SIDAT HYDER

Individual Life Administration System

CONVENTIONAL PRODUCTS ▪ UNIT LINKED PRODUCTS ▪ ACCOUNT VALUE PRODUCTS ▪ NON CASH VALUE ▪ CASH VALUE

ilas

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1. Introduction & Background 1
1.1 History 2
1.2 Features 2

2. Sidat Hyder - Individual Life Administration System 4

2.1 Global Application Shell 5
2.1.1 Parameter Management Layer 5
2.1.2 Security Management Layer 5
2.1.3 Follow Up Management Layer 5
2.1.4 Transaction Audit Management Layer 6

2.2 Individual Life Insurance & Administration 7
2.2.1 Product Configuration 7
2.2.2 Quotation Module 9
2.2.3 New Business & Underwriting Module 10
2.2.4 Alteration 14
2.2.5 Renewal Billings, Lapses And Auto Non-forfeitures 17
2.2.6 Unit Accounting 18
2.2.7 Claims & Settlements 19
2.2.8 Reinsurance 21
2.2.9 Agency 22
2.2.10 Sub Ledger Accounting 25
2.2.11 General MIS Module And Reports 27

2.3 Supporting Application Shell 29
2.3.1 MIS Reporting Module 29
2.3.2 Accounting Module 29
2.3.3 Document Imaging 30

3. Application Suite 31

table of contents

1. Introduction & Background

Sidat Hyder - Individual Life Administration System (ILAS) is a suite of modules providing complete solution for an individual's life insurance information management and administration along with relevant accounting and fulfillment of the management requirements by generating Management Information Reports.

The solution has the capability to run on a diverse variety of technological platforms using client- server technology. However the New Business Quotation module has been designed to be used effectively across both the company's intranet as well as over the Internet using state-of-the-art technology.

Sidat Hyder - Individual Life Administration System (ILAS) is an outcome of many years of planning, hard work and effort put into the idea by our business consulting (with three actuaries, at present) & software development experts that also incorporates feedback of previous versions of the system from our valued customers.

Focused to serve as the technology partner for our customers, we maintain dedicated development and support teams to deliver powerful functionality for current needs, while providing solid platform for future ones. Our business solutions are there to grow with your business needs.

1.1 History

Version 1

Was developed in 2000 using Developer 2000 Form 5 as front end and Oracle 8 as back end.

Version 2

(Latest version), developed by using the Developer 2000 Form 6i as front end and Oracle 8i as back end. This version also includes New Business Quotations, which was developed using power of internet technology to offer on-line quotations.

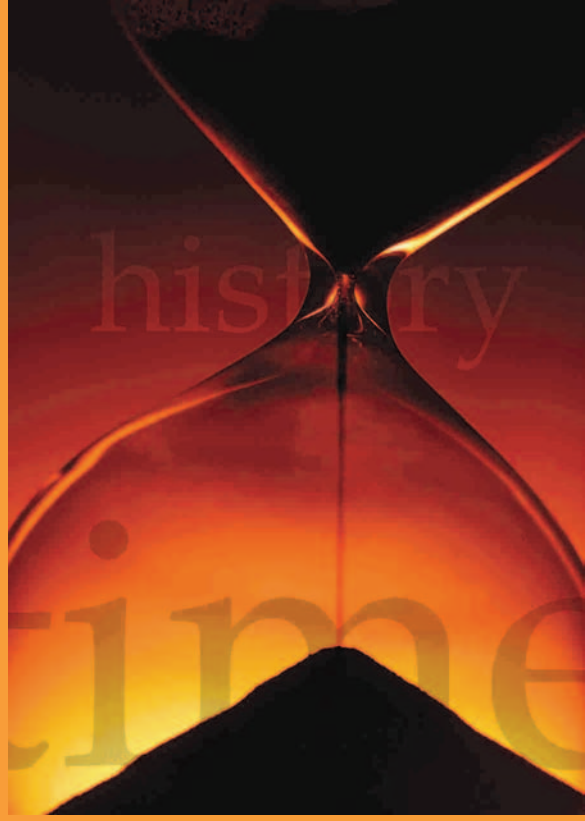
1.2 Features

The system has the following features:

- Product Configuration: Provides user defined product definitions, which include rules, rates and adjustments flexible enough to cater expansion and modification with new insurance practices.

- Easy to use: The forms are dynamic and colorful, having been designed to follow a logical workflow. Pop-up windows are available to select the desired product / service code rather than having to remember them. Buttons and dialog boxes are available for easy navigation. The graphical user interface (GUI) makes the software easy to use, reducing training costs and increasing user performance.

- Parameterization: The system is highly parameterized and uses a product-definition concept. All entities like currencies, branches, locations etc., are parameter driven.



- Data integrity: In order to reduce data entry errors and ensure data integrity, data entered by the users is validated by the system against a set of parameters or default values, which are set up at the time of system installation or configuration. The suite is a set of integrated modules and therefore provides a single point for data entry thereby preventing duplication of data between different modules / departments.

- Security: Each user is assigned a user-id, password and security-level having a defined personal menu. When the user commits a transaction, the system checks his / her authority level and also saves the user-id and date / time as part of the transaction. Similarly, when users log into the system their personalized menu appears on the screen thereby restricting their access to functions relevant to their work.

- Audit trail: The system maintains an audit trail for each transaction being created or updated. For this purpose the system records transaction reference number, user-id, date and time as part of each transaction.

- Accounting interface: Provides the user with an interface to set standard debit / credit entries (vouchers) against each type of transaction. The system at the time of transaction entry within any of its module(s) generates voucher(s) automatically by referring to the set up entries. These vouchers are then transferred to the respective General Ledger Accounts.

- Multi-currency: The system deals with multiple currencies, maintaining exchange rates with respect to different foreign currencies on a daily basis for different rate-types (e.g. spot selling, etc.).

- Multi branch: The system is designed around a multi-branch environment, with the facility to consolidate data at region or Head Office Level.

- Excel interface: Excel interface is used for producing both MIS reports and financial statements subject to the acquisition of the complete SHMA Accounting system.

- Multiple platforms: The system is capable of running on both Windows as well as Unix OS platforms by using the TCP / IP protocol.

- Centralized & Distributed Environment: The system is capable to run in both centralized as well as distributed environments. In case of a centralized environment, Windows Terminal Services or Citrix Operating system is / will be required).

> “...centralized or decentralized, maximized performance, almost no infrastructure adjustments at all”

2. Sidat Hyder – Individual Life Administration System

Sidat Hyder - Individual Life Administration System (ILAS) comprises of three set of shells which contain a number of modules and functions. Below is a brief description of these modules:

Sidat Hyder—Individual Life Administration

® Global Application Shell
- Parameter Management Layer
- Security Management Layer
- Follow Up Management Layer
- Transaction Audit Management Layer

® Individual Life Insurance And Administration Application Shell
- Product Configuration Module
- Quotation Module
- New Business & Underwriting Module
- Alteration Module
- Renewal Billings, Lapses and Auto Non-forfeitures Module
- Unit Accounting
- Claims & Settlements
- Re-insurance Module
- Agency
- Sub-Ledger Accounting
- General MIS Module and Reports

® Supporting Application Shell
- MIS Reporting Module
- Accounting Module
- Document Imaging

2.1 Global Application Shell

2.1.1 Parameter Management Layer

The system is highly parameterized and uses a product definition concept. All other entities like currency, branches, location, etc., are parameter driven.

