fadata

WHITE PAPER.

Insurers and the cloud: Are the skies clearing?

Insurer attitudes to the cloud are changing. The advantages seem more urgent in terms of reducing IT costs and improving the flexibility and scalability of IT resources. Transferring critical processes to the cloud remains a big decision but is no longer a journey into the unknown.

This white paper looks at the state of play and the latest factors driving cloud strategies.

Financial services cloud adoption: Where are we now?

While financial services firms have rapidly adopted the cloud for ancillary processes such as human resources and customer relations,[1] the pace of adoption for core processes has been slower. However, it is now speeding up (Figure 1: Cloud adoption timeline).

In the UK, for example, challenger banks such as Metro Bank are using the private cloud to run core infrastructure.[2] Meanwhile, since 2016 a number of large banks such as Capital One,[3] in the US, and the World Bank[4] have put the cloud at the centre of their IT strategies.

Insurers have lagged behind banks in cloud adoption, but their experience is growing. AIA, the large Asia-Pacific life insurance group, is one of many insurers to use the power of cloud computing to improve resource-intensive actuarial calculations.[5]

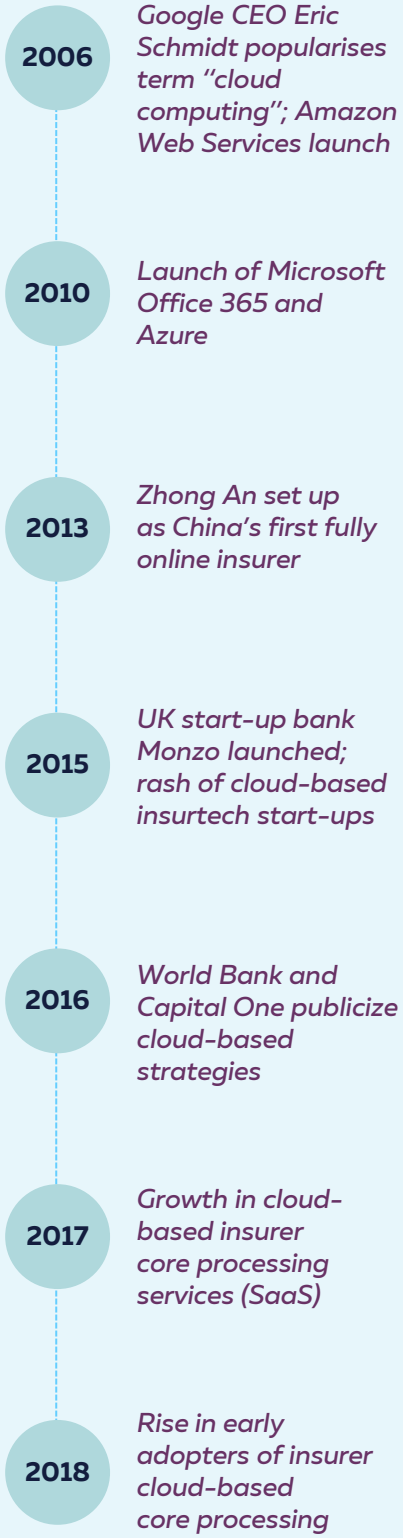
Other firms are using the cloud to roll out digital products: Swiss Re developed automatic reimbursement for flight delays using a cloud platform in 2017.[6] Meanwhile Aviva, the UK's largest insurer, says the cloud lies at the heart of its business strategy.[7]

Powerful examples of the use of the cloud for high-volume core processes are emerging in the Asia-Pacific region. Zhong An Insurance, the Chinese digital insurer, has developed a public cloud-based environment for all its systems, on which it manages billions of small-ticket and other policies, e.g., returns shipping insurance for products bought online, and engages with 450 million customers.[8]

Yet, start-ups aside, relatively few insurers in Europe and the US are using the cloud for core processes such as policy administration, claims handling and reinsurance in their key businesses. As a result, only a small proportion of the overall insurance industry IT workload is on the cloud so far. Will this change over the next couple of years?

It may well.[9] For smaller insurers considering replacing their legacy systems, adopting the cloud may soon be a way to make rapid progress, given the cost and time of self-developing a modern on-site system as an alternative. Taking the leap may be a matter of finding the most reassuring route.

Figure 1:
Cloud adoption timeline



Meanwhile, many insurers are turning to cloud-based platforms when they expand into new types of business, new regions and joint ventures.[10]

For the moment, most insurers continue to hedge their bets with hybrid approaches offering some mix of public cloud, private cloud and upgraded on-site and data centre solutions (Table 1).[11]

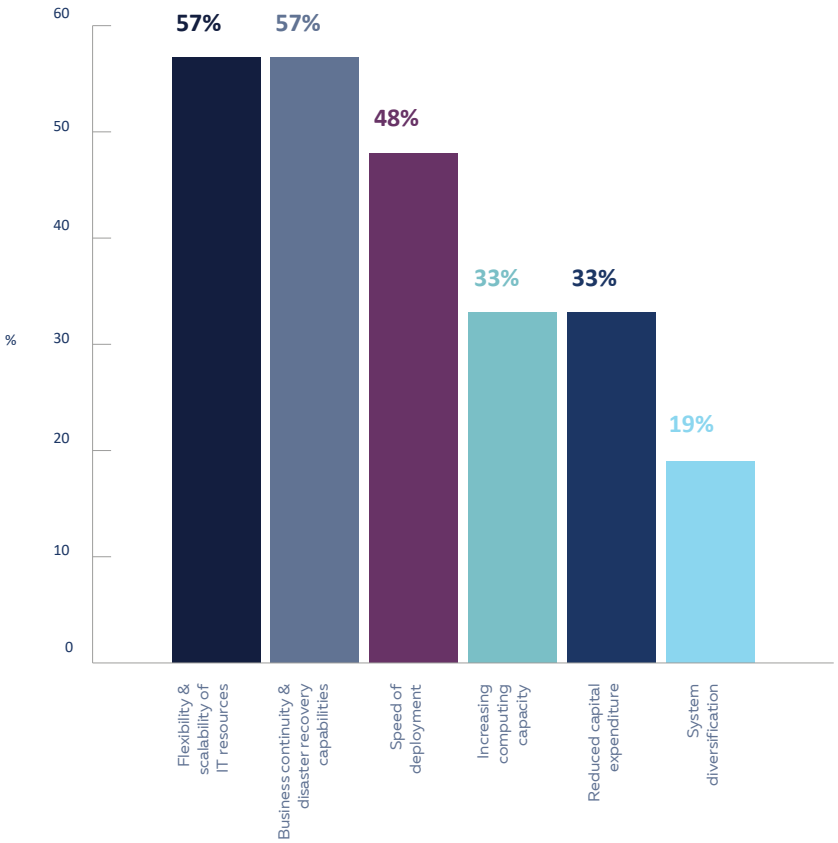
This has not stopped large insurers from adopting ambitious cloud-use targets. Liberty Mutual, a large global P&C insurer with some 40,000 employees, has set a target of putting 60% of its workload into the public cloud (up from 5-10% in 2017).[12]

Which new factors are driving cloud adoption?

The classic drivers towards cloud adoption, identified some years ago, still prevail: total cost of ownership, scalability, enterprise integration and business continuity (Table 2, upper section).

In particular, insurers can benefit from transferring a large proportion of their firm's hardware, infrastructure and data storage costs to a third party.

Figure 2: Why do insurers move applications to the cloud?



Source: ServiceteamIT, Serviceteam IT Cloud Snapshot Survey 2017, Insurance, Q6: http://serviceteamit.co.uk/insurance-sector-uk-cloud-survey-2017/

Table 1: Cloud use variations

Cloud Strategies
Adopting public cloud for non-critical processes/data only
Adopting the cloud for new cloud native applications
Using cloud for additional peak-time computing capacity
Orchestrating multiple onsite/public/private clouds for different workloads

> *The classic drivers towards cloud adoption still prevail: total cost of ownership, scalability, enterprise integration and business continuity.*

The growth of software as a service (SaaS) in the insurance industry since 2017 is a significant development (see sidebar for examples).[13] Under this model, the SaaS provider takes on the capital cost and much of the risk of developing and maintaining the application for the insurer.

However, the unfolding digital revolution in insurance is adding new twists. Increasingly, insurers understand they must do more than replicate the firm's existing processes with lower overheads. Cloud strategies will allow them to change the capabilities of their firm and adapt to digital-era demands (Table 2, lower section).

In a summer 2017 survey, flexibility and scalability were the top reasons insurers gave for going to the cloud (Figure 2), alongside business continuity. It's not just the ability to scale up computing power. Cloud strategies allow insurers to refocus IT resources towards launching new digital products and customer engagement strategies and facilitate new approaches to software development.

Cloud adoption may also be the most natural way to build vast and diverse pools of structured and unstructured data, and link this "big data" to powerful on-demand analytics that can improve insurer understanding of customer risk and behaviour.

Increasingly, the cloud is also seen as an essential component of 24/7 digital engagement with customers through apps, bots, real-time machine learning, and the ever-expanding Internet of Things (telematics, wearables, automated homes and businesses).

Finally, going to the cloud will help insurers join the complex ecosystems now developing in the insurance industry.[14] In the digital era, insurers will need to tap into best-of-breed applications and services increasingly available on the cloud.

How is the assessment of cloud adoption risk changing?

Even a couple of years ago, insurers looked on cloud adoption for core systems with a great deal of trepidation.

Data security was the key concern. However, numerous cybersecurity events in financial services have since made it clear that sticking with a traditional on-site model is no guarantee of safety.

Instead, security is a matter of adopting new technologies and business practices such as continuous data monitoring and tighter authorization procedures, whether on-premise or on-cloud. For some firms, leveraging the investments that tech giants such as Microsoft and Amazon have made in cloud security may offer the best route forward.

Cloud-based Insurance Process Platform

Fadata and its partner, Charles Taylor Insuretech, each address growing industry interest and demand for cloud-based insurance process management:

Fadata provides INSIS as a Service (INSaaS). It coordinates the hosting of the infrastructure (e.g., on Amazon Web Services or Microsoft Azure), management of the technology stack and INSIS application, application support, and application changes supporting business process/ product configuration and regulatory compliance needs.

Charles Taylor InsureTech operates a cloud-based processing platform for life, health and protection insurers that allows them to offer new digital products and services without having to invest in IT infrastructure. It combines the Oracle Cloud and INSIS, Fadata's insurance process platform, to support all aspects of insurer processing and policy administration, and quick and efficient release of new offerings.

Numerous cybersecurity events in financial services have since made it clear that sticking with a traditional on-premise model is no guarantee of safety.

Table 2: Drivers of cloud adoption

Classic cloud drivers

Total cost of ownership – infrastructure: Hardware and IT infrastructure costs can be passed on to third parties and treated as variable costs rather than unpredictable and "lumpy" capital expenditure.

Total cost of ownership – systems: The cost of developing and maintaining systems (e.g., patching, updates) can be passed to third parties by adopting cloud-based software-as-a-service models.

Business scalability/capacity: Cloud-based systems can tap into almost unlimited data storage and computing power as the insurer grows. Also, the insurer does not have to develop processing capacity it might need only a few times a month.

Enterprise integration and consistency: Business lines and functions within insurers often run in their own silos. Using a central cloud-based approach can help overcome inconsistencies and fractured approaches and reduce training costs.

Business continuity and accessibility: Cloud services have built-in redundancy and back-up and are accessible from everywhere.

Digital era twist

Business flexibility/agility: Business flexibility and agility now matter as much as scalability. Cloud-based platforms are often quicker to reconfigure around fast-changing market needs and have modular architectures that allow insurers to add on new services. Their scalability and variable cost structure supports a "test and learn" approach to innovation.

Big data: The cloud can store and make available vast amounts of data, including unstructured data, plus the massive computing power necessary to run new machine learning technologies. Cloud-based platforms can link enterprise-wide data from insurer operations to external data and cognitive systems.

Cloud-native mobile apps: Digital customer services demand the processing of very large amounts of data in real time, potentially with large processing spikes. Real-time analytics using data from consumers, IOT platforms and other feeds make most sense in the cloud.

Ecosystem friendly: Switching to the cloud helps insurers join wider insurance services, technology and distribution ecosystems. It will also help them to join wider ecosystems outside insurance such as those developing for automated vehicles, automated homes, etc.

Human resource switching: Many insurers say they spend 80% of IT staff time on system maintenance and 20% on innovation. Cloud-based platforms can help them turn those statistics around.

