



Asseco StarINS Whitepaper General

Version 6.6

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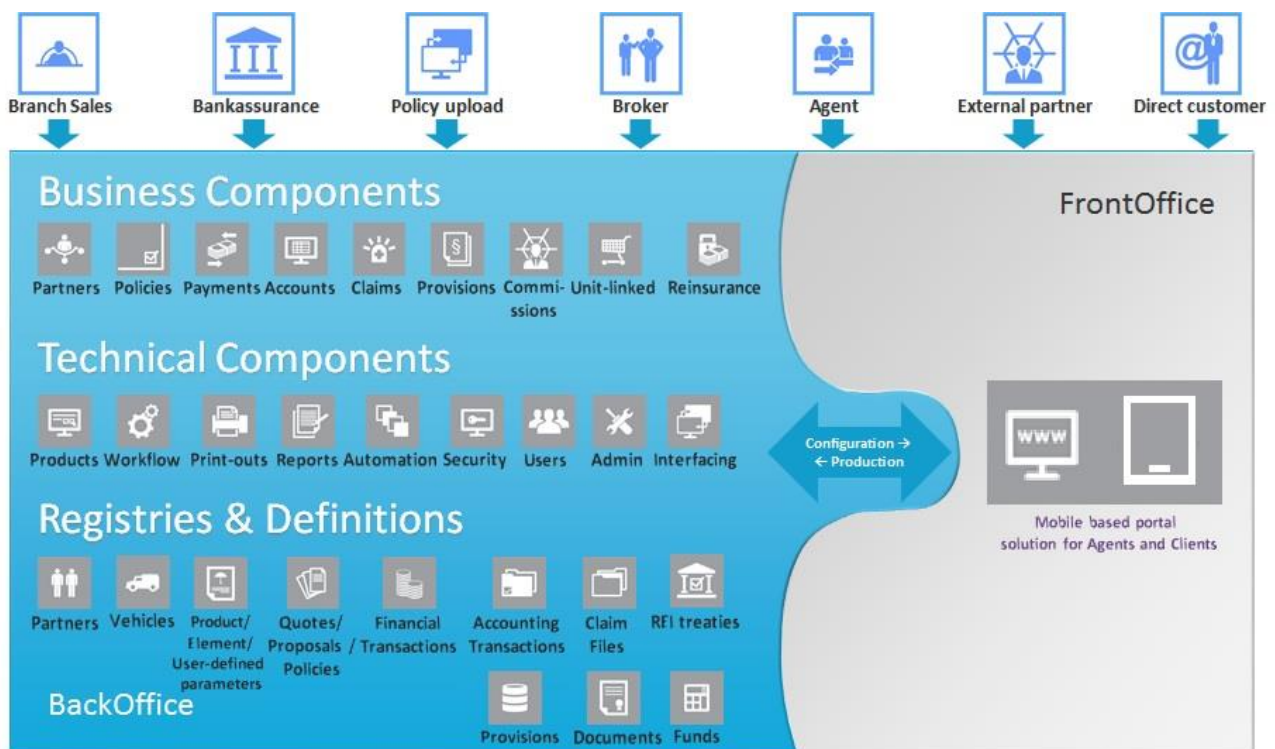
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1 Insurance Core System Presented by StarINS

This chapter provides concise introduction of StarINS as core system, summarizes the key features of the solution as well as it presents the technology the StarINS solution is based on.

StarINS represents a comprehensive enterprise level solution for commercial insurance companies covering LIFE (Life, Unit and Indexed Linked products, Annuity) and GENERAL (Property & Casualty) insurance.

This process-oriented solution supports all front- and back-office operations including active steering and notification (workflow module) of the system user as shown by the diagram below.



StarINS is flexible in its own definition of insurance products, thus it provides a solution tailored to the needs of the insurance company. Each module has a definition and a production part.

Basic features of StarINS as core system:

- **Complex solution for administration of all lines of businesses (Life & General)**
- **Scalability** - by choosing the right infrastructure it is possible to scale-up efficient (optimized) solutions for small, middle-sized and large companies
- **Parameterization** – high level of system parameterization (user-defined insurance products and business rules provided by each module) enables to flexibly react to the current needs of the insurance market. Each module has its definition and production part
- **Modularity** – the solution enables to extend the basic modules by add-on modules acc. to client's needs
- **Significant support for agents and other distribution channels** (banc assurance, brokers) via commission module, e-Portal, Mobile sale (off-line solution)
- **Multi-language solution** – ready to be localized in any language and adjusted (tailored) to the local legislation. Currently implemented in four languages.
- **Multi-entity and multi-language** features
- **Rich on business processes optimization tools**
- Integrated system for registration and management of documents (DMS)
- Workflow and Task management is part of the solution.

Technology:

- 3 – layer (4th optional) architecture:
 - **Communication layer** - presented by the Workflow module (optional)
 - **Presentation layer** – web browser - Internet Explorer (10+) or Mozilla Firefox
 - **Application layer** - .NET Framework operating on Windows Server 2012+
 - **Database layer** – Oracle 12 or MS SQL 2014
- **Data centralized system and Thin client architecture**
- User-friendly graphical interface
- Extendable access (e-portal, external users, off-line solution)
- **Integration capabilities via Web Services and other communication tools**
- **Security** – StarINS is secured by several security elements at database and application level to meet the security requirements of the financial sector.

2 Attributes Unifying the System as a Whole

Parameterisation Capabilities

- **There is an option to select optional modules**
- **Set up of user interface** – simply by adding new CSS scheme (design), each user can choose his own setup, User profile – scheme UI, selection of communication language, pre-set formats etc.
- **Management of code lists** (with planned changes to the content) and global set up of application – organized in modules and sections
- **Definition of insurance products via GUI** - no the need of intervention in the solution's source code
- **A tool for formula definition is included**
- **Possibility to define own reports** (both data extract and graphic printout template),
- **Possibility to define new correspondence letters**, attach it to certain product, and to set its automatized generating in contract typing process
- **Parameters of processes and reports** – pre-set and also manually entered
- **Role** definition for using functional structures directly in application
- **Many other parameterisation tools are included in functionalities of individual modules** – for instance definition of types of generated letters, organization structure of the operator, classification trees, rules for identification and matching incoming payments, parameters of types of changes in contracts, account classification, accounting rules, structure of business service, commission rules, defining new user types of reserves etc.

Localization and Globalization

- **Language** – every user can choose a language in which she or he will communicate with the system (change is possible at any time), initial support is for Slovak, Czech and English
- **Culture** – formats of numbers and dates
- **Simple enhancement of localization** by adding resource file

Other

- **Identical design and controls** – identical standard in all modules
- **Multi-features**
 - └ **Multi-currency**
 - └ **Multi-entity**
 - └ **Multi-language**
- Standard controls of user entries
- **Optimistic system locking**– high system capacity
- **Complete data history** – in all data entities, identical access to historic data
- **Maximum automation of processes**
- **Reports and correspondence** – consistent solution based on Crystal reports 2013 reporting tool along with data extracts gained from StarINS DB.
- **Batch processes** – background processes, scheduling, diversification, monitoring, generation of protocols
- Data export / import (XML, CSV, XLS, TXT, DOC, PDF)
- Sufficient speed. IS optimization
- Openness, flexibility, versatility

3 Logical Architecture of the System

StarINS represents a comprehensive insurance solution serving for both **LIFE** (life and annuity) and **GENERAL** (property, liability) insurance, supporting all lines of businesses and covering all front and back office processes present in the insurance industry.

StarINS is process-oriented instead of product oriented, i.e. it contains tools and functionalities to support business activities, to build workflow processes across the company and provides functionalities that make the system highly configurable and flexible.

This is ensured by 15 production modules of the system that are mutually independent and strictly preserve their business competences.

The system follows a building-block principle, comprising 15 modules each providing a specific part of the system's functionality and complementing each another.

StarINS is made up by the following 15 production modules:

Workflow				
StarINS add-on modules		Statistics and Reports	Mobile Sale	e-Portal
	Provisions	Commissions	Unit-Linked	Reinsurance
StarINS core modules Life/Nonlife		Claims	Products	Contracts
	Payments	System Admin	Accounting	Partners

4 Functionality Overview of StarINS Solution

4.1 The Four Centric Views

The goal of centric views is to provide a complex 360 degrees view from perspective of different entities. Currently there are four different entities supported such as

- Partners,
- Policies,
- Claims,
- Agents.

The screens providing centric views are of tabular structure, whereas the 360 degrees tab is common to each entity. The rest of tabs vary in context of displayed data, i.e. the partner centric view has different structure from the centric views of policies, claims and agents.

Centric View provide static, read-only information, no action on records are allowed.

In general, each centric view provides information in the following structure:

- the 360 degrees tab providing
 - basic information about the entity the centric view refers to
 - the exposition of the entity to other surrounding objects such as billing and collection, claims, reinsurance, statistical information
 - tasks open and documents. Both related to the entity the centric view refers to
- detailed information about the entity itself
- information about objects directly related to the entity.

Each of the four centric views

- gives comprehensive information on one single screen in a unified structure
- renders 360 degrees of view showing exposition to surrounding objects
- contains active links to detailed views
- are enriched by graphical elements
- create connection to other centric views (they are mutually interconnected)
- implements, indicators, statistics, notifications.

The four centric views

■ Partner Centric View

Stefan Mohár

Centric view | Detail | Addresses & Contacts | Accounts | Roles & Segments | Complaints & Notes | History

Sumname: Mohár, ID: [blank], Identification type: [blank]

Partner type: [blank], Birthdate: [blank], Gender: Male

Natural person: [blank], Address and country: [blank], Phone: [blank], E-mail: [blank]

Permanent address and country: [blank]

Policyholder portfolio

Billing & Collection

Claims & Loss history

Tasks opened

Correspondence

Back

■ Policy Centric View

3040108468 - Mohár Stefan

Centric view | Partners | Vehicle | Covers | Commissions | Complaints & Notes | Warnings | History

Policy No.: 3040108468, Proposal No.: 600118003, Product: Car Insurance (RTP & Motor-hull insurance), Conclusion date: 10/1/2013, Registration date: 10/1/2013

Payment mode: [blank], Payment frequency: [blank], Status: [blank], Inception date: [blank], Maturity date: [blank]

Bank order: [blank], Quarterly: [blank], Lead time - paid: [blank], 10/1/2013, 10/1/1999, Duration: [blank], Determined duration: [blank]

Annual premium: 41 168.00 NGN, Modal premium: 10 292.00 NGN

Main agent: 1349430 - Mohár Pata

Policyholder: Mohár Stefan

Reinsurance

Billing & Collection

Claims & Loss history

Tasks opened

Correspondence

Technical values

Back

■ Claim Centric View

CLAIM: 2013000002 - Claim settlement dept.

Centric view | Partners | Insured & Damaged Items | Covers | Indemnities | External costs | Payouts & Receipts | Notes | History

Claim No.: 2013000002, Status: Closed, Category: Property, Occurrence date: 7/2/2015, Reporting date: 7/2/2015

Proposed No.: 794512880, Product: PROPERTY - House and Household Insurance, Registration date: 7/2/2015, Date of claim closing: 7/2/2015

Loss amount: 4 020 000.00 KZT, Indemnity payable: 4 020 000.00 KZT, First notice of loss: H0130000000000

Policy No.: 3030021939, Policyholder: Mohár Stefan, Claim adjuster: [blank], Recourses: [blank]

Loss reserve history

Disbursement account

Co-insurance & Reinsurance

Tasks opened

Correspondence

Detail

Back

■ Agent Centric View

AGENT: 1549450 - Mohár Pata

Centric view | Approvals & Payments | Business structure | Complaints & Notes | Statistics | History

Agent number: 1549450, Sumname: Mohár, First name: Pata

Partner type: [blank], Identification type: [blank], ID: [blank], Valid: [blank]

Phy Natural person: [blank], Passport number PFP: [blank], 300161627, 1/1/1990, Currency: KZT

Distribution channel: [blank], Business position: [blank], 1004000000, [blank]

Address and country: [blank], Phone No.: [blank], Email: [blank]

Partner: Mohár Pata, Commission group: [blank]

Agent portfolio

Commission account

Indicators & Notifications

Tasks opened

Commission sheets

Detail

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4.2 Module of System Administration

The Module of System Administration provides wide support to other modules in the form of many definition and processing tools representing unifying elements of the system.

4.2.1 Definition tools representing unifying elements of the system

Administration of IS users, user groups, access rights

Users' access rights are managed by the set of user roles. To each system functionality a user role is assigned. A user group is defined by a combination of user roles. Individual system users are assigned to one or several user groups available in the solution.

Access rights represented by user roles can be applied to

- application screens,
- application menu items,
- command buttons,
- system configuration options,
- specific functionalities of the system,
- individual code lists (read-only or editable content).

User profile administration

Each user has the possibility to customize his/her working environment according to his/her preferences. The system is customizable in the following ways:

- communication language,
- user interface design,
- maximum number of lines returned by data grids,
- etc.

Different types of system users:

- internal users such as employees of the insurance company and branches offices accessing the application from inside the company,
- external users such as agents, financial advisors of the external sales channels (brokerage houses, banks, etc.), external claim adjustors and other subjects accessing the application from outside of the system.

Different access level of internal and external system users

The system may grant different access level to users accessing the system according to the working position within the company or agent's position within the sales hierarchy of the particular brokerage company. This means that different users who have access to the same functionality of the system, e.g. contract portfolio overview may see a different set of data according to the authorized access level.

Each level can be defined in terms of a user relating to a particular sales channel or business unit and thus the following access levels can be recognized:

- access to own data
- access to data for the whole organizational unit
- access to data for the entire sales channel
- access to all data.

Example: in terms of a network of post offices selling insurance contracts, an ordinary employee of a post office may see and administer merely his own portfolio of contracts concluded by him, whereas a director of the same post office may see and administer the policy portfolio concluded by all subordinate workers of the post office, the regional director managing a set of post offices operating in a particular region may see and administer the policy portfolio concluded by the whole region, etc. the director of the sales department and member of the executive board may have right to see and administer of the entire policy portfolio of the insurance company.

Administration of code lists

The module of system administration provides a centralized environment for administration of all code lists used by the system.