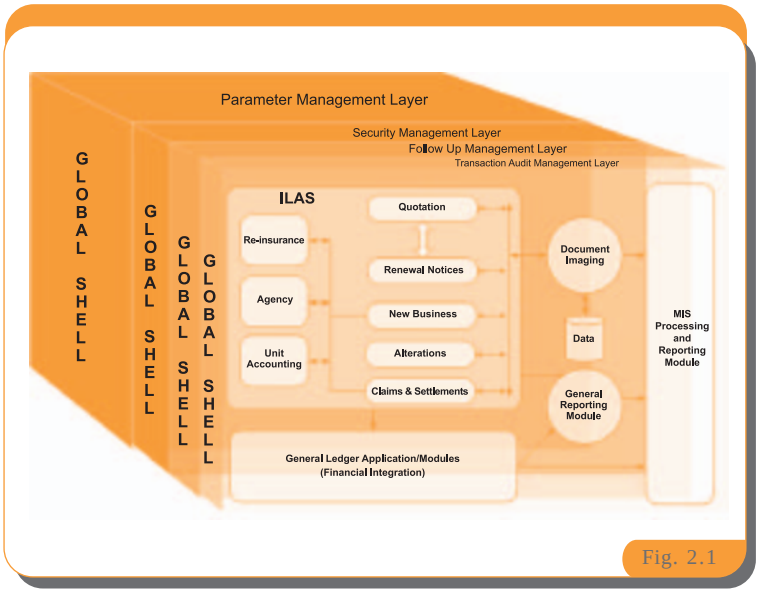


Fig. 2.1

2.1.2 Security Management Layer

The Security Management Layer (SML) acts as a controlling point for accessing various modules of the system. The users, along with user groups (in the form of database roles) are initially created in the database. The default roles associated with each individual ILAS option in the menu are then granted to user groups as per the security policy of the company. A user's access rights for working in any specific location / branch or any group of locations is determined based on the user's enrollment for each allowed location / branch in the application.

Based on the above setup, custom-based user / group menus can be made available for the users by the administrator. Hence when a user logs into the system, his / her personalized menu appears on the screen.

2.1.3 Follow Up Management Layer

The 'Follow Up' Management Layer (FML) acts as a crucial point for the determination of what activity has to be initiated and whether to initiate an activity or not based on meeting certain pre-defined conditions / criteria.

The setup of initiation and follow-up activities are defined in the system along with pre-defined conditions as to when the activity should be initiated. The initiation of one activity may result in negating an already initiated activity, also defined in the system.

The above setup is used for various business processes like generation of reminder(s) to requirements, renewal notices, reminder(s) to renewal notices, lapse letters, auto-surrender warning letter, ANF (Auto Non-Forfeiture) letters (includes auto-paid up, auto-surrender, auto-ETA, APL) & NTU (Not-Taken-Up) letters for outstanding requirements and non-payments. In the system, each of the above-mentioned

items is defined as an activity. For example, in case of generating the reminder to requirements, a pre-defined condition (the lapse period, 15 days from the issuance of the requirement letter) is associated with this activity. Once the requirements are generated, the associated activity is initiated as a manually-initiating activity. The reminder to requirements is defined as the follow-up activity and created as a pending activity when the requirement generation activity is initiated. The system gives a provision to view the initiated as well as pending activities to check as to when the reminder to requirement is falling due.

The system on a daily basis checks whether any pending activity is falling due for initiation. The activity is initiated if the condition is met. The system further checks whether any follow up activity is associated with the initiating activity. If this is so, the system records it as a pending activity for the subsequent follow-up. Likewise, the business processes associated with each of the above-mentioned items are performed following the same basic concept.

2.1.4 Transaction Audit Management Layer

The Transaction Audit Management Layer (TAML) acts as a central place where various operations within the system are monitored and used for various analysis and reporting purposes.

An Audit Trail or Activities Log is used to track the various activities performed by different users during the course of system operations. Upon each activity being performed, the system maintains a record in the log (Audit Trail) with the user identification, activity, date / time and reference no (i.e. policy no., proposal no., agent no etc. based on the type of activity).

The system provides different types of Audit Trail Logs based on the selection criteria, such as business activity group (i.e. New Business, Alterations, Claims etc.) audit trail and Activity audit log (i.e. Proposal Validation, Policy issuance, Reinstatement etc.). This also facilitates the production of a complete policy log at any time during any date range to monitor the status of a proposal / policy at different time periods.

“….increased security through constant user transaction tracking and audit”

2.2 Individual Life Insurance & Administration Application Shell

The ILAS includes the following main functional areas / modules:

- Product Configuration
- Quotation Module
- New Business & Underwriting Module
- Alteration Module
- Renewals Billing, Lapses and Auto Non-forfeitures Module
- Unit Accounting
- Claims & Settlements
- Reinsurance
- Agency
- Sub-Ledger Accounting
- General MIS Module and Reports

2.2.1 Product Configuration

This module assists the user to configure the product by defining rules, common features, validation parameters and the calculation methods / procedures. The benefits of Product Configuration are manifold. The efficient product configuration module minimizes the impact on the system when a new product is launched as almost all products would be capable of being defined using the product configuration facility, thereby not requiring modification of the system code and consequential heavy testing. In addition to that, setup of the existing products can also be modified whenever required with the effect on the system being instantaneous.

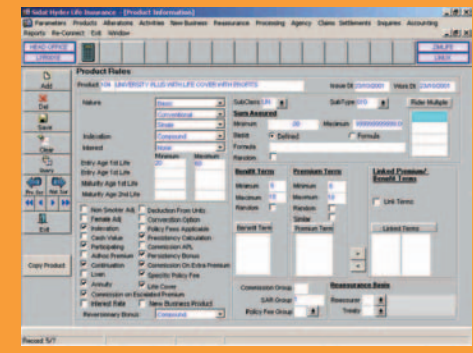


Fig. 2.2

Defining Product Rules

This interface is used to create new products. During the product creation process, besides assigning the code of the new product along with name, some of the following control attributes are mandatory:

Note: The ILAS 'Enterprise' includes the Product Definition module with complete functionalities. However ILAS 'Lite' excludes this module but includes the setting up of up to 15 products, including up to 5 savings products, this being done by SHMA as a part of installation and support. Functionality such as the ability to change rates for defined products continues to remain.

