

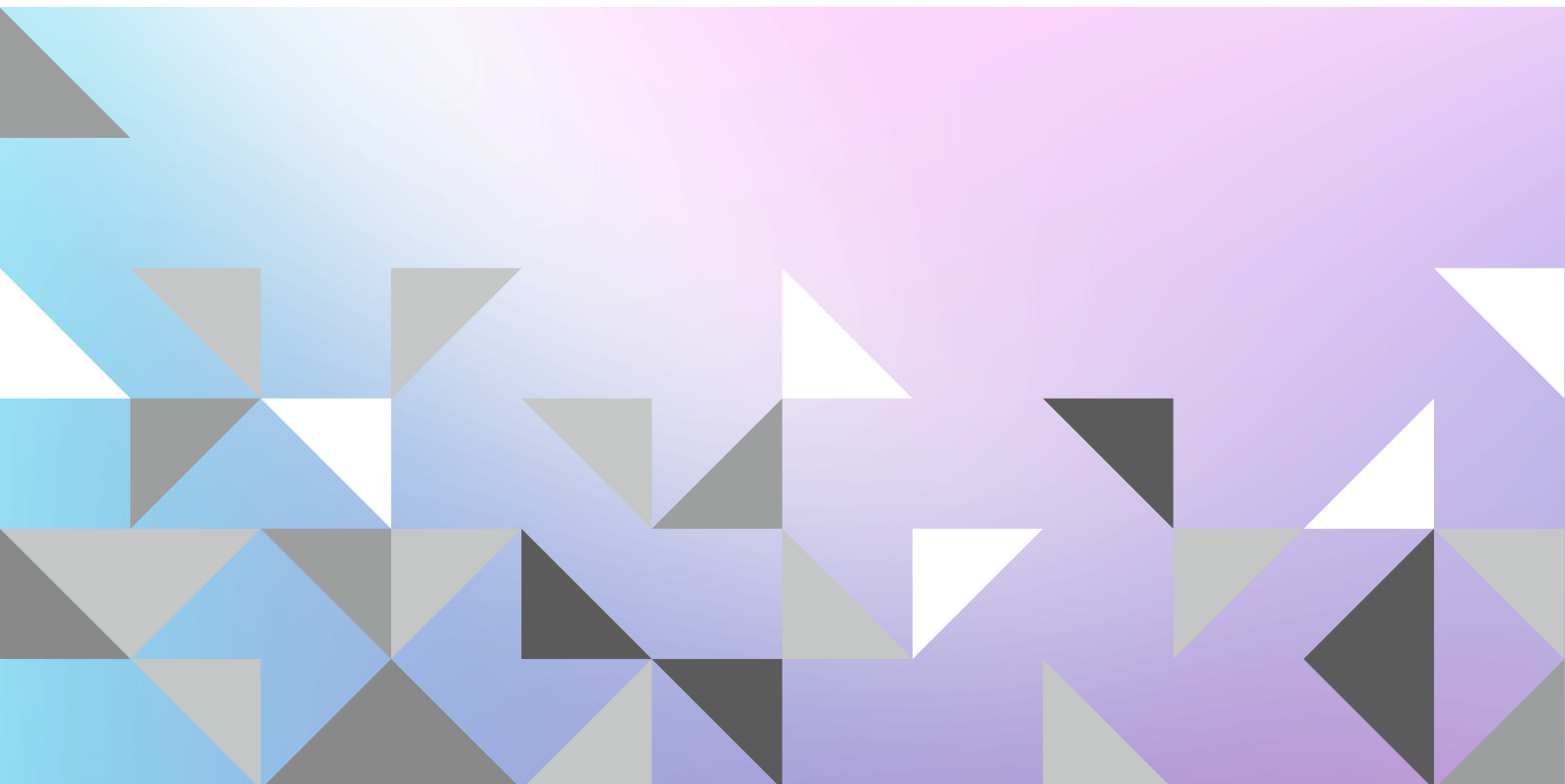
RATING AS A SERVICE

Unlocking Efficiency: Externalized Insurance Rating Engines

This white paper explores the transformative potential of externalized insurance rating engines. It delves into how SPOCK, a serverless computing engine, addresses market challenges by offering Rating as a Service (RaaS). Discover how insurers can achieve cost-efficiency, accuracy, and scalability, enabling rapid product deployment and enhanced market responsiveness. Learn about the benefits of integrating cutting-edge technologies to streamline operations, improve risk assessment, and maintain a competitive edge in the evolving insurance landscape.

ASHWANI KUMAR,

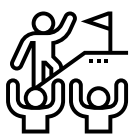
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Introduction

Insurance industry is on the brink of major technology-driven change; this creates major opportunities for insurers that are looking to embrace it. Conceptually, Insurance is about the pricing & selection of risk accurately in high responsive time.

Pricing is a critical factor that significantly influences a consumer's decision to buy insurance, and it plays a pivotal role in an insurer's competitiveness and success. Here are some key points to consider regarding how pricing affects the insurance industry:



Competitive Advantage: Insurers must offer competitive prices to attract and retain customers. Pricing that is too high can drive potential customers away, while pricing that is too low can lead to financial losses for the insurer. Striking the right balance is crucial.



Risk Assessment: Insurance pricing is heavily based on risk assessment. Insurers evaluate various factors to determine the likelihood of a policyholder making a claim. These factors can include the policyholder's age, health, location, and past claims history. The higher the perceived risk, the higher the premium is likely to be.



Actuarial Analysis: Insurers employ actuaries who use complex mathematical models to analyze historical data and predict future risks. Actuarial analysis helps insurers set appropriate prices that cover potential claims while allowing for a profit margin.



Underwriting Guidelines: Insurers establish underwriting guidelines that outline the types of risks they are willing to cover and the pricing structure for each risk category. These guidelines help ensure consistency in pricing and risk assessment.

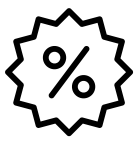


Regulatory Compliance: Insurance pricing is subject to regulatory oversight in many regions. Regulators often require insurers to justify their pricing decisions to ensure fairness and prevent discriminatory practices. Compliance with these regulations is crucial to an insurer's success.

Introduction (Contd.)



Customer Segmentation: Insurers may segment their customer base and offer different pricing structures for various market segments. For example, auto insurance companies often provide different rates for different age groups or types of vehicles.



Discounts and Incentives: Many insurers offer discounts and incentives to attract customers. These can include safe driver discounts, bundling discounts (for combining multiple policies), and loyalty rewards. These strategies can influence a consumer's decision to choose a particular insurer.



Consumer Perception: Pricing also affects how consumers perceive an insurer. A company that consistently offers fair and competitive prices may build a positive reputation, which can lead to customer loyalty and word-of-mouth referrals.



Profitability: Ultimately, insurers aim to balance pricing in a way that generates a profit over time. Pricing decisions impact an insurer's financial stability and ability to pay claims when they arise.

In the pursuit of innovation, speed to market, and competitiveness, every insurer and Insurance distribution player recognizes that the pivotal focal point lies in the arena of rating and pricing. For every organization, the epicenter of their operations revolves around the definition of products. However, it's noteworthy that relatively little emphasis has traditionally been placed on the tools used to precisely define and swiftly deploy these products.

"In the landscape of rating and pricing tools, different players adopt varied approaches. Some utilize the rating and pricing logics tightly coupled into their policy administration systems, while others continue to rely on outdated, on-premises external systems. Surprisingly, there are even those who, somewhat still rely on Microsoft Excel for these critical functions."

Traditional Approach Used in Market



Insurers do employ a range of methods for rating and pricing, and these methods can introduce complexities, especially when they interact with an insurer's existing technology architecture. The mention of a "Monolithic Policy Admin System" adds another layer of complexity to the equation.

Monolithic Policy Admin System:

A monolithic policy administration system is an older type of software architecture where all the components and modules of a system are tightly coupled into a single, large application. While such systems may have served their purpose in the past, they often lack the flexibility and scalability needed for modern insurance operations. They can become a bottleneck when insurers try to implement new pricing strategies, integrate with other systems, or adapt to changing market conditions.

Other side few insurance players think that they can build their own rating engine. The ongoing dilemma of "buy versus build" in the context of such engines extends to various aspects of technology development and implementation within the insurance industry. Many organizations grapple with the decision of whether to build a custom solution in-house or to purchase a commercial-ready solution from a third-party provider.

Interestingly, those who choose to build their own systems often realize that this path can be more expensive than opting for a pre-existing commercial solution. Here are some key considerations surrounding this dilemma:

Costs of Building: Building a custom rating and pricing engine from scratch involves significant costs, including software development, infrastructure setup, data integration, and ongoing maintenance expenses. These costs can often exceed initial estimates and budgets.

Time-to-Market: Developing a custom system can be time-consuming. It may take longer to build and test a proprietary solution compared to implementing a commercial-ready one. This delay can impact an insurer's ability to respond quickly to market changes or launch new products.

Expertise and Resources: Building and maintaining a custom system requires a skilled IT team with expertise in software development, data analytics, and insurance domain knowledge. Acquiring and retaining such talent can be challenging and costly.

Risk Mitigation: Commercial-ready solutions are typically tested, validated, and used by other insurers, which can reduce the risks associated with errors, compliance issues, and security vulnerabilities that might arise in a custom-built system.

Traditional Approach Used in Market (Contd.)

Flexibility vs. Standardization: Building a custom system allows for greater flexibility and tailoring to specific business needs, but it can lead to complexity and difficulties in scaling. Commercial solutions often offer standardized features and can be more easily integrated into existing workflows.

Total Cost of Ownership (TCO): While building may seem cost-effective initially, the total cost of ownership over the long term, including maintenance, upgrades, and support, can be higher than using a commercial solution.

While some Insurance players may initially attempt to build pricing calculations in Excel spreadsheets due to their familiarity and accessibility, this approach is typically not a viable long-term solution for several important reasons:

Limited Accuracy: Excel spreadsheets are prone to errors, which can lead to inaccuracies in pricing calculations. In the insurance industry, precision and reliability are critical, and errors can have significant financial consequences.

Slow Response Times: Excel may not provide the rapid response times required for pricing requests, especially in scenarios where real-time or near-real-time pricing decisions are needed. It may struggle to handle high volumes of calculations efficiently.

Data Integrity Challenges: Maintaining data integrity and consistency across multiple Excel spreadsheets can be challenging. In complex pricing scenarios, ensuring data quality and accuracy becomes increasingly difficult.

Difficulty in Scaling: Excel may not scale well to accommodate the growing demands of an insurance business. As an insurer's customer base and product offerings expand, the limitations of Excel become more apparent.

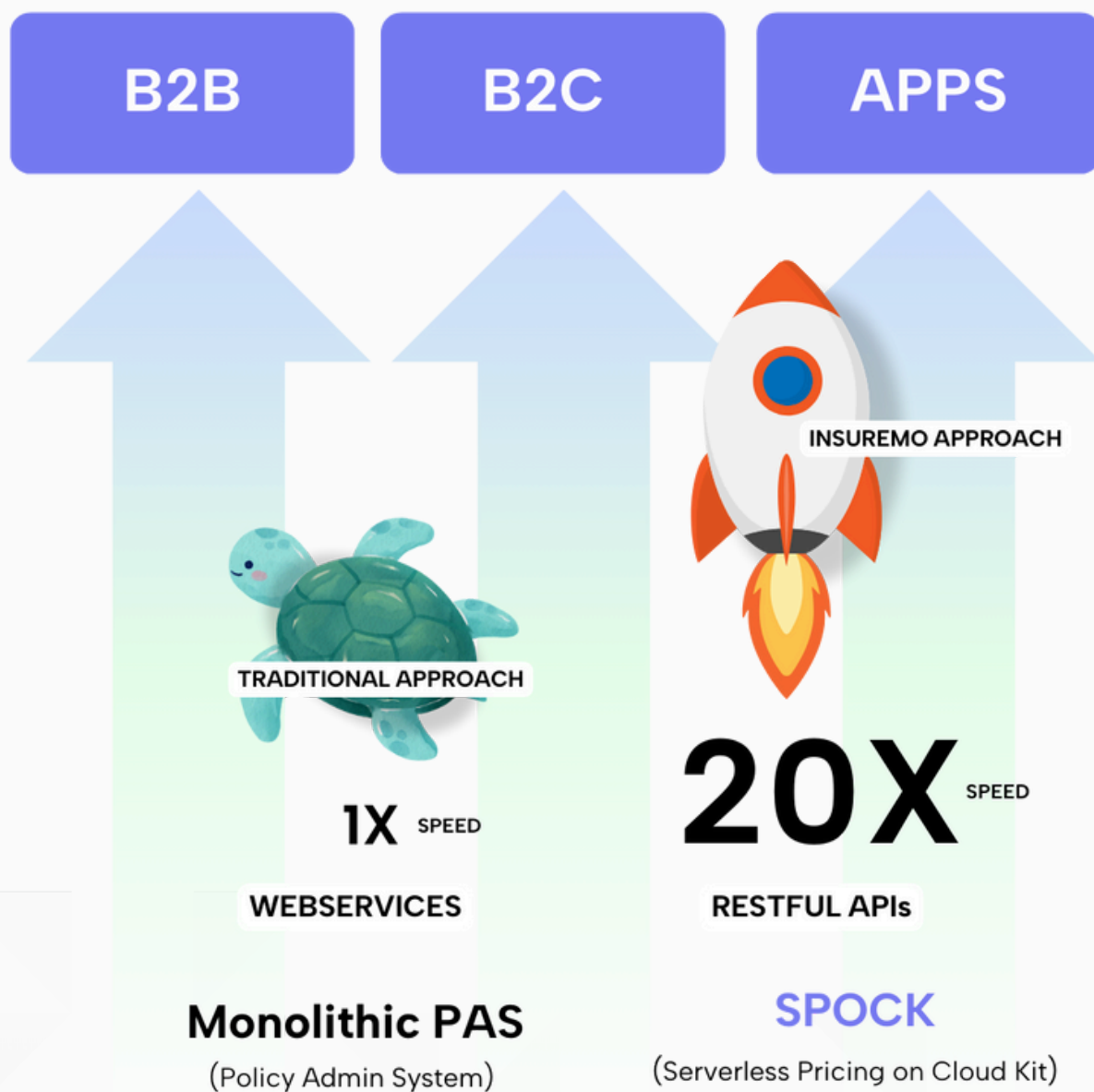
Compliance and Auditability: Insurance pricing often requires adherence to strict regulatory and compliance standards. Excel may lack the robust audit trails, version control, and reporting capabilities needed to meet these requirements.

Integration Complexity: Integrating Excel-based pricing calculations with other systems, channels, or data sources can be complex and may require manual data transfer or custom scripts, increasing the risk of errors and inefficiencies.

In light of these constraints, numerous insurers and distribution firms are acknowledging the imperative to shift from conventional methods to advanced and specialized pricing engines or rating systems.

Introducing SPOCK

InsureMO provides a serverless computing engine known as "SPOCK" engineered to centralize the pricing engine in a singular location, thereby guaranteeing precision and the quickest response times. This consolidated engine is readily accessible through APIs, simplifying the pricing process and elevating operational efficiency within the insurance sector.



1.1 SPOCK address current market challenges

RaaS (Rating as a Service) is a concept in the insurance industry where the rating or pricing calculations for insurance policies are provided as a service rather than being handled solely within an insurer's internal systems. In essence, it means that InsureMO powered "SPOCK" in this case, offers the capability to perform complex rating and pricing calculations on behalf of insurers. This approach can have several advantages, including cost-efficiency, accuracy, and scalability.

It's evident that SPOCK represents a significant leap forward in the realm of insurance technology. The inclusion of innovative features and technologies in SPOCK's offering can have a transformative impact on the insurance industry. Here's a breakdown of the key elements you've mentioned:

Serverless Computing: Serverless computing is a cloud computing model that abstracts away the management of servers and infrastructure. It allows for highly scalable and efficient processing without the need for dedicated server management. In the context of SPOCK, serverless computing can contribute to cost-efficiency, flexibility, and rapid scaling, which are crucial for insurance pricing calculations.

API Ready: Being API-ready means that SPOCK is designed to seamlessly integrate with other systems, applications, or channels through APIs (Application Programming Interfaces). This makes it easier for insurers to incorporate SPOCK's pricing capabilities into their existing workflows, third-party applications, or distribution channels, enhancing accessibility and usability.

Cloud-Based Architecture: A cloud-based architecture offers several advantages, including scalability, accessibility from anywhere, and the ability to leverage cloud resources for high-performance computing. It also implies that SPOCK can harness the power of cloud computing for complex pricing calculations, potentially leading to faster response times and improved accuracy.

Cutting-Edge Elements: The mention of "cutting-edge elements" suggests that SPOCK may incorporate advanced technologies in future such as machine learning or predictive modelling. These technological advancements hold the promise of assisting insurers in fine-tuning their pricing strategies, enhancing risk assessment, and remaining competitive in a swiftly evolving insurance landscape.

1.2 Build Rating in Simple Steps



SPOCK offers a variety of user-friendly tools for building insurance rating structures, catering to both business and technical teams.

Formula / Pricing calculation: SPOCK provides a user-friendly interface for configuring formulas, offering multiple modes to cater to different user preferences and levels of technical expertise:

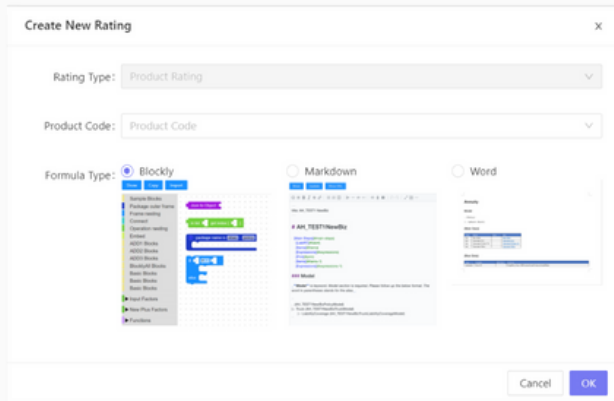
- **Blockly Mode:** In Blockly Mode, users can create complex pricing formulas using a visual programming approach. This mode simplifies the process by allowing users to drag and drop code blocks, making it accessible to individuals who may not have extensive programming knowledge. It's an intuitive and graphical way to define rating rules and calculations.
- **Markdown Mode:** Markdown Mode offers a structured and straightforward approach to defining formula logic and calculations. Users can input formulas and instructions using plain text with markdown formatting. This mode is particularly useful for users who are comfortable with text-based interfaces and prefer a more structured format for their rating rules.
- **Word Mode:** Word Mode provides a natural language interface for describing calculation in plain language. This mode is designed to be user-friendly and accessible to non-technical users. It allows users to articulate their rating requirements in everyday language, making the rating creation process more intuitive.

Excel Rate Upload: SPOCK allows users to upload rate information using Excel templates. This feature simplifies the process of entering rate data, especially for insurers who have existing rate data in Excel format. It provides a familiar and efficient way to input pricing information.

Rating Validation and Testing: SPOCK includes tools for validating and testing rating algorithms. These capabilities are essential for verifying the accuracy and compliance of rating rules. Users can perform testing to ensure that pricing calculations are working as expected before deploying them for actual use.

Inbuilt DevOps for Rating Release: SPOCK incorporates an integrated DevOps (Development and Operations) system for managing the release and deployment of rating algorithms. This built-in DevOps functionality streamlines the process of making rating updates or changes, ensuring a controlled and automated release process.

1.3 Business Scenario of SPOCK



SPOCK appears to be a versatile and highly demanded tool in the insurance industry, catering to various stakeholders such as insurers, brokers, Managing General Agents (MGAs), and other players involved in distributing insurance products to consumers. It supports multiple lines of insurance business, including Life, General, and Health, and can be effectively applied in several key use cases:

Illustration: SPOCK can be utilized for insurance illustration, which involves creating visual representations or projections of how an insurance policy will perform over time. Insurers can use this feature to help clients better understand their insurance coverage and its benefits.

Quotation: SPOCK is valuable for generating insurance quotations. It can calculate premium rates and provide potential policyholders with accurate quotes based on their specific needs and risk profiles. This is crucial for insurers, brokers, and agents during the sales process.

Financial Endorsements: Insurance policies often undergo changes or endorsements during their lifespan. SPOCK can facilitate the management of financial endorsements, allowing insurers to adjust policy terms, coverage, and pricing as needed.

Renewals / Billings: The platform can streamline policy renewals and billing processes. It ensures that policyholders receive accurate renewal notices and bills, incorporating any changes in coverage and pricing as required.

Claim Notification: SPOCK can also be used for the initial stages of the claims process e.g. accumulator. It enables policyholders to submit claim notifications, which is the first step in initiating a claim. Streamlining this process can improve customer service and claims efficiency.

By offering support for these various use cases across different lines of insurance, SPOCK enhances operational efficiency, accuracy, and customer satisfaction. Its versatility makes it a valuable tool for a wide range of insurance industry players involved in product distribution and servicing.

Conclusion

Externalizing the rating process into an enterprise-class engine empowers Insurance Industry with the ability to accelerate product deployment while simultaneously reducing the vulnerability associated with being tightly bound to a particular PAS (Policy Admin System). This strategic move enhances their agility in bringing new insurance offerings to market swiftly and shields them from the potential disruptions and limitations that can arise from a dependency on a back end core system.

Insurers and other industry players have carefully considered multiple options, taking into account various critical factors such as cost, time-to-market, responsiveness, accuracy, and more. These considerations are pivotal in the decision-making process, influencing how they approach and implement strategic initiatives.

InsureMo recognizes the paramount importance of distribution and the critical role of pricing engines within the insurance industry. Through their innovative solutions like SPOCK, InsureMO empowers the insurance sector to extend its market reach, explore new market opportunities, accelerate product launches, and seamlessly adapt product offerings to swiftly respond to dynamic market conditions. This strategic approach bolsters the industry's capacity to stay competitive and agile in meeting evolving customer needs.

Regardless of your current stage in the process of externalizing rating and pricing, the SPOCK solution offered through the InsureMO Platform is designed to provide valuable assistance. It enhances flexibility, accuracy, expedites time-to-market, and facilitates the rapid implementation of innovative strategies.

About InsureMO

InsureMO provides a highly scalable, open and unified platform to modernize traditional monolithic core systems with lower risk and investments, by transforming them into a multi-tier architecture that can be integrated with existing user apps or new modern user apps, a scalable Middle Office (InsureMO), and any stable System of Record.

This platform offers open API-enabled, app-based distributed architecture to accelerate go-to-market for new innovative products, complete policy lifecycle management, and quick setup of new products. It also provides built-in workflows with case management to enhance efficiency and productivity, reduce operational expenses, and improve customer experience. InsureMO offers cloud-native solutions as managed services without requiring any development or legacy configuration.

Trusted by global carriers, InsureMO's platform is designed to drive scalable growth and diversification across markets with a unified infrastructure, and to help product managers quickly create, configure, and manage any product for any ecosystem.



✉ contact@insuremo.com

🖱 insuremo.com