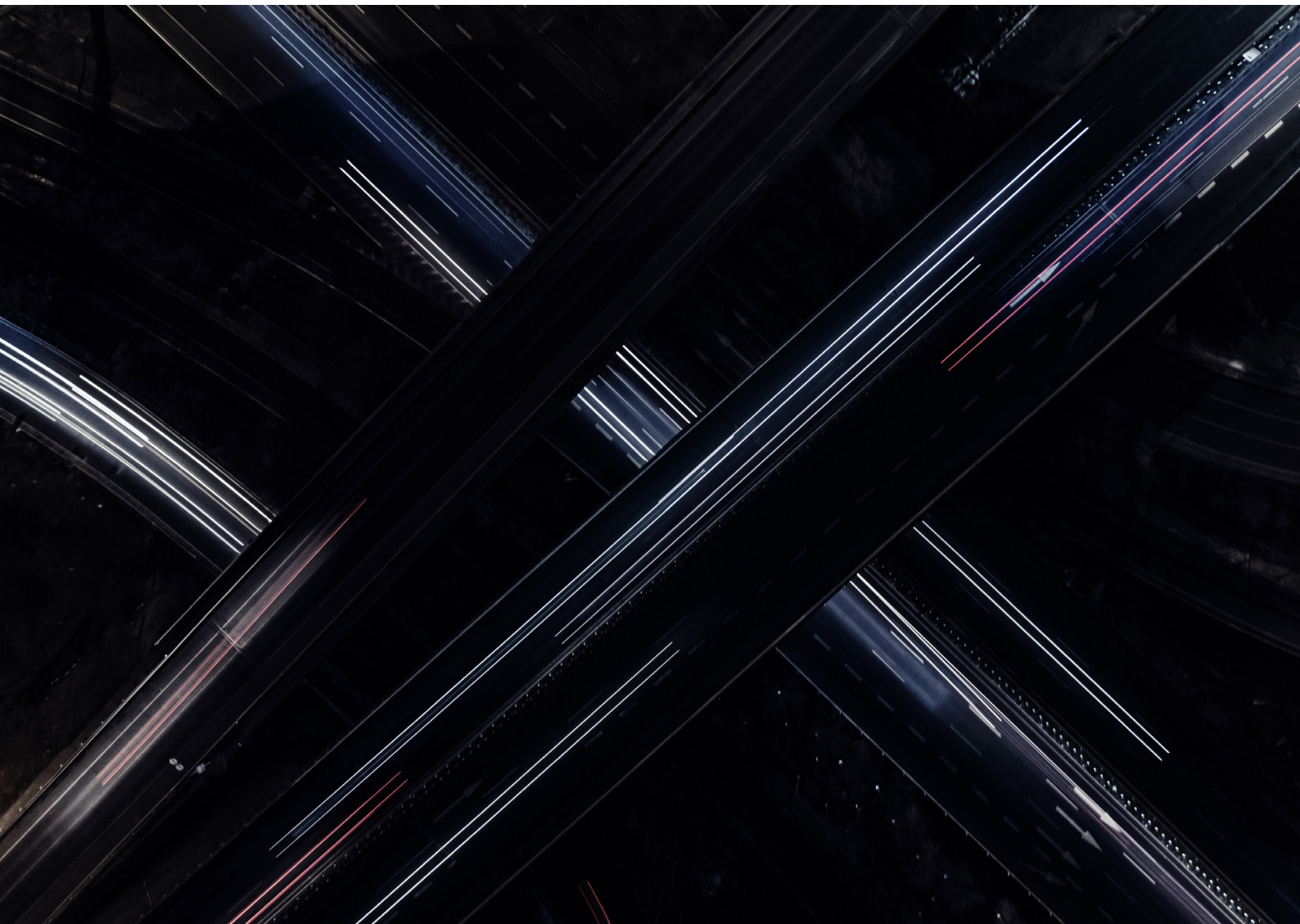


CAPCO

THE INSURER'S JOURNEY TO THE CLOUD



BACKGROUND

Insurers have historically been relatively cautious about embracing digital transformation. More recently, they have started to accept that they need to adopt new digital technologies at a faster rate to change not only how to identify insurance needs but to succeed in the post-COVID-19 world. Digital transformation requires insurers to change the way they have traditionally provided insurance to their clients. Capco believes it requires a fundamental rethink of the organization, the revenue and efficiency goals, and ultimately the business model. This paper provides an overview of the importance of digital transformation, focusing on the cloud and why you must consider it. It targets insurance CIOs, digital insurance leads, and IT & digital transformation sponsors.