- Basic AND / OR Rider or Both: This is used to specify whether to be used as a basic plan or as a rider and can be used both as basic plan or rider.
- Cash Value or Non-Cash Value: This is used to specify whether it be a cash value or non-cash value product. In case of unit-linked products the system starts maintaining the cash value of the policy in terms of units while for others it maintains the cash value in terms of amount.
- Conventional / Unit-Linked / Account Value: This is used to specify whether it be a conventional / unit-linked or account value product. In case of a unit-linked product, the system starts maintaining the complete units' accounting as a result of allocation or de-allocation of units, whereas in case of account value product, the account value is maintained.
- Single / Joint: This identifier is used to specify whether the plan can be offered for single life or joint life or either of the two.
- Indexation Option: This is used to identify whether indexation (i.e. escalation of premium) is allowed on the product. For an indexed policy, the gross premium is automatically increased at each policy anniversary based on a defined index rate (percentage). The percentage may apply each year to the initial premium (simple indexation) or to the previous year's premium (compound indexation).
- Other Validations: This includes validation on Entry Age, Maturity Age, Sum Assured, Gross Premium, Benefit Term, Premium Term etc.
- Other Allowable: This includes which among the list with each, of the following are allowed:
  - Alterations (i.e. sum assured change, premium change etc.)
  - Occupational Categories (i.e. office work, light manual work etc.)
  - Currency (i.e. US $, GB Pounds etc.)
  - Events (i.e. Death Claim, Surrender, Maturity) and benefits (i.e. sum assured, cash value etc.) under each event
  - Exclusions (i.e. War & Terrorism Risk, Suicide etc.)
  - Premium Modes (i.e. Annually, Half Yearly etc.)
  - ANF Options (i.e. Auto Paid up, APL, Auto Surrender etc.)
  - Riders (i.e. Family Income Benefit, Critical Illness benefit etc.)
  - Investment Funds
  - Plan Conversion
  - Reassurance Treaties

Defining Product Rates & Formulae

This interface provides a highly parameterized method of defining product related rates / adjustments and calculation formula that can easily be altered without changing the program code.

2.2.2 Quotation Module

This subsystem allows the user / client to process new quotations and edit / revise or review existing quotations. The New Business Quotation subsystem is fully integrated with the New Business module of the Individual Life Administration System. Hence any quotation where the client shows his / her interest can easily be processed for conversion into a proposal for speedy and efficient processing. This subsystem is web-enabled, but can also be used for the walk-in clients or the agents without logging to the Internet.

- The system prompts to enter the previous reference number of the user and password in case the user wants to recall the previous sets of quotations that he / she have entered. In case the user is using the quotation system for the first time then the previous reference number will not be required.

- The client details are then entered into the system. In case of Single Life Policy, information of the single client, and in case of Joint Life Policy, information of all the lives assured is entered. The client information builds a client database under the individual user accounts and can be attached with any quotation within this user account.

- The commencement date and then the product details in the form of basic plan and the riders are then entered into the system by selecting from the list of values (as per the products defined under product configuration)

- By the click of a button, the system generates the computation of premium along with policy fees, premium levies or any charges. The system also generates the maturity values. While generating these values the system uses the same product setup as defined in the product configuration module and no separate setup will be required.

- The various quotations entered so far can then be compared in terms of what premiums to be paid for a certain amount of a cover or alternatively what cover would be offered for a certain amount of premium. In addition to that, the system also provides what maturity values each quotation offers. This facilitates the client to take decision of selecting any quotation from the list, by marking it as ‘Interested’ so that the same could be converted into a proposal.

- While logging out, the system immediately allocates a reference number to this user for future references. The user details along with the password are also captured for security purposes.

2.2.3 New Business & Underwriting Module

This module deals with processing of the new business proposals submitted for issuance of policies.

Fig. 2.3

Processing of Proposal Document

The proposal data is entered into the system in two steps. In the first step, client's data is entered if it is a new client and then the rest of the proposal data is entered. The determination of a new or an existing client is facilitated through client search by name, date of birth or National Identity No.

Once the client's information has been entered, the second step follows with the entry of mandatory information of the proposal like branch, agent, client, product (includes basic plan and the riders), beneficiary, mode and commencement date etc. into the system. The system automatically generates computations against the following based on the formulae and the rates defined in the product configuration module for all attached products (basic plan and riders) with the proposal.

- Over & underweight rating based on the height and weight of the client.
- Premium for both basic plan and the riders if the client opts to maintain sum assured.
- Sum Assured for both basic plan and the riders if the client opts to maintain total premium.
- Policy fees based on the mode of the proposal.
- Premium levies based on the amount of premium.
- Occupational loadings based on the occupation and the occupational category of the client.
- Health loading based on the extra mortality rate as suggested by the underwriter.
- Initial Commission entitlements for the agent and the overriding commission entitlements for the upper hierarchy for the entire term of the policy.

The system generates full hierarchy of the agents for this proposal in order to compute the overriding commission of the upper hierarchy, once the policy is issued.

The underwriter can search and view the medical impairment record of a client if any such data is available for a particular region (In some countries there is an association, which is known as Life Offices Association (LOA). One of its functions is to gather and supply adverse medical history of individuals who have applied for life assurance). This feature facilitates the underwriter to charge extra premium on the policy, if any, by checking the medical impairment record.

In addition to specifying the payment methods such as cash and cheque, the client can also opt for payment through stop orders and bank order arrangements as means of bulk payments from the paying authorities and the banks. In both cases, the stop order and the bank order details are entered into the system.

The personal statement of the client is also entered where the illnesses, hazards and defects to the client are stored. In addition to that, family medical history of the client is also managed into the system.

Once the complete proposal has been entered and the relevant computations generated, the analysis / underwriting sheet showing the computations of premium and others can be generated from the system to check and verify the premium computation details. The sheet is generated as a Microsoft Word document.

Validating Proposal for Mandatory Information
Once the proposal entry is completed in all aspects, a button is pressed to validate the completeness of the proposal in terms of mandatory information, which is required. The system generates terminal and warning messages where any of these information have been found missing. Once the proposal has been validated from the system, only then it qualifies for underwriting.

Underwriting and Policy Issuance
Upon receipt of the physical proposals the underwriter first marks it as received to start the underwriting process.

The system facilitates the underwriter to calculate the TSAR (Total Sum at Risk) based on the client portfolio of policies. In addition to the client codes, the client group codes are also maintained for the purpose of determining the TSAR. The same client that has been erroneously issued multiple client codes can be reported under a similar client group code for the purpose of calculating the TSAR. The formulae and the rates for calculating the TSAR are defined in the product configuration module as explained above.

Requirement Generation

By the click of a button, the system facilitates the underwriter to Generate underwriting requirements based on the following:

- The standard medical requirements under each illness / hazards / defects by comparing with the illness / hazards / defects of the client as mentioned in the personal statement.
- Underwriting TSAR chart stored in the system, which includes the standard medical and financial requirements under various slabs of the sum assured and age ranges.
- Height & weight, family history and annual income stored in the form of underwriting rules in the system.

In addition to the requirements auto-generated from the system, the underwriter can also add some other specific requirements or delete the system-generated requirements by marking them as 'Not Required'.

