



PIONEERING AUTOMATED DIGITAL INSURANCE OFFERINGS IN THE CLOUD

150-year old reinsurance company uses Microsoft Azure to explore new business models

Traditionally, reinsurance is sold to insurance companies and focuses on portfolio based contracts to cover them against large scale losses like an earthquake. Swiss Re, a leading provider of reinsurance and wholesale insurance, is known as a knowledge company and is looking to further differentiate against its competitors by embracing new digital technologies and creating new business models.

In recent years the firm has looked for ways to diversify its offerings. As Swiss Re has a strategic partnership with FlightStats, a global provider of real-time flight data, this seemed like a good place to start. In the classic insurance procedure, passengers need to file a claim to be compensated for delays, cancellations or damages. This claim process is time-consuming and leads to processing errors and delays. With the new model, built on a fully automated digital insurance platform, a passenger can purchase a flight and an inexpensive insurance at the same time. If the flight is delayed, cancelled, or diverted, the insured is automatically compensated, often within the hour.

This new offering by Swiss Re simply works as a 'plug-and-play' solution for distributors such as airlines and travel agents as well as primary insurers. The revolutionary insurance solution is now deployable worldwide and to other Line of Business systems. It strengthens and confirms Swiss Re's competitiveness in the insurance industry, enabling a growth strategy with access to risk pools typically not reinsured.



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Jürg Staub, Head of Technical Architecture for Property and Casualty at Swiss Re

The case in summary

- 1. Focus on differentiation to access new risk pools**
 By developing innovative product solutions.
- 2. Establish a new business model**
 Parametric insurance products offer a unique value proposition to end consumers through automated compensation without the necessity to file a claim first.
- 3. A fully automated digital insurance platform**
 Flexible for fast development, globally scalable, cloud-based and cost-effective. Relying on Codit’s expertise in Microsoft Azure technologies, its products and its services, a fully operational service was realized in a record time of eight months.
- 4. Achieved business expansion from new markets**
 Easily replicable to other parametric products resulting in business growth.

A perfectly functional service with Azure PaaS

The new digital micro-insurance solution had to address a number of specific requirements. It needed to be flexible, cloud-based and easily deployable worldwide. Swiss Re also wanted to enable a modern DevOps workflow that ensured continuous integration. Hence, it was clear that the solution needed to run as a service in the cloud.

Swiss Re investigated several solutions and vendors and opted for Microsoft and its Azure Platform-as-a-Service (PaaS) offering. “We entered a new business model with fast transactions at

low premium that needed to be scalable, cost effective, and in the cloud. Consequently, we had to step away from expensive on-premises solutions,” tells Jürg Staub, Head of Technical Architecture for Property and Casualty at Swiss Re. “Microsoft Azure is a cost-effective and scalable solution that meets our requirements perfectly.”

Microsoft recommended Codit, its biggest European partner for integration and cloud solutions, as integration partner for the project. The company, with a local Swiss office in Zurich and headquartered

in Belgium, has an in-depth specialization in Microsoft Azure solutions and was considered a perfect match.

“The Azure platform and its many services can seem like an IT jungle”, states Jürg Staub. “Codit as a Microsoft Gold partner and expert in business integration on Azure technology knows its way through Azure like no other. They invest continually in building expertise on the Microsoft technology stack and could therefore guarantee the realization of a perfectly operational service within time and budget.”



Continuous development and integration

After Swiss Re created a working prototype of the microservice model using Azure in a matter of weeks, it was time for the cloud implementation. Thorsten Korell, General Manager Codit Switzerland: “We made five years’ worth of flight data available to the data analysts at Swiss Re and then we expanded the prototype, making it more robust for intensive use and allowing the solution to be rolled out all over the world, in a multi-tenant setup.”

Both companies used Visual Studio Team Services, a cloud-based solution for developers, allowing them to work in virtual teams. Luis Delgado, Technical Director at Codit Switzerland: “Visual Studio Team Services was a great benefit to the project. This tool allowed for continuous automated integration and deployment. We were able to create a collaborative team environment

sharing components with the Swiss Re teams enabling development reviews and ensuring the realization of a flexible, scalable solution.”

Alan Wales, Senior Solution Architect Property and Casualty at Swiss Re, confirms: “We could process millions of micro-insurance policies concurrently. So, we were quite confident going into production that our system was scalable, fast and accurate. All the tests ran automatically, and we used real flights, quotes, orders, and claim handling. We knew the final product would be stable and secure.”

During the development phase, Codit deployed various Azure services. Tom Kerkhove, Azure Consultant at Codit and Microsoft Azure MVP explains: “We used Azure App Service to create a web interface where clients can interact with the reporting

module. The reports themselves are generated using Microsoft Power BI. Azure API Management facilitates the API security and governance for our API infrastructure worldwide, making it easy for third parties to use our services. By harnessing the power of Azure Logic Apps, we built a workflow for automating and monitoring the system. We fully leveraged many of the Azure services to make this project work. And it all happens in the cloud.”

But there are even more benefits, Luis Delgado adds: “We use Azure SQL Database with Elastic Pools, which simplifies the management of shared or partitioned databases. They spread processing power between clients and lower costs at the same time. And by employing Codit Managed Services, Swiss Re does not need specific IT staff to keep the solution running.”

“By using Azure Platform-as-a-Service and relying on best practices we can easily translate this innovative insurance microservice to other scenarios and deploy it worldwide, using parametric insurance models and the power of the cloud.”

Alan Wales, Senior Solution Architect, Property and Casualty at Swiss Re



A fully automated insurance platform for parametric products in just eight months

The result of the collaboration between Swiss Re and Codit is a fully automated insurance platform for parametric products that is unique in both scalability and implementation.

Thanks to the flexibility of Azure and the expertise of Codit, the project went from concept to a robust cloud implementation in just eight months. This revolutionary insurance service is now deployable worldwide and to other LoBs, strengthening and confirming

Swiss Re’s competitiveness in the insurance industry. Swiss Re is working on more new platform features, including an integrated payment system and an enhanced pricing engine.

“We are already seeing a Return on Investment,” says Alan Wales. “This has encouraged us to identify multiple areas that are functionally similar across projects, where automated, cloud-based Azure services can be deployed. This modus

operandi will allow us to reuse a tremendous amount of services. We are convinced this platform can only be to our advantage.”

Alan Wales concludes: “With this new microservice we have revolutionized the insurance world. We see this being rolled out to other micro-insurances in the near future. And our partnership with Codit continues, as we are starting other projects, even some that embrace the Internet of Things.”



Swiss Re

Founded in 1863, with offices in more than 25 countries and a revenue of US\$ 33 billion in 2016, the Swiss Re Group is a leading wholesale provider of reinsurance, insurance and other insurance-based forms of risk transfer. Dealing directly and working through brokers, its global client base consists of insurance companies, mid-to-large-sized corporations and public sector clients. From standard products to tailor-made coverage across all lines of business, Swiss Re deploys its capital strength, expertise and innovation power to enable the risk-taking upon which growth and progress depends.