assigned to Decision management. Hence if user login into the system, user will see the Queue “Decision management” and on click of the queue all the application pending for him will be shown.

1. Application ID
2. Workstep Name
3. Source
4. ID Type
5. ID Number
6. Status
7. Locked by (Username)
8. Entry Date
9. Application Initiation Date
10. TAT

## Operating Environment

The Operating Environment envisaged for the Project is as per the agreement on the Hardware Sizing sheet between Newgen and Emkan Finance Company. Sizing sheet attached in [Annexure](#_Hardware_&_Software)

## Deliverables

Based on Gap Analysis document, the following are the key deliverables:

**Newgen Key Deliverables:**

* Software Requirement Specification
* Software User Manuals.
* Training manuals (user and administrator)

**Emkan Finance Company Key Deliverables:**

* Business test cases authored by Emkan Finance Company

(UAT testing and sign-off would depend on the cases authored by Emkan Finance Company)

## Assumptions and Dependencies and Constraints

1. Infrastructure and Environment set-up including Operating System, App Server, DB Server, and 3rd party installations are the responsibility of Emkan Finance Company.
2. Documents once uploaded in the approval process cannot be deleted. However, users can add multiple documents and save them as a new version. Moreover, the user can select and see any version he wants to see in the DMS system. Users will add documents with the following extensions only (doc, docx, xls, xlsx, tiff, gif, jpeg, jpg, pdf).
3. The size of each document type attached with one Work item should be up to 10MB (with per page size 60-100 KB). In the system there is no restriction, however it is only for best performance of the system.
4. Users cannot associate one document partially.
5. Workitem once completed its cycle (i.e. it has reached Exit, it cannot be routed again in process flow.) However, a new Workitem can be initiated.
6. Discard cases would be archived in case a new application is needed and a new Workitem would be initiated.
7. Training will be provided to the users using train the trainer model. In this model, Newgen will train the users identified by Emkan Finance Company from each department. Training will be done post SIT signoff.
8. Solution deployment will depend on the Hardware pre-requisites fulfilment by the Emkan Finance Company.
9. Integration with third party system will depend on the readiness of the API's provided by Emkan Finance.
10. There is no data migration for the application in process. Emkan Finance Company will close all its LOS Application in legacy system for disbursal at a cutoff date.
11. There is no migration of documents in the Newgen System. In LOS there is no data migration, however in order to fetch existing accounts of the Company, Newgen is integrating with CRM.
12. All fields and drop down, look up can be captured and stored in Arabic language except for the numeric values.
13. System will not do any language translation and conversion except the calendar from hijri to Gregorian and Vis-a-versa.
14. Post Disbursal activities are not included in LOS. Parameters for BRMS and MDM are Configurable.

All Screen attached are for illustration purpose only. Exact screens would be provided in the prototype document. In Case if there is any update required in User Interface, it will be incorporated. But there will be no change in the functionality or no new functionality to incorporated, as it is being agreed and documented in SRS.

# Functional Specifications

## Personal Finance – Top Up and Microfinance

Note: Requirement mentioned in BRD01-02 are covered for complete solution as per the availability of data from 3rd party systems and kindly refer “assumptions section 2.6 point no: 13”

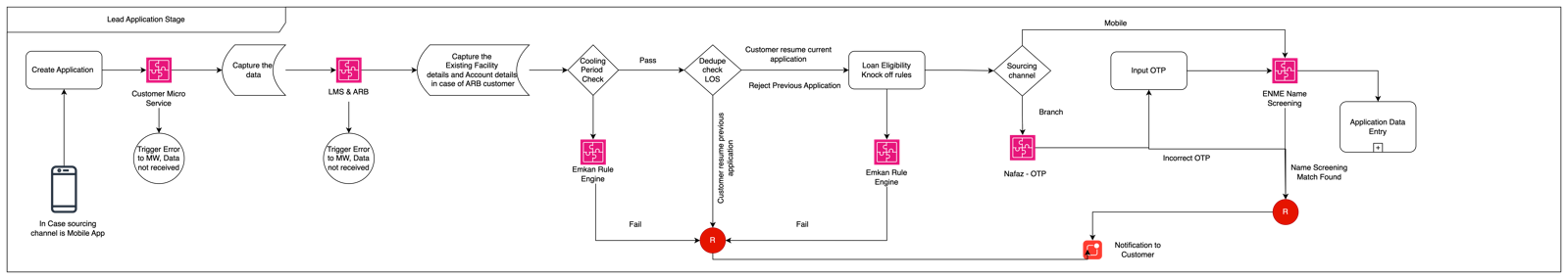
### Application Initiation – Draft Application Stage

**BRD (BRD01-01,** **BRD01-02, BRD01-03, BRD01-04, BRD01-05, BRD01-06, BRD01-07, BRD01-08, BRD01-09, BRD01-10, BRD01-11, BRD01-12, BRD01-13, BRD01-14, BRD01-15)**

*Above mentioned BRD links will cover the Draft application stage on both Mobile and Branch Journey*.

This will be the very first stage in loan origination system workflow and all the new application will be created at this stage, either the source is “Digital” or “Branch – Walkin”.

As per the BRD Document these are the only two sources to generate the application in LOS.



*Figure 1*

**Digital Journey (Mobile Application):**

* Applicant will access the mobile application of Emkan Finance
* In case of new customer, applicant will select the registration process, Once the customer is registered, he/she will click on “Apply for personal finance” button on mobile application
* Based on the click LOS will get the request via MW from mobile application to initiate the application for personal finance however, sub product will define at later stage after integration with Qarar system.
* After getting the application creation request, the 1st step is to check if the applicant is existing or new.
* perform the search for the customer information from CRM / ARB system based on values in ID type, ID number and date of birth fields.
* If the customer is an existing ARB customer, then populate the “ARB Account holder” field with value “YES”, else populate “NO”.
* If the customer is an existing EMKAN customer, then populate the “Existing customer” field with value “YES”, else populate “NO” (Note: All the customers performing the action of “Apply Now” from mobile application should already have a record in customer data base to capture the customer mobile application registration details, hence the input here will always be “YES”)
* In the case of new/existing customer LOS will trigger the Customer micro service for providing the required data.
* A draft application is created to store these details and a unique application reference number is generated by the system. All incomplete applications will be stored in LOS for 20 days (TBC with business) from the last action of the customer. In case there is no action beyond 20 days, LOS should auto-delete (Reject) the application from its repository. The same customer without any action in 20 days cannot resume with this application and will have to start the process for loan application stage again.

At this stage there are backend checks performed using the Aggregator and external integrations as follows:

1. Active loan details – Active loans details are fetched from LMS to apply the cooling period boundary condition mentioned below.
2. Cooling Period – check performed to validate whether customer has an existing a loan application that
   1. Has been activated as a loan in LMS
   2. Loan application in LOS has Final Loan Offer Date:
      * For same product type – greater than or equal to 90 calendar days from today’s date
      * For other products type – greater than or equal to 30 calendar days from today’s date

* If the check is not successful, then an application rejection message is displayed on the mobile application. The process stops at this stage. If the check is performed successfully, then the below mentioned step is performed by the LOS.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Application Creation** | Newgen LOS  Emkan Mobile Application | Mobile Number  Email ID  National ID / Iqama  Date of Birth | Application unique Number |  | System will provide the application number to Mobile application |
| **Capturing Customer Data** | Customer Micro Service | National ID / Iqama  Date of Birth | Demographic Details  Employment details  Income Details |  | System will get Customer Name, ID expiry, mobile number registered against the provided ID.  Customer National Address  If customer exists in ARB, the output will be Customer CIC (ARB Customer ID) |
| **Existing Facility details** | T24  ARB | National ID / Iqama | Existing Facility details  Application/Contract ID |  | Active loan details – Active loans details are fetched from LMS to apply the cooling period boundary condition mentioned below.  Cooling Period – check performed to validate whether customer has an existing a loan application that  Has been activated as a loan in LMS  Loan application in LOS has Final Loan Offer Date :  The customer should not be allowed to apply for a Top Up ARB loan if the customer already holds a Top Up ARB loan that was issued less than or equal to 60 days ago  b. The customer should not be allowed to apply for a Top Up - Other bank loan if the customer already holds a Top Up Other bank loan that was issued less than or equal to 90 days ago  c. The customer should not be allowed to apply for a Micro loan if the customer already holds a Microfinance loan that was issued less than or equal to 90 days ago  ~~For same product type – greater than or equal to 90 calendar days from today’s date~~  ~~For other products type – greater than or equal to 30 calendar days from today’s date~~  If the check is not successful, then an application rejection message is displayed on the mobile application. The process stops at this stage. If the check is performed successfully, then the below mentioned step is performed by the LOS.  Application duplication check – check to be performed to confirm if the customer already has an active application in LOS. If yes, customer is requested to resume or cancel the previous application. If no active applications are there in LOS, next step is performed.  If any duplicate application is pending at below mentioned stages, then customer has to go with previous application only:  remittance  customer disbursement  voucher generation  card issuance  asset registration or asset delivery stages |
| **Customer Eligibility Check** | Aggregator | Nationality  Age  ID Expiry Date | Eligible  Not Eligible |  | Product knock-off rules are applied  If the boundary conditions are not met the application will not move to next stage and an error message will be shared with the customer. |
| **ENME Screening** | ENME | ID Number  ID Type  Address | Hit  No Hit |  | Newgen will trigger the request to ENME for sanction screenings. Customer name is screened against the required sanction lists as per the regulatory requirements to identify sanctioned individuals. If the customer is identified as sanctioned customer, an error message is shared with the customer. |