Underwriting Decisions

The underwriter during the course of underwriting can take any one of the following decisions on a proposal:

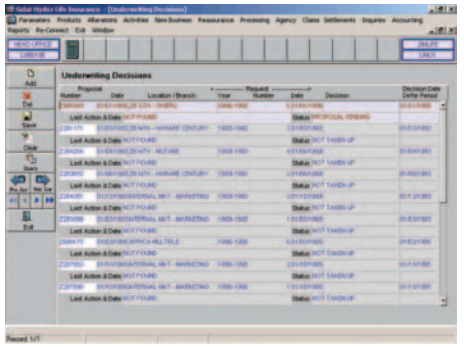


Fig. 2.4

- Defer the proposal by specifying the deferment period into the system and generating the requirement letter. The deferment and the requirement letters are auto-generated from the system as a Microsoft Word document.
- Decline the proposal by specifying the declining reason in the system, in which case the decline letter is auto-generated from the system as a Microsoft Word document.
- Refer the case to the re-insurer for extra mortality in which case the 'refer to re-insurance letter' is auto-generated from the system as a Microsoft Word document. Upon getting the extra mortality rate, the same is entered into the system for calculating the extra premium.
- Accept the proposal as standard or sub-standard in which case the system will auto-generate the acceptance / conditional acceptance letter as a Microsoft Word document.
- Accept the proposal as standard / sub-standard and issue policy in which case the system will auto-generate the acceptance / conditional acceptance letter and the policy schedule as a Microsoft Word document. The system will ensure that full premium has been received.

However, in case of a shortfall in the premium to a certain tolerance level (defined in the system as parameters), the same can be adjusted either through the company account or through agent's commission. Upon issuance of policy, the following activities are performed:

- The relevant premium & commission vouchers are generated online. The set of accounting entries to be generated on a certain event are defined in the system as parameters.
- In case of unit-linked or account value policy, the transaction for the Net Investment Value (NIV) or account value is auto-generated by the system. The formulae and the rates for calculating the NIV or AV are defined in the product configuration module.

New Business Follow up

In the event that the policy is lying under deferment status awaiting requirements and a requirement letter has already been sent to the client in cases where the underwriter has raised certain underwriting requirements (which include both the system-generated and the manually-entered requirements), the system as a daily routine (scheduled process) checks whether the date for submission of requirements (based on lapse period defined in the system) has fallen due or it has become overdue. In case it has become due or overdue, the system generates a reminder of requirement under the given policy to the policyholder. In addition to that, if the requirements have not been received within a certain tolerance limit (defined as 'days' in the parameters) the status of the policy is converted to 'Not Taken Up – Outstanding Requirements' and the subsequent follow-up seizes.

In the event that the policy is lying under status 'Accepted' and an acceptance letter has already been sent to the client asking for the first premium to the policy where the underwriter has accepted the case. Upon receipt of the complete premium (payment acknowledged by issuing a system-generated receipt), the system automatically allocates the premium and issues the policy. In addition to that, if the payment has not been received within a certain tolerance limit (defined as 'days' in the parameters) the status of the policy is converted to 'Not Taken Up – Non-Payments' and the subsequent follow-up seizes.

2.2.4 Alteration

This module deals with the processing of policies where the client requests the company to alter any of the changeable details of the policy (including changes to the policy status from 'lapsed' to 'reinstated' or from 'enforce' to 'paid up'). Practically, the alteration to the policy may fall into one of the two categories, the one being non-financial part where there are no monetary implications like address, name or beneficiary change etc. and the other one being the financial part having some monetary implications like Sum Assured Change, Term Change, Premium Change etc.

Parameterization

The alteration setup is highly parameterized and any new non-financial / financial alteration can be added without changing the program. The qualifying conditions for alterations are also stored in the system.

This module includes the following functionalities:

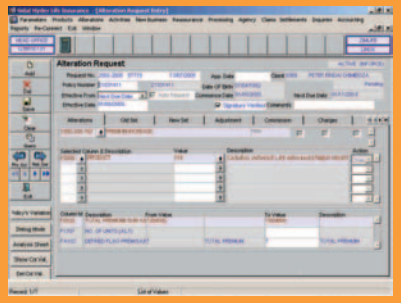


Fig. 2.5

Alteration Request Entry

Upon entering the request for alteration (financial or non-financial), the system automatically determines (based on the qualifying conditions stored as parameters in the system) whether the request for alteration qualifies for further processing. The request is accepted only when it qualifies for further processing.

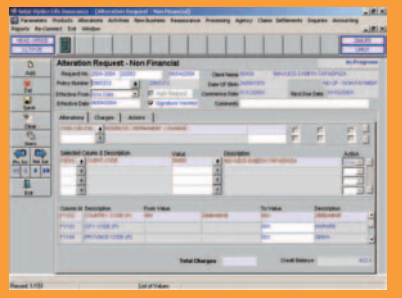


Fig. 2.6

The system generates a request number to record the alteration. The allowable changes to the policy details are prompted for new values (showing the corresponding old values) as a parameterized screen based on the type of alteration selected. For example, in case of name change alteration (non-financial), field attributes like first name, second name, third name and the surname are prompted for new values.

Similarly, in the case of financial alteration like sum assured change alteration the field attributes like sum assured is prompted for new value against the corresponding old value. After completing new values entry, system will do the following:

Activity	Pertaining to
l The system generates non-recurring charges for alterations in case the same is defined as parameters in the system under the given alteration type.	Both for Financial & Non-Financial Alteration
l The system generates requirements based on the standard requirements defined against each type of alteration. In addition to the above, manual requirements can also be entered into the system. For example, in case of name change alteration, the client is required to submit his old policy schedule. The requirements generated from the system are marked as 'Received' if the client has already provided the same. In case if there are further requirements then a requirement letter is printed through the system and is sent to the client. Upon receipt of requirements from the client, the relevant requirement is marked as 'Received'	Both for Financial & Non-Financial Alteration
l The system generates a new financial set based on the changes requested to the policy (i.e. new term, new sum assured, new premium etc.) by keeping the older set intact.	Only for Financial Alteration
l The system then generates computations for the new financial set against each of the following based on the formulae and the rates defined in the product configuration module. - Revised value of premium for both basic plan and the riders if the client opts to maintain sum assured. - Revised value of sum assured for both basic plan and the riders if the client opts to maintain total premium. - Revised value of policy fees based on the mode of the policy. - Revised value of premium levies based on the amount of premium. - Revised Value of Occupational Loadings based on the new occupation and the occupational category of the client. - Revised Value of Health Loading based on the new extra mortality rate as suggested by the underwriter. - Revised Value of Initial Commission entitlements for the agent and the Overriding Commission entitlements for the upper hierarchy for the entire term of the policy.	Only for Financial Alteration
l Once the relevant computations have been generated, the Analysis / Underwriting Sheet showing the computations of premium and others can be generated from the system to check and verify the premium computation details. The sheet is generated as a Microsoft Word document.	Only for Financial Alteration
l Once the Analysis / Underwriting sheet is checked and verified for various computations, the case is forwarded to the Customer Services Manager for final approval. The status of the request remains 'Pending'	Only for Financial Alteration

Table 2.1

Alterations Follow-up

In the event that some requirements have been issued and the requirement letter sent to the client, the system as a daily routine (scheduled process) checks whether the date for submission of requirements (based on lapse period defined in the system) has fallen due or it has become overdue. In case it has become due or overdue, the system generates a reminder of requirement under the given policy to the policyholder.

Alterations Approval

All pending alteration requests appear as a list awaiting manager's decision.

Fig. 2.7

The Customer Services Manager selects any request from the list in order to start the approval process. In case of financial alteration, the system displays the difference of premium and commission as a result of alteration for visual verification. The manager during the course of approval can take any one of the following decisions on an Alteration Request:

- Decline the alteration request by specifying the declining reason, in which case the decline letter is auto-generated from the system as a Microsoft Word document. However, the policy's master information remains unchanged.

- Approve the alteration request in which case the system will ensure that full premium has been received. However in case of a shortfall in the premium to a certain tolerance level (defined in the parameters), the same can be adjusted either through the company account or through agent's commission. Upon approval of alteration the following activities are performed:
  - The relevant vouchers for the difference of premium & commission along with alteration charges, if any, are generated online (The event-based set of accounting entries to be generated are defined in the system as parameters).
  - In case of unit-linked or account value policy, the adjusted transaction for the Net Investment Value (NIV) or account value is auto-generated by the system. The formulae and the rates for calculating the NIV or AV are defined in the product configuration module.
  - The system generates the relevant endorsement letter, which is printed through Microsoft Word interface.
  - In case of alteration request for Reinstatement, the status of the policy is converted to 'Reinstated' from 'Lapsed' or 'Paid up' status.

2.2.5 Renewal Billings, Lapses and Auto Non-forfeitures

This module deals with renewal billing of the policies. This is done by generating premium renewal notices, premium reminders and 'lapsing' the policy or converting it to Auto Non-Forfeiture based on the related ANF option attached with the policy.

Renewal Notices Generation

This process is run on a monthly basis (can also be scheduled) that picks all policies where the premium due date is falling in the next month (prior to a certain time period, normally 15 days (defined as parameter), before the premium due date of the policy) and there is not enough money in the credit balance of the policy to repay the full premium. The premium notices are printed as a Microsoft Word document, accompanied by a branch and agent-wise list for an ease of a follow-up.

Renewal Premium Accrual

This process is run on a monthly basis (can also be scheduled) that picks all policies where the premium is falling due on the process date to accrue one premium. In addition to accruing premium for the due date, the system also checks whether there is enough money in the credit balance of the policy to allocate premium. If this is so, the system allocates premium. In case if the premium is short by a marginal amount which is within the tolerance level (defined as parameters), the system adjusts the short premium from company's account or the agent's commission and allocates premium.

Premium Reminder Generation

This process is run on a monthly basis (can also be scheduled) that picks all policies where premium has not been received from the client after a certain time period, normally 15 days (defined as parameter) from the premium due date. The premium reminder letters are printed as a Microsoft Word document, accompanied by a branch and agent-wise list for an ease of a follow-up.

Lapses and Auto Non-Forfeitures

This process is run on a monthly basis (can also be scheduled) that picks all policies where premium has not been received from the client after a certain time period (defined as parameter, may depend on mode of premium) from the premium due date which would imply that the grace period for converting the policy as 'lapsed' has gone past. If the above condition is true, then the system for a non-cash value policy simply lapses the policy by changing the policy status as 'Lapsed'. In case of a cash value policy having any ANF option attached, one of the following relevant ANF option is exercised:

- Calculating the 'paid up' value of the policy and converting the policy status as 'Auto-Paid up'. All future renewal billing shall be stopped.
- Calculating the ETA term and the value of the policy and converting the policy status as 'Auto-ETA'. All future renewal billing shall be stopped.

- Calculating the 'surrender value' of the policy and converting the policy status as 'Auto-Surrender'. All future renewal billing shall be stopped.
- Booking an Automatic Premium Loan from the available Cash Value of the policy (after deducting previous policy and APL Loans outstanding) so that regular premium could be paid to keep the policy enforced.

The system keeps track of all the changes in the status of the policy and a complete policy log can be produced at any time during any date range. This is possible because the system maintains a database of activities to monitor the status of the proposal / policy at different time periods.

2.2.6 Unit Accounting

This module deals with unit accounting related to the investment funds and includes the following functionalities:

Defining Funds

The various investment funds along with their parameters like frequency of valuation, number of decimal places for unit allocation etc. are defined in the system. The unit prices in terms of bid and offer are entered into the system on valuation date.

Multiple Investment Funds

The system has the provision to link multiple funds with a policy that also carries the implication of inter-funds switching which is done through alteration.

Units Allocation, De-Allocation

The system maintains net investment value transaction based on the allocation percentage as defined in the parameters upon receipt and allocation of premium. The units are then calculated based on the offer price and allocated to the policy.

The system also deducts the management and administration charges etc. from the available units by making de-allocation of units on the date when the de-allocation of such charges falls due.

The system also allows lump sum or ad hoc premium to be invested to the funds rather than adjusting the same against the regular premium.

2.2.7 Claims & Settlements

This module deals with two broad categories:

1. Claims, which includes death and injury claims.

2. Settlements, which includes maturities, refunds, surrenders, partial surrenders and loans etc.

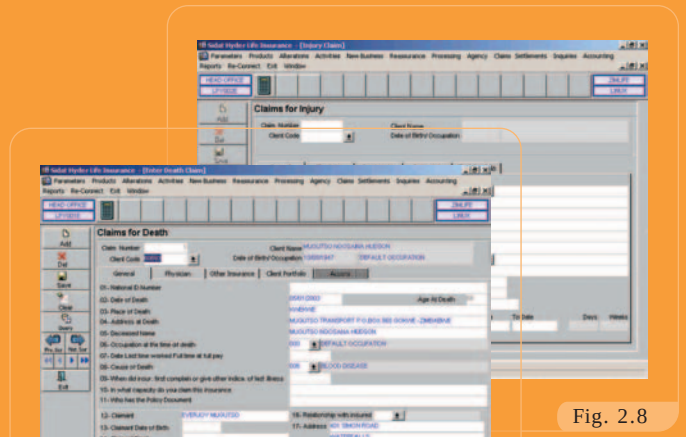


Fig. 2.8

Fig. 2.9

In case of claims, the processing starts from the intimation of claim. The overall cycle includes intimation of claims, determination of the amount to be settled and the actual payment of the settled amount. The actual payment of the settled amount is part of the accounting system. This module includes the following functionalities:

Claim Intimation

The intimation of claim is recorded in the form of entering details like date and time of incident (i.e. injury or death) and entering the claimant's information. Similarly, the type of injury and its details like when, where and how it happened is managed in the system. In case of the death claim, the cause of death and its details like when, where and how it happened, is managed in the system.

The system automatically determines the total amount to be settled based on the client's portfolio of policies.

Processing Of Claims & Settlements Requests

The system has the ability to determine, based on the qualifying conditions (stored as parameters in the system) whether the request for claim & settlement qualifies for further processing. In case the qualifying condition fails, the system stops any further processing.

The system generates benefits against a specified event's selection based on the setup defined in the product rules. The calculation of the amounts payable against each benefit is also parameterized and can be changed at any time without changing the programs.

The system then generates the payment advice based on the above setup showing the elements to be paid and those to be recovered from the payable and calculating the net payable. This advice can also be printed from the system.

The system also generates the benefit against reversionary bonus to the policy. The reversionary bonus to policies is allocated on periodic

basis (usually annually) to the policies and keeps on accumulating.

The system also deducts the amount of loan and interest outstanding from the payable amount. The accrual of interest on policy and automatic premium loans is generated on a monthly basis against policies.

Requirements Generation
The system generates requirements based on the standard requirements defined against each type of claim & settlement activity. The requirement letter is also generated through the system. The system also follows-up the requirements and generates the reminder whenever required.

Claims & Settlements Follow-up
In the event that some requirements have been issued and the requirement letter sent to the client / claimant, the system as a daily routine (scheduled process) checks whether the date for submission of requirements (based on lapse period defined in the system) has fallen due or it has become overdue. In case it has become due or overdue the system generates a reminder to requirement under the given policy to the policyholder / claimant.

> "....automatic application of rates once defined but can be modified at any time without affecting the program."

Claims & Settlements Approval
The system has the provision to settle a payment as lump sum amount or alternatively defining an annuity payment schedule in the form of installments while approving the claim.
Upon approval of the claims & settlement request, the system generates relevant payable vouchers for the amount to be paid. The relevant letters (printed through Microsoft Word interface like injury & injury claim, surrender, partial surrender & maturity payment letters) are also generated through the system

In case of annuity payments, the system automatically generates the annuity payments installments on due dates as defined in the annuity schedule.

Loan Request Entry
Based on the loan request, the system automatically displays the available loan value and prompts for further details like the amount of loan granted, commencement date and repayment period. The system either determines the amount of repayment for a given repayment period or the repayment period for a given repayment amount. The front end charges, if any (like ledger fees etc.) and the recurring charges like interest on loan are plugged into the loan.

The system generates requirements based on the standard requirements defined against policy loans. In addition to the above, manual requirements can also be entered into the system. If the requirement generated from the system has already been provided, then the respective requirement is only marked as 'Received'. In case if there are further requirements, a requirement letter is generated through the system and is sent to the client. Upon receipt of requirements from the client, the relevant requirement is marked as 'Received'.

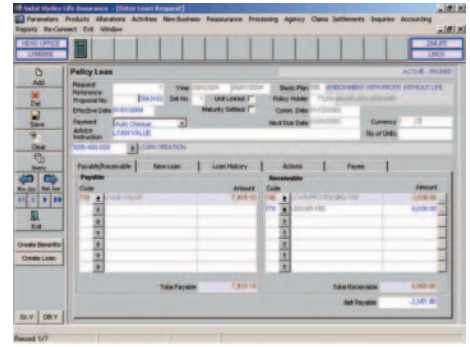


Fig. 2.10

2.2.8 Reinsurance

This module deals with the reinsurance requirements and includes the following functionalities:

Treaty and Facultative Arrangement

The system deals with treaty as well as facultative-based reinsurance arrangements. For this purpose, the rates / adjustments & calculations for sum reinsured, the retention, previous retention, premium & commissions etc. are defined in the product parameters while also having the facility to change whenever required without modifications to the program.

Cession Advice

The system automatically generates the cession advice once the policy is issued for policies qualifying for reinsurance. The cession contains the amount reinsured after reducing the retention limit and retention from previous policies (in case of a client having multiple policies). The amended cession advice is also generated in case of any alteration to the policy. The data of the cession advice is transferred into Microsoft Excel for onward dispatch to the reinsurer if required.

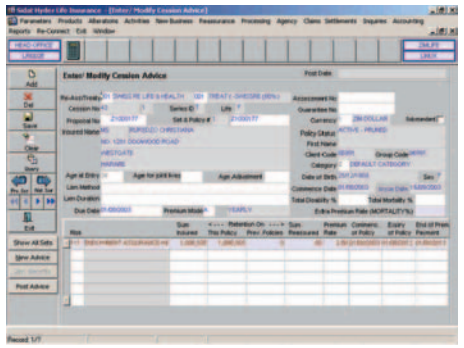


Fig. 2.11

Definite Certificate

The system also generates the definite certificate. The certificate contains the amount of reinsurance premium to be paid by the company to the re-insurer and the amount of commission to be collected from the

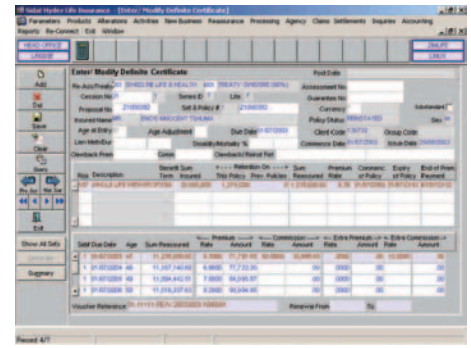


Fig. 2.12

re-insurer. The amended definite certificate is also generated in case of any alteration to the policy. The data of the definite certificate is transferred into Microsoft Excel for onward dispatch to the reinsurer if required.

Statement of Accounts

The reinsurance claim sharing is produced from the system, which shows the company and reinsurer share on account of a claim (possibly a death claim) settled by the company. The system also generates the relevant accounting entries.

The system also generates the reinsurance premium and commission vouchers based on the frequency of payment. The statement of accounts for the reinsurance can then be generated through the system.

2.2.9 Agency

This module deals with various activities like appointment of agents and creating the master records, agents warning / terminations, promotions etc. relating to sales administration. This includes the following functionalities:

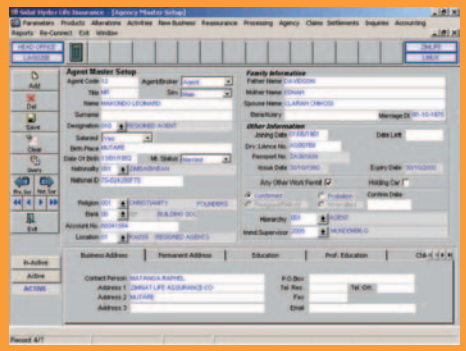


Fig. 2.13

Agent Master Setup

When agents are appointed, which includes both salaried and non-salaried agents, their personal record is entered into the system by the sales administration department.

While creating agent master record, the hierarchy level is also specified by selecting from the list of values (sales force hierarchy levels are stored as parameters in the system like Sales Associate, Unit Manager, Branch Manager etc.). In addition to that, the immediate supervisor code is also specified in the agent setup in order to construct a hierarchy for generating the overriding commission to the managers.

