



Achieving Product Agility: Configurability is Key

Table of Contents

Overview	3
Context	4
The Configurability Strategy	4
Product Development Process: Opportunities For Improvement	5
Product Development Solutions: The Product Configurator	6
Navigating The Agility Scale	9
Getting Started	10
Benefits of Configurability	11
Conclusion	12

Overview

In our experience, we have seen evidence that insurers who demonstrate Product Agility are realizing dramatic improvements in product development and in doing so, are increasing their revenues, decreasing operational costs and reducing overall risk.

What is Product Agility?

The ability to react quickly and in a flexible manner to consumer needs and market demands with relevant, profitable products.

For insurers dealing with multiple product lines, multiple distribution channels and increasingly complex product offerings, the critical factor in creating Product Agility is a well-conceived configurability strategy. In the case of global insurers, the need to decrease operational costs is driving them to seek out opportunities to leverage product design across multiple business units, regions or countries. Development of these types of products is beginning to take a product factory approach wherein a common product chassis is developed and deployed globally with relevant local variations.

Configurability Strategy

A robust configurability strategy is essential for an effective and repeatable product development process that avoids the costly and resource-intensive exercise of reinventing the wheel for each new product. Configurability allows organizations to:

- Efficiently release sophisticated new and

enhanced products,

- Effectively and easily manage concurrent product development initiatives
- Have the capacity to make hundreds of product changes within a short period of time,
- Support mass customization; and,
- More quickly enter new markets and acquire new distributors -- ultimately gaining more market share.

The Product Agility Model

Along with our clients and associates, we closely examined the drivers of and barriers to Product Agility and have developed a four-level Product Agility Model¹ which maps where companies currently reside on their way to becoming a fully agile enterprise; that is, an enterprise which is able to deliver and customize products to meet the growing demands of the market and distribution channels.

In this paper, we have drawn from our experience in helping insurers achieve product development transformations and we demonstrate the value of a configurability strategy as a pragmatic approach to achieving agility. The configurability strategy is anchored to the optimization and automation of the product development process through the implementation of a web-enabled product configuration solution. Our discussion includes:

- Opportunities for improvement in the product development process;
- Capabilities of configuration software solutions;
- Core elements required in each level of the agility model to continue the drive towards the agile enterprise; and,
- The evolution of configurable products.

We conclude with an overview of the general steps involved in getting started with your configurability strategy.

1. Achieving Product Agility in the Insurance Market, Diamond Management and Technology Consultants; Camilion Solutions, 2007

Context

Increased competition, tight profit margins, shifting distribution channels, regulatory pressures, precision pricing, availability of new technologies and changing demographics are challenging insurers to improve their product development process. As product development becomes more complex, timelines continue to shrink and

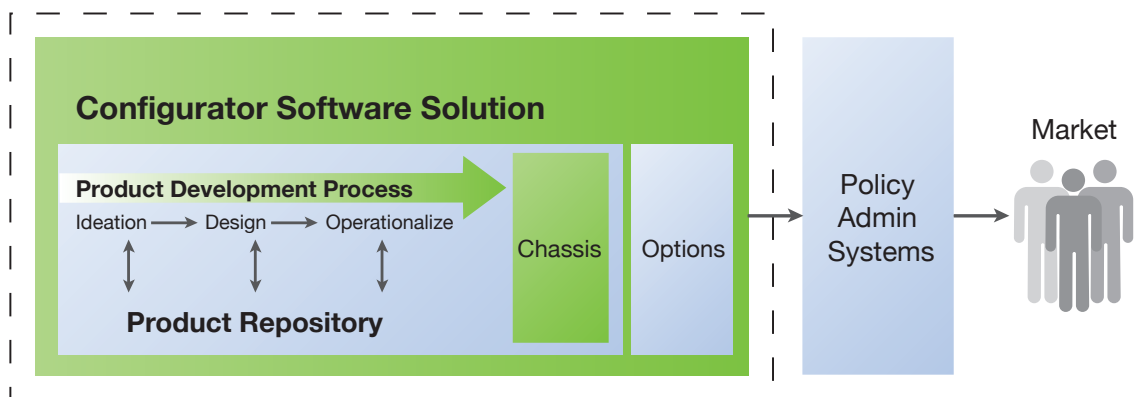
distributor and channel demands become more pressing. Insurers can no longer rely on their patchwork of legacy systems -- often hard-coded for each line of business and highly dependent on IT for changes -- to keep pace with today's product development demands.