It is not safe for insurers to assume that they can continue to do business in the same way they have been for years. To evolve and win new customers as well as retain existing ones, it is important to understand the opportunity digital will provide. Ultimately, the key driver for change will be the consumer. Consumers' expectations and behaviors are now evolving at a much faster pace, with a preference for a simpler and quicker way of purchasing products and services. This behavior termed 'hyper-adoption' will impact the entire business model for insurers. A survey conducted in 2019 with adults in Asia Pacific, Europe and North America confirmed that consumers are using different digital touchpoints for insurance activities across their buying journey.

The biggest challenges on this digital transformation journey involve data security concerns and legacy system complexities. Despite insurers' slower pace of digital transformation, ISG evidence indicates that insurers now regret not having invested in digital since COVID-19 and recognize the potential long-term impact of this lack of investment. Cost-savings and increased productivity are the major benefits that will be realized if insurers embrace digital disruption. Companies that fail to adapt and change the way they provide products and services will weaken if they do not adopt new digital technology. Those that adopt a strategic digital plan with a customer-centric approach are most likely to succeed.

SO WHY HAVE INSURANCE COMPANIES BEEN SLOWER TO ADOPT DIGITAL CHANGE?

DATA SECURITY

Data security is a common concern for insurers who believe they must protect their data by developing in-house solutions - although this can sometimes be more expensive. It has prevented insurers from embarking on digital transformation and considering public cloud technology solutions that can transform insurance businesses. The 'big three' cloud service providers, Amazon Web Services (AWS), Google Cloud Platform (GCP), and Microsoft Azure invest billions each year in security and redundancy alone. This concern is commonly observed across the insurance industry and should be addressed by implementing change at the right pace. Capco recommends exploring cloud applications starting with use cases that rely on less sensitive data and are lower risk.

LEGACY ARCHITECTURE

Historically, insurers predominately invested in the maintenance of "run-the-business" systems and regulatory change ahead of digital transformation. However, the maintenance of legacy platforms causes constraints whereby insurers need to invest in outdated architecture with inherent inflexibility. This shortcoming not only results in data redundancy but also a rapid increase in costs hindering the opportunity to invest in new digital platforms.

Evidence suggests the complexity of legacy IT infrastructure is a primary barrier to successful new digital technology implementations in insurance (according to 2018 EFMA Tech Survey). A scalable cloud infrastructure will enable insurers to adapt and react faster to changes in demand by deploying new products and services and embrace Agile development, which legacy infrastructure prevents.

CULTURE

The culture of insurance organizations has been a blocker to change as insurers tend to be risk-averse and followers with regards to major technology transformations. Their corporate culture has often focused on cost-cutting, protection and

renewal of existing business and the traditional insurance model has proved to be remarkably resilient. This is a primary reason for a slow approach to technological modernization. Insurers are comfortable with processes that they have been using for years as this is what has historically worked for them. Moreover, as a heavily regulated financial sector, insurers have a much higher standard for new technology adoption. However, they must adopt a more customer-centric mindset and culture to progress in the digital world. For example, DevOps is a common approach amongst software companies and leading insurtechs, as it ensures that the product development and operation are collaborative and allows for faster deployment of services.

SKILLED WORKFORCE

Insurers have the advantage of a skilled workforce and underwriting expertise built on years of experience and proprietary data. A reliable workforce with competent underwriting skills and expertise as well as massive capital requirements needed by insurance firms has protected the traditional insurance value chain from disruption. Insurance executives have relied on the consistency of this workforce and failed to recognize the talent changes that the future will demand. Recognizing this change will mean that the traditional insurance workforce will shrink and will change the nature of work for employees.

A challenge in attracting technical talent is also an issue for insurers. Given customer engagement with major insurance companies occurs primarily at the claims stage, customers tend to have a poor engagement experience Which creates brand issues. While insurtechs have disrupted the sector, their relationship with insurers has primarily been an underwriting partner, which meant that insurers miss capturing the value that insurtech disruption has created. Insurers have been challenged to match the level of customer engagement, and talent attraction that insurtechs can provide, which has limited their pace in digital transformation.

Embracing digital change such as AI (artificial intelligence), RPA (robotic process automation) and NLP (natural language processing) will transform underwriting and claims processing by eliminating human error and improving data accuracy overall. Leveraging the right technologies and architecture by automating back-office processes will enable operations to be far more efficