

Background

High-speed insurance product roll-out has become a strategic requirement for most organizations. This is an increasing challenge due to the increasing complexity of insurance products, calculations, and multiple systems on which changes need to be implemented. Most regulators are today making it mandatory to include the actual illustration shown to the customer along with the policy document. As a result, product launches necessarily require finalization of the illustration calculations. This development is iterative, time-consuming, and expensive and often leads to delays for product launches.

The Way Forward

IBEXI has developed a Web-based Illustration solution which relies on a calculation engine tailored for insurance calculations at its center. The solution is thus highly customizable, allowing companies to define their formulas and rates, input and output variables with no programming. Also, this calculation engine can form the single source of all calculations for all systems like the core policy administration, offline/online illustration and quotation, company and agent portals

Ibexi understands that the illustration application will be distributed to a large number of members of the sales force. Ibexi thus provides a robust mechanism to automatically manage versions of off-line installations and ensured a small download size by requiring only the calculations of modified products to be downloaded.

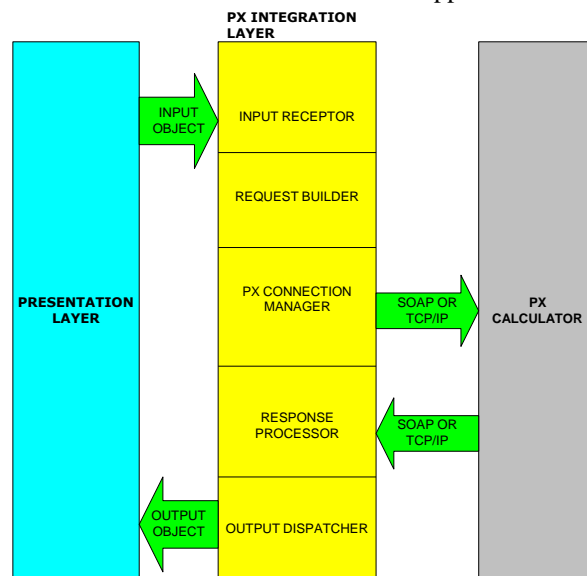
Key benefits are:

- **Central Repository of All Calculations:** All calculations can be created and managed in the calculation engine.
- **Cost Saving:** No need for traditional programming techniques, the time (and effort) required to implement product calculations in IT systems is greatly reduced.
- **Governance & Compliance:** Illustrations outputs adhere to the regulatory requirements.
- **Faster Time to Market:** Its centralized calculation engine integrates with multiple systems and ensures accuracy. Also, its model driven approach provides the ability to rapidly define new product characteristics.
- **Security:** Canvass encrypts the calculation package as well as controls the access to the application through time-sensitive application key, preventing unauthorized access.
- **Version Management:** Canvass tracks all historical versions of a product, calculations, test cases and documentation to reduce business risk.

Solution Details

The solution has the following key functionalities:

- Web Enabled Front-End
- Calculations with multiple configurable interest rates – High, Low
- Supports all components including premiums, death benefits, charges, cash values, annuity values
- Support Traditional and Unit Link calculations
- Supports multiple riders
- Supports multiple top-ups, withdrawals
- Output in HTML or PDF formats



The solution uses:

- JSP based presentation layer
- A SOAP-based PX Integration Layer
- ProductXpress (PX) for calculations.

The Illustration solution has a presentation layer based on HTML/JSP. The presentation layer allows the user to enter product details like payment term, funds. It also allows the user to enter client details like age of insured etc.

The Integration layer acts as a bridge between the presentation layer and the PX calculator enabling communication between the two layers either through TCP/IP or SOAP messages using an XML interface.

The PX calculation request is serviced by PX. This has a model-driven product design suite that provides the ability to rapidly define new product characteristics. It uses pure mathematics rather than coding which removes the limitation on the types of products that can be supported. Using the PX Designer, product calculations and validations have been configured. The design tool has embedded change control, functional and regression testing, role-based security and automatic documentation. Completed products are deployed via an XML document to the calculator.

Multiple product calculation rules, validation rules and related rate tables have been configured for a set of products: Unit Linked Products , Unit Linked Pension Plans with optional Term Cover, Term Plan with Return of Premium, and Riders: ADB, Payor. These are all fully configurable, allowing business analysts, or actuaries to change the formulae as required:

Calculations:	Validation rules :
<ul style="list-style-type: none"> • Attained Age • Policy Term • Modal Premium • Annualized Premium • Premium Allocation Charge • Mortality Cost of Insurance • Fund Management Charges • Sum at Risk – Base cover & riders • Death Benefit & Surrender • Taxes • Fund Values • Annual Returns • Cash Flow 	<ul style="list-style-type: none"> • Entry Age • Coverage Term • Payment Term • Top Up Limits • Sum Assured • Premiums • Partial Withdrawals
	Rate tables:
	<ul style="list-style-type: none"> • Mortality Charge • Premium Allocation Charge • Fund Management Charge

The same technical approach can be used to create other similar rule-based or formula-based applications with minimal development.

Case study: A multinational financial giant builds a product portal using PX

A Fortune 100 group wanted to implement a portal for illustration and application entry at one of their companies. They did not want to have any business logic in the front-end presentation layer. All the product rules – entry validations and calculations – were configured on PX. The front-end portal was integrated with the Java-based PX

Integration layer. Development for the integration was completed in a few weeks.

About IBEXI

IBEXI Solutions specializes in providing business and technology solutions across the insurance value chain, for the entire community- insurers, reinsurers, banks, agents, brokers, distributors and service providers – in all areas of insurance. IBEXI brings to the insurance industry a unique combination of business knowledge, technology and process skills, and insurance-specific products.

Other IBEXI offerings for insurance industry:

