The rise of the cloud

FIS

PRODUCED BY RACONTEUR CUSTOM PUBLISHING

SKY'S THE LIMIT: INSURERS OPEN UP TO CLOUD COMPUTING

In a bid for scale, more insurers are transferring their reporting capabilities to the cloud, creating possibilities for smarter operational models

As a data-rich industry, the ability of insurers to extract value from their data using advanced analytics has become critical to staying ahead of competitors, as well as a regulatory imperative. These pressures have increased the need for insurers to carry out stochastic capital modelling, requiring them to perform more model runs of increased complexity and size, stretching in-house IT resources to the limit.

The computing capacity now required by many insurance companies is a significant factor that has led pan-Asian life insurer AIA and central European carrier Vienna Insurance Group (VIG) to tap the capabilities of the cloud. While these insurers are most definitely first movers, they are not alone.

While heavily regulated industries like insurance and banking have been more hesitant to expand their cloud initiatives than less regulated industries such as retail, media and manufacturing, at least 16 per cent of insurers polled by analyst, Celent say software as a service (SaaS) will be a big part of their core systems strategy moving forward. A further 58 per cent acknowledge that it might be useful in the future.

"Today most CIOs and executive boards have moved beyond the knee-jerk fears over security, and the challenges surrounding cloud adoption have become more practical," explains Craig Beattie, a senior analyst with Celent's insurance practice. "From a modelling perspective the simple fact is that it's an opportunity to shift things out into the cloud, particularly for financial modelling."

But if you look at the insurance industry globally, the majority of customer and policy data will be on-premise."

Bigger, faster, cheaper

Among the advantages offered by cloud computing are scale, efficiency and cost-effectiveness. From an actuarial modelling perspective, the ability to pay-per-use and scale up when needed is a significant benefit. The, adapt the environment to evolving business needs model, also means that the insurer is not paying for infrastructure to sit around while stochastic calculations are not being carried out.

These economies of scale and flexible sourcing were key factors that drove AIA's decision to move its actuarial modelling functions into the cloud, explains Rick Yuan, head of actuarial modelling and transformation at AIA Group. "In the past we only needed to project a single best estimate scenario based on a number of different assumptions, such as mortality rates, persistency pattern, expense levels, etc.

"Recently it came to a need to report economic capital," he continues. "Basically, we needed to run [a] projection tens of thousands of times to come out with a range of possibilities. One solution was to purchase more hardware, but the obvious winner was to move to the public cloud. The beauty is you can tap that capacity when you need it and switch it off when you've finished the calculation, so it's a lot cheaper."

Cloud computing also provides the most up-to-date hardware and delivers IT resources to users as services over a network. "We always work with the latest versions, only now we don't need to exchange servers and hard drives all the time," explains Werner Matula, head of VIG Actuarial Services. "The cloud provider will ensure they have the latest hardware. And the software provider takes care of ensuring the software is up to date, and makes sure we receive regular updates and that everything is optimised."

For VIG, a decentralised multi-line insurance group with a strong presence in central and eastern Europe, the cloud also offers the opportunity for some of the group's smaller players to benefit from analytics and software usually only available to tier one and tier two insurers. "Many operations can simply access this central or umbrella platform, which is not a possibility for in-house solutions," Matula explains. "It's a service we can provide to the whole group: the standard is the same from everywhere and it's easy to handle and maintain," he continues. "For our smaller operations especially, this is a huge advantage because it might not be affordable otherwise."

A number of insurers are already using public clouds (services offered by Amazon, Microsoft and Salesforce, among others) for their non-core office and support functions such as email, back office accounting and customer relationship management. However, until recently, most were reluctant to consider the cloud for mission-critical infrastructure.

According to David Elliott, Architecture Manager for Financial Services at Amazon Web Services, the cloud has become "the new normal, as companies of every size are now deploying new applications to it by default, and looking to migrate as many of their existing applications as they can as quickly as possible. For insurers, the question isn't 'if' anymore – it's how fast they can move and what are they going to move first? While we recognise that there is no one size fits all, we are seeing a few major patterns emerging amongst our customers."

"Cloud adoption for compute continues to be strong in the insurance industry," says Jonathan Silverman, a director in Microsoft's worldwide commercial industry sector. "Customers are recognising the value of having access to unlimited compute capacity for risk modeling. Overall we've seen triple-digit growth year over year in cloud adoption among insurers, who are making substantial cost savings with infrastructure related to the risk-modeling workload."

A question of trust

Insurers' main concern historically has centred around data security and residency (with laws in many jurisdictions surrounding whether data can be moved across borders). There has been a particular fear over "the security of the ever-growing volumes of data that insurers hold in cloud-based storage systems", according to one report last year by PwC.

This is a concern that is not particularly well founded, according to Celent's Beattie. "Today if you talk to people in western Europe and North America, where they're most familiar with cloud and IT outsourcing, cloud hosting providers are more likely to have better security than [insurance companies] do in their internal data centres.

Beattle continues "we're certainly seeing some of these insurtech start-up companies starting to rely more on the cloud."

Best of both worlds

One possible means of navigating the data-protection and data-sovereignty challenges is a hybrid cloud solution. Insurers that want the ability to tap into the scalability and cost efficiencies of a SaaS model can develop dedicated resources alongside this in which to place secure customer data.

"The insurance industry is very conservative when it comes to modern technology," explains VIG's Matula. "The cloud was pretty new to us and the discussions went deep, from a data security and regulatory and legal point of view. At the end of the day it was about this specific pocket of risk modelling. We do not work with personalised data and we don't move any of our clients' data to the cloud – we just move numbers that would have no meaning to anyone else."

Such an approach keeps confidential private data encrypted and internal to the organisation, while allowing the insurer to tap into the scalability and computing capacity of the cloud. As AIA's Yuan explains: "We needed to get approval from all our country regulators to reassure them [that] any data we were putting into the cloud did not have PII [personal identifiable information]."

The benefits witnessed by those insurers that have taken a hybrid approach to the cloud have increased the level of comfort in the opportunities it presents. As cloud technologies mature, some insurers are experimenting with cloud to drive revenue, improve collaboration, gain customer insight and reduce time to market for products.

> "The benefits witnessed by those insurers that have taken a hybrid approach to the cloud have increased the level of comfort in the opportunities it presents"

Cloud computing
Key facts

MATURITY OF CLOUD ADOPTION

Source: Celent Vendor Cloud Survey, 2015

BIG NUMBERS

$187.3 billion

Total expected IT insurance spend in 2016

$204 billion

Total expected spend on global cloud services in 2016

Source: Gartner, Forecast 2013-2019

CLOUD TECHNOLOGY TECHNIQUES

Cloud computing services can be:

Private delivered from a company's data centre to internal users

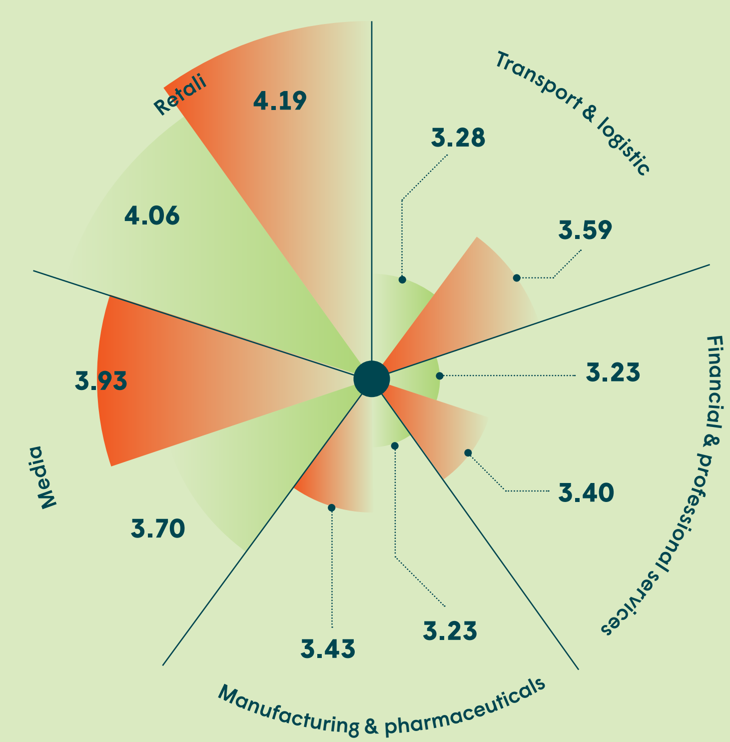
Hybrid companies can run mission-critical workloads or sensitive applications on the private cloud, while using the public cloud for busy workloads that must scale on demand

Public a third-party provider delivers the cloud service over the internet, selling it on demand, by the minute or by the hour

INVESTMENT IN, AND IMPACT OF, CLOUD

Financial and professional services due to catch up

- Level of investment in clouds (/5)
- Impact of cloud on competitive landscape (/5)



3.53 TOTAL 3.69

Source: Workplace 2020, Google

CLOUD BENEFITS

Insurers are taking advantage of the cloud to:

- Gain access to new markets and new customers, increase customer loyalty and retention and enable new business models and applications
- Shift transactional workloads to lower-cost and higher-efficiency service providers
- Capture real-time intelligence about an accident situation nd a better understanding of the risks, e.g. telemetrics.
- Place email and whiteboard applications in the cloud, allowing sales agents, employees, field representatives and developers to collaborate in real time, regardless of the device they use
- Provide and scale computing resources to meet periodic demand for actuarial and financial workloads
- Support agent management, including sales document management and application submission
- Support critical functions such as billing and underwriting
- Preserve data for audits

Source: Cloud Computing for Insurance Report, IBM

About FIS' Prophet solution

FIS' Prophet solution is a leading enterprise-wide actuarial modeling system that helps insurance and financial services companies meet reporting responsibilities, improve risk management, and develop more profitable products faster. Prophet uses customisable actuarial libraries for all major product types, including regional variations. It provides the transparency, performance and control required by today's actuaries and risk managers through integrated financial modeling and data management capabilities. Prophet is used by more than 10,000 users at over 850 customer sites in over 65 countries.

For more information, please contact
insurance.info@fisglobal.com