There are several types of system code lists:

- read-only (not editable for system user)
- editable code lists without the possibility to add new records. However, only users with appropriate user rights have the possibility to change the tables contents
- editable code lists including the possibility to add new records. However, only users with appropriate user rights have the possibility to change the tables contents
- fully editable code lists (e.g. postcode code list, list of professions, etc.).

Changes in the code lists can be applied either immediately or with time lag within scheduled changes.

Batch processes

All business related processes are collected in one place.

Processes can be run manually, as scheduled processes or as consequence of other processes. Scheduled processes can be triggered either in defined periodicity (daily, weekly, monthly) or as a reaction to a certain event.

Each process during run-time generates a protocol. This protocol can be viewed in historical instances of processes. The system allows monitoring of all running instances of processes, their statuses and generated logs.

System audit

Overview of events for security audit needs, diagnosing problems that have occurred or are occurring in the system along with timestamp, user, object identifier and other information.

Journals enable system administrators monitoring warning or errors logs arising in the system.

From the aspect of importance the following types of events can be recognized:

- warning,
- issue,
- error,
- information.

Administration of global parameters in the system

Administration and definition of templates for generation numbering rules of system objects (contract number, claim number, payment identifier, etc.)

Templates determine the way the system will create sequences for system objects.

It can be specified whether to automate the numbering of system objects according to defined templates or to input the numbers manually either by typing in the number or import it from external source.

There is also option to reserve number sequences that will be ignored by the system in process of automated and manual numbering.

Administration of correspondence and print-outs

The system provides the option to generate print-out templates (policy proposals, contacts, correspondence, reminders, calls, provision sheets, statistics, insurance conditions, etc.) with a single procedure. Printing may be initiated by a process or user intervention. Print-outs are generated by means of the Crystal Report reporting environment by linking the print template (an RPT file on the application server) and the data extract (data matrix defined separately for each specific configuration). A print-out can be printed out or saved. Print preview are provided in PDF format. Documents can be stored in any of the following formats: XML, PDF, MS Word, and MS Excel.

Each print-out is archived and thus can be printed repeatedly.

The system also provides the ability creating print batches to export them or to send them for mass printing.

4.2.2 Full audit trail of changes on system objects, context driven help menu and unified tools for displaying object overviews

Full audit trail of changes on system objects

The module provides unified approach for keeping track of historical versions of all system objects (contracts, partners, accounts, etc.).

StarINS keeps the full history of object changes along with timestamp, user name, IP address of the workstation and validity from – till of the historical record.

The historical entities are presented to the user in the same way throughout the whole system, i.e.:

- the user can see an overview of all charges relating to an object,
- the user can select any version of an object and display detailed data about the object,
- the user can chronologically move through individual versions and displaying detailed data of the object.

Context driven help menu

The system provides context-driven help menu throughout the whole system.

The user-guide is provided in PDF format and kept up-to-date.

Unified tools for displaying object overviews

StarINS provides a uniform way for viewing data displayed by data grids throughout the whole system. Each overview (data grid) is equipped by the same set of useful tools enabling the user to filter, sort, group up, and reorganize the data displayed. Most of them work in the same or similar way to that provided by MS Excel:

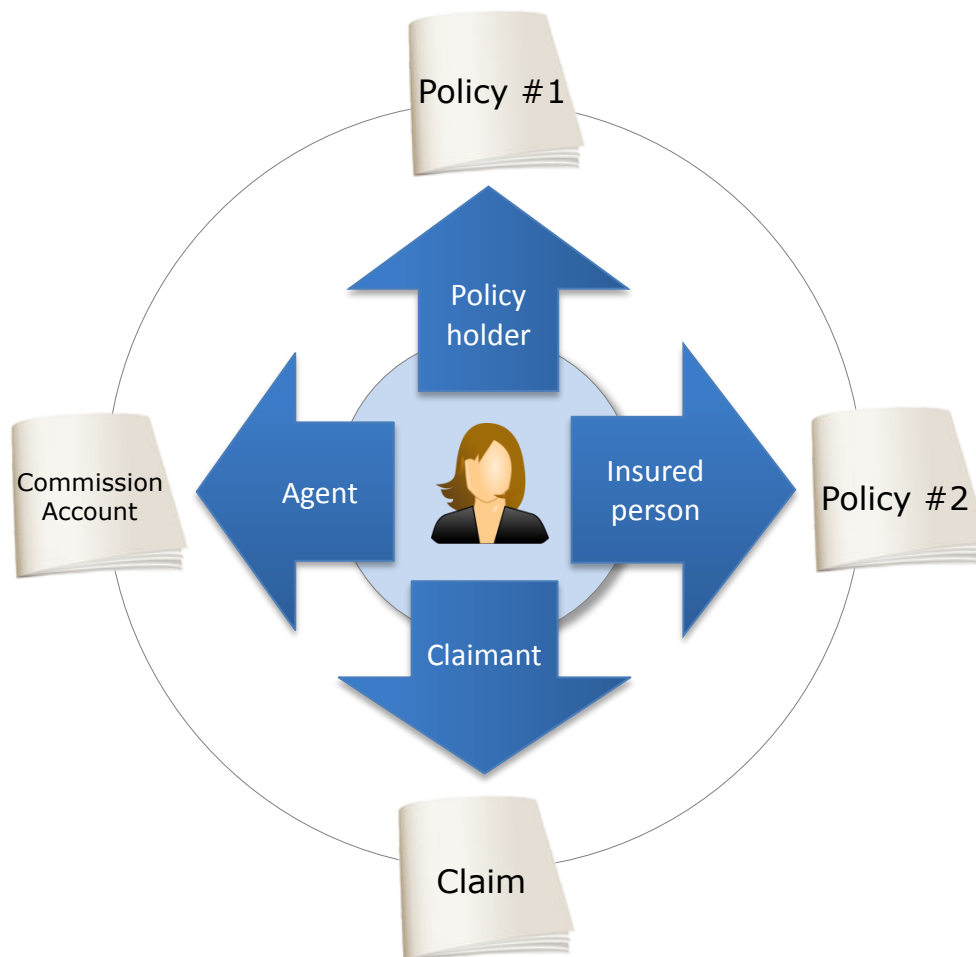
- sort by columns and quick search
- use of simple filter by pop-up windows displaying unique occurrence of values
- use of advanced filter

- creating groups (functionality similar to PivotTable in Excel)
- changes of the data content by adding, deleting or editing records directly in the overview
- direct printing of the datasets returned by the data grid in PDF, XLS, RTF, CSV
- change of the data grid appearance
 - change of column width,
 - display / hide fields of the data grid,
 - save of the data grid appearance according to the user preferences for the next use.

4.3 Module of Partners

The Module of Partners represents a central database of all physical persons and legal entities involved in the processes with the insurance company. Partners can represent policyholders, insured persons, beneficiaries, premium payers, agents, claim adjusters, reinsurers, brokerage houses, etc.).

StarINS provides partner centric view, i.e. all partner related business entities such as contracts, claims, commission, REI treaties, etc. can be viewed from partner's perspective where the given partner is in some relation (role) to the particular object. These business relations to other objects are created automatically by the system. Likewise to business entities, the module also provides a 360 degrees view on correspondence from partner's perspective. Every correspondence generated/received/sent by other modules can be viewed from partner's perspective in one place.



The database of partners is created either manually by entering the partner into the central database or automatically as consequence of operation of other production modules.

The module encompasses mechanisms restricting redundancies of identical persons based on partner's identifiers.

Functionalities covered by the module are as follows:

- **registration and administration** of partners' personal and identification data
- **registration and administration of additional partners' data** – addresses, bank accounts, different types of contact entries, occupation, etc.

- **defining and monitoring relations between partners** - each partner may have several relations defined in the system. StarINS distinguishes between relations like
 - partner to partner (family, business, work, etc.),
 - partner to other system objects (contracts, claims, indemnities, etc.). Relations to other objects are created automatically on the basis of system operation.
- **organisational structure of the system users of the carrier in form of a hierarchical tree structure**
- registration of external partners in organization structure, in particular the hierarchical structure of agents of brokerage houses
- **registers of special meaning** such as politically exposed clients, black lists, insolvent clients, etc.
- **administration and archiving of correspondence**

The module of partners is responsible for collecting of all correspondence generated by other StarINS modules. Thus it enables accessing the correspondence from one place, i.e. from module of partners.

All changes in partners' data are recorded with a complete history of partner related data including timestamp and system user. Each record has its own time validity.

4.3.1 Complaint management

The complaint management sub-system forms an integral part of the Partner's module. The system enables complaint report registration and further processing driven by workflow custom-made scenarios defined and administered by the workflow module (for further information see [Workflow \(WFL\) Module](#)).

Features of the complaint management sub-system are as follows:

- support for reporting channels such as email, post, phone, fax, email, online portal,
- the complaining party (name and contact information) and its role (policyholder, insured person, claimant, etc.)
- subject of the complaint, i.e. the reason a complaint is raised,
- the response manner (by email, in written by post, etc.),
- responsible person and deadlines (workflow module),
- the ability to attach any type of documents (incoming, outgoing, internal),
- window for writing response,
- tracking capability of communication between the complaining party and the company,
- workflow driven complaint management,
- inbuilt complaint management reporting,
- generation of print-outs comprising fixed header and dynamic body.

Complaints represent integral part of each of the four centric views based on the context they refer to.

4.3.2 Partner centric view

The aim of the Partner centric view is to provide comprehensive information about the partner on one screen in a tabular structure as it is shown on the figure below.

Each partner listed in the system can be viewed from a perspective to other entities and objects a particular partner is exposed to.

For further information please refer to [The Four Centric Views](#).

PARTNER: Smith John

360 Centric view
Detail
Addresses & Contacts & Accounts
Roles & Segments
Complaints & Notes
History

Surname	First name	ID	Identification type
John	Smith	6704239322	Birth code FP
Partner type	Birthday	Gender	
Natural person	4/23/1977	Male	
Permanent address and Country	Phone	E-mail	
Mečíková 12, 10000 Praha, CZECH REPUBLIC	55555	ddew@wefwef.sk	

Policyholder portfolio

- Proposals: 5
- Active policies: 28
- Cancelled policies: 10

Policy no.	Product code	Status
3040109191	TPL	Lpaid
3040109130	COMPR	Lpaid
3040109050	TPL_FIRE_THEFT	Lpaid

Billing & Collection

Balance: 65 680.71 EUR

- GWP before due date: 384.83 EUR
- GWP after due date: 93 256.71 EUR

Account no.	Amount [EUR]	No.
3040109191	46.24	1
3040108468	338.59	1

Claims & Loss history

Loss history indicator: 264.28 %

Indeminty pay-outs: 266 799.81 EUR

OLR: 20 156.33 EUR

No. of claims: 17

Claim no.	Status	Occurance Date
2015000003	Closed	7/2/2015
3015000009	Procs	6/28/2015
3015000011	Closed	6/15/2015

Tasks opened

Task name	Object	Deadline
Policy change	P:2000321784	12/18/2014
Policy change	P:2000321772	7/23/2015
Policy anniversary date	P:3040108468	10/19/2015

Correspondence

Document name	Object	Entry date
Confirmation of Policy Conculsion	P:3040108690	8/19/2014
Confirmation of Policy Conculsion	P:3040108491	8/20/2014
Policy Certificate	P:2000321704	9/10/2014

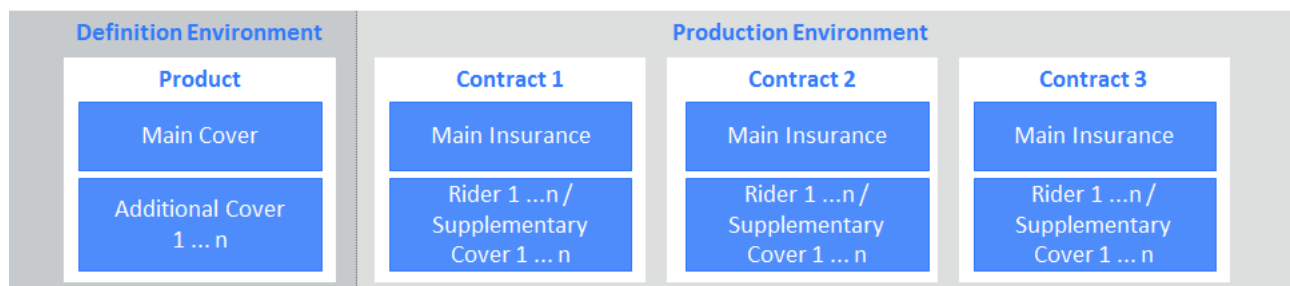
Detail
Back

4.4 Module of Products

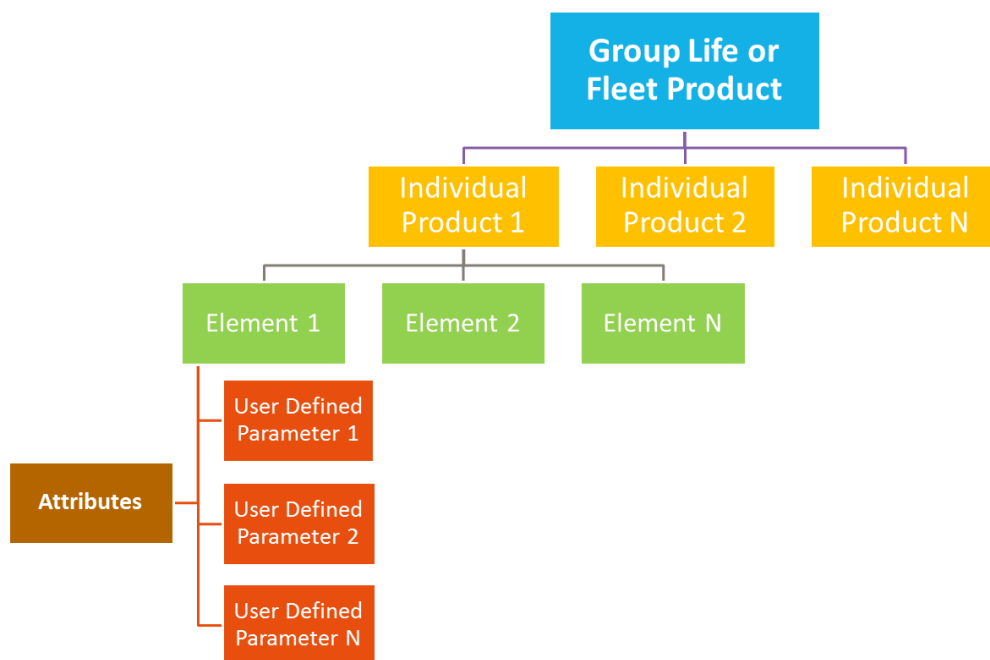
StarINS is process-oriented instead of product-oriented, i.e. it contains a rich toolset that enables to define any line of business, even very specific products, without need to make interventions into the source code by the vendor side. New products are defined online via user interface while the system is being in production.