Innovation as a process: Start-ups are innovating fast. Putting data and software on the cloud helps large insurers build smaller agile IT teams and follow newer innovation styles such as "minimum viable product" and "test and learn".

Deployment speed: In-house processing platforms can take years to self-develop, with huge capital costs. Cloud-based SaaS can provide insurers with preconfigured platforms in days or weeks on a pay as you go basis.

Operational and process management tools: Cloud-based systems can be integrated with business intelligence tools to give managers the information they need instantly.

Security: Problems maintaining legacy systems mean top-tier cloud provision might be more secure than existing IT environments.

The risks still make insurers feel wary (Table 3).[15] Regulatory attitudes are only gradually becoming clearer and the EU's General Data Protection Regulation has raised the bar on ensuring data privacy. Transparency about where data is stored and who can gain access is more important than ever.

However, the spotlight is shifting away from the principle of whether the cloud can be made secure towards more tactical choices:

- **Cloud provider selection:** For example, is the insurer using Tier 1 public cloud providers whose business depends on their security record and customer service? How can the insurer mitigate any over-dependence on a single provider?
- **Data transit risk:** Has the insurer addressed the vulnerability of data in transit, e.g., between multiple office locations and clouds? Should the insurer deploy sophisticated technologies to increase the transportability of key workloads on the hybrid cloud?
- **Security trade-offs:** How can the insurer weigh up the security strengths of cloud-based versus on-site approaches? For example, could a cloud-based approach free up IT resources from patching and facilitate in-depth security such as constant data monitoring?

Conclusion

The pros and cons of going to the cloud are rebalancing, tipping the financial industries towards a faster rate of adoption.

In this, insurance may follow banking. The banking consultancies have noticed a trend among smaller banks towards SaaS core systems, with a consequent decline in bank IT staff.[16] By contrast, larger banks in the same markets continue to grow IT staff and are likely to adopt more complex hybrid cloud strategies.

For insurers, the fundamental question is no longer whether or not to move core applications to the cloud. Rather, it is a weighing of the benefits of a range of public, private, hybrid and SaaS cloud strategies against particular business targets. How can a given cloud strategy help the insurer meet its long-term goals and define itself more clearly in the digital era?

Table 3: Classic cloud concerns

Risk Perspectives
Data security, e.g., unauthorized access and theft
Loss of control, e.g., over where data is stored
Access risk, e.g., cloud provider outage, ransom ware
Data transit risk, e.g., connections between clouds
Loss of differentiation (SaaS), e.g., over service upgrades
Intellectual property theft
Cost predictability
Lock in, i.e., inability to easily switch cloud provider
Performance risk, e.g., service level risk
Regulatory compliance and uncertainty

References

[1] For example, AXA Business Insurance uses Salesforce's Service Cloud for customer relationship management: https://www.salesforce.com/uk/customer-success-stories/axa/. In recent surveys nearly 80% of insurer respondents said they are thinking of moving more services to the cloud, e.g., see ServiceteamIT, Serviceteam IT Cloud Snapshot Survey 2017 (conducted summer 2017), Insurance section: http://serviceteamit.co.uk/insurance-sector-uk-cloud-survey-2017/

[2] Karl Flinders, "Metro Bank Moves IT Infrastructure to Cloud", ComputerWeekly.com, 13 December 2016: http://www.computerweekly.com/news/450404545/Metro-Bank-moves-IT-infrastructure-to-cloud; Rackspace, "A Case Study for Metro Bank", 2015: https://www.rackspace.com/sites/default/files/case-studies/crp_metro_bank_uk_case_study_final.pdf

[3] Sharon Gaudin, "Capital One Rides the Cloud to Tech Company Transformation", Computerworld, December 5, 2016: https://www.computerworld.com/article/3145622/cloud-computing/capital-one-rides-the-cloud-to-tech-company-transformation.html; "Enterprises Start to Migrate Critical Legacy Workloads to the Cloud", November 30, 2016: https://www.computerworld.com/article/3146133/enterprises-start-to-migrate-critical-legacy-workloads-to-the-cloud.html; AWS Capital One Case Study (video 2015): https://aws.amazon.com/solutions/case-studies/capital-one/; see also discussion on Goldman Sachs' strategy: James Kaplan and Ishaan Seth, McKinsey, "Banking on the Cloud", interview with Don Duet of Goldman Sachs, April 2016: https://www.mckinsey.com/business-functions/digitalmckinsey/our-insights/banking-on-the-cloud