The Configurability Strategy

Insurers looking to meet these new market demands and gain or maintain their competitive position must look to adopting an effective strategy that optimizes product and process configurability at all levels through an automated product development solution built around a pure insurance product configurator. The product configurator gives insurers the capability to effectively address

the current inefficiencies encountered in the product development process by providing tools and repeatable methods across the enterprise to efficiently develop and release innovative products and the capability to change and maintain existing products for multiple channels based on common, reusable, modular elements.

The following illustrates the key elements in a configurability strategy:



Product Development Process: Opportunities for Improvement

Product development and lifecycle management is a complex, time-consuming process, spanning multiple functional areas throughout an insurance organization. Often, the processes and activities involved across the enterprise are highly redundant and disconnected from each other. Given this scenario, effective communication and collaboration is impossible. With the added complication of functional silos and inflexible and aging legacy systems that rely heavily on IT, an insurer's ability to meet growing demands to accelerate product delivery, increase product capacity and develop multiple and diverse products concurrently is significantly hampered.

Though the product development process may differ from insurer to insurer², most companies find that they tend to move through the following elements as part of their process:

- Concept development
- Product analysis and design
- Product configuration and testing
- Product implementation
- Product performance management

Formalizing these elements and automating the product development process with a robust configuration solution to support the entire product development lifecycle allows all stakeholders in the development process to participate and monitor the product from start to finish.

The first step in the formalization of the process is two-fold: define each activity and the stakeholders involved and then identify the bottlenecks that currently exist. Once the definitions and bottlenecks are identified, an organization can move on to the task of ensuring that business stakeholders and IT are appropriately aligned to facilitate more efficient product development. At this stage, they should

consider implementing a tool to automate the formal process that allows everyone to be working on the same process and version. By defining and automating all reviews, approvals and signoffs

A manageable strategy involves taking a phased or incremental approach while retaining an enterprise vision.

throughout the development process, insurers can significantly decrease the churn between Actuarial, Underwriting, Product Development/Management, Marketing, Operations, Compliance, IT and other process stakeholders and participants.

The automation and support for the entire product development lifecycle spanning multiple departments can be intimidating. A manageable strategy involves taking a phased or incremental approach while retaining an enterprise vision to be able to consolidate all of a company's product analysis and design activities and leverage the products and features that already exist, in a central product repository. For example, if the Life & Annuity insurer already supports a guarantee, being able to leverage it across multiple products and revise it for new products ensures consistency across products and is fundamental to developing a dependable and repeatable product development process. If the Property & Casualty insurer offers coverage in conjunction with a monoline product, being able to leverage it across multiple products or packages and revise it for new products ensures consistency across products and is fundamental to developing a consistent and repeatable product development process.

2. Product Implementation Survey, Society of Actuaries, 2007

Product Development Solutions: The Product Configurator

A successful strategy leverages the power and advanced functionality of a product configurator that is externalized from other systems to provide a common platform for configuring all product specifications. With a configurator, product managers are able to manage their entire portfolio of insurance products including product structures, components and product rules. The configurator supports process automation, product specifications, product dimensions, reusable components, regulatory information, eligibility and underwriting rules, rating and pricing, and industry-standard forms.