### Data Entry Stage – Personal Information will be captured

**BRD (****BRD02-01, BRD02-02, BRD02-03, BRD02-04, BRD02-05, BRD02-06, BRD02-07, BRD02-08, BRD02-09, BRD02-10, BRD02-13, BRD02-18, BRD02-19, BRD02-20, BRD02-21, BRD02-22, BRD02-23, BRD02-25, BRD02-26, BRD02-27, BRD02-40, BRD02-43, BRD02-46, BRD02-47, BRD02-48, BRD02-50, BRD02-55, BRD02-57, BRD02-58,** **BRD02-59, BRD02-60, BRD02-64, BRD02-65, BRD02-66, BRD02-67, BRD02-68, BRD02-70, BRD02-73, BRD02-74, BRD02-75, BRD02-77, BRD02-79)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

Once the pre product eligibility checks are done and all the data which is required from 3rd party systems to create the application is done, then application will be routed to next step i.e., Data Entry Stage, In case of branch journey Emkan user will work upon this stage, majorly to capture the personal information of applicant

A screenshot of a video game

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Personal information capture** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Personal Information provided by customer on web Portal |  | Below mentioned details are required from customer at this stage.   1. Purpose of the loan – Pick option from the pre-configured dropdown options 2. Marital Status - Pick option from the pre-configured dropdown options 3. Number of Family Members (including yourself) - Pick option from the pre-configured dropdown options 4. Type of current housing - Pick option from the pre-configured dropdown options 5. Working Status- Pick option from the pre-configured dropdown options 6. Politically exposed? - Pick option from the pre-configured dropdown options 7. Do you hold military rank? – Yes/No (In case customer choose yes, a separate screen shall be opened to open military details) |
| **Personal information capture** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Income Information will be captured |  | LOS will trigger the customer micro service to fetch the data related with income, if data is not received then mobile app should allow customer to manually input his net monthly salary. (The income is net monthly income)  In Branch journey LOS user will input this detail Manually. |
| **Expense Information capture** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Expense Information will be captured |  | Customer is asked to input his expense details in the expense tab.  Customer should fill the following fields in expense.  Expense Types  a) Other future expenses  b) Housing expenses  c) Fees on expats  d) Home servants  e) Education expense  f) Health care services and Insurance  g) Transport expense  h) Communications expense  In case of Brach journey this will be done by system user manually in LOS  \*\*Note: By default, if customer don’t provide any expenses detail to Emkan LOS will consider SAR 100. |
| **Capture Simah Consent** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Consent required to fetch credit history |  | customer selects the tick-box to provide SIMAH consent, which is used to retrieve the credit information of the customer.  In case of branch journey user will select the check box and upload consent of customer |
| **Upload Documents** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference  Mandatory Document ID | Customer/User will Upload the mandatory document |  | Newgen should display the mandatory and optional documents that are required.   |  |  |  | | --- | --- | --- | | 1 | Application Form | Non- mandatory | | 2 | GOSI certificate | Non- mandatory | | 3 | National ID / IQAMA ID | Mandatory |   In case any mandatory document is missing, the system should be able to share an error message with the customer  Documents will save at application level in LOS |

List of documents for Top up and Micro Finance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SN** | **List of Documents** | **Mandatory non-mandatory** | **Condition** | **Format Accepted** | **Size Limit** |
| 1 | Application Form | Non- mandatory | Not required for mobile application | .doc/.docx/pdf | 3 Mb |
| 2 | GOSI certificate | Non- mandatory | In case income not retrieved from GOSI/DAKHLI and customer is asked to feed income manually. | Pdf | 3 Mb |
| 3 | IBAN Certificate | Non-mandatory | To be uploaded only when IBAN verification fails (*refer BRD 04.41*) | Pdf/png | 3 Mb |
| 4 | Income certificate / Wage certificate | Non-mandatory | Only if the monthly income retrieved from trusted source is < 3K SAR OR monthly income not received from trusted source | Pdf/Png | 3 MB |
| 5 | Bank Statement | Non-mandatory | Only if Income is manual input | Pdf | 3 Mb |

List of Documents for Refinance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SN** | **List of Documents** | **Mandatory non-mandatory** | **Condition** | **Format accepted** | **Size limit** |
| 1 | Application Form | Non- mandatory | Not required for mobile application | .doc/.docx/pdf | 3 Mb |
| 2 | GOSI certificate | Non- mandatory | In case income not retrieved from GOSI/DAKHLI and customer is asked to feed income manually. | Pdf | 3 Mb |
| 3 | IBAN Certificate\*\* | Mandatory | Must uploaded only when IBAN verification fails (*refer BRD 04.41*) | Pdf/png | 3 Mb |
| 4 | Income certificate / Wage certificate | Non-mandatory | Only if the monthly income retrieved from trusted source is < 3K SAR OR monthly income not received from trusted source | Pdf/Png | 3 Mb |
| 5 | Bank Statement | Non-mandatory | Only if Income is manual input | pdf | 3 Mb |

BRD02-34: Negative Employer Check to be maintain at Qarar Level.

BRD02-35: Notes Manager will be available in LOS for all the users, functionality can define at demo/ prototype sessions

BRD02-36: Kindly refer Field list and if any request parameter for qarar will be required from any 3rd party LOS will not move application forward.

BRD02-37: OTP validation/ Mobile verification not at Application data entry, will de done at initiation level

BRD02-39: Data entry and editable rights are already mentioned in field list

BRD02-66: System should have an ability to allow customer/user to edit the income field if net monthly income received from trusted source is less than 3K

If the net monthy income retrieved from any trusted source such as ARB service, DAKHLI, TAKAMOL, GOSI is less than 3000 SAR then the system should have an ability to allow customer/user to edit the monthly income field on mobile app / frontend LOS in branch.

In case the field is edited manually then LOS should have following configurations:

1. Additional income documents should be ask to be uploaded during Document Upload stage (refer [BRD02-06](https://ts.accenture.com/sites/EMKANBANK/Shared%20Documents/General/0.4%20Emkan%20-%20Phase%201/5.%20Deliverables/BRDs/LOS/Business%20Requirement%20_LOS%20BRD02_Application_data_entry_v0.2.docx#_Use_cases_for_17))
2. The application should always go to QARAR-REFER stage to underwriter basket.

BRD02-67: Capture the trusted source of Income Information, store and display in LOS if the application is applied through ARB App.

If the customer applies for EMKAN loan through ARB app, and if the monthly income information is captured through a trusted source, then the source of income information should be updated in EMKAN LOS.

* if the customer salary is manual then the channels flag will be " manual " in Newgen
* if the customer salary is from verified source then the channels flag will be " GOSI / DAKHLI / TAKAMOL " in Newgen from where the information is retrieved.

### Facility Eligibility Check by Qarar

At this stage LOS will trigger the Qarar system to fetch the customer eligibility as well as the customer eligible for which sub product.

**BRD (****BRD02-27, BRD02-30, BRD02-31, BRD02-32, BRD02-33, BRD02-34, BRD02-36, BRD02-39, BRD02-42, BRD02-44)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

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| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Request Qarar** | Newgen LOS | customer information gathered in the data entry stage  Standard input template used for “Qarar Request” | Accept  Reject  Refer |  | LOS will get the Facility Eligibility from Qarar system  Based on the response received LOS will take the next action  Qarar will provide the Sub product for which customer is eligible  LOS will capture the Simah data in system  Based on Instalment amount LOS will calculate the profit and Management fees. |

On receiving the Qarar response as “Refer” (refer BRD02-33) and / or Qarar response as “Accept” with the amount being more than the permissible auto approval limit (refer BRD02-27), the application will be move to “Underwriter Decision Levels” stage and the application move to the basket of the L1 underwriter automatically.

Notification to the underwriter: when an application is added to their basket. This is requirement not applicable for L1 underwriter.

Once the application is added to the basket, the system should allow the user to filter or sort the applications based on the product, application status, amount, date and time. The system should segregate the basket by product and application status

Decision can be taken by underwriter:

|  |  |
| --- | --- |
| **Underwriter** | |
| L1 | Approve |
| Decline |
| Send to Document Pending |
| L2 | Approve |
| Decline |
| Send to Document Pending |
| Send to L1 |
| L3 | Approve |
| Decline |
| Send to Document Pending |
| Send to L1 |
| Send to L2 |
| L4 | Approve |
| Decline |
| Send to Document Pending |
| Send to L1 |
| Send to L3 |
| L5 | Approve |
| Decline |
| Send to Document Pending |
| Send to L1 |
| Send to L4 |
| L6 | Approve |
| Decline |
| Send to Document Pending |
| Send to L1 |
| Send to L5 |
| L7 | Approve |
| Decline |
| Send to Document Pending |
| Send to L1 |
| Send to L6 |
| L8 | Approve |
| Decline |
| Send to Document Pending |
| Send to L1 |
| Send to L7 |
| L9 | Approve |
| Decline |
| Send to Document Pending |
| Send to L1 |
| Send to L8 |

### Underwriter Approval

**BRD (****BRD02-35, BRD02-47, BRD02-51, BRD02-52, BRD02-53, BRD02-54, BRD03-01, BRD03-03, BRD03-04, BRD03-06, BRD03-07,** **BRD03-08,** **BRD03-09, BRD03-10, BRD03-11,** **BRD03-13, BRD03-14, BRD03-15,** **BRD03-16, BRD03-17, BRD03-18, BRD03-21, BRD03-22, BRD03-24, BRD03-27)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

Based on the response from Qarar Application will route as mentioned below:

1. Accept – In case of this response, the application should bypass underwriter and should display final offer (loan amount and loan tenure) to the customer on his mobile app. (this is Loan Offer stage)
2. Reject – In case of this response, the application should display an application reject message to the customer on his mobile app.
3. Refer – In case of this response, Newgen should have a workflow configured to allot the application to underwriters’ basket based on pre-defined underwriters’ approval matrix shown below. The loan application and offer must be reviewed by the underwriters and provide a decision based on the review.
4. Recompute Functionality is provided to underwriters based on the changes done by UND on qarar offer and basic details data entry (Once the underwriter triggers the “Recompute” functionality, the system should be able to compute the final offer for the customer based on the loan data fields modified during the underwriter review.