The Module of Products determines the appearance of the contract displayed by Module of Contracts, it specifies the contract's behaviour in sense how it is to be treated in processes implemented by other modules of the system (claims, payments, provisions, commissions, etc.) but first of all it gives the environment where new products are designed.

The figure below presents the relation between the module of products and contracts, whereas the module of products provides the definition environment for contracts managed by the module of contracts.



The product in terms of StarINS represents a building-block structure of its elements as shown on the figure:



-
- **A user with a product administrator role creates a product by the following steps:**
 - combining elements along with designation what elements represent basic and additional covers and riders
 - defining the product's own attributes
 - set-up of user roles for further work with contracts - roles for viewing contracts, registering contracts, making endorsement on contracts – all depending on the product, the type of change and contract status.

 - **Objects, mandatory or optional that are required by setting up an element (tariff):**
 - Parameters
 - Insured objects/subjects
 - Insured risks
 - Mortality, disability and other actuarial tables
 - Tariff tables and other rate tables
 - Evaluations
 - Reserved number sequences
 - Corrections
 - Loadings (surcharges) and discounts
 - Classification charts

 - **The product and its individual elements are administered separately, each having its own history of changes, and thus providing:**
 - option of multiple use of elements in various products (reusability capabilities)
 - option of applying changes to multiple products at once
 - the system considers the tariff as a basic insurance element (from the aspect of further processes in the system)
 - effort (time consumption and human resources) of creating new product depends on the degree of product complexity (definition of risks, objects, formulas, corrections, mortality and cost tables, etc.). The simplest way to create a product is to reuse existing tariffs.
 - the module enables users to:
 - ✚ create and administer insurance products online without the need to make interventions into the source code
 - ✚ define valuation rules, i.e. business rules
 - ✚ create and administer tariff tables, mortality tables and other rate tables
 - ✚ define numbering rules for automated creation of sequences of business objects (proposals, contracts, etc.)
 - ✚ define classification trees for needs of statistical reporting and accounting purposes.

- The configuration options for products are designed in the way that the vast majority of individual and group products can be designed in the system.

Prerequisites of being successful in product implementation:

- Understanding of a product, elements in the StarINS system and their structure
- Products are created in the system hierarchically – in a bottom-up direction as follows:
 - ✧ starting with defining the insured objects, risks, and their attributes represented by parameters
 - ✧ then definition of elements and their attributes by using risks and the objects and parameters
 - ✧ finally combining tariffs, i.e. elements and defining the product's special attributes.

▪ **Parameterisation options at the product level:**

- Combination of tariffs (determining the basic tariff and additional insurance, whereby one tariff can figure in one product as a basic tariff and in another product as additional insurance)
- Nature of the contract (short-term, long-term, undetermined period, annual with automated renewal, etc.)
- Premium payment frequencies
- Definition of acceptable types of partner's relations on the contract (policyholder, insured person, premium payer, beneficiary, etc.)
- Definition of print-outs
- Definition of classification charts of the product – for reporting and accounting purposes
- Definition of the concept of contracts numbering, i.e. either automatically or manually; if automatically - the option of choosing numbering templates already defined in the system.

▪ **Parameterization options at the element level:**

- Definition of the insured object/subject (or set of objects/subject) and risk (or set of risks) that an element (tariff) stands for
- Definition of parameters and determination of the value entry method of the parameters (typing, selecting from list of values, calculated via formula, calculated via formula and subsequent checks, etc.), and parameter display on the contract screen (text box, combo box, radio button, check box)
- Definition controls and checks - rules for acceptable parameter values for the parameters – insured sum, minimum premium, indemnity, min. and max. entry age, other attributes
- Assignment of tariff tables, mortality tables and other rate tables, admissible corrections (surcharges and discounts), deduction factors, etc.
- Definition of technical interest rate for life insurance
- Definition of formulas for calculating premium, insured sums, provisions, surrender values, deductions and other technical indicators.

Note: the formula editor is present in almost each StarINS module – all the business related calculations such as calculation of premiums, life provisions, commissions and indemnities, ceded premiums, etc. and validation formulas serving for checks and controls over parameter values are defined by the user himself, thus formulas are exposed to the user and it does not represent a black box where actuarial and other calculations are incorporated in the source code.

- Definition of the valuation process - inspections, questionnaires, examinations, with the option of defining conditions when these valuation are necessary to be accomplished
- Configuration options for cover dynamization (indexation) – Index type based which the dynamization is performed, dynamization periods, etc.
- Definition of indemnities given by combination of insured risks and insured objects/subjects – claim causes, indemnity types, indemnity and tax calculations via formula editor, determination of deductibles and franchises, limits, waiting periods, annuity pay-out schemas
- Determination of the indemnity pay-out (lump-sum, annuity or optional upon client's choice)
- Assignment of elements to classification charts.
- **Clone and inheritance capabilities for reusability of product elements**
Parameters, insured risks, insured objects/subjects; even the entire insurance elements are reusable for definition of other products.
When cloning the entire insurance element, the system makes a copy of all entities bound to the element along with calculation and validation formulas, tariff tables and other auxiliary objects.
- **Definition of frame and group/fleet contracts as a collection of individual insurance products.**

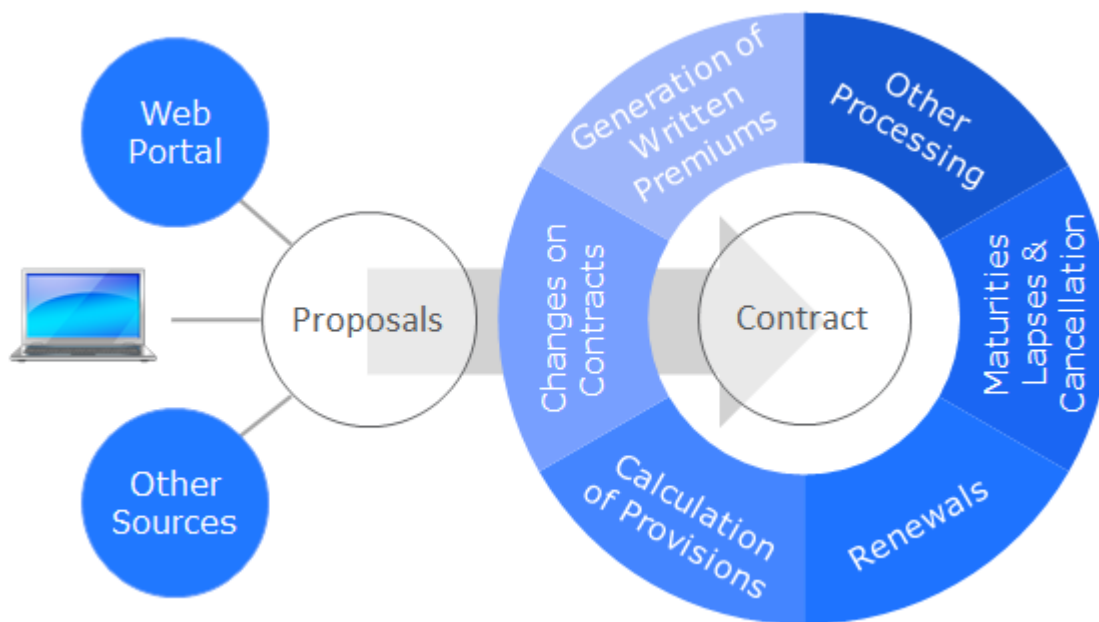
4.5 Policy administration sub-module

The objective of the **Module of Contracts** is

- to register insurance contracts in the system either by typing in the contracts manually or by importing them from external sources,
- management of the **entire life-cycle of the contracts**,
- processing of endorsement to the contracts (technical and non-technical changes, cancellations, lapses, surrenders),
- management of user rights (granting and revocation)
 - to view the contract and its details,
 - to record new contracts in the system,
 - to edit contracts,
 - making product specific endorsements to the contracts (technical and non-technical changes, cancellations, lapses, surrenders).

The module inherits the product definition from the module of products and applies it for production.

The competences of the module are shown by the diagram below:



Functionalities covering the contract's underwriting process from registering proposals up to conversion of proposals to valid contracts are as follows:

- Selection of product, typing in the basic attributes of the contract (start / end of the insurance, insurance period, method and frequency of payment, state of contract, sales channel, etc.)
- Defining partners to the contract (insured person, policyholder, payer, beneficiary, etc.) - with the option of selecting the partner from the partner's register or inputting new partner into the register

- Selection of covers and additional covers - riders, inputting the insurance object/subject and insured risks or selecting them from a insured object's register, entering attributes of the cover and risk
- Option to select an insurance object from a register of motor vehicles and insured subject of the partner's register
- Option to manually input the premium with a subsequent control against the tariff table entries or automatic calculation of the premium and check of business rules - all according to the definition of the product and tariff (element). The premium is calculated separately for each insurance cover.
- Valuation (acceptance of a risk) - automatic check of required valuations (questionnaires, medical and financial examinations, etc.) on the basis of rules defined by the tariff. Option of managing valuation and keeping specific information of the valuation process.
- Defining the main agent on the contract and the sales shares of other agents
- Option of inputting the payment method for the first premium
- Registration of warnings on the contract (e.g. a partner listed by registers of special meaning, collaterals, etc.)
- Registration of errors in case of business rules violation
- Automatic creation of print-outs at acceptance / rejection of an insurance contract
- Automatic creation of a collection account for the payer and generation of the first transaction (written premium)
- Automatic calculation of the contract's technical values (surrender value, life provisions, etc.).

Insurance endorsements (contract changes, terminations, cancellations, lapses)

- Contract changes - technical (change of objects, additional cover conclusion, change of payment frequency, indexation, extensions, cover cancellations, etc.) and non-technical changes (change of partner's data, attributes of the object, etc.) Changes always have their effective dates when the changes are applied along with timestamp and user identification. The system keeps the complete history of changes.
- Registration and administration of change requests
- Making requested changes either manually (individual changes) or via batch processing (change of insurance coverage, indexation, automatic cancellations or lapses due to non-payment of the premium, etc.).

Batch processes can be launched manually or as scheduled processes.

- **The generation of contract related correspondence** – contracts, insurance covers, letters, payment orders, etc.
- **Bulk changes:**
 - Change of the contract's main agent
 - Change of the personal data of contract's partners
- StarINS uses two main registries, one represented by partners and the other represented by motor vehicles. All the other types of objects are defined as parameters. Similarly to partner's object where all partner related data is stored, the register of motor vehicles contains
 - technical data of vehicles

- partners (vehicle owner, vehicle holder, etc.)
- additional vehicle related data.
- Insurance contracts can be imported from an external file, with automatic numbering and control checks of the correctness of all entities and partner duplicity.

4.5.1 Activities supported by the module

- Import of insurance contracts from external files
- Extensive support for policy dynamization (indexation)
- Support for contract renewals
- **Automated processes provided by the module of contracts:**
 - Generation of the first written premium,
 - Generation of the subsequent premiums,
 - Preparation of contracts for automated renewals and policy indexation (dynamization),
 - Execution of renewal and indexation processes,
 - Automated termination of policies due to maturity,
 - Automated termination of policies due to death and total loss,
 - Automated recalculation of technical provisions in case of technical change affecting annual premium.

4.5.2 Quote (illustration) management sub-system

This back-end solution serves to generate quotes (price offers for insurance covers, illustrations) in a quick and effective way using base data of the client and technical parameters effecting the amount of premium.

Features of the quote management sub-system is as follows:

- generates quotes quickly and effectively,
- fixed header and dynamic screen of insurance cover,
- the sub-system is limited only to provide quotes (price offers) based on technical data, i.e. inputs relevant to premium/sum insured calculation,
- every quotation has its unique ID which enables to refer to the quote later on (reopening of the quote, amendments, invalidation, conversion),
- **the conversion flow is as follows:** quote --> proposal --> valid policy,
- every quote may have its validity, the date till when the quote is valid. Invalidation of quotes beyond their validity is performed via batch process,
- each quote has its field for putting notes.

4.5.3 Policy centric view

The aim of the Policy centric view is to provide comprehensive information about the policy on one screen in a tabular structure as it is shown on the figure below.

Each policy listed in the system can be viewed from a perspective to other entities and objects a particular policy is exposed to.

For further information please refer to [The Four Centric Views](#).

POLICY: 3030022243 - GLOBAL MARINE HSE CONSULTANTS
?

360 Centric view
 Partners
 Covers
 Commissions
 Complaints & Notes
 Warnings & Errors
 History

Policy no. 3030022243	Proposal number 1548865392	Product Corporate Insurance	Conclusion date 12/31/2014	Registration date 1/5/2016
Payment mode Bank order	Payment frequency Quarterly	Status Lpaid Live - paid	Inception date 1/1/2015	Maturity date 12/31/9999
Annual premium 1 627 617.00 NGN	Modal premium 406 905.00 NGN	Duration Determined duration		
Main agent 99999 - Bronišová Eva ³⁹⁰		Policyholder GLOBAL MARINE HSE CONSULTANTS ³⁹⁰		Terms & Conditions

Reinsurance
 Active treaties: 6
 Active groups: 3
 Ceded premium: 930 353.89

Billing & Collection
 Premium written due: 2 848 335.00
 Premium paid: 2 347 025.00
 Collection account balance: 501 310.00

Claims & Loss history
 Loss history indicator: 10 621.40 %
 Indeminty pay-outs: 85 000 000.00
 OLR: 95 000 000.00
 No. of claims: 1

Ins. cover	Treaty	Group	Covered	Amount	Delay [days]	Claim number	Status	Occurance date
MACHINERY	CORP_catXL_2015_001	Corporate_Risks	4/1/2016-6/30/2016	406 905.00	0	2016000001	Procs	7/27/2015
VANDALISM	CORP_catXL_2015_001	Corporate_Risks	7/1/2016-9/30/2016	406 905.00	0			
LIGHTNING	CORP_catXL_2015_001	Corporate_Risks						

Tasks opened

Task name	User	Deadline
Policy change	Štefan Molnár	7/23/2015
MTPL_NGR proposal risk evaluation	Martinka Juraj	1/20/2016

Correspondence

Document name	Date entry
Confirmation of Policy Conculsion	1/5/2016
Confirmation of Policy Conculsion	1/7/2016

Detail
Technical values
Back

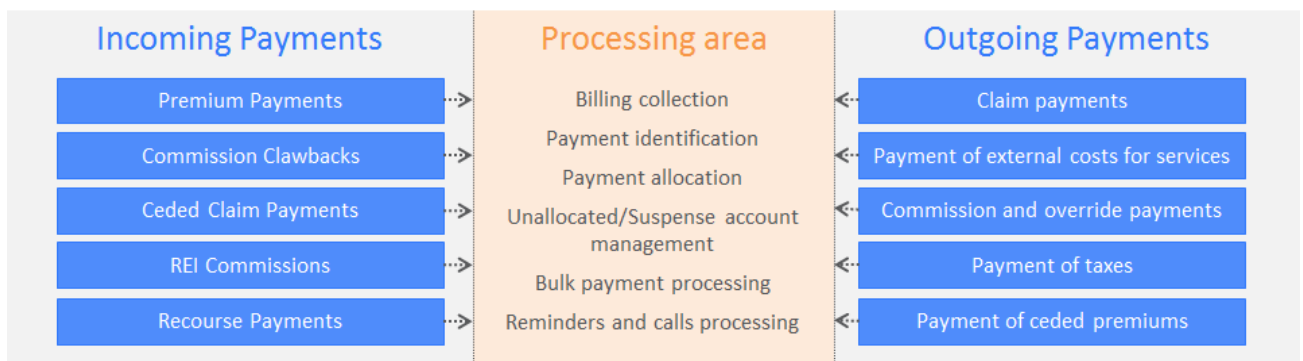
4.6 Module of Payments

The Module of Payments administers the activities relating to the receipt (collection of incoming payments) and disbursement (outgoing payments) of all types of insurance related payments (premium, commission, overrides, indemnity pay-outs, ceded premiums and indemnities, external costs, etc.).

The module is based on technical accounts (collection accounts) that are created automatically by the system along with formation of the corresponding business object (insurance contract, claim, REI treaty, agent, etc.).

All payment transactions of incoming or outgoing payments are collected on the technical accounts.

The scope of functionalities provided by **Billing and Collection Module** is shown by the diagram below:



The module covers the following functionalities:

- Administration of technical accounts** – accounts for incoming payments (premiums, recourse payments, ceded claims, commissions from an external environment, etc.), accounts for outgoing payments (indemnities, commissions, agents' remuneration, ceded premiums, etc.) and internal payment accounts (general suspense account) that stand for collection of unidentified payments.
 Except **the internal technical account** which is independent on business objects, technical accounts for incoming and outgoing payments and their transactions are created automatically along with formation of the business object the account is bound to.
- Example:** Each insurance contract, claim, agent, reinsurance treaty, unit-linked contract has its technical account. The type of the technical account (incoming or outgoing or both of them) depends on the origin of the business object the technical account is associated with.
 - Insurance contracts and UL contracts have collection account for incoming payments and their transactions.
 - Agents' accounts and claims have account for outgoing payments and transactions.
 - Reinsurance treaties have both of accounts, i.e. account for incoming and outgoing payments.
- Billing - generation, registration and administration of credit and debit operations** – credit and debit orders are generated automatically as a result of business operation running in the system.

Credit orders are generated by operations such as contract acceptance (first-year premium), contract modification, contract renewal (subsequent premium), ceded claims and reinsurance commissions, registration of recourses (regress), whereas debit orders arise from operations such as indemnity, external costs and taxes registrations, ceded premiums, etc.

- **Flexible payment plans** – provides full support for pre-set and custom instalment plans and ensures billing according to these payment plans.
- **Payment incomes into the system** - StarINS provides the following ways how to receive payments into the system:
 - Import of bank statement from multiple bank accounts and bank institutions
 - Manual recording of payments used only in extraordinary cases when automatic import fails due to some reason
 - Automatic payment from internal sources of the insurance company - based on user-configurable rules for different types of special regulations (e.g. reimbursement of the costs of medical examination for life insurance, service fees, etc.)
- **Automatic payment identification and allocation** – StarINS enables to configure identification and allocation rules for each of the technical accounts separately, to enable StarINS carrying out matching of incoming and outgoing payment against credit/debit orders generated in the system automatically.
Matching of payments against debit/credit orders may occur in several iterations based on rules configured for particular account.
Generally the system for a particular technical account works as follows:
 - the payment identification mechanism tries to identify the payment according to the payment identifier defined by the first and strongest rule among rules in the payment identification schema
 - if the first iteration of payment identification fails, the system attempts to identify the payment according to the second strongest identification rule
 - in case of failure of the second attempt, the system takes into account the next rule in the order of importance and makes a try to identify the payment
 - if all rules fail to identify a particular payment against debit/credit order, the system designates the payment unidentified and allocates it to the one of the internal accounts created for this purpose. The goal of general suspense accounts is to collect all unidentified payments in the system.
- **Administration of unidentified payments** – unidentified payments are placed on internal accounts called general suspense accounts.

The system allows authorized users manual identification of all unidentified payments. To make it easier, the system offers the following functionalities on manual interventions:

- Tools for quick allocation of unidentified payment on the general suspense account,
- Operations that are equivalent to those of automated processing identifying the type of manual payments and manual matching,
- Other operations such as
 - Re-identification of the payment after change of attributes of the payment,
 - Re-billing of the credit/debit order against which the payment shall be matched,

- Split of the unidentified payment into several partial payments,
- Merge of several unidentified payment into one single payment.
- **Automated processing of bulk payments - bulk payments are processed in the system fully automatically and provides an extensive support for processing billing and collection of group/fleet contracts.**

The system provides the following functionalities:

- Automatic identification of payments that refer to group/fleet policies
- Automatic payment allocation according to the schema of rules assigned to the group/fleet contract
- Automated identification of corresponding list of payment breakdowns and execution a step by step single payment allocation against the individual credit/debit order

As a result of a successful identification and allocation of bulk payment is:

- A zero balance of the technical account of a particular group/fleet contract
- A zero balance of each technical account of individual policies within the group/fleet contracts
- **Reminders, calls and fees in case of non-payment** – StarINS provides an extensive support for generation of reminders, calls and fees.
For this purpose the system offers a framework for definition of rules and provides functionality to carry-out actions leading to remind the clients about outstanding payments in accordance with defined rules.

The system provides the following functionalities:

- Determination of the type of rule the reminder is applied (first-year premium, subsequent premium, etc.)
- Definition of the type of reminders and priority rules (first, second, third reminder)
- Definition of the number of days of payment delay for each type of the rule (when the payment delay generates the reminder or call)
- Design of the print-out for the type of reminder or call (the order number of the reminder may affect the appearance of the print-out)
- Determination of the order number of the reminder or call that is crucial in respect to triggering the cancelation process of the affected policy

Generation of the reminders and calls via batch processing

- **Generation of accounting transactions based on payment operations (refer to [the Module of Accounting](#) for further information)**
- **Statistics** – incoming and outgoing payment reports, account statements showing account transactions and account balance general suspense accounts.

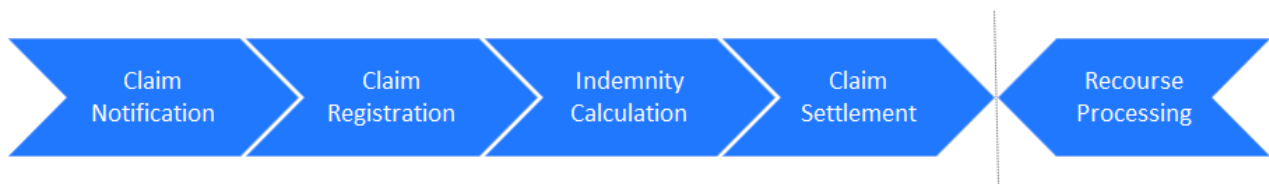
4.7 Module of Claims

The Module of Claims is responsible for processes connected to claim handling and settlement.

The module is split into several claim phases starting from

- claim notification,
- through claim registration,
- claim indemnities calculation,
- up to partial and final indemnity pay-outs.

The claim handling and settlement phases supported by the module of claims:



The module also supports activities relating to recoveries of counterclaims.

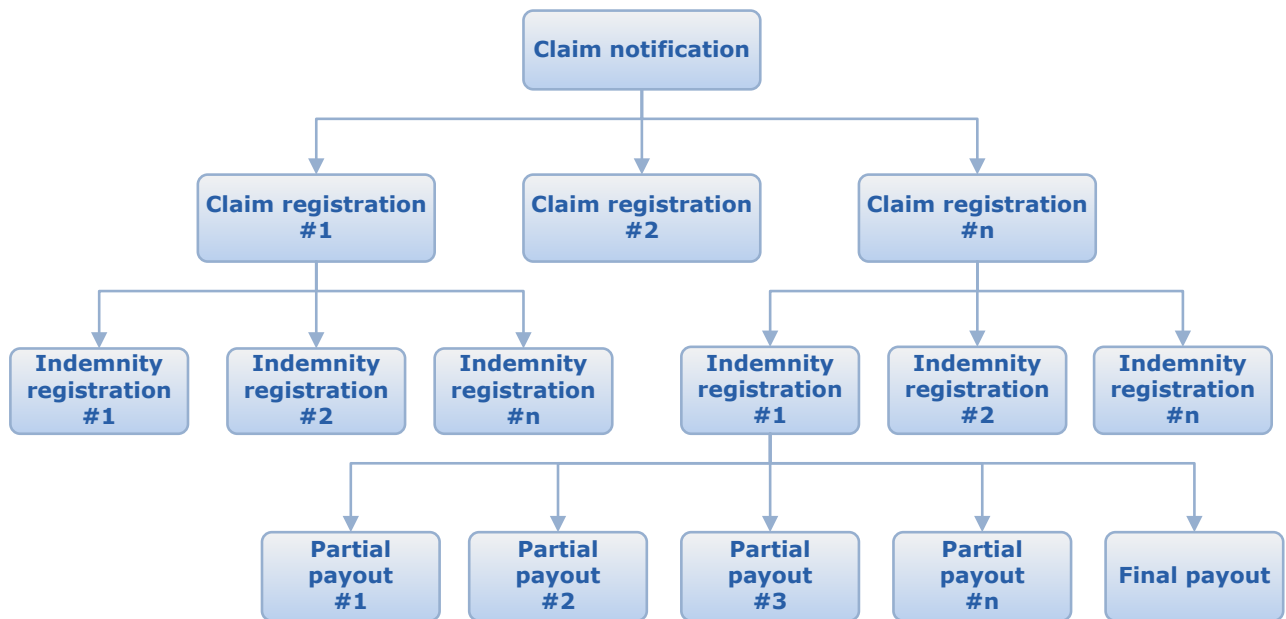
It contains processes for identifying expected claims (e.g. survivals, surrenders) and for exchanging data with the module of provisions, commissions and payments.

The module of claims inherits the product configuration made in section of indemnities setup of Module of Products. The configuration options of the indemnities in module of products extend to:

- definition of loss causes
- insured risks and objects/subjects providing covers to loss causes
- indemnity amount calculation via formula editor
- limits, deductibles and franchises
- waiting periods
- tax calculations
- indemnity pay-out modes (lump-sum, annuity, lump-sum replaceable by annuities and vice-versa).

The claim handling process is managed by defining rights and roles that authorize the claim adjusters and revisers to take appropriate actions. The whole process of claim settlement is based on transition statuses.

The system allows multiple claims to be registered on one insurance contract; multiple claims may be in respect of one contract, multiple indemnities may arise from one claim and several addressees may be defined within one indemnity payment as shown by the diagram below:



Related documents can be registered in respect of a claim, and a claim protocol created.

The module's functionality covers the following areas:

- **Claim notification** – information about the circumstances of loss occurrence, place of the insured event, partners involved in the loss, insurance contracts that might cover the loss.
- **Claim registration** – losses notified in the previous stage of claim process are transferred to claims, i.e. losses occurred are covered by the insurance contracts indicated by the claim notification phase.

In this stage of claim settlement the following action is to be done in order to proceed to next stage of claim settlement process:

- Selection of the contract that provides protection against risks invoked by the occurred claim. **The system automatically activates the insurance cover** according to the loss cause and loss type covered by the insured risk attached to the particular insurance cover.

Note: determination of the scope of coverage provided by a particular insurance cover (element) is stored in the module of products. For each insurance element and combination of insured risk and object a list of loss causes and types is to be specified.

Example: the Motor-hull insurance called CASCO within its **base cover** might provide protection against risks such as collision (car accident) and natural disaster. For the combination of insured object and insured risk, i.e. car – accident and car – disaster the applicable loss causes are to be determined.

For the combination of car – natural disaster the following loss causes might be relevant:

- └─ Landslide, stroke of lightning, hail storm, flood, inundation, avalanche, fall of trees/rocks, FLEXA, storm, other natural disaster.

At this stage of the claim handling process it must be clear which insured object is affected by the claim, which risk does cover the occurred claim and which insurance cover provides insurance protection against the risk occurred.

- **Selection of the partners involved in the claim settlement process**
 - └ The system automatically retrieves all partners related to the contracts such as policyholder, insured person, vehicle owner, pledge person, beneficiary, etc.
 - └ The system enables registering additional partners to the system relevant for the claim
 - └ The system enables selecting claim adjusters, claim supervisors and other partners relevant for the claim settlement process
- **Set-up of the initial loss reserve for the expected amount of indemnity**
- **Designation of the list documents (mandatory, expected or optional)** for proceeding further through the claim settlement stages.

The goal of this claim settlement phase is to collect as detailed as possible information about the occurred loss.

- **Indemnity registration**, with the option of advanced pay-outs, partial indemnities, repeated indemnities (annuities), determining various payees, payment method, etc.

The calculation of an indemnity can be made on the basis of a list of diagnoses and the extent of injury in the case of an accident, defined by a formula in the product's definition part of the system; the system can adjust the resulting level of indemnity (e.g. lower it for a defined reason) and to check it against the amount agreed in the insurance contract.