A recent TowerGroup study³ identified the four core components essential to integrated product development solutions:

1. Central Product Repository
2. Product Configuration Management (workflow management)
3. Calculation and Rules Engines
4. Template Library

Central Product Repository

The centralized product repository lies at the heart of the product configurator allowing the creation and storage of accurate, complete and reusable product specifications including market eligibility, packaging, underwriting rules and forms management. The repository simplifies product development, improves the quality of products and creates more capacity without the need to add resources. It provides a complete, consistent and organized view of products and their features across the entire enterprise. Through the repository, insurers have the information and tools at hand to easily create customized products for

specific markets, states, industries, and channels.

Product Configuration Management (Workflow)

In the insurance industry, the concept of configuration management within the product development process is relatively new. Configuration management provides a workflow management platform to track all approvals and process flows throughout the product lifecycle. With workflow management, all stakeholders in the product development process, i.e., Actuaries, Underwriters, Product Managers, Product Architects, and Business Analysts, can easily collaborate, share documents, build processes and support systems for new products and monitor the process from concept to completion. This platform provides a product catalog to store and monitor all product parts down to the smallest module; for example, issue age or classification codes. The catalog enables product designers and developers to discern where a component is used and what would be affected with a change, and allows them to quickly complete an analysis of what products are in the repository, their relationships to each other and their reusability.

Calculation, Rating and Rules Engines

The calculation, rating and rules engines support the creation and management of all calculations, formulas and business logic as part of the overall product rule set. These core engines allow users to develop complex rules and test them without the need to review any of the code contained in their legacy systems. Rules created in the system by trained business analysts or technical users can

3. "Genesis to synthesis: Product Configuration Vendors in Life and Annuity Product Development." Rachel Alt-Simmons, The TowerGroup 2007

also be integrated with other systems, such as policy administration, or can be inherited by other products as a basis for creating product variations or versions. Insurance-specific product development solutions have the added benefit of providing pre-built insurance product models attached to a product structure and hierarchy that ensures that any changes or variations to the rules cannot violate the product structure.

Template Library

The template library houses product templates complete with pre-populated product definitions and calculations (Life & Annuity only). These templates can provide a starting point to create and revise products as well as to create unique

The Importance of the Product Chassis

At the core of the configurability strategy and integral to both the product configurator and the evolving factory approach to product design is the product chassis. The product chassis, built inside the product development solution, allows insurers to define all common aspects of a product and to use that framework to easily configure new and refreshed offerings geared for the specific needs and capabilities of a wide range of distribution channels. The flexibility of the chassis is essential to ensure that existing options can be rapidly modified or new options created without the need to build an entirely different chassis. For example, investment options developed for annuity products

Through the use of a product template,
implementation and deployment time for new products
can be reduced from months to weeks.

products. Often when designing products, the new product is the 'same as' the previous version 'except' for a few options. Providing a template with the common product features ensures that only new features require updates to the template and all structures, rules, etc., are inherited from the template. The template library facilitates the automatic generation of product specification documents from existing product definitions. Through the use of a product template, implementation and deployment time for new products can be reduced from months to weeks as new products can automatically inherit attributes from existing saleable products.

can be repackaged for variable universal life products and riders can be developed as stand-alone product parts and assembled to complete a full product offering or for Property & Casualty, coverage extension options developed for professional liability products can be repackaged for other specialty products.

Furthermore, for global insurers, the opportunity to design a central product chassis and deploy it with specific local variations means that they can leverage the same basic product design over multiple business units, regions or countries and can decrease their operations costs as well as their time to market.



Built to capitalize on a Services-Oriented Architecture (SOA), Camilion's ProductAuthority fundamentally changes the way insurers develop and implement products. A “pure” insurance solution, ProductAuthority enables agility by externalizing all product data and rules from multiple, hard-coded operational systems into a central repository, where products can be easily configured and modified. These reusable product definitions include all important product information - eligibility, packaging, underwriting rules and forms management – not just pricing or calculations. The integration of product definitions with legacy applications, like Policy Administration Systems, is simplified by using Web Services. ProductAuthority also includes a product manager’s Workbench to automate product development processes.

Benefits of the Product Chassis

- Allows insurers to design something they know is already supported in their existing policy administration system
- Reduces IT expenses and resources through the reduction of new product builds and the reuse of existing product features and options
- Provides common framework for all products
 - o Means that regional, distribution and market differences are all options on the same basic structure
- Uses the same basic product features to accelerate development
 - o Product changes can be accomplished in days
 - o New products can be implemented in weeks
- Allows products to be designed and modified concurrently
- Eliminates duplication of similar products

The Power of the Configurator

The configurator combines the powerful elements of calculations, ratings and business rules and presents them in the context of a product. Interdependencies between product calculations and rules can be accommodated. Moreover, a product configurator is able to effectively reuse not only rules and calculations but also product structures. A product structure can be set up once for a product set (i.e., Variable Universal Life, Commercial Property) and through inheritance of common features, many additional products can be created. The inherited products may contain the same rules and calculations; however, they can be changed for each version of the product.

Navigating the Agility Scale

Over the past few years, industry shifts such as splintering demographics, changing consumer and commercial needs, more demanding producers and increased competition are driving product trends such as speed-to-market, the growth of combination products and mass customization. It is precisely these trends that are challenging insurers to find methods and tools to become more agile and responsive to diversify their product offerings. The trends also emphasize the need for configurability in the product design and delivery process and signal a move towards a modular or 'factory' approach to product development.

Through our four-level Product Agility Model, we have developed a pragmatic roadmap for Product Agility and incorporated configurability at all levels. Effective navigation through each level is accomplished as insurers meet certain key requirements to enable them to steer their product development process towards a highly configurable factory approach.

The following is a snapshot of each level and a review of what is needed to drive movement up the agility scale.

Level 1: Product Capable

At this first level, which often occurs in advance of implementing a product configuration solution, document templates that describe an insurer's products are created and used across existing lines of business. The templates provide a starting point for the externalization of full product definitions and rules from dependent systems. Though these templates may provide a measure of standardization, they are not highly reusable unless they are stored centrally in a product configuration solution so that the templates can be accessed and utilized by all lines of business.

Most insurers are currently working at this stage and are developing a separate product for each distribution channel. At this level, development cycles tend to be long and the capability for customization is very limited.

Level 2: Repeatable Product Management

At this second level, a product configuration / development solution is implemented to support product design. To achieve a repeatable product management process, an insurer needs to develop and successfully implement the following:

- Common standard product taxonomies;
- Development of the product chassis;
- A unified product catalog to enable reuse of product rules and definitions;
- Visibility of all product information across the enterprise through the product repository;
- Streamlined product development and rollout process.

At this level, the insurer has 'all things product-related' in one place and is capable of creating, modifying, modeling and testing products as well as generating product definition specifications and documentation to all stakeholders and systems across the enterprise. New products are assembled with standard features, but by leveraging the use of a common product chassis, changes can be applied to the product in order to support different distribution networks using the same basic products. In addition, global insurers that are looking to leverage their product design across multiple countries or operating units can use a common product chassis and make revisions for local differences and regulations.

Level 3: Formal Product Management

Once a company has achieved a repeatable product development process, they are well positioned to move to formal product management. This third level is enabled and supported by the configurator's workflow management platform which allows insurers to:

- Perform adaptive product development for new products;
- Be responsive to changing market demands and quickly provide channel and market customizations;
- Store, manage and monitor all rules in a central source;
- Apply product and customer analytics to evaluate product strategies and assess the success of individual products as well as ongoing campaigns and marketing initiatives.

Level 4: Product Agile Enterprise

A company becomes product agile when they are able to introduce products at the speed they require, with full reusability and configurability. Formal product management is well-established and includes the following:

- Identification and application of best practices for product development and management across the enterprise;
- Deployment of product services to allow external legacy systems to consume product information and to allow product packaging, matching and bundling;
- Application of analytics against real operational data at the portfolio and product level and introduction of analytics to track key performance indicators;
- Mass-customized products.

Insurers have not yet reached this stage; however, it is conceivable that they can do so with the right enabling technologies and processes in place to facilitate building a palate of product features from which they can pick and choose.

Getting Started

Executing a product development strategy can be a complex and expensive undertaking. The risks and costs of a complete infrastructure or legacy system replacement can be prohibitive. However, taking a pragmatic, phased approach that starts small and takes into account the implementation of an automated product development solution is not only more cost efficient, it demonstrates business value at each stage, gains support from within the organization with each success, and allows for a culture shift that accepts innovation.

The Steps to Getting Started:

- Develop the business case for a product development solution (configurator). Ideally, the solution includes pre-built templates and processes for the lines of business the insurer intends to support and will be standards-based to ensure compliance with key technical, product modeling and industry standards, (SOA, XML, ACORD XML, ACORD PPfA and IBM's IAA).

The business case should include the following:

1. Input from all stakeholders across the enterprise (IT and Business).
 2. Clear identification of stages.
 3. Measurement of business value at each stage.
 4. A phased approach -- Implementation is incremental.
- Build an architecture to support the product. In doing so, the insurer should:
 - o Decompose product features to their smallest element to ensure maximum configurability and reuse.
 - o Organize these features as a product catalog.
 - o Analyze product features across product lines to identify commonality.
 - o Consider component design that leverages commonality and takes into account future reusability.
 - Implement a web-enabled product configurator at an enterprise level to be the central repository for all product components and information.
 - o This step allows an insurer to have full product modeling, testing and documentation in one place -- visible and accessible by all stakeholders.

- Start with one line of business.
 - o Develop one full line of business end-to-end.
 - o Put that line of business into production.
 - o Monitor and document learnings.
 - o Experience gained from the first line of business is applied to revise, improve and ultimately make each subsequent release less time-consuming and more cost effective.

Benefits of Configurability

Throughout this paper, we have outlined what we see as the benefits of configurability. In fact, the benefits associated with the successful execution of a configurability strategy are realized in all stages of the product lifecycle. They are:

- Accelerated time to market through a streamlined, consistent and repeatable product development process.
- Increased revenue potential through the ability to respond more quickly to market conditions.
- Reduced errors and overall product risk through the consistent application of business rules.
- Improved product quality because products can be thoroughly tested prior to launch. Increased product development capacity and concurrency by providing product managers and business users with modern tools that automate processes and reduce the technical complexity associated with implementing products.
- Dramatically reduce technology maintenance costs and lessen dependency on IT resources.
- Compliance to changing legislative requirements.

Conclusion

Insurers dealing with multiple product lines, multiple distribution channels and increasingly complex product offerings must become more agile and responsive to changing internal and market needs. A well-executed configurability strategy, supported by a streamlined product development process and enabled by modern product configurator technology will put an organization solidly on the road to Product Agility.

For further reading on the topics of Configurability and Product Development, please reference:

"Genesis to Synthesis: Product Configuration Vendors in Life and Annuity Product Development."

Rachel Alt-Simmons, The TowerGroup
www.towergroup.com

"Achieving Product Agility in the Insurance Market." Diamond Management & Consultants, Inc.

www.diamondconsultants.com

Camilion Solutions, Inc.

www.camilion.com

About Camilion Solutions Inc.

With customers who are the world's largest insurers, Camilion Solutions, Inc. is a leading provider of product development solutions and next-generation policy administration systems for insurance.

Camilion uses its deep knowledge of the insurance industry to develop software solutions that enable insurers to launch new or modified products more quickly and efficiently than competitors, automate underwriting, enable straight-through processing for online sales, and deploy an agile, modern technology platform to better support current and future growth.

Designed to capitalize on a Services-Oriented Architecture (SOA), Camilion's solutions are open, scalable and conform to key technology and industry standards. Camilion is a privately owned corporation founded in 2000 with offices in Toronto and New York.

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