[4] Clint Boulton, "Why Banks are Finally Cashing in on the Public Cloud", CIO, May 2016: https://www.cio.com/article/3068517/cloudcomputing/why-banks-are-finally-cashing-in-on-the-public-cloud.html

[5] "AIA Selects FIS' Prophet Managed Cloud Service To Optimize Modeling of Risk", FIS case study, May 2016: https://www.sungard.com/solutions/insurance/campaigns/AIA-Prophet-Managed-Cloud-Service?emailcamp=70138000000eBumAAE; another example is US life insurer and financial services provider Pacific Life, see AWS case study, Pacific Life Insurance: https://aws.amazon.com/solutions/casestudies/pacific-life-insurance

[6] Microsoft, "Pioneering Insurance Model Automatically Pays Travelers for Delayed Flights", May 2017: https://customers.microsoft.com/en-us/story/swissre

[7] Danny Palmer, "Cloud at the Heart of Aviva's Plans to Become 'The Digital-First Insurer'", Computing, 17 November 2015: https://www.computing.co.uk/ctg/news/2435108/cloud-at-the-heart-of-aviva-splans-to-become-the-digital-first-insurer

[8] Oliver Wyman and ZhongAn, Technology-Driven Value Generation in Insurance, industry report, 2017, p.21: http://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2017/jun/Technology_Value_Driven_06.pdf

[9] An indicator is that 1 in 4 of a small sample of insurers said they were thinking of piloting a SaaS core system in 2017, Novarica Research Annual, 2017, p.4: Available through https://novarica.com/rq/

[10] For example, Anthony O'Donnell, "Ageas Group Deploys SAP Cloud-Based Comprehensive Insurance Solution", October 27, 2015: http://iireporter.com/ageas-group-deploys-sap-cloud-based-comprehensive-insurance-solution/

[11] The term hybrid strategy is not always clearly defined. See Stephanie Condon, "What Does 'Hybrid Cloud' Mean? It Depends on Whom You Ask", ZDNet, July 25, 2017: http://www.zdnet.com/article/what-does-hybrid-cloud-mean-it-depends-on-whom-you-ask/

[12] See presentation by Mojgan Lefebvre, Liberty Mutual, "Keynote: Leap of Agile Faith", June 2017, CloudFoundry Summit; comment made at minute 4.24: https://www.youtube.com/watch?v=r4bJ8DUe8r4

[13] In addition, note the platform announced by IBM and MetLife in late 2017. MetLife is adopting the platform for its small business clients. See Luke Gallin, "Industry-first Platform Developed By IBM & MetLife to Enhance Insurers' Capabilities", Reinsurance News, 11 October 2017: https://www.reinsurancene.ws/industry-first-platform-developed-ibm-metlife-enhance-insurers-capabilities/

[14] For the new importance of cloud ecosystems for firms, see discussion in James Connolly, "The Cloud: We're Not in 2012 Any More", Informationweek.com, 11/6/2017: https://www.informationweek.com/cloud/the-cloud-were-not-in-2012-any-more/d/d-id/1330328?

[15] For a summary of cloud dependency risk and recent outages, see Lloyd's/AIR, Cloud Down: Impacts on the US Economy, Emerging Risk Report 2018, Appendix A. Historical Cloud Events, pp. 51-53

[16] In some geographical markets, at least. For example, see KPMG, "Banking Systems Survey 2017/2018: Technology Challenges for Dutch Banks in the Digital Era", January 2018, p.8

About Fadata

Fadata is a leading provider of software solutions for insurance companies globally. We are on a mission to empower the insurance industry to drive customer engagement, innovation and business value. Together with our customers, we are on a journey to build the future of insurance and impact millions of people's lives every day.

Fadata has clients in over 30 countries across the globe. Headquartered in Munich, with international offices in more than 5 European cities, Fadata is backed by Private Equity Riverside and Lowell Minnick.

For more information

To discuss your business' needs and how we can help, please contact us at:

Fadata Germany GmbH,
Garmischer Straße 7,
80339 Munich, Germany
T: +49 (0) 89 50222460

info@fadata.eu
www.fadata.eu

fadata