The system takes into account (if this option is marked in the module of products) the balance of the collection account and according to the balance it adjusts the final indemnity amount to be paid out.

Besides indemnity, there is the option of registering claim-related costs (doctors' fees, surveyors' remunerations, expenses for external claim settlement services such as car services).

- **Handling of loss reserves and controls over reserves development** – handling of OLR's, i.e. balance of reserve brought forward and reserves carried forward, formation and release of loss reserves. **The system monitors the OLR's at any time when reserves are affected. In case of insufficiency of OLR's the system does not allow to register additional indemnities until the loss reserves are not increased to the required level.**
- **Approval process and revisions, validation of pay-outs** – the entire process of claim settlement is based on user roles and rights that authorize system users to take appropriate actions. **The system allows utilizing the large potentials of inbuilt controls, mechanisms of self-revisions and to set the approval proves in line with the company policy.**

Example: the system allows applying authorization scheme for pay-out approval determined by the line of business and the indemnity amount.

- **Counterclaims** – in respect of a claim there can be defined the recourse record, its attributes, the option of defining the guilty party of the event, the repayment schedule, monitoring court costs, generating collection instructions, making changes, etc.
- **Statistics** - reported, handled, unhandled claims, expected and unexpected, broken down by type of indemnity, organisational unit, product classification, for a period monitored.
- **Catastrophic events** – the system enables to register, administer catastrophic events and their attributes and designate claim as consequence of a catastrophic event. This functionality is necessary for a proper functioning of the ceding mechanism between the module of claims and reinsurance.

4.7.1 Claim centric view

The aim of the Claim centric view is to provide comprehensive information about the claim on one screen in a tabular structure as it is shown on the figure below.

Each claim listed in the system can be viewed from a perspective to other entities and objects a particular claim is exposed to.

For further information please refer to [The Four Centric Views](#).

CLAIM: 2016000001 - Claim settlement dept. ?

360 Centric view
Partners
Insured & Damaged Items
Covers
Indemnities
External costs
Payouts & Recipients
Notes
History

Claim No. 2016000001	Status In progress	Category Property	Occurance date 7/27/2015	Reporting date 1/11/2016
Proposal No. 1548865392	Product CORPORATE - Corporate Insurance		Registration date 1/11/2016	Date of claim closing
Loss amount 180 000 000.00 NGN	OLR Balance 95 000 000.00 NGN	Indemnity payouts 85 000 000.00 NGN		
Policy No. 3030022243	Policyholder GLOBAL MARINE HSE CONSULTANTS	Claim adjuster Claim settlement dept.	First notice of loss H2016000000001	Recourses

Loss reserve history

Loss reserve balance:	95 000 000.00
Cost reserve balance:	0.00

Disbursement account

Indemnity written:	85 000 000.00
Indemnity paid:	0.00
Balance:	85 000 000.00

Co-insurance & Reinsurance

Indemnity retained (co-insurance):	0.00
Indemnity retained (reinsurance):	43 750 000.00
No. of treaties:	2

Cover	Amount	Balance	Due date	Type	Amount	Cover	Treaty	Sum retained
ELECTRONICS	- 75 000 000.00	0.00	1/13/2016	PREPAYO	75 000 000.00	ELECTRONICS	CORP_WXL_2015_001	15 000 000.00
BUILDING	30 000 000.00	30 000 000.00	1/12/2016	PREPAYO	10 000 000.00	BUILDING	CORP_WXL_2015_001	10 000 000.00
BUILDING	30 000 000.00	30 000 000.00				ELECTRONICS	COMBI_2015_001	18 750 000.00

Tasks opened

Task name	User	Deadline
No data to display		

Correspondence

Document name	Date entry
Police report	1/21/2016
Power of Attorney	1/21/2016

Detail
Back

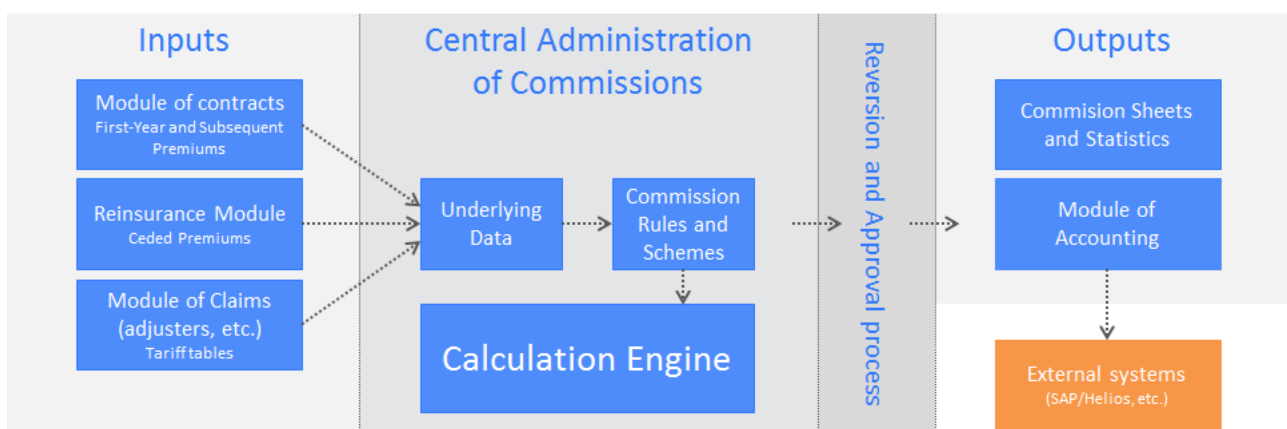
4.8 Module of Agent Management and Commissions

The objective of **the Module of Commissions** is to provide extensive support of the company's sales service, claim adjusters and all those who for their services expect remuneration.

Agents are organised in the hierarchical structures. They receive remuneration for their activity depending on their performance; remunerations, i.e. commissions, overrides and bonuses are set on the basis of configurable commission schemes.

In general, the functionalities of this module can be used for all those people who act in favour of the insurance company and for these services expect remuneration.

The central management of the commission system:



The module consists of two parts:

- **Definition part** - in which the authorized user
 - administers the sales channels, the structure of distribution channels and their members,
 - administers the calculation rules and commission schemas,
 - is responsible for commission redistribution among agents and partners entitled to receive remuneration.
- **Production part** – is mainly based on operations carried out automatically (batch processing) by the system upon the module configuration. The module supports the following process-oriented operations:
 - collection of underlying data based on commissions, overrides and bonuses to be calculated,
 - computation of commissions based on underlying data and commission rules and schemas
 - distribution of commissions, generation commission sheets, commission account statements (balance), etc.

The module's functionality covers the following fields:

- **Administration of the hierarchical structure of distribution channels (internal/external)** – the system enables building and administering hierarchical structures of sales positions that encompasses assignment and removal of agents to/from structures, movement of the agent's portfolio to another agents, etc.

Sales structures in StarINS:

- The system allows defining multiple hierarchical structures, each one representing a specific sales channel.
- The structure of the sales channel is hierarchical, i.e. each structure is made up of hierarchical sales nodes consisting of agents.
- To each distribution channel may apply several hierarchical sales structure.
- There is no limitation in depth (the number of hierarchical levels) and width (number of sales nodes at the same level) of a sales structure.
- Each sales node is linked to the organization unit of the insurance company and may be linked to external distribution channel as well.

- **Definition and administration of co-workers** – definition of co-workers (internal and external – with connection to the central register of partners kept by the module of partners), their assignment to positions in the hierarchical organisational structure, definition and assignment of commission rules (commission schemes, formulas, division of commission shares) to agents.

The system keeps track of all changes made in the sales structure along with the timestamp of the change, user ID and IP address of the workstation.

- **Definition and administration of commission rules** – the **commission scheme** represents a set of rules for calculating commissions and the conditions for commission pay-outs. These rules are applied in processes for calculating commissions, commission approvals and generation of payments. Rules may differ for individual products, insurance elements (risks) or their combination.

Note: thanks to the **formula editor** exposed to the user, the module supports calculating the simplest commissions determined as percentage value through advanced calculation formulas up to the most sophisticated calculation algorithms dependent on many attributes inherited from the insurance products.

- A commission scheme can be bound to a hierarchical position of the sales structure comprising of one or more agents, or even a particular agent. Schema linked to a particular agent always overrides the rules applied to the corresponding hierarchical position the agent belongs to.

In addition, commission rules may also depend on corresponding product or insurance element or combination of product and element.

The definition of the commission scheme utilizes the functionalities provided by the formula editor to determine the way of calculating the first and subsequent gross and net commissions depending on the parameters of the sales channel, attributes inherited from the insurance contract (e.g. annual and modal premium, insured sum, etc.), the agent's parameters (e.g. age, region) and the one's production indicators (agent's production over the past period).

- The module defines the condition under which the agents are entitled to receive commissions, i.e. **commissions payable and commissions paid**.

Example: usually the acquisition commission (commission for contract conclusion) remains payable until the first-year premium is not paid. In other words, outstanding premiums do not entitle agents to get commissions paid and remain in state commissions payable.

- The Formula editor enables to define **conditions for commission claw backs**, etc.

- **Commission groups** are built by grouping-up commission schemes. In order to make the system of commission rules and conditions more transparent and simple, **commission groups** are assigned to a particular sales position (sales node) or single agent. This allows making changes in the system of commission rules more quickly and efficiently.
- **Overrides** - defines the amount of commission as percentage of commissions paid to the subordinate agents in the sales structure hierarchy.
- **Administration of agents' commission accounts** – each agent has his own commission account on which credit and debit operations are registered. Commission accounts are built in system automatically along with definition of the agent.

The system provides different views on the account such as

- Overview of all operations on account,
 - Summary of credit and debit operations on the account – account balance.
 - **Automatic processing of commission calculations** and checks based on payable commissions upon information provided by the module of contracts.
- The interaction of the module of contracts and the module of commissions** ensures payable commissions to be generated every time when a relevant event occurs such as conversion of insurance proposals to valid contracts, technical changes affecting the amount of written premium (policy endorsements), contract cancellations, etc.
- **Retrospective bonus for agents** – a process allowing already calculated commissions to be raised following evaluation of the agent's production for a certain period.
 - **Manual input of remunerations** - inputting new remuneration, a change (correction) to existing remuneration for a particular agent.
 - **Commission claw backs** – in case of technical changes that affect the amount of commissions already paid such as payment deallocation, contract cancellation, decrease of sum insured, termination of supplementary covers, partial/final surrender, etc. the system automatically generates a cancellation operation on commission (credit operation) on the commission account. The conditions and amount of commission claw backs are defined via formula editor.
 - **Revision and approval process of payable commissions** – the approval process of the commissions to be paid is performed either item by item or en bloc.
- Commissions approved are passed to the module of payments, where the respective disbursement instructions are automatically generated.**
- **Summaries and statistics** – encompass payable, paid commissions, credit and debit operations on commission's accounts, account balances, etc.
 - **Creation of commission sheets** – the system enables printing of commission sheets individually or via batch process.
 - **Monitoring of agent's production**

4.8.1 Agent centric view

The aim of the Agent centric view is to provide comprehensive information about the agent on one screen in a tabular structure as it is shown on the figure below.

Every agent listed by the system has his own agent card which provides information in regards to his production, policy portfolio, commission account, statistical information and indicators. The Agent centric view is enriched by graphical components showing the agent's performance in a user-friendly way.

For further information please refer to [The Four Centric Views](#).

AGENT: 1549450 - Molnar Pista

360 Centric view
Approvals & Payouts
Business structure
Complaints & Notes
Statistics
History

Agent number	Surname	First name	
1549450	Molnar	Pista	
Partner type	Identification type	ID	Valid
Natural person	Passport number FP	BD0161627	1/1/1990
Distribution channel	Business position		Currency
INT_GEN	1004000000		KZT
Address and country	Phone No.	Email	
Ulica 999, 12000 Praha, CZECH REPUBLIC	+421905399045	stefan.molnar@asseco-ce.com	
Partner	Commission group		
Molnar Pista	CommGrp		

Agent portfolio

Commission account

Indicators & Notifications

Indicator	No. of policies		Annual GWP		Commissions	Amount		Indicator	Number	Annual GWP
	[01/16]	[2016]	[01/16]	[2016]		[01/16]	[2016]			
New production	0	0	0.00	0.00	Calculated	534.00	1 805.00	Quotes	0	0.00
Cancellations	0	0	0.00	0.00	Payable	0.00	2 339.00	Proposals	32	26 026 174.00
Active portfolio	162	162	908 835 874.00	908 835 874.00	Clawbacks	0.00	- 10 616.00	Expected renewals	12	1 165 502.00
					Paid out	0.00	14 621.00	Expected maturities	19	120 426.43
					Paid back	0.00	0.00			

Tasks opened

Commission sheets

Policy change	P:3040109478	12/18/2014	Period	Amount	Status
Enter new ZK09 proposal	P:2000321832	7/17/2015	10/1/2015 - 10/31/2015	14 621.00	Sent
Enter new MTPL_NGR proposal	P:2000321772	7/17/2015	9/1/2015 - 9/30/2015	2 339.00	Approved

Detail
Back

AGENT: 1549450 - Molnar Pista



- Centric view
 Approvals & Payouts
 Complaints & Notes
 Statistics
 Indicators
 History