Warning & Termination to Agents

This interface is used to issue warning letters to the agents based on their poor performance or any misconducts etc. The warning record is maintained in the system. After a specific number of warnings along with their severity that has been issued, the agent can be terminated in which case the termination letter is generated using the system through Microsoft Word interface.

Promotion & Demotion of Agents

This interface is used to promote or demote agents based on their performance. The promotion / demotion letter is produced from the system through Microsoft Word interface.

Targets Setup

The 'business targets' of sales associates are managed into the system on a periodic basis (normally on a quarterly basis). The pro-rata targets are also produced from the system based on the agent's performance in the previous quarters. By defining the targets of the sales associates, their reporting level targets (i.e. Unit Manager, Branch Manager, Regional Manager) are determined automatically by the system. The system produces periodical variance statements showing the actual business against the targets.

Agent's Salary Process

The salary of the agents (sales associates under probation) is captured in the agent master setup. The system, based on the performance of the agent (comparing actual business with targets) determines any one of the following automatically:

- Pay the full Salary
- Pay the Pro-rata Salary
- Hold the Salary

Based on the above criteria defined in the product configuration module, the salary advice is generated using the system.

Agent's Initial & Override Commissions Process

During the course of issuing the policy after receiving the first premium or upon receipt of the renewal premium, initial commission to the sales associate is generated based on the policy year entitlement stored in the policy details. In case of reversal of premium due to cheque bounce etc., commissions are also reversed. The commission statement is generated using the system, which includes both the commission payable entries as well as the entries where the same has been reversed per policy.

There are two methods of generating the override commission which are as follows:

- Method-I: In this method, the overriding hierarchy is maintained at the policy level along with the overriding rates. The amount of overriding commission is computed by applying the overriding rates on the amount of initial commission generated and reversed.
- Method-II: In this method, the overriding hierarchy is maintained at the policy level but the overriding rates are applied based on the hierarchy level and the overall business of the first and the renewal year. The amount of overriding commission is computed by applying the overriding rates on the sum of the initial commission generated.
- The override commission statement is produced from the system, which includes both the override commission payable entries as well as the entries where the same has been reversed.

> "…different override commission-generation methods"

Commission Claw back Process

When a policy is lapsed within its first year, a certain specified percentage (defined as parameter, based on how many months the policy remained enforced) of the commission accrued is reversed. This claw-back results in the reversal of the initial commission to the sales associate as well as reversal of the override commission to the upper hierarchy. This claw-back reflects in the commission and the overriding statements.

Periodic Agency Benefits Process

Besides paying commissions to the agents, various periodic benefits (i.e. Persistency Bonus, Incentive Bonus etc.) are also paid to the agents as a reward for their accomplishments, keeping in consideration their level of performance. This obviously encourages them to further improve their performance. These periodic benefits (like persistency bonus) to the agents are automatically generated from the system based on the criteria and method of generation, defined as parameters in the system.

Text File Generation for Commissions

In cases where the SHMA Accounting Solution has not been acquired and some other accounting system is being used, the commissions generated from the system, which includes both initial and override, are converted into a text file. This text file is then used for payment to the agents through other systems.

2.2.10 Sub Ledger Accounting

This module is a built-in component of the system, which provides the facility of maintaining the accounting sub-ledger even though the full SHMA Accounting System has not been acquired.

The detailed functionalities include the following:

Receipting (Receiving) Methods

There are two receipting / receiving methods; one is the bulk receipting and the other one is the normal receipting through which premium and loan payments are collected from the policyholders.

Bulk Receipting

This method of receipting includes the following modes of collecting the premium and loans against proposals / policies.

Debit Order Receipts: The policyholder submits a debit order form for this sort of arrangement. The debit order information is entered into the system. The system (as an automated process that runs on a periodic basis) creates a bulk receipt and a text file for each bank. The direct debit slips and the text file is sent to the bank.

Stop Order Receipts: Upon receiving the cheque of bulk payment from the employer accompanied by the deduction list (as hard or soft copy), the same is entered as receipt into the system. The amount is collected against the employer suspense account. In case of receiving the soft copy, the same is loaded onto the system and the detail policy entries are generated within the bulk receipt. In case of receiving the hard copy, the same is entered into the system manually within the bulk receipt. The system checks each policy number from the policy master for validation. In case of an invalid policy number, this remains in the suspense account until a valid policy number is specified.

Normal Receipting

This method of receipting includes the following two modes of collecting the premium and loans against proposals / policies.

Normal Receipts through Cashier: The cashier receives the cheque (also includes post-dated cheques) or cash physically and issues the provisional receipt as an acknowledgement of payment. The amount can be collected against proposal premium, regular renewal premium, ad hoc premium, loan etc. The policy / proposal Number is validated from the policy master of the Individual Life Administration System.

Money Transfers: This process is used to transfer the payable created for one policy to either repay the premium of another policy or proposal or alternatively to repay the outstanding Loan of another policy.

Mechanism of Crediting to the Policy / Proposal
This is a process through which various receipts like Normal Receipts, Debit Order Receipts, Stop Order Receipts and the Money Transfers are credited to the individual policies / proposals. This is simply done by adding the amount received in the credit balance of the policy in the policy master.

The process of allocate premium, allocates the premium to the policy and generates the agent's commissions. At the same time, the process of creating vouchers invokes and creates the accounting vouchers by picking the relevant accounting entries from the setup.

Mechanism of Reversal from the Policy / Proposal
In the event that a receipt (which includes both normal and bulk payment receipt) is cancelled due to a cheque bounce, the allocation of premium and the commissions are reversed spontaneously. A receipt can be cancelled as whole or partially (the situation arises when direct debit slip is generated from the system but there was not enough balance in a particular policy account).

Mechanism of Creating Payable Vouchers
The process of creating payable vouchers creates the accounting vouchers by picking the relevant accounting entries from the setup.

Mechanism of Payment
All payments are initiated on a knock-off basis, which implies that for each payment there should always be some automatically generated payables so the same could be knocked-off. The process has two versions; One (1) runs on individual-policy basis and the other runs on a batch of policies. The payments initiated from the system fall under the following three categories:

- Payment to the policyholder against various accounts like Refunds, Surrender, Partial Surrender, Policy Maturities, Policy Loans, Injury and Illness Claims etc.
- Payment to the Doctors on account of doing Medical Tests.
- Payment to the Beneficiaries / Guardians of the minor beneficiaries on account of Dearth Claims etc.

The gross amount of payment is determined based on the number of payable and reversal entries that have been knocked off. However the net amount of payment is calculated by subtracting all the deductions from the gross amount of payment.

- The payment method is selected from the list of available values (i.e. Cash, Manual Cheque, Auto-Cheque, Bank Transfer etc).
- The payment voucher is generated from the system along with cheque or transfer advice depending upon the payment method, auto-cheque or bank transfer.

Interface for Accounting System

- In cases where the SHMA Accounting system has not been acquired, the system creates a standard text file, which can be used for other systems, if required.
- In cases where the SHMA Accounting System has been acquired, the 'Accounting Sub-Ledger Module' offers complete integration with the SHMA Accounting System.

2.2.11 General MIS Module and Reports

The system produces several Management Information reports, based on various activities in the system, at the detail as well as at the summary level.

Some of these reports are described as follows:

All Business by Commencement, Next Due & Lapse Dates

This report gives a summary of the issued, enforce and lapsed policies along with the enforce percentage by product and by mode and also gives details of policies in support.

Comparative Business Analysis (Unit-wise)

This report gives a summary of the business of each unit manager for the current and the previous years and showing the variance.

Lapse Analysis

This report gives the lapse analysis showing the lapse rate by:

- Showing the lapse rates corresponding to various slabs of attained age of the policies.
- Showing the lapse rates corresponding to each branch.
- Showing the lapse rates corresponding to each broker.
- Showing the lapse rates corresponding to various premium slabs under each product.
- Showing the lapse rates corresponding to each product under specific product type.

Lapse Triangle
This report gives year- and month-wise summary of all policies issued in a given and lapsed within various specific periods of a policy like 1, 2, 3, 4, 5, 6, 12, 18, 24 & 36 month(s) of the policy from the commencement date.

New Business Statistics
This report gives monthly- and the year-to-date summary of the submitted and issued business year in terms of the number of policies, Annualized premium Income (API), Single Premium (SP) and Modal Premium (MP) in the order of the following:

- By Branch
- By Product
- By Mode
- By Occupational Category
- By Benefit Term
- By Unit Managers

> "…..various reports for business performance analysis and prediction"

Top Achievers
This report gives the branch-wise summary of the business in the order of the number of policies and the First year Premium.

Track & Trace Analysis
This is a matrix report which gives the policy status and the month-wise summary of the business in term of the Annualized Premium Income (API).

2.3 Supporting Application Shell

The Supporting Application Shell (SAS) includes the following major functional areas / modules:

2.3.1 MIS Reporting Module

Operational Systems are the systems that help running day-to-day operations of an enterprise. These are the backbone systems of any enterprise. For a life insurance company, the Life Insurance Administration System forms the backbone or critical system for the enterprise. On the other hand, there are other functions that go on within the enterprise that have to do with planning, forecasting and managing the organization. These functions are also critical to the survival of the organization, especially in our current fast-paced world. Functions like 'Marketing Planning', 'Target Analysis Planning' and 'Financial Analysis' also require information systems to support them. But these functions are different from operational ones, and the types of systems and information required are also different.

We have developed an MIS Reporting Module (a small Data Mart) integrated with our Life Insurance and Financial Accounting Operational System in order to produce Management Information Reports that helps our clients to do analysis and planning.

On each transaction level e.g., at the time of issuance of policy, claims settlement, alteration etc., the system have built-in parameterized processes that trigger as a transaction that has been approved by a user and updated in the MIS Data Mart. This Data Mart can be considered as the central repository of all the data elements that could be used for the production of different reports, statements and analysis.

Sidat Hyder – Report Writer is an integral part of this MIS Reporting Module that can be used by users to develop their desired reports in an easy and flexible manner. Sidat Hyder - Report Writer also provides a quick & easy interfacing with Microsoft® Office (Excel and Word) for the production of MIS reports and analysis. Besides this, users can also use other reporting tools like Crystal Report Writer etc. for this purpose.

2.3.2 Accounting Module

Whenever a user approves a policy, alteration or claim, the system generates advices(s) automatically. At the same time, the system also transfers these advice(s) to the accounts receivable and / or accounts payable modules automatically in the form of payable and receivable vouchers to record the premium, commission, service charges etc. The Accounting Module contains the following features:

- Flexible and multi-level chart of account
- Maintains accounting transactions at multiple locations level

Note: (2.3.1) module is under development and will be available in the next version.

- Maintains accounting transactions in multiple currencies, with base and denominated currency amount being stored separately for each transaction.
- Maintains sub-ledgers like Policy Ledger, Commission Ledger and Employee Ledger etc.
- Maintains open item records of receivable and payable and ability to offset payment / receipt against open items.
- Agency payment
- Cheque printing
- Cost and Profit centre wise accounting
- Integrates with the 'General Reporting Module' through Microsoft EXCEL interface in order to generate all Financial Statements and Reports.

2.3.3 Document Imaging

This module deals with the concept of Document Imaging (DI), having the following features:

- The ability to handle documents from both fast media, which includes magnetic disks as well as slow media that includes scanners etc.
- The provision of highlighting ability to enable users to highlight critical areas of interest in bulky documents. However, the task for images to be viewed in high resolution and in the appropriate colors entirely depends on the quality of the scanners used.
- The provision to possess the equivalence of rubber stamp for example 'Approved', 'Urgent' etc, also available in the system.

The Document Imaging Module has the following functionalities:

- Setting up the type of documents
- Imaging the document through Document Imager
- Linking the document through Document Linker
- Viewing the document through Document Inquirer

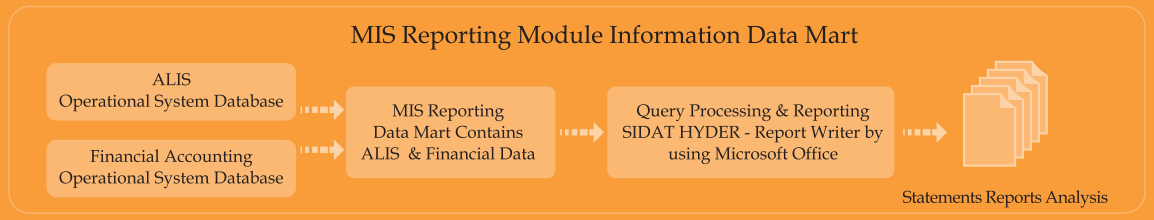


Fig. 2.14

Note: (2.3.3) module is under development and will be available in the next version.

3 Application Suite

At present, we have two different application suites developed to cater to different types of clients according to their needs and requirements. Details of each are given below:

Modules / Layers	E	L
Global Application Shell		
Parameter Management Layer	P	P
Security Management Layer	P	P
Follow Up Management Layer	P	P
Transaction Audit Management Layer	P	O
Life Insurance Application Shell		
Product Configuration Layer	P	Pls. see note
Quotation Module	P	O
New Business & Underwriting Module	P	P
Alteration Module	P	P
Renewal Module	P	P
Claim Module	P	P
Re-insurance Module	P	P

Modules / Layers	E	L
Agency Module	P	Limited
Sub-Ledger Accounting Module		P
Bulk Receipting	P	O
Normal Receipting	P	
Through Cashier	P	P
Money Transfer	P	O
Interface for Accounting	P	O
General MIS Module & Reports		P
Supporting Application Shell		
MIS Reporting Module	P	O
Accounting Module	P	O
Document Imaging	P	O

Tabe 3.1

Note: The ILAS 'Enterprise' includes the Product Definition module with complete functionalities. However ILAS 'Lite ' excludes this module but includes setting up of up to 15 products, including up to 5 savings products, this being done by SHMA as a part of installation and support. Functionality such as the ability to change rates for defined products continues to remain in 'Lite' suite.

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