The underwriter should be allowed to trigger re-computation only when the amount inputted by the underwriter does not exceed the maximum eligible loan amount provided by Qarar.

This system should prohibit the underwriter from proceeding when the amount is higher than the loan amount provided by Qarar).

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Note: Below mentioned approval matrix is configurable

**Underwriter matrix for top-up**

**Top Up – Other Bank**:

|  |  |
| --- | --- |
| **Credit Limit** | **Approving Authority\*** |
| Up to 100 K | Credit Analyst |
| More than 100 K to 200 K | Credit Analyst Supervisor |
| More than 200 K to 400 K | Senior/ Operation Manager |
| More than 400 K to 600 K | COO |
| More than 600 K up to 1 M | CRO |
| More than 1 M | CEO |
| Up to 500 K | Auto Approval (by Qarar) |

**Top Up – ARB**:

|  |  |
| --- | --- |
| **Credit Limit** | **Approving Authority\*** |
| Up to 300 K | Credit Analyst |
| More than 300 K to 500 K | Credit Analyst Supervisor |
| More than 500 K to 700 K | Senior/ Operation Manager |
| More than 700 K to 900 K | COO |
| More than 900 K up to 1.5 M | CRO |
| More than 1.5 M | CEO |
| Up to 600 K | Auto Approval (by Qarar) |

**Microfinance:**

|  |  |
| --- | --- |
| **Credit Limit** | **Approving Authority\*** |
| Up to 25K | Credit Analyst |
| Re-finance- Upto 50K | Credit Analyst |
| Maximum upto 25K | Auto approval (by Qarar) |

**Refinance:**

|  |  |
| --- | --- |
| **Credit Limit** | **Approving Authority\*** |
| Up to 25K | Credit Analyst |
| Re-finance- Upto 50K | Credit Analyst |
| Maximum upto 25K | Auto approval (by Qarar) |

If the customer has been flagged as a high-risk customer, below are the actions that the system need to undertake:

1. If Qarar response = “Accept”, the application should be pushed to the underwriter queue and follow the high-risk approval matrix. The high-risk approval matrix includes approval from the COO, Chief Compliance Officer and CEO; in the mentioned order. Only when the COO has approved the application, a approval request is raised to the Chief Compliance Officer and subsequently to the CEO.

A maker checker rule is to be followed for all 3 approvers.

1. If Qarar response = “Reject”, the application will be rejected, and no action will be taken.
2. If Qarar response = “Refer”, the application will follow the application go through the credit approval matrix applicable for the product and also, the high-risk approval matrix.

In cases where as per the credit approval matrix, the loan amount does not require an approval of the COO and CEO, the system should still request the approval from the COO, Chief Compliance Officer and CEO as the customer is a high risk customer.

In cases where as per the credit approval matrix, the loan amount requires an approval from the COO and not from the CEO, the system should still request the approval from the COO, Chief Compliance Officer and CEO as the customer is a high risk customer

In cases where as per the credit approval matrix, the loan amount requires an approval from both COO and CEO, the approval from the Chief Compliance Officer should be attained right after the COO approval followed by the approvals required as the credit approval matrix

The high-risk approval matrix should be configurable, allowing EMKAN to update it as per EMKAN compliance requirements.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Decision based on Qarar output** | Newgen LOS  Qarar | Qarar Decision | Accept  Reject  Refer |  | Accept – In case of this response, the application should bypass underwriter and should display final offer (loan amount and loan tenure) to the customer on his mobile app. (this is Loan Offer stage)  Reject – In case of this response, the application should display an application reject message to the customer on his mobile app.  Refer – In case of this response, Newgen should have a workflow configured to allot the application to underwriters’ basket based on pre-defined underwriters’ approval matrix shown below. The loan application and offer must be reviewed by the underwriters and provide a decision based on the review. |

### Offering Stage

**BRD (BRD04-01, BRD04-03, BRD04-04, BRD04-05, BRD04-63, BRD04-60, BRD04-09, BRD04-10)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

Customer should be shown the loan offer on the mobile app screen containing:

1. Loan Amount: Amount calculated based on Qarar and underwriters’ input from the previous steps (Qarar output)
2. Total Tenure: Tenure calculated based on Qarar and underwriters’ input from the previous steps
3. Profit Rate: Computed by Qarar based on the pre-defined matrix.
4. Maximum Monthly Instalment: Instalment amount to be repaid per month. (Qarar output)
5. Management Fees: 1% of the loan amount in SAR or 5000 whichever is maximum. (calculated by LOS)
6. VAT Fees: 15% of the management fees in SAR (calculated by LOS)

(Management Fees and VAT fees calculations need to be configured in LOS). The system should have the ability to waive the management fees for a loan with applicable approval

NewGen should provide the customer an ability to modify, accept or reject the offer.

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| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Acceptance on Offer** | Newgen LOS  Emkan Mobile Application | ~~Branch – User manually Input in LOS~~  Digital – Application unique reference | Accept  Reject  Recompute |  | Accept- Customer accepts the offer – upon clicking on confirm and continue, final offer is approved, and application should move to next stage  Reject - Customer rejects the offer – Error message is displayed to the customer on mobile app and process ends.  Customer modifies the offer – At this stage customer can modify his loan offer, i.e., reduce the loan amount and/or tenure {validation on max tenure allowed for the product.} and application should move to underwriters’ basket where underwriter accept/reject can access the application  Customer’s modify the offer and there is loan deferred decision by Qarar - One of the decision from Qarar is deferred case, where the Instalment would be deferred by 1 to 4 months (i.e. instalment would start after 1-4 months of loan disbursed date). (i) In case loan is deferred and customer modify his offer, the application hits Qarar once again to recompute the offer. |

When the customer clicks on edit offer, the calculated amount, monthly instalment amount, tenure, and profit rate must be displayed to the customer. The System should have the ability to allow the customer to recompute the offer by editing the following fields:

1. Amount
2. Duration/ Term

The system should perform the following validations when the customer edits the amount or term:

1. If the customer amends only field amount, the system should allow only decrease of the offer amount (as Max eligible Loan amount for the customer is displayed on the screen based on Qarar response)
2. If the customer amends only field duration/term, the system should allow only increase of the offered term and should validate whether the new term is within the product eligibility rules
3. If the customer amends the loan offer amount or the duration/ term, the system should compare the new amount and term, recompute new instalment amount and compare it with the Qarar maximum instalment amount that the customer is eligible for. If the new recomputed instalment amount is higher than the Qarar instalment amount then the system should throw an error message *“Amendment not allowed”*
4. In the case of deferred loans, when the customer modifies the offer, the re-computation of the offer should be done through Qarar.

Once the customer successfully amends the loan offer amount or duration/term, the system should be able to trigger the re-computation of the offer and display the final offer to the customer.

Also, the system should have capability to revert back to original offer after editing the previous offer.

### IVR Call

**BRD (BRD04-11, BRD04-12)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

Newgen should trigger middleware to call uniphonic/ARB service. This service should make IVR call to the customer until the customer response is captured on IVR. If the customer doesn’t respond to IVR, these automated calls attempts are made for 3 days or 21 times whichever is higher (every 3 hours between 10am to 8pm)

Customer to press 1 to accept

Customer to press 2 for decline

1. If customer accept, call is termed completed and application moves to next stage ~~(IBAN)~~
2. If a customer declines, a separate button is displayed to customer asking whether he needs to reconsider and accept the offer. (yes) The workflow will remain at this stage till customer acts (click yes) within next 3 days. After 3 days, the application gets cancelled.

If customer doesn’t answer, IVR calls are attempted 21 times in total or 3 days whichever is more. If customer doesn’t take any action, the application is cancelled.