Statistics & Indicators

Owner

GENERAL Insurance Company

Output

☒ New production ☐ Policy portfolio

Class of business

All

Date from

1/1/2015

Date to

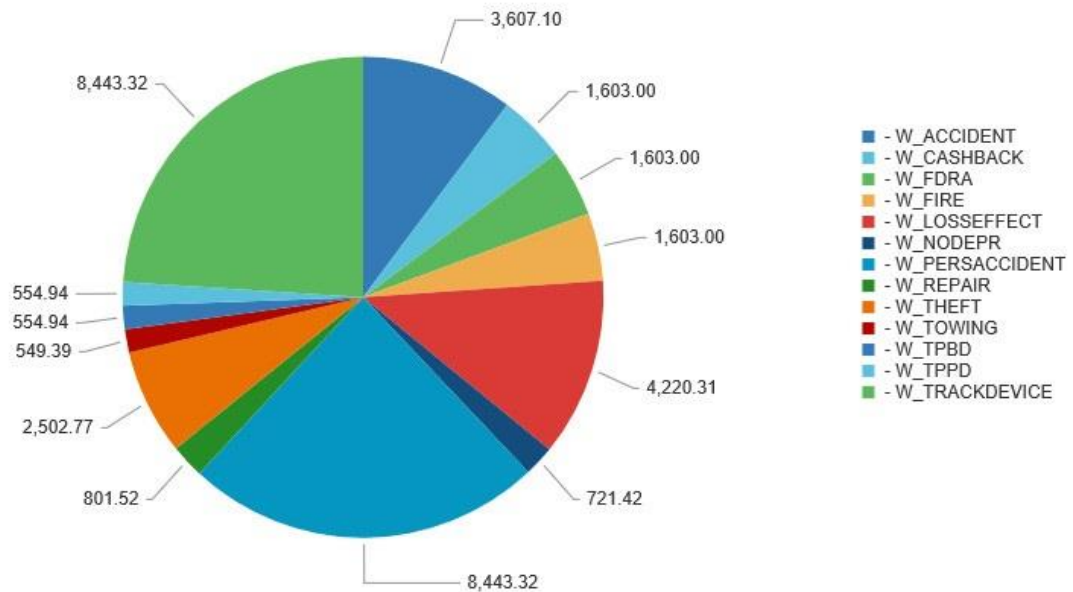
12/31/2015

☐ Show elements

☒ Show chart

Show

Elements of product COMPR



1 / 1 (10)

Rtf

Product/Element code	Product/Element designation	LoB code	Annual GWP	No. of policies
ACCIDENT	Casualty Insurance		210.876805	2
CAR	Car Insurance (MTPL & Motor-hull Insurance)		2525.601183	2
COMPR	Motor Comprehensive Insurance		35208.028113	6
CORPORATE	Corporate Insurance		427270.144283	12
L_FLEET_GEN_IND	Group Insurance of Fleet		288.420274	1
L_Property	Property insurance		14871708.990012	2
OILENERGY	Construction All Risk		37318.608953	2
PROPERTY	House and Household Insurance		2249.352567	6
TPL	Third Party Insurance		554.938956	3
TPL_FIRE_THEFT	Motor Third Party and Comprehensive Insurance		1228.227891	2

Detail

Back

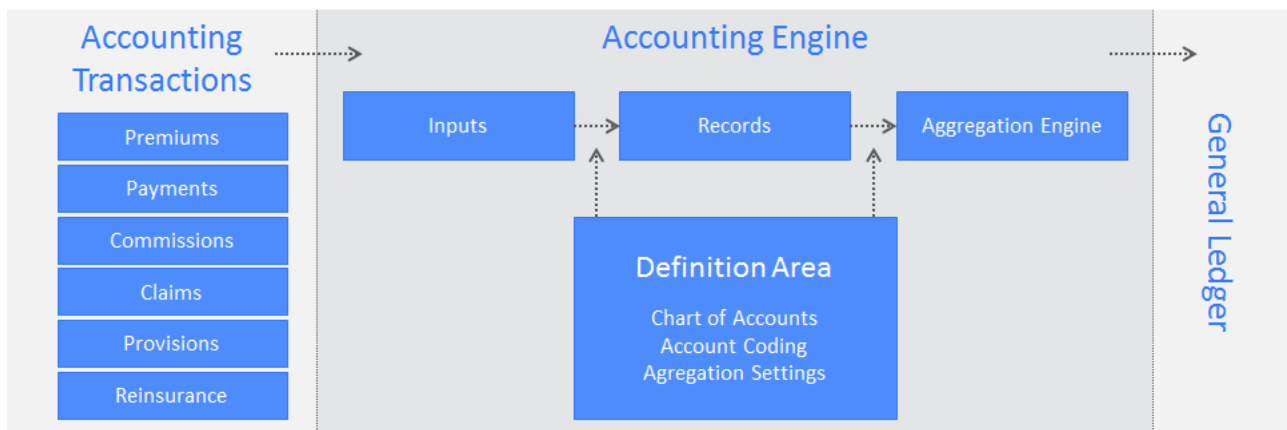
4.9 Module of technical sub-ledger accounting

The aim of the **Module of Accounting** is to link the insurance core system with the general ledger of the accounting/ERP system.

The mission of the module is to interpret the insurance based transactions in accountancy language via chart of accounts and account coding schemes to accounting records and these records after aggregation to pass to general ledger of external accounting systems.

All transactions originating from system operations can be posted to the corresponding chart of accounts through accounting coding rules.

The accounting module provides extensive support of double-entry bookkeeping system of insurance companies.



The module consists of definition and production part.

The module's definition part covers the following functionalities:

- **Accounting operations** - the system enables defining the accounting operation types and their mapping to financial operations originating from other production modules such as the module of payments, commissions, provisions and reinsurance. Once the financial transaction is passed to the module of accounting support, it is transferred to account operation.
- **Accounting batches** – accounting batches are made up by accounting entries grouped by criteria that are configurable in the system. Accounting batches are then exported from the system and passed to general ledger of external accounting/ERP solutions.
- **Accounting units and circles** – the system distinguishes between different organization units that may have different chart of accounts used as well as it enables to post transactions to the same chart of accounts using different accounting circles.
- **Administration of chart of accounts** - authorized user can define and administer a standard chart of accounts broken down into classes, groups, synthetic and analytical accounts. There is no need to administer the entire system of accounts, but only the part related to insurance based accounting transactions.
- **Administration of account coding of accounting operations** – the account coding rules determine the debit and credit accounts of a particular financial (accounting) operation. It says what transactions upon what conditions on what analytical accounts will be posted. **The conditions upon which financial transaction are posted to the appropriate debit and credit accounts are determined by the formula editor.** For each accounting operation several coding rules, i.e. formulas can be defined.

The formula editor gives an extensive flexibility to the accounting system by determination of:

- └ the conditions upon which accounting transactions are posted to the appropriate debit and credit accounts
- └ the amount that is posted
- └ the debit and credit account of the analytical chart of accounts
- └ the date that is used as accountancy date
- └ the accounting circles used for the particular accounting transactions
- └ etc.

The module's production part covers the following functionalities:

- **Collection of accounting inputs from other modules** – the collection of accounting inputs from other modules is performed by processes that are triggered either as scheduled jobs or manually.
The transactions that are subject of further processing in the module of accounting support are generated by the following modules:
 - module of payments
 - module of commissions
 - module of provisions
 - module of reinsurance.
- **The origin of book entries** – after the collection process gathered all relevant financial transactions that are supposed to be posted, the accounting process applies the accounting coding rules determined by formulas to each transaction. As a result of this process, the system assigns to the transaction
 - the debit and credit accounts,
 - the accounting date and the amount,
 - and the relevant organizational unit and accounting circle.

In case the collected transaction does not meet the requirements of any of rules defined by the account coding formulas, it remains as not posted.

- **Administration of accounting transactions and entries** - the system provides overviews of all accounting transactions and accounting entries along with filter option. **The system enables tracking the origin of the transaction and the entry in relation to the primary evidence, i.e. source from which the transaction originates (traceability of accounting entries to primary sources).**
- **Unrecorded accounting transactions** - in case the collected transaction does not meet the requirements of any of rules defined by the account coding formulas, it remains as not posted.

For the unrecorded accounting transactions the system offers the following options:

- Overview of all unrecorded accounting transactions in one place along with filter options
- Rerun of the accounting process after making corrections in the account coding rule
- Manual posting of unrecorded accounting transactions by manual designating the debit and credit account
- **Generation, export and processing of accounting batches** – book entries are via batch processing grouped into aggregates and exported outside of the system. The module of accounting support enables to define the **aggregation criteria** based on the system performs the group operation. Regardless of the selected aggregation criteria the

system by default groups the book entries according to the credit and debit account and accounting circles. The criteria that can be set by the system user are:

- the accounting date,
- the organizational unit,
- the accounting classification.

The accounting batches are exported automatically to the output files in an agreed format.

Note: in majority of cases clients use SAP as main accounting system. StarINS has integrated interface for seamless communication with SAP.

In case the export should fail due to some reason, the system enables to:

- repeat the action by re-exporting the file again,
- to cancel the batch file in order to initiate the aggregation again,
- to cancel the batch including the entire set of book entries.

4.10 Module of Investments (unit-linked products)

The Module of Investments is one of the add-on modules to the core modules. The module is aimed to administer and maintain unit -linked insurance contracts.

The module of investments uses as entry information the following ones:

- concluded unit – linked (hereinafter “UL”) contracts provided by the module of contracts,
- transactions on the technical account of the unit – linked contracts provided by the module of payments, in particular identified and allocated payments against written premiums of UL contracts
- policy endorsements arising during the life-cycle of the contracts that have effects on the investment part of the insurance coverage.

According to the information received from the modules above, the module of investment applies its investment rules and definitions that are kept in this module. The module likewise to other modules is highly configurable; its configuration part extends to definition of funds, investment strategies, investment operations, deduction, etc.

The module’s functionality covers the following functionalities:

- **Definitions of unit-linked products provided by the module of contracts**
 - possibility to define and to modify multiple investment funds along with their attributes (code, name, fund management company, bank account, rounding methods applied to units, fund currency, etc.),
 - possibility to define and modify unit-linked products including composite products consisting of the basic cover represented by the unit-linked insurance, and additional riders,
 - possibility to define formulas to calculate the investment and non-investment part of the premium,
 - assignment of funds to the UL cover including determination the limits of the allocation ratios applied to particular funds.
- **Administration of unit types and the prices provided by the module of investments**
 - possibility to define more than one type of units (initial, regular, loyalty, etc.) per fund,
 - possibility to define rules for premium investments – in relation to the product, operation type, and unit type,
 - possibility to enter the unit prices manually or by in-built import mechanism – per each fund and unit type,
 - possibility to manage constant or variable bid/offer spread.
- **Unit - linked contracts administered by the module of contract**
 - conversion of insurance proposal to valid UL contract – during this stage the system performs validation of the proposal according to product definition including definition of the available funds, the allocation ratio, etc.
 - contracts endorsement - changes on contracts including SWITCH and SHIFT operations

- automated generation of the investment account for tracking investment operations and monitoring the actual value of the investment. Each UL contract has its main investment account consisting of subordinate accounts, each one linked to a particular fund for tracking and monitoring transactions related to the particular fund
 - generation of life provisions of both insurance and investment part of the contracts.
- **Automatic investment of regular premium**
 - automatic identification and allocation of the premium payment against written premium
 - automatic break-up of the premium into investment and non-investment part by using the calculation formula for determination of the risk premium (main cover and riders), and quantification of the purchase request for each fund separately
 - automatic calculation and application of entry fees according to the rules defined by the module of investments
 - automatic conversion of the purchase request to units ensured by the clearing batch
- **Manual investment operations at client investment account**
 - extensive support for manual operations – extraordinary premium payments, partial surrenders, change of the allocation ratio (SHIFT), transfer of the units from one fund to another fund (SWITCH)
 - possibility to define rules for manual operations – minimum and maximum value of one single investment operation, the minimum value investment value of the investment account before and after the investment operation, time period limits, formula for calculation of the operation fees and costs
 - manual conversion of the purchase request to units.
- **Management of rules for automated deduction operations**
 - support for the different types of deduction: administration fee, fund management fee, deduction of risk premium and initial costs deduction of the whereas risk premium can be deducted either before or after investment (purchase of unit)
 - automatic batch processes that perform the deduction of fees
 - possibility to provide deduction operations against the internal company's account.
- **Clearing and settlement of units purchased**
 - automated generation of the clearing batches with the funds – according to date of clearing and settlement of a particular fund
 - manual closing, confirmation, and sending of the clearing to the fund management company (including the generation of pay-out orders)
 - management of the feed-back information from the fund management, including the automated allocation of purchased units to the customers' unit-linked account along with all kind of operation and entry fees.

▪ Reports

- automatic generation of regular and extraordinary investment account statements
- statistics – overview of operations for a selected period of time, overview of the current value of units, overview of unit price development over a selected period of time, pending purchase requests, etc.

4.11 Module of Reinsurance

The objective of **the Module of Reinsurance** is to provide environment for configuration reinsurance treaties (hereinafter "REI treaties"), administration of the REI treaties, cession of risks, indemnities and provisions as well as processing of reinsurance calculations and performing month-end closings.

The module is designed to ensure that reinsurance clauses can be applied at the level of insurance elements (insurance covers).

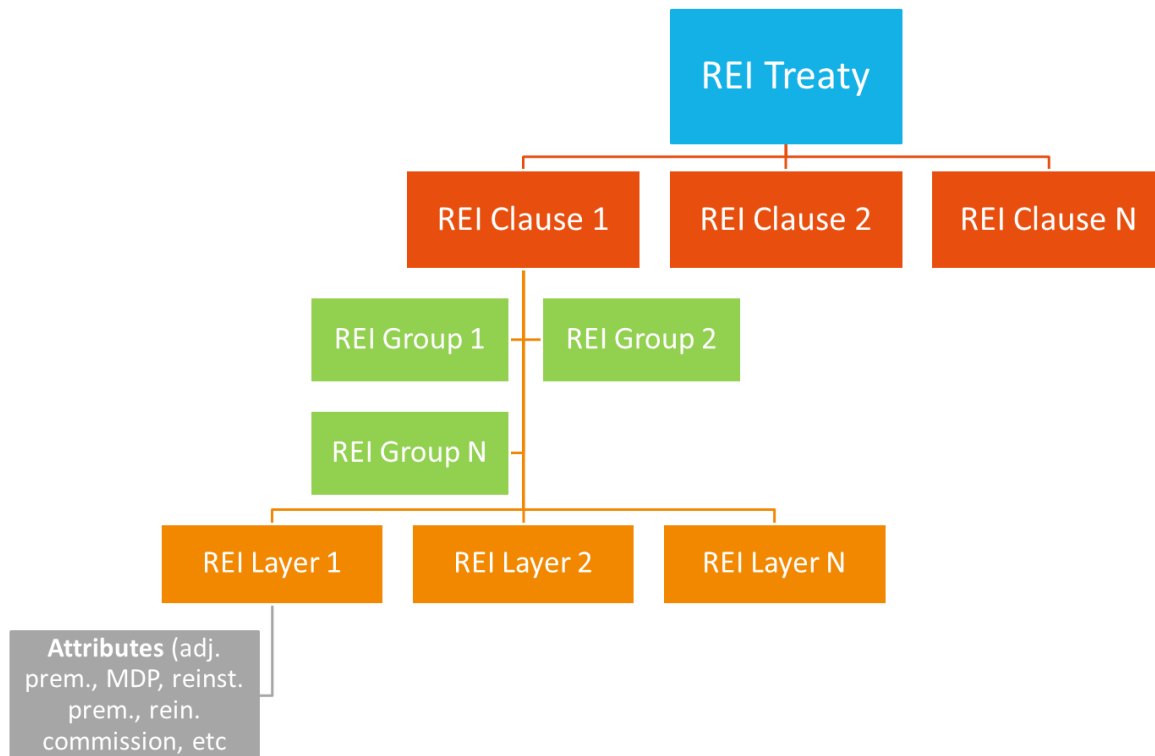
It represents one of the four add-on modules to the insurance core modules, i.e., for its proper operation it uses processes and outcomes generated by other production modules.

Likewise other modules, the reinsurance module also has its definition and production part.

The module's main features are as follows:

- one treaty can have one main reinsurer and a number of secondary reinsurers (in case of multiple reinsurers, one of them must be the major reinsurer),
- if a REI treaty is shared by more than one reinsurer, a percentage share for each reinsurer has to be defined,
- one REI treaty can apply to one or more covers of one or more products (REI treaties usually provide protection against particular risks of several insurance products),
- a set of insurance covers/ products covered under the same REI conditions is grouped up into so called reinsurance groups,
- one REI treaty may have one or more reinsurance groups assigned,
- one reinsurance group may be subject to one or more reinsurance clauses,
- when more than one REI clause is defined per REI group, there is a restriction that the retention of the next clause should be equal to the limit of the previous REI clause,
- insurance cover / product may be reinsured by more than one REI treaty.

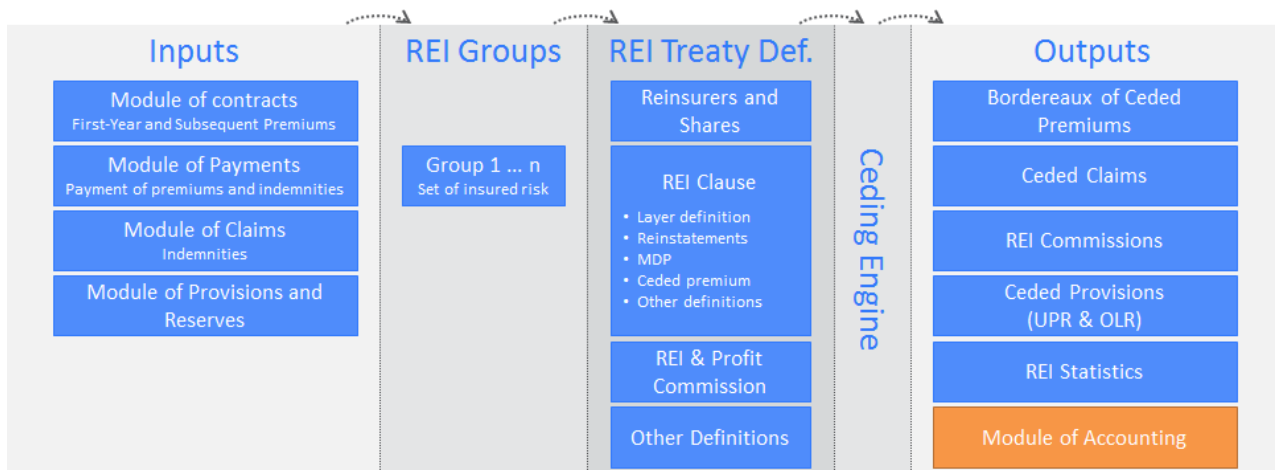
Reinsurance treaties represent a building-block structure of its elements called reinsurance clauses (schemas) as shown on the figure:



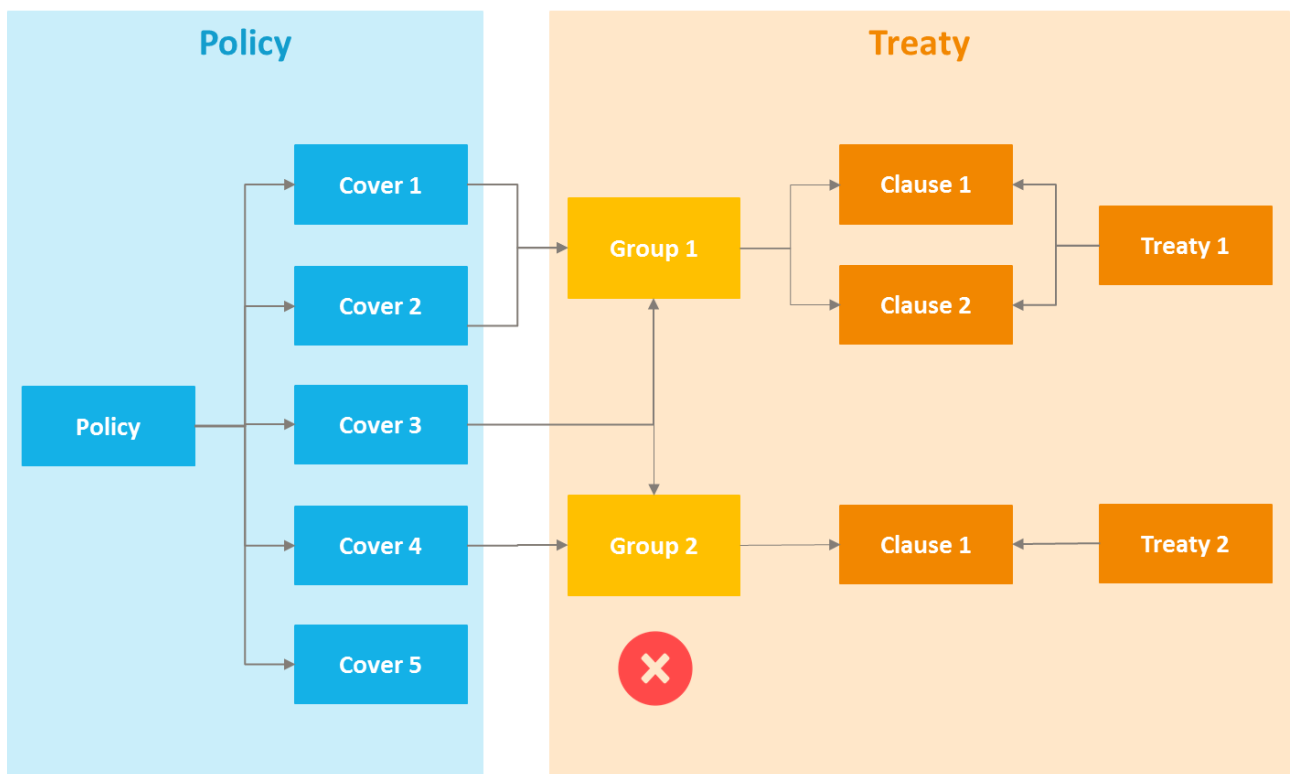
Collaboration of the REI module with the other StarINS modules:

- **Module of Contracts** – the underwriting and endorsement processing is linked to the reinsurance. During these stages, the underwriting and endorsement process checks whether the available REI treaties can cover the underwritten policy proposal/contract change. It is a process of automated identification of appropriate REI treaty/clauses and runs in the background. When the reinsurance conditions are not met, a warning or stop message is displayed to the operator. A warning process warns the operator if
 - the contract remains unprotected,
 - the sum insured exceeds the limits provided by obligatory REI treaty.
- **Module of Payments** – transactions on contract's technical accounts are in direct interaction with the ceding processes. This interaction is transparent to the extent that the user is not required to take any action. Ceding of transactions such as premiums, commissions, indemnity payments are performed fully automatically by processes running in the background.
- **Module of Claims** – ceding of indemnity payments are carried out automatically by the system. Similarly to ceding of premiums and reinsurance commission calculations, this process does not require the operator to take any actions. One indemnity payment may apply to one or more REI clauses or even REI treaties. For example when the retention of proportional treaty is further reinsured by an XOL treaty.
- **Module of Provisions** – the REI module performs ceding of the UPR and OLR reserves according to the definition of the corresponding REI treaties.
- **Module of Technical Sub-ledger accounting** – transactions such as premium ceded, adjusted premiums, MDPs, REI commissions and indemnities ceded are collected by the module of accounting support in order to be converted to accounting transactions and posted to the appropriate credit/debit account of chart of accounts administered by the module of accounting.

Collaboration of the reinsurance module with other modules as shown by the figure:



Reinsurance groups as connecting elements between insured elements and reinsurance elements:



Functionalities provided by the module of reinsurance:

- Automated identification of insurance contracts that are subject to reinsurance**
 - the system performs controls over the insurance contracts in the process of underwriting and checks for REI treaty that covers the risks concluded by the contract. The system warns the operator when the level of risk of the contact exceeds the limits

specified in the reinsurance contracts, or in case the insurance contract does not meet the conditions for being reinsured. In this case, the system offers facultative reinsurance.

- **Obligatory and facultative reinsurance** - StarINS supports both types of REI protection. The proportional treaties provide the following standard proportional clauses:
 - Quota share,
 - Surplus,
 - Combined Quota share & Surplus

and non-proportional treaties

- Per Risk XL (Working XL or WXL)
- Per Occurrence or Per Event XL (Catastrophe or Cat XL).

The system provides fully automated ceding process. This process includes automated identification and allocation of contracts to an REI clause(s), premium ceding, claim ceding, OLR and UPR reserve ceding.

StarINS supports both types of facultative arrangements:

- **Cascade** (an extension to the obligatory reinsurance) - the cover is subject to the standard obligatory treaty up to the limit of the particular REI clause and only the amount exceeding its limit is covered by the facultative treaty.
 - **Parallel** - if a contract is covered by a parallel facultative treaty, then the entire cover is under this treaty and no part of it is reinsured under the appropriate obligatory treaty.
- **Proportional and non-proportional reinsurance** - within proportional reinsurance StarINS supports
 - Quota share,
 - Surplus,
 - Combined Quota share & Surplus.

StarINS provides full automation of the REI processes of proportional treaties.

Among non-proportional reinsurance StarINS supports the most common REI types:

- RiskXL (risk excess of loss),
- CatXL (event excess of loss).

StarINS supports all the functionalities associated with the above types of reinsurance: retention, reinsurance layers, limits and capacity of the REI treaty, minimum deposit premium (MDP), and administration of reinstatement clauses as well as determination of reinstatement premiums.

- **Reinsurance commissions** - the system supports automatic calculation of REI commissions
 - fixed commission as a percentage of the volume of ceded premiums (standard REI commission),
 - sliding scale commission - the commission is not fixed but may vary depending on the treaty performance (most often the loss ratio or number of policies is to be considered). In the course of the year the commission is calculated similarly to the fixed commission using a provisional commission rate. At the year close the system calculates the treaty performance and based on it finds the final commission rate.
- **Profit commission calculation** – based on REI account balance consisting of incoming (credit) and outgoing cash flow (debit) of reinsurance account, the system calculates the

profit commission as a percentage of positive difference between incoming and outgoing flows with regard to the eventual costs of the reinsurer (reinsurer's expenses). The profit commission likewise reinsurer's expenses are determined as parameters directly linked to the corresponding treaty.

- **Technical reserves** – the UPR and OLR related technical provisions are via batch processes ceded into the corresponding reinsurance schemes in line with terms of reinsurance treaties where the reinsurer apportionment ratios are applied.
- **Reinsurance reporting** – the module supports the 4 standard REI reports such as policy bordereau, premium bordereau, claims bordereau and the reinsurer statement of accounts (incoming and outgoing flows). In addition to these, the reporting module contains more than 10 additional reports including risk profile, report related to facultative arrangements, outstanding claim bordereau, etc. The module also supports generation of standard print-outs such as offer slips, credit & debit notes.

4.12 Module of Provisions

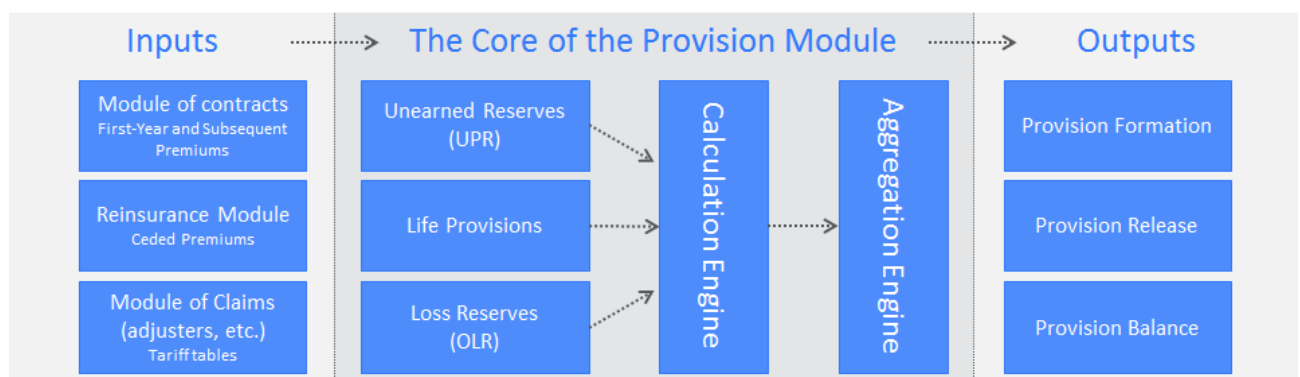
The Module of Provisions represents one of the four add-on modules to the insurance core modules. Reserves arise throughout the whole system. The mission of this module is to collect them from other modules to one place, to perform month-end processing on them and to pass the result to the module of accounting support for further processing.

The functionality of the module is focused

- on collection of source information to perform calculation of provisions (unearned premium reserve),
 - on collection of already calculated provisions (life provisions, loss reserves),
 - processing of provisions to quantify the provision balance as of the end of each month by determination of the balance of reserve brought forward and reserves carried forward. The balance is [Carried forward reserve] – [Brought forward reserve]
 - Formation of reserve – when the balance is positive
 - Release of reserve – when the balance is negative.
- These transactions are generated for each provision type and each contract - element.

Note: "Carried forward reserve" stands for reserve balance as of the end of the month (EoM) where as "brought forward reserve" stands for reserve balance as of the beginning of the month (BoM).

- export of transactions to the module of accounting support.



The system provides support for processing of the following types provisions and reserves:

- Unearned premium reserve (UPR), calculated by pro rata method,
- Mathematical provisions of life insurance (gross, net, Zillmer, administrative costs, etc.),
- Reserve for reported but not settled claims (RBNS)
- Reserve for incurred but not reported claims (IBNR)
- Reserve for allowances.

The module provides the following functionalities:

- **Configuration capabilities of the module of provisions** - the configuration procedure consists of determination of conditions upon which provisions will be processed, the permitted operation on provisions, the rules for formation and release of provisions, determination of the level of aggregation of partial provisions into aggregates (see note below), definition of the method of provision determination (calculated or expert estimation)

and finally determination of the product and element for which a particular provision is relevant.

Note: reserves are calculated by default for each contract and insurance cover.

- **Data collection from other modules** – provisions and reserves arise throughout the entire system.
The module of contracts generates the life provisions (gross, net, zillmer, administration costs, etc.), the module of claims provides the loss reserves (RBNS and IBNR); the source for the unearned premium reserve (UPR) is the module of payments.
Ceded UPR's and OLR's are generated by the module of reinsurance.
- **Drill-down capabilities of the module** - the system enables break-down the provision aggregates into primary sources thus ensuring the traceability of the provisions.
- **Manual input of expert estimates** for those types of provisions that are to be determined by expert estimations.
- **Collaboration of the provision module with the module of accounting support** – the module of provisions represents one of the significant sources for the module of accounting support. The amount of provision formation as well as release is sent to the module of accounting for further processing.

Calculation mechanisms integrated in the module:

- Pro rata method for determination of earned and unearned premium to calculate the UPR reserve
- Chain-ladder method for calculation of the IBNR reserve
- Comparison of the balance of reserve brought forward and reserves carried forward
- Aggregation of the reserve movements on the formation and release side of the reserve to determine the reserve balance (RBNS - reported but not settled).

4.13 Workflow (WFL) Module

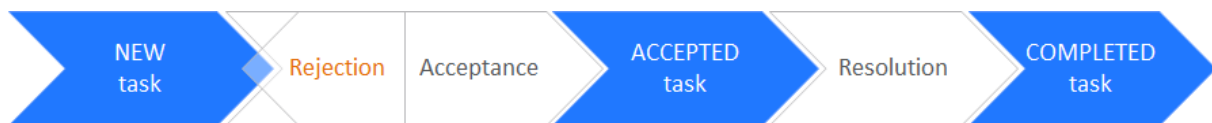
The mission of the Workflow module (hereinafter referred to as WFL module) is

- the management of ongoing business processes within the information system,
- application of business activities and control mechanisms within the company,
- the implementation of company policies and their compliance by the information system.

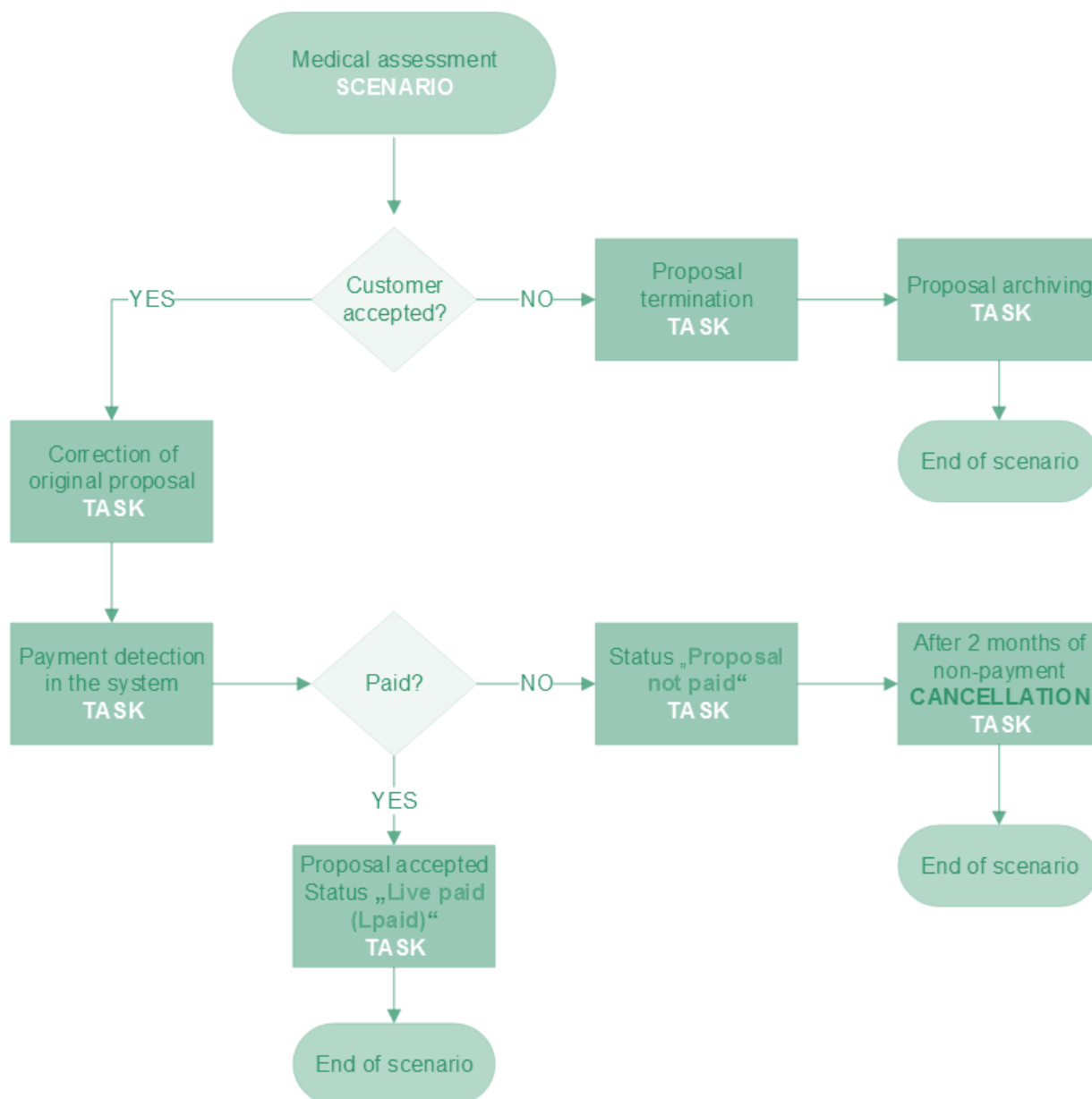
Upon rules defined by each workflow (hereinafter „WFL“) scenario, the system automatically generates tasks, assigns them and based on priorities it creates agenda for resolution to the appropriate system users. The scenarios are made up by a sequence of predefined tasks (see further in this document).

The accomplishment of tasks is monitored by designated supervisor. Users responsible for task resolution and task supervision are navigated by the WFL engine. The communication between WFL engine and users involved in the accomplishment of the scenario is based on email or text message notifications.

The simple illustration below shows a task within a WFL scenario and the possible actions a system user is able to do.



WFL model example to demonstrate the potentials of the WFL module



4.13.1 What are WFL scenarios and how does it work

A WFL scenario represents a flow of logically interrelated tasks and subtasks. Each WFL scenario has its entry point generated by the system automatically based on the definition of so called WFL input.

For example, the process of loading insurance proposals from an external source can be controlled by a WFL scenario, that is, the successful completion of import process may trigger a WFL scenario to verify the imported proposals.

As the result of the WFL scenario will be the conversion of insurance proposals to contracts with state "Live paid" if the proposal meets the requirements to be converted to valid contract.

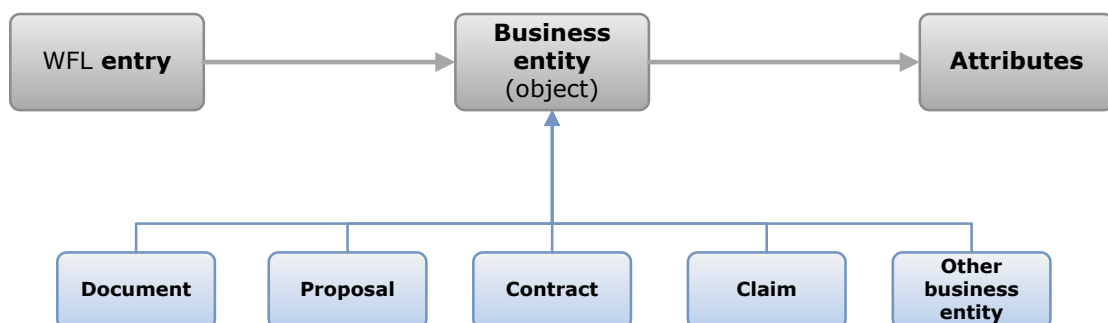
The definition of the WFL scenario consists of the following parts:

- **Definition of basic attributes scenarios** - the basic attributes of a scenario are the unique code of the scenario, a description of the scenario and the total duration of the WFL scenario, which is calculated from the first task generated up to the completion of the last job scenario.
- **Definition of the WFL entry** - WFL entry represents the starting point of each WFL scenario. The WFL entry always refers to a business entity of the system such as proposal, contract, treaty, claim, document, correspondence generated by the system, etc.

Each WFL scenario is triggered by a WFL entry that the system creates automatically based on the definition WFL input. For better understanding what WFL entries stand for, here are some examples

- ✧ WFL entry → Insurance proposal → State of the proposal. If the state of the proposal is "registered", the WFL engine triggers the process of the underwriting process.
- ✧ WFL entry → Generated or received document → Correspondence type.
- ✧ WFL entry → Claim notification → State of the claim notification. If the state of the notification becomes "registered", the WFL engine triggers the process of claim handling and settlement.
- ✧ WFL entry → Insurance proposal → State of the proposal. If the state of the proposal is "not covered", the WFL engine triggers the process of reinsuring the proposal via facultative arrangement and generates the first task in the chain of tasks to the appropriate user (risk manager).

The figure below represents the relation between the WFL entry and a business object (entity)



- **Definition of WFL task** – it represents a specific operation conducted by a dedicated person who is responsible for accomplishment of the task. Each WFL task has its name and description.
For example, the scenario of "Processing of insurance proposals" may contain task that bears the name "Acceptance of the proposal."

Tasks are defined by set of user-defined rules. By means of user-defined rules, the WFL administrator responsible for configuration of the WFL scenario determines

- the manner how tasks are assigned to the responsible users and supervisors
- the conditions that must be met in order the corresponding task is to be arisen by the WFL engine.

- **Each task may consist of sub-tasks.** Sub-tasks are created manually upon decision of the user responsible for accomplishment of a particular task in case of further assistance he needs in solving the task.
- **Resolution of a task generates a specific outcome.** The outcome determines the further steps to be done in the chain of tasks of a particular WFL scenario.

For example, there is task called "Checking and recording proposal into the system" within the scenario "Processing of proposals". The outcome of the task may result into following options:

- The proposal contains errors and cannot be accepted. This result automatically generates a subsequent task to make interventions in the proposal and is assigned to the appropriate user(s) defined by the WFL scenario.
 - The proposal already exists in the system. This result does not generate any follow-up task, i.e. the WFL scenario ends.
 - The proposal is correct. The next task that is generated automatically is about conversion of proposal to valid insurance contract along with termination of the WFL scenario.
- **Notifications** – definition of notifications determines what kind of notification (email or text message) to which users will be sent. Notifications are sent automatically by the WFL engine. Within definition it can be determined which event to notify. The recipients of the notifications may be user responsible for resolution of the task, the supervisor but also the taskmaster.
 - **Functionalities associated with WFL definitions**
 - WFL task definition alteration or cancellation
 - Enable / disable task definition
 - **Functionalities associated with WFL tasks**
 - Display of list of active (ongoing) tasks
 - Display of list of all tasks (ongoing, completed, cancelled)
 - Display of list of tasks from business object perspective - tasks can be searched and filtered from perspective of a given object related to particular tasks.
For example, from "Contract" as object perspective the user is able to search for all tasks involved by WFL scenarios that are connected to the object "Contract".
 - View of documents attached to WFL tasks
 - Full audit trail of changes of definition of WFL scenarios
 - View of comments, remarks and solution description of tasks completed
 - **Actions associated with accomplishment of a task**
 - Task acceptance
 - Overtaking role in solving a task – overtaking role means taking the responsibility for resolution of an unassigned task.
 - Overtaking control over a task - overtaking control means taking the responsibility for supervision of a task with no supervisor.

- Task rejection – task rejection is an action when the assigned user defies taking the responsibility for a task due to some reason. The system enables to put the reason of task rejection.
- Change of responsible person
- Change of supervisor
- Adding notes (comments) to tasks
- Manual generation sub-tasks to tasks
- Change of deadlines
- Assignment of documents and files (XLS, PDF, TXT, etc.) to tasks and sub-tasks
- Task resolution

4.13.2 WFL processes

The WFL module is based on two batch processes:

- **Processing of WFL inputs** - this process is responsible for generating new WFL scenarios (each WFL scenario is triggered by a WFL entry that the system creates automatically based on the definition WFL input)
- **The notification processing (email, text message)** - The process is responsible for notification of the responsible person, supervisor and taskmaster on
 - allocation of new tasks / subtasks
 - task the acceptance / rejection
 - deadlines
 - changes of tasks or their attributes
 - task resolution / cancellation
 - adding comments to tasks and sub-tasks
 - assigning attachments (doc, xls, pdf, etc.) to tasks and sub-tasks

4.13.3 Overviews and management reports

- **Management of reports** –Users with appropriate privileges are allowed to monitor running WFL processes, the task and scenario statuses (waiting, in progress, competed, rejected, cancelled, accepted, etc.) and deadlines. This information can serve managers to evaluate the efficiency of a task, shortcomings in the process of task redistribution, etc. and also provide valuable information for optimizing business processes.
- **Reports and statistics** - WFL module contains predefined views on tasks and scenarios with emphasis on pursuing the deadlines and performance.