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **IVR Call Trigger** | Uniphonic ARB | Application Number  Customer Mobile Number | Accept  Pending  Reject |  | Customer to press 1 to accept  Customer to press 2 for decline  If customer accept, call is termed completed and application moves to next stage ~~(IBAN~~)  If a customer decline, a separate button is displayed to customer asking whether he needs to reconsider and accept the offer. (yes) The workflow will remain at this stage till the customer take action (click yes) within next 3 days. After 3 days, the application gets cancelled.  If the customer doesn’t answer, IVR calls are attempted 21 times in total or 3 days whichever is more. If the customer doesn’t take any action, the application is cancelled. |

|  |  |  |  |
| --- | --- | --- | --- |
| SN | IVR Call action | IVR status | IVR stage status |
| 1 | Call initiated | Pending | Pending |
| 2 | Accepted by customer | Accept | Complete |
| 3 | Declined by customer Separate button shown to customer asking whether he wants to accept (reconsider) | Reject | Hold |
| 4 | Not Answered | Pending | Pending |

### Loan Execution Stage

**BRD (BRD04-14, BRD04-16, BRD04-17, BRD04-18, BRD04-19, BRD04-21, BRD04-23, BRD04-24, BRD04-25. BRD04-26, BRD04-28, BRD04-30, BRD04-32, BRD04-33, BRD04-34, BRD04-35, BRD04-36, BRD04-37, BRD04-38, BRD04-40, BRD04-42, BRD04-43, BRD04-44, BRD04-45)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

At this stage customer’s consent should be obtained in Newgen and workflow should proceed to commodity purchase stage where Newgen should trigger the middleware to call the DDCAP service to purchase the commodity.

Commodity purchase process happens through DDCAP outside LOS and commodity is purchased. DDCAP should return the values to middleware / LOS which should trigger LMS to pass accounting entries for the commodity purchase transaction.

Other Below mentioned activity will take place at the same stage

1. Commodity Purchase
2. Repayment fetch from T24 with Simulation
3. Contract generation
4. Contract Signing
5. Promissory Note signing
6. Loan Creation
7. Sell Consent
8. Sell Commodity

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Commodity Purchase Consent** | DDCAP  Emkan Mobile Application | NID/Iqama  Application Unique ID | Consent – Proceed  Consent - Reject |  | At this stage customer’s consent should be obtained in Newgen and workflow should proceed to commodity purchase stage where Newgen should trigger the middleware to call the DDCAP service to purchase the commodity. |
| **Commodity Purchase** | DDCAP | Application Unique ID | Commodity Detail  Certificate of Ownership |  | Commodity purchase process happens through DDCAP outside LOS and commodity is purchased. DDCAP should return the values to middlewar / LOS which should trigger LMS to pass accounting entries for the commodity purchase transaction. |
| **Repayment fetch from T24 with Simulation** | T24 | Application Unique ID  NID/Iqama ID  Approved / Accepted Facility amount  Tenure  Pricing  APR  Other customer and offer related attributes (defined in IRD) | Repayment schedule |  | LOS will trigger the Simulation API to fetch the repayment schedule from core system  This repayment schedule will provide in contract document for customer reference and agreement on payment of Instalment. |
| **Contract generation** | Newgen LOS | Document in HTML | Generated contract in PDF |  | LOS will trigger the document in HTML file to internal module to generate the facility contract for the customer signing  Document to generated from LOS   1. Consumer Financing Contract 2. Certificate of Ownership 3. Direct Deduction |
| **Promissory Note signing** | Nafith  Newgen LOS | Application unique ID  Approved / Accepted Facility amount  Tenure  Other attributes (defined in IRD) | Promissory Note ID |  | LOS will trigger the Mobile application via notification service so that customer will get an alert for promissory note signing  Once customer click for promissory note signing LOS will get trigger from web portal to trigger Nafith API  Once customer accept the promissory note LOS will get the Promissory Note ID in response |
| **Loan Creation** | T24 | Application Unique ID  NID/Iqama ID  Approved / Accepted Facility amount  Tenure  Pricing  APR  Other customer and offer related attributes (defined in IRD) | LAN / Contract Number / AA1234567890 (ID) |  | LOS should make call to LMS to initiate loan creation in LMS at this stage. Once the loan is created in LMS (transact), |
| **Sell Consent** | Emkan Mobile Application | Application Unique ID | Consent – Proceed  Consent - Reject |  | At this stage customer’s consent should be obtained in Newgen and workflow should proceed |
| **Sell Commodity** | NID/Iqama  Application Unique ID | NID/Iqama  Application Unique ID |  |  | Customer should be able to press ‘sign digitally’ to accept selling of their commodity by EMKAN on their behalf as per Digital selling contract.  Commodity sell process happens through DDCAP outside LOS and commodity is sold. DDCAP should return the values to middleware / LOS which should trigger LMS to pass accounting entries for the commodity sell transaction. |

The system should be able to trigger the generation of promissory note from the external system (SANAD) and a unique reference number is generated for the promissory note. The promissory notes must be unique and must not have duplicate active promissory notes.

Each promissory note can be created for a maximum of 36 months only. Hence, for tenure greater than 36 months, multiple promissory notes will be created where each promissory note cannot be more than 36 months.

Refer to use case 6.11 for example.

For the promissory note of the customers identified as the related party of EMKAN (refer BRD02-79), as per the EMKAN policy, the loan amount should be less than or equal to 60% of the amount on the promissory note. To cater to this requirement, two promissory notes should be created, one for the loan amount; 2nd for the adjustment amount which is created to ensure that the loan amount is less than or equal to 60% of the total amount for which promissory note is created.

### Loan Disbursement

**BRD (BRD04-47, BRD04-49, BRD04-50, BRD04-51, BRD04-52, BRD04-53, BRD04-62, BRD04-54, BRD04-57)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

At the stage where contract selling consent is given by the customer, the 24-Hour timer should start for disbursement. (this is a SAMA regulation to have 24hr cooling period to disburse the loan once offer is accepted). The application moves to disbursement stage.

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| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Activate Contract in LMS** | T24 | Application Unique ID  LAN / Contract Number / AA1234567890 (ID) | Acceptance  Rejection |  | At the stage where contract selling consent is given by the customer, the 24-Hour timer should start for disbursement. (this is a SAMA regulation to have 24hr cooling period to disburse the loan once offer is accepted). The application moves to disbursement stage. |

Decision of operation team

|  |  |
| --- | --- |
| Operation | Submit |
|  | Decline |
|  | Document Pending |

# Functional Specifications

## Personal Finance - Refinance

### Application Initiation – Draft Application Stage

**BRD (BRD01-01, BRD01-02, BRD01-03, BRD01-04, BRD01-05, BRD01-06, BRD01-07, BRD01-08, BRD01-09, BRD01-10, BRD01-11, BRD01-12, BRD01-13, BRD01-14, BRD01-15)**

*Above mentioned BRD links will cover the Draft application stage on both Mobile and Branch Journey*.

This will be the very first stage in loan origination system workflow and all the new application will be created at this stage, either the source is “Digital” or “Branch – Walkin”.

As per the BRD Document these are the only two sources to generate the application in LOS.

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Figure Draft Application Stage RF

**Digital Journey (Mobile Application):**

* Applicant will access the mobile application on Emkan Finance
* In case of new customer applicant will select the registration process, Once the customer is registered, he/she will click on “Apply for personal finance” button on mobile application
* Based on the click LOS will get the request via MW from mobile application to initiate the application for personal finance however, sub product will define at later stage after integration with Qarar system.
* After creating the application, the 1st step is to check if the applicant is existing or new.
* perform the search for the customer information from CRM / ARB system based on values in ID type, ID number and date of birth fields.
* If the customer is an existing ARB customer, then populate the “ARB Account holder” field with value “YES”, else populate “NO”.
* If the customer is an existing EMKAN customer, then populate the “Existing customer” field with value “YES”, else populate “NO” (Note: All the customers performing the action of “Apply Now” from mobile application should already have a record in CRM to capture the customer mobile application registration details, hence the input here will always be “YES”)
* In the case of new/existing customer LOS will trigger the Customer micro service for providing the required data.
* A draft application is created to store these details and a unique application reference number is generated by the system. All incomplete applications will be stored in LOS for 20 days (TBC with business) from the last action of the customer. In case there is no action beyond 20 days, LOS should auto-delete the application from its repository. The same customer without any action in 20 days cannot resume with this application and will have to start the process for loan application stage again.

At this stage there are backend checks performed using the NewGen rule engine and external integrations as follows:

1. Active loan details – Active loans details are fetched from LMS to apply the cooling period boundary condition mentioned below.
2. Cooling Period – check performed to validate whether customer has an existing a loan application that
   1. Has been activated as a loan in LMS
   2. Loan application in LOS has Final Loan Offer Date:
      * For same product type – greater than or equal to 90 calendar days from today’s date
      * For other products type – greater than or equal to 30 calendar days from today’s date

* If the check is not successful, then an application rejection message is displayed on the mobile application. The process stops at this stage. If the check is performed successfully, then the below mentioned step is performed by the LOS.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Application Creation** | Newgen LOS  Emkan Mobile Application | Mobile Number  Email ID  National ID / Iqama  Date of Birth | Application unique Number |  | System will provide the application number to Mobile application |
| **Capturing Customer Data** | Customer Micro Service | National ID / Iqama  Date of Birth | Demographic Details  Employment details  Income Details |  | System will get Customer Name, ID expiry, mobile number registered against the provided ID.  Customer National Address  If customer exists in ARB, the output will be Customer CIC (ARB Customer ID) |
| **Existing Facility details** | T24  ARB | National ID / Iqama | Existing Facility details  Application/Contract ID |  | Active loan details – Active loans details are fetched from LMS to apply the cooling period boundary condition mentioned below.  Cooling Period – check performed to validate whether customer has an existing a loan application that  Has been activated as a loan in LMS  Loan application in LOS has Final Loan Offer Date :  For same product type – greater than or equal to 90 calendar days from today’s date  For other products type – greater than or equal to 30 calendar days from today’s date  If the check is not successful, then an application rejection message is displayed on the mobile application. The process stops at this stage. If the check is performed successfully, then the below mentioned step is performed by the LOS.  Application duplication check – check to be performed to confirm if the customer already has an active application in LOS. If yes, customer is requested to resume or cancel the previous application. If no active applications are there in LOS, next step is performed |
| **Customer Eligibility Check** | Newgen LOS | Nationality  Age  ID Expiry Date | Eligible  Not Eligible |  | Product knock-off rules are applied  If the boundary conditions are not met the application will not move to next stage and an error message will be shared with the customer. |
| **ENME Screening** | ENME | ID Number  ID Type  Address | Hit  No Hit |  | Newgen will trigger the request to ENME for sanction screenings. Customer name is screened against the required sanction lists as per the regulatory requirements to identify sanctioned individuals. If the customer is identified as sanctioned customer, an error message is shared with the customer. |

### Data Entry Stage – Personal Information will be captured

**BRD (BRD02-01, BRD02-02, BRD02-03, BRD02-04, BRD02-05, BRD02-06, BRD02-07, BRD02-08, BRD02-09, BRD02-10, BRD02-13, BRD02-18, BRD02-19, BRD02-20, BRD02-21, BRD02-22, BRD02-23, BRD02-25, BRD02-26, BRD02-27, BRD02-40, BRD02-43, BRD02-46, BRD02-47, BRD02-48, BRD02-50, BRD02-55, BRD02-57, BRD02-58, BRD02-59, BRD02-60, BRD02-64, BRD02-65, BRD02-66, BRD02-67, BRD02-68, BRD02-70, BRD02-73, BRD02-74, BRD02-75, BRD02-77, BRD02-79)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

Once the pre product eligibility checks are done and all the data which is required from 3rd party systems to create the application is done, then application will be routed to next step i.e., Data Entry Stage, In case of branch journey Emkan user will work upon this stage, Majorly to capture the personal information of applicant

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Figure Personal Information RF

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Personal information capture** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Personal Information provided by customer on web Portal |  | Below mentioned details are required from customer at this stage.   1. Purpose of the loan – Pick option from the pre-configured dropdown options 2. Marital Status - Pick option from the pre-configured dropdown options 3. Number of Family Members (including yourself) - Pick option from the pre-configured dropdown options 4. Type of current housing - Pick option from the pre-configured dropdown options 5. Working Status- Pick option from the pre-configured dropdown options 6. Politically exposed? - Pick option from the pre-configured dropdown options 7. Do you hold military rank? – Yes/No (In case customer choose yes, a separate screen shall be opened to open military details) |
| **Personal information capture** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Income Information will be captured |  | LOS will trigger the customer micro service to fetch the data related with income, if data is not received then mobile app should allow customer to manually input his net monthly salary. (The income is net monthly income)  In Branch journey LOS user will input this detail Manually. |
| **Expense Information capture** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Expense Information will be captured |  | Customer is asked to input his expense details in the expense tab.  Customer should fill the following fields in expense.  Expense Types  a) Other future expenses  b) Housing expenses  c) Fees on expats  d) Home servants  e) Education expense  f) Health care services and Insurance  g) Transport expense  h) Communications expense  In case of Brach journey this will be done by system user manually in LOS |
| **Capture Simah Consent** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Consent required to fetch credit history |  | customer selects the tick-box to provide SIMAH consent, which is used to retrieve the credit information of the customer.  In case of branch journey user will select the check box and upload consent of customer |
| **Upload Documents** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference  Mandatory Document ID | Customer/User will Upload the mandatory document |  | Newgen should display the mandatory and optional documents that are required.   |  |  |  | | --- | --- | --- | | 1 | Application Form | Non- mandatory | | 2 | GOSI certificate | Non- mandatory | | 3 | National ID / IQAMA ID | Mandatory |   In case any mandatory document is missing, the system should be able to share an error message with the customer  Documents will save at application level in LOS |

### Credit Decisioning- Check by Qarar

**BRD (BRD02-27, BRD02-30, BRD02-31, BRD02-32, BRD02-33, BRD02-34, BRD02-36, BRD02-39, BRD02-42, BRD02-44)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

At this stage LOS will trigger the Qarar system to fetch the customer eligibility as well as the customer eligible for which sub product.

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Figure Credit Decisioning RF

*Figure 10*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Request Qarar** | Newgen LOS | customer information gathered in the data entry stage  Standard input template used for “Qarar Request” | Accept  Reject  Refer |  | LOS will get the Facility Eligibility from Qarar system  Based on the response received LOS will take the next action  Qarar will provide the Sub product for which customer is eligible  LOS will capture the Simah data in system  Based on Instalment amount LOS will calculate the profit and Management fees. |

### Underwriter Approval

**BRD (BRD02-35, BRD02-47, BRD02-51, BRD02-52, BRD02-53, BRD02-54, BRD03-01, BRD03-03, BRD03-04, BRD03-06, BRD03-07, BRD03-08, BRD03-09, BRD03-10, BRD03-11, BRD03-13, BRD03-14, BRD03-15, BRD03-16, BRD03-17, BRD03-18, BRD03-21, BRD03-22, BRD03-24, BRD03-27)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

Based on the response from Qarar Application will route as mentioned below:

1. Accept – In case of this response, the application should bypass underwriter and should display final offer (loan amount and loan tenure) to the customer on his mobile app. (this is Loan Offer stage)
2. Reject – In case of this response, the application should display an application reject message to the customer on his mobile app.
3. Refer – In case of this response, Newgen should have a workflow configured to allot the application to underwriters’ basket based on pre-defined underwriters’ approval matrix shown below. The loan application and offer must be reviewed by the underwriters and provide a decision based on the review.

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Figure Underwriter Approval RF

**Underwriter matrix for top-up**

**Top Up – Other Bank**:

|  |  |
| --- | --- |
| **Credit Limit** | **Approving Authority\*** |
| Up to 100 K | Credit Analyst |
| More than 100 K to 200 K | Credit Analyst Supervisor |
| More than 200 K to 400 K | Senior/ Operation Manager |
| More than 400 K to 600 K | COO |
| More than 600 K up to 1 M | CRO |
| More than 1 M | CEO |
| Up to 500 K | Auto Approval (by Qarar) |

**Top Up – ARB**:

|  |  |
| --- | --- |
| **Credit Limit** | **Approving Authority\*** |
| Up to 300 K | Credit Analyst |
| More than 300 K to 500 K | Credit Analyst Supervisor |
| More than 500 K to 700 K | Senior/ Operation Manager |
| More than 700 K to 900 K | COO |
| More than 900 K up to 1.5 M | CRO |
| More than 1.5 M | CEO |
| Up to 600 K | Auto Approval (by Qarar) |

**Microfinance:**

|  |  |
| --- | --- |
| **Credit Limit** | **Approving Authority\*** |
| Up to 25K | Credit Analyst |
| Re-finance- Upto 50K | Credit Analyst |
| Maximum upto 25K | Auto approval (by Qarar) |

**Refinance:**

|  |  |
| --- | --- |
| **Credit Limit** | **Approving Authority\*** |
| Up to 25K | Credit Analyst |
| Re-finance- Upto 50K | Credit Analyst |
| Maximum upto 25K | Auto approval (by Qarar) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Decision based on Qarar output** | Newgen LOS  Qarar | Qarar Decision | Accept  Reject  Refer |  | Accept – In case of this response, the application should bypass underwriter and should display final offer (loan amount and loan tenure) to the customer on his mobile app. (this is Loan Offer stage)  Reject – In case of this response, the application should display an application reject message to the customer on his mobile app.  Refer – In case of this response, Newgen should have a workflow configured to allot the application to underwriters’ basket based on pre-defined underwriters’ approval matrix shown below. The loan application and offer must be reviewed by the underwriters and provide a decision based on the review. |

### Initial Offer

Initial Offer:

Customer should be shown the initial loan offer on the mobile app screen containing:

1. Total sanctioned Loan Amount: Max eligible Amount calculated based on the Qarar’s and underwriters decision for the customer
2. Debt amount: - This is a subset of total sanctioned amount. It is equal to the early settlement amount calculated in LMS for the active loan which customer wants to refinance for.
3. Extra amount: - This is the additional amount which shall be deposited to customers account after the early settlement amount deduction (and deduction of processing fees)
4. Monthly Instalment – Instalment amount for the sanctioned loan
5. APR – Profit Rate for the sanctioned loan
6. Tenure – Max eligible tenure in months



(Management Fees and VAT fees calculations need to be configured in LOS)

Remarks should be displayed on the screen as below:

‘*The total amount includes the finance amount plus 3rd party debit’*

NewGen should provide the customer the ability to edit the offer or accept the offer.

At this stage, customer has the option to accept or reject the offer. Modify feature is not provided

There is a tick-box option where customer provides acknowledgement that EMKAN will payoff his/her loan through early settlement. Once the customer accepts this and submit the application moves to Commodity purchase stage.

At this stage, a screen is shown on the mobile application to display the 3rd party debit settlement amount. Consent (tick-box) is taken from the customer to allow EMKAN to purchase commodity.

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Figure Initial offer

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Decision based on Approval** | Newgen LOS | UND Decision | Accept  Reject  Refer |  | Accept – NewGen should provide the customer the ability to edit the offer or accept the offer  Reject – At this stage, customer has the option to accept or reject the offer. Modify feature is not provided  There is a tick-box option where customer provides acknowledgement that EMKAN will payoff his/her loan through early settlement. Once the customer accepts this and submit the application moves to Commodity purchase stage. |

### Offering Stage

**BRD (BRD04-01, BRD04-03, BRD04-04, BRD04-05, BRD04-63, BRD04-60, BRD04-09, BRD04-10)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

Customer should be shown the loan offer on the mobile app screen containing:

1. Loan Amount: Amount calculated based on Qarar and underwriters’ input from the previous steps (Qarar output)
2. Total Tenure: Tenure calculated based on Qarar and underwriters’ input from the previous steps
3. Profit Rate: Computed by Qarar based on the pre-defined matrix.
4. Maximum Monthly Instalment: Instalment amount to be repaid per month. (Qarar output)
5. Management Fees: 1% of the loan amount in SAR or 5000 whichever is maximum. (calculated by LOS)
6. VAT Fees: 15% of the management fees in SAR (calculated by LOS)

(Management Fees and VAT fees calculations need to be configured in LOS). The system should have the ability to waive the management fees for a loan with applicable approval

NewGen should provide the customer an ability to modify, accept or reject the offer.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Acceptance on Offer** | Newgen LOS  Emkan Mobile Application | Branch – User manually Input in LOS  Digital – Application unique reference | Accept  Reject  Recompute |  | Accept- Customer accepts the offer – upon clicking on confirm and continue, final offer is approved, and application should move to next stage  Reject - Customer rejects the offer – Error message is displayed to the customer on mobile app and process ends.  Customer modifies the offer – At this stage customer can modify his loan offer, i.e., reduce the loan amount and/or tenure {validation on max tenure allowed for the product.} and application should move to underwriters’ basket where underwriter accept/reject can access the application  Customer’s modify the offer and there is loan deferred decision by Qarar - One of the decision from Qarar is deferred case, where the Instalment would be deferred by 1 to 4 months (i.e. instalment would start after 1-4 months of loan disbursed date). (i) In case loan is deferred and customer modify his offer, the application hits Qarar once again to recompute the offer. |

### Initial Commodity Purchase

the application enters initial commodity purchase stage.

At this stage, EMKAN does a commodity purchase for the customer on behalf with a third-party financing company for the early settlement amount. LOS triggers the request to DDCAP and purchase of commodity happens equivalent to early settlement amount.

Contract gets created for the amount. Standard template of the contract is stored in OmniDocs. Customer can access the contract and give consent to sell the commodity.

Commodity purchase process happens through DDCAP outside LOS and commodity is purchased. DDCAP should return the values to middlewar / LOS which should trigger LMS to pass accounting entries for the commodity purchase transaction.

### IVR Call

**BRD (BRD04-11, BRD04-12)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

Newgen should trigger middleware to call uniphonic/ARB service. This service should make IVR call to the customer until the customer response is captured on IVR. If the customer doesn’t respond to IVR, these automated calls attempts are made for 3 days or 21 times whichever is higher (every 3 hours between 10am to 8pm)

Customer to press 1 to accept

Customer to press 2 for decline

1. If customer accept, call is termed completed and application moves to next stage (IBAN)
2. If a customer declines, a separate button is displayed to customer asking whether he needs to reconsider and accept the offer. (yes) The workflow will remain at this stage till customer acts (click yes) within next 3 days. After 3 days, the application gets cancelled.

If customer doesn’t answer, IVR calls are attempted 21 times in total or 3 days whichever is more. If customer doesn’t take any action, the application is cancelled.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **IVR Call Trigger** | Uniphonic ARB | Application Number  Customer Mobile Number | Accept  Pending  Reject |  | Customer to press 1 to accept  Customer to press 2 for decline  If customer accept, call is termed completed and application moves to next stage (IBAN)  If a customer decline, a separate button is displayed to customer asking whether he needs to reconsider and accept the offer. (yes) The workflow will remain at this stage till the customer take action (click yes) within next 3 days. After 3 days, the application gets cancelled.  If the customer doesn’t answer, IVR calls are attempted 21 times in total or 3 days whichever is more. If the customer doesn’t take any action, the application is cancelled. |

|  |  |  |  |
| --- | --- | --- | --- |
| SN | IVR Call action | IVR status | IVR stage status |
| 1 | Call initiated | Pending | Pending |
| 2 | Accepted by customer | Accept | Complete |
| 3 | Declined by customer Separate button shown to customer asking whether he wants to accept (reconsider) | Reject | Hold |
| 4 | Not Answered | Pending | Pending |

### Loan Execution Stage

**BRD (BRD04-14, BRD04-16, BRD04-17, BRD04-18, BRD04-19, BRD04-21, BRD04-23, BRD04-24, BRD04-25. BRD04-26, BRD04-28, BRD04-30, BRD04-32, BRD04-33, BRD04-34, BRD04-35, BRD04-36, BRD04-37, BRD04-38, BRD04-40, BRD04-42, BRD04-43, BRD04-44, BRD04-45)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

At this stage customer’s consent should be obtained in Newgen and workflow should proceed to commodity purchase stage where Newgen should trigger the middleware to call the DDCAP service to purchase the commodity.

Commodity purchase process happens through DDCAP outside LOS and commodity is purchased. DDCAP should return the values to middleware / LOS which should trigger LMS to pass accounting entries for the commodity purchase transaction.

Other Below mentioned activity will take place at the same stage

1. Commodity Purchase
2. Repayment fetch from T24 with Simulation
3. Contract generation
4. Contract Signing
5. Promissory Note signing
6. Loan Creation
7. Sell Consent
8. Sell Commodity

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Figure Loan Execution

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Commodity Purchase Consent** | DDCAP  Emkan Mobile Application | NID/Iqama  Application Unique ID | Consent – Proceed  Consent - Reject |  | At this stage customer’s consent should be obtained in Newgen and workflow should proceed to commodity purchase stage where Newgen should trigger the middleware to call the DDCAP service to purchase the commodity. |
| **Commodity Purchase** | DDCAP | Application Unique ID | Commodity Detail  Certificate of Ownership |  | Commodity purchase process happens through DDCAP outside LOS and commodity is purchased. DDCAP should return the values to middlewar / LOS which should trigger LMS to pass accounting entries for the commodity purchase transaction. |
| **Repayment fetch from T24 with Simulation** | T24 | Application Unique ID  NID/Iqama ID  Approved / Accepted Facility amount  Tenure  Pricing  APR  Other customer and offer related attributes (defined in IRD) | Repayment schedule |  | LOS will trigger the Simulation API to fetch the repayment schedule from core system  This repayment schedule will provide in contract document for customer reference and agreement on payment of Instalment. |
| **Contract generation** | Newgen LOS | Document in HTML | Generated contract in PDF |  | LOS will trigger the document in HTML file to internal module to generate the facility contract for the customer signing |
| **Promissory Note signing** | Nafith  Newgen LOS | Application unique ID  Approved / Accepted Facility amount  Tenure  Other attributes (defined in IRD) | Promissory Note ID |  | LOS will trigger the Mobile application via notification service so that customer will get an alert for promissory note signing  Once customer click for promissory note signing LOS will get trigger from web portal to trigger Nafith API  Once customer accept the promissory note LOS will get the Promissory Note ID in response |
| **Loan Creation** | T24 | Application Unique ID  NID/Iqama ID  Approved / Accepted Facility amount  Tenure  Pricing  APR  Other customer and offer related attributes (defined in IRD) | LAN / Contract Number / AA1234567890 (ID) |  | LOS should make call to LMS to initiate loan creation in LMS at this stage. Once the loan is created in LMS (transact), |
| **Sell Consent** | Emkan Mobile Application | Application Unique ID | Consent – Proceed  Consent - Reject |  | At this stage customer’s consent should be obtained in Newgen and workflow should proceed |
| **Sell Commodity** | NID/Iqama  Application Unique ID | NID/Iqama  Application Unique ID |  |  | Customer should be able to press ‘sign digitally’ to accept selling of their commodity by EMKAN on their behalf as per Digital selling contract.  Commodity sell process happens through DDCAP outside LOS and commodity is sold. DDCAP should return the values to middleware / LOS which should trigger LMS to pass accounting entries for the commodity sell transaction. |

### Loan Disbursement

**BRD (BRD04-47, BRD04-49, BRD04-50, BRD04-51, BRD04-52, BRD04-53, BRD04-62, BRD04-54, BRD04-57)**

*Above mentioned BRD links will cover the Data Entry stage on both Mobile and Branch Journey.*

At the stage where contract selling consent is given by the customer, the 24-Hour timer should start for disbursement. (this is a SAMA regulation to have 24hr cooling period to disburse the loan once offer is accepted). The application moves to disbursement stage.

A screenshot of a computer

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Figure Loan Disbursement

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action** | **System Provider** | **Request** | **Response** | **Type** | **Description** |
| **Activate Contract in LMS** | T24 | Application Unique ID  LAN / Contract Number / AA1234567890 (ID) | Acceptance  Rejection |  | At the stage where contract selling consent is given by the customer, the 24-Hour timer should start for disbursement. (this is a SAMA regulation to have 24hr cooling period to disburse the loan once offer is accepted). The application moves to disbursement stage. |

# Solution Features

|  |  |
| --- | --- |
| **#** | **Products/Services Description** |
| 1 | **Personal financing** is a Term financing product, which can be provided as a short-term or as a long-term amortizing finance option to Individual customer. This product is offered to customers as a Term Finance only with a single drawdown option. |
| 2 | salaried Individual can request for financing based on their needs and Emkan can provide the approvals based on their financial eligibility considering salary as Income and the expenses as debts. |
| 3 | The Individual applicants can use this financing option for any kind of personal purpose. |

### Process Flow

The process flow consists of the queue which are assigned to the user groups. Queue are the user roles/stages on which the application flows. At each stage user has to take decision in order to move application from one stage to the other.

### Field Level Details & Process Flow

****

Please find attached the field level details/Field Validations (queue wise)

### Retail Finance LOS Process- Functionality

A Brief Summary of the stages are mentioned below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Workstep Name** | **Digital** | **Branch** | **Functionality** |
| 1 | Lead Generation | System | User | Application will create with different Sources and based on the data received for creating the application will be triggered to other 3rd parties to perform different checks |
| 2 | Application Data Entry | System | User | Mandatory data will be required from customer which is not fetched from 3rd parties however required for processing further Based on the manually inputted data system will trigger other 3rd parties |
| 3 | Credit Decisioning | System | System | Based on the data fetched from 3rd party system will integrate with Qarar System to get the facility Eligibility  Once the Decisioning service provide the response, system will move application accordingly |
| 4 | Underwriter | User | User | This will always be the Manual step and application will go to underwriter review in case Qarar provides the offer refer, the user will take the appropriate option |
| 5 | Offering Stage | System | System | Final offer will be provided to customer and based on the response of customer further processing will be performed by LOS |
| 6 | Commodity Process | System | System | Commodity Process includes all the activity start from Commodity purchase to Commodity sell.  Activities are mentioned below: 1. Commodity Purchase 2. Send Details of Commodity to Core 3. Get Repayment Schedule from T24 4. Generate PDF Documents (Contract document and others) 5. Create Contract in T24 6. Digital Signing of Contract via BTC 7. Promissory Note signing 8. Sell Consent 9. Sell commodity 10. Update commodity / contract document to Core |
| 7 | Operation | User | User | User will verify all the data Available in LOS along with the documents uploaded for the application  based on their final response application will to next stage |
| 8 | Exit | System | System | Application will Exit the workflow |

### Emkan Finance Company Credit Policy- LOS/LF POS



* **Exceptional Scenarios**

### Product & Pricing

Main Product will be setup in T24 , Newgen will maintain only the pricing for each product.

Any parameter needed for validation on form with respect to LOS, it would be synced from T24 to Newgen system.

Following are the system parameters to define a pricing for POS Finance Product

|  |  |
| --- | --- |
| **Parameter** | **Description (Ref. )** |
| Product | This is product which would be available in T24 as well. |
| Request Type | User cannot set pricing based on new request as well as other Request |
| Campaign | System allows to setup the campaign to maintain pricing as standard other will be configurable |
| Min/Max Tenure | Min/Max Tenure offered by this campaign. User will not be allowed to select the tenure more than the Min/max tenure offered in this campaign and Product program. |
| Min Amount | Min Amount offered by this campaign and Product program. |
| Max Amount | Max Amount offered by this campaign and Product program. |
| Def Profit Rate | Default profit rate will be set as soon as the user enter the amount. |
| Min Rate | Minimum rate is the minimum rate which user can change. If user enters any amount below this amount, it will give alert. |
| Max Rate | Minimum rate is the maximum rate which user can change. If user enters any amount above this amount, it will give alert. |
| Fee ID | Each campaign is attached to the Fees ID. This is the default fees which appears to the users on application form. Adding a new fee is the configuration in system. |
| Default Fee Type | • If Rate, then user to allow to enter the rates • if Fixed , then Fixed fee amount to be populated  Note: in POS currently it is rate is default |
| Campaign Start Date & Time | This is campaign start date & Time, which allows bank to control on the offers provided. RM would not see the campaign if the time has been breached or passed. |
| Campaign End & Time | This is campaign End date & Time, which allows bank to control on the offers provided. RM would not see the campaign if the time has been breached or passed. |
| Active | Business Admin can also activate or deactivate schemes manually. |

Below are the details which will be configured in the system as per bank’s policy.

### Authority Matrix

**Top Up – Other Bank**

|  |  |  |
| --- | --- | --- |
| **Level** | **Credit Limit** | **Approving Authority** |
| L1 | Up to 100 K | Credit Analyst |
| L2 | More than 100 K to 200 K | Credit Analyst Supervisor |
| L3 | More than 200 K to 400 K | Senior/ Operation Manager |
| L4 | More than 400 K to 600 K | COO |
| L5 | More than 600 K up to 1 M | CRO |
| L6 | More than 1 M | CEO |

**Top Up – ARB**

|  |  |  |
| --- | --- | --- |
| **Level** | **Credit Limit** | **Approving Authority** |
| L1 | Up to 300 K | Credit Analyst |
| L2 | More than 300 K to 500 K | Credit Analyst Supervisor |
| L3 | More than 500 K to 700 K | Senior/ Operation Manager |
| L4 | More than 700 K to 900 K | COO |
| L5 | More than 900 K up to 1.5 M | CRO |
| L6 | More than 1.5 M | CEO |

**Microfinance**

|  |  |  |
| --- | --- | --- |
| **Level** | **Credit Limit** | **Approving Authority** |
| L1 | Up to 25K | Credit Analyst |
| L2 | Re-finance - Upto 50K | Credit Analyst |

**Refinance**: As per the credit approval matrix of the product that is being refinanced.

### Limit and DBR Calculation

Facility Amount and DBR is calculated as per the response provided by Qarar.

### Document Archival Hierarchy

The Documents to be archived in file net system.

Newgen stores the document in Newgen DMS (Document Management System) which is used to showcase the document while processing the application.

The documents remain attached to the application while processing the application.

Once the Application is successfully exits then system to archive the document in FileNet system.

### Queue Filter

Filters is the classification of application on the queue, this enables the user to view only the application which matches his criteria Like Credit user, Operation User etc. provided there are rights granted to the user on the particular queue.

For example, if there is one user 1 and other user 2 Both users belong to the same group, and both will have rights on queue “underwriting stage”. The application received in Credit queue should be viewed by user 1 only. In order to facilitate, these filters are required which are put on the queue.

# Integration Touch Point

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| S.No | Business Requirement | Interface Description | System(s) involved | Specs Provide | Provider | Consumer |
| 1 | Create Application via digital channel | Get customer data from digital channel for application creation | Newgen/ESB/Mobile App | IBM MW | Newgen | Mobile |
| 2 | Customer is Existing to Emkan or New to Emkan | Check Existing customer\_Emkan | Newgen/CustomerMicroService | Emkan Middleware | Emkan Middleware | Newgen |
| 3 | Customer is Existing to ARB or non-Existing | Check Existing customer\_ARB | Newgen/ESB/ARB | IBM MW | ARB | Newgen |
| 4 | Facility details which are active in ARB | Get Existing Facility\_ARB | Newgen/ESB/ARB | IBM MW | Aggregator | Newgen |
| 5 | Facility details which are active in Emkan | Get Existing Facility\_T24 | Newgen/ESB/T24 | IBM MW | Aggregator | Newgen |
| 6 | Facility details which are active in Emkan (Not migrated to T24) | Get Existing Facility\_Kastel | Newgen/ESB/KastelCore | IBM MW | Aggregator | Newgen |
| 7 | Decision from rule engine to accept application or reject  based on critiria not matched | Trigger Emkan rule engine for Application cooling period check | Newgen/ESB/EmkanRuleEngine | IBM MW | Aggregator | Newgen |
| 8 | Decision from rule engine to accept application or reject  based on critiria not matched | Trigger Emkan rule engine for Loan Eligibility check | Newgen/ESB/EmkanRuleEngine | IBM MW | Aggregator | Newgen |
| 9 | Mobile Number verification via OTP | OTP\_Validation | Newgen/ESB/Nafaz | IBM MW | Nafaz | Newgen |
| 10 | Name screening/KYC check for customer | KYC\_Name\_Screening | Newgen/ESB/ENME | IBM MW | ENME | Newgen |
| 11 | Notify customer with rejection reason | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| ~~12~~ | ~~Personal details filled by applicant on mobile application~~ | ~~Get personal Details~~ | ~~Newgen/ESB/Mobile App~~ | ~~IBM MW~~ | ~~Newgen~~ | ~~Mobile~~ |
| 13 | Decision from rule engine to accept application or reject  based on critiria not matched | Trigger Emkan rule engine for Customer Eligibility check | Newgen/ESB/EmkanRuleEngine | IBM MW | Aggregator | Newgen |
| 14 | Validate Account details from Saudi Payment | Validate account details | Newgen/ESB/SaudiPayment | IBM MW | Saudi Payment | Newgen |
| 15 | Decision Engine for Financial Eligibility Check | Qarar\_Decisioning\_Engine | Newgen/ESB/Qarar | IBM MW | Qarar | Newgen |
| 16 | Get missing mandatory document from customer in Digital journey | Get Mandatory document | Newgen/ESB/Mobile App | IBM MW | Newgen | Mobile |
| 17 | Notify customer with Final offer | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| ~~18~~ | ~~Modify offer based on changes done by system user without calling Qarar~~ | ~~Trigger Emkan rule engine for modified offer details~~ | ~~Newgen/ESB/EmkanRuleEngine~~ | ~~IBM MW~~ | ~~Emkan Rule Engine~~ | ~~Newgen~~ |
| 19 | Get consent from customer to proceed with facility execustion process | Unifonic\_IVR\_Confirmation | Newgen/ESB/ARB\_Unifonic | IBM MW | ARB | Newgen |
| 20 | Puchase commodity | Buy Commodity | Newgen/ESB/DDCAP | IBM MW | DDCAP | Newgen |
| 21 | Facility/Contract creation | Facility creation | Newgen/ESB/T24 | IBM MW | T24 | Newgen |
| 22 | Send Facility contract to Customer for signing | Trigger Mobile to show Contract Documents to customer | Newgen/ESB/Mobile App | IBM MW | Newgen | Mobile |
| 23 | Contarct Signing | Contarct Signing | Newgen/ESB/Emdah | IBM MW | BTC | Newgen |
| 24 | Promissory note signing | Promissory note signing | Newgen/ESB/Nafith | IBM MW | Nafith | Newgen |
| 25 | Sell Commodity | Sell Commodity | Newgen/ESB/DDCAP | IBM MW | DDCAP | Newgen |
| 26 | Facility/Contract Updation | Facility update/ sell commodity details | Newgen/ESB/T24 | IBM MW | T24 | Newgen |
| 27 | Facility/Contract activation in core system | Facility activation | Newgen/ESB/T24 | IBM MW | T24 | Newgen |
| 28 | Get Rayment schedule from core system | Fetch Repayment schedule | Newgen/ESB/T24 | IBM MW | T24 | Newgen |
| 29 | Customer wants to cancel Application during the journer after Contract creation | Cancel Contract | Newgen/ESB/T24 | IBM MW | T24 | Newgen |
| 30 | Customer wants to cancel Application during the journer after Contract creation | Cancel Promissory Note | Newgen/ESB/Nafith | IBM MW | Nafith | Newgen |
| 31 | Get Promissory note PDF document from Nafith | Fetch Promissory Note | Newgen/ESB/Nafith | IBM MW | Nafith | Newgen |
| 32 | Notify customer with Initial offer | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 33 | Notify customer with rejection reason | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 34 | Notify customer with application number | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 35 | Notify customer with Final offer | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 36 | Notify customer for personal Information | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 37 | Notify customer for commodity purchase consent | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 38 | Notify customer for contract signing | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 39 | Notify customer for promissory note signing | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 40 | Notify customer for commodity sell consent | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 41 | Notify customer to provide IBAN for disbusement and DD | Trigger Notification | Newgen/ESB/Notification\_engine | IBM MW | Notification Engine | Newgen |
| 42 | Whenever LOS trigger QA system and they want to discard WI | Discard WI | Newgen/ESB/Quality System | IBM MW | Newgen | Quality system |
| 43 | Newgen will expose the api which will be triggered by Quality system to Resume/Hold the workitem | Change Application status | Newgen/ESB/Quality System | IBM MW | Newgen | Quality system |
| 44 | Retrive Application Data | Retrive Application Data | Newgen/ESB/Quality System | IBM MW | Newgen | Quality system |

# Other Nonfunctional Requirements

### Performance Requirements

* 1. Maximum 10 Second is the maximum wait time for any service to respond.
  2. There should be no slowness in the application on the basis of User load and hardware sizing.

### Safety Requirements

The Key Safety Requirements are as follows:

* The server should be installed in a secure area.
* Only authorised user should get access to the server rooms.
* Disaster Recovery should be made possible.
* Appropriate arrangements for power backups should be made.
* Secure connection between different components of the Newgen Accelerator.

### Security Requirements

Emkan Finance Company IT Security reports associated with user ID listing and the kind of access available to each user for various request types have to be sufficiently available. Sufficient training has to be imparted to IT Security staff for appropriate grant of rights to users at the time of ID creation / Modification.

# Annexure 1 : Document List

Below are the List of Document that can be uploaded by Applicant at the Web portal.

System has the functionality as a configuration where the document upload rights can be provided or removed on the queue/stage .

System will allow the user to add any other document into the system if specific name of document type are not available.

Before go-Live if required the below list can be revisited and updated in the system.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Doc ID** | **Doc Name (EN, AR)** | **Doc Category (EN, AR)** | **Doc Type (EN, AR)** | **Entity Type (EN, AR)** | **Applicant Type (EN, AR)** | **Mandatory (EN, AR)** |
| RLOS01 | Application Form | KYC | Inward | Individual | Borrower | MN |
| RLOS02 | GOSI certificate | Financials | Inward | Individual | Borrower | M |
| RLOS03 | IBAN Certificate | Financials | Inward | Individual | Borrower | M |
| RLOS04 | Income certificate / Wage certificate | Financials | Inward | Individual | Borrower | M |
| RLOS05 | Bank Statement | Financials | Inward | Individual | Borrower | M |

# Annexure 2 : Email SMS Communication



# Annexure 3: Master Data

Master Data List to be configured bases on the master values. Master data is configurable and reflects the data instantly.

All the LOVs can be configured through this master.

# Annexure 4: Reports

1. Reports – Performance Status Report - Unexecuted Cases (Daily)



# Annexure 5: Hardware & Software Sizing



# Glossary

**Work step**

Work step, simply defined, is a logical unit in the Process, where a manual user or the system performs the intended task/operation. They are the building blocks that are joined together in sequence or parallel to form a Business Process.

Work step can be classified into the following:

* System Work steps

These are the steps where a System performs the required task. E.g. Printing Station, Work Exit, Distribute, Collect, etc. The required system processes the work item as soon as it reaches a System Work step.

* Custom Work steps

These are the steps where a manual operator/user explicitly logs into his desktop to perform the intended task. A work item lies on the Custom Work step, until the user processes it.

**Process Instance**

A Process Instance is defined as an enactment of a Process. It is an instance of the Process created, for processing an entity. E.g. for a Loan Process, a single Loan Application that is initiated in the Process, can be called a Process Instance.

**Work item**

Work items are the basic unit or basic components on which work or operations are done in the workflow.

A process instance on a work step, when available to a User for processing is termed as a Work item. The basic entity that flows in a Business Process from one work step to another is called a Work item. Generally, there is one Work item for every Process Instance in the Process. But when a Process instance passes through a Distribute Work step, multiple Work items corresponding to that Process Instance come into picture.

**Process Client / Work desk**

Process Client is the iBPS application into which a user logs in to process Work items. Process Client gives a user a list view of all the work items that are to be processed. Work desk is the actual Processing Desktop available to the user to process individual work items.

**Queues**

iBPS is a Queue based Workflow System. I.e., Work items flow from one Queue to another in a Process. Queue can be defined as a shared workbench of users performing similar operations. Queues can also be termed as “shared in-baskets” where work items come and sit on a Work step, from where users can process them. Internally, each Work step represents a Queue. Access rights on Queues can be granted to Users/Groups.

**Audit Trail**

Audit trail for each Work item would be maintained in the system as a part product offering. Audit trail would encompass trails been maintained for changes at fields level in the Work item.

**iBPS**

IBPS is a platform independent, scalable BPM solution that enables automation of organizational business processes. Built using open technologies iBPS has seamless integration abilities allowing it to be introduced into almost any existing IT infrastructure. iBPS differentiates with other BPM products through its ability to deploy rapidly to automate a complete process. iBPS Flow accomplishes this through the use of built-in Rapid Application Development components.

**OmniDocs (Document Management System)**

OmniDocs is an Enterprise Content Management (ECM) platform for creating, capturing, and managing, delivering and archiving large volume of documents. OmniDocs provides highly scalable, unified repository for securely storing and managing enterprise content .It provides access to enterprise content directly and through integration with business applications. It provides centralized repository for enterprise documents and supports rights based archival. It supports both centralized and distributed scanning with policy based upload. It manages complete lifecycle of documents through record retention, storage and retrieval policies.

**BAM**

BAM is a web based tool which will be used for monitoring the status of the work items, work steps etc. through the user defined reports. Also to review the performance of the business process and in order to identify the areas that need improvement, IBPSBAM provides a drill down feature that enables user to monitor the report in depth using data mining techniques. Built using open technologies, it has seamless integration abilities allowing it to be introduced into any IT infrastructure. IBPSBAM gives an end to end visibility into the business processes, by providing accurate information about the status and results of various operations, processes and transactions so that user (perhaps the business analyst or process manager) can address the problem areas and resolve the issues within his/her business process.

**MDM**

Master Data Management System is a platform independent web-based tool, using which user can perform database management operations on their cabinets. Using this tool user can Add, Modify the Tables and their Fields based on their rights. This tool can also enable the users to perform data entry and modification operations in the Tables

# Mock Screens

\*\*\* Below Attached are the Mock Screens, Rest Screens and comments will be changed in Development Phase and Prototype session will be provided to Emkan Finance team during the development Stage

Note: Mock Screens will shared in Separate file once screen designing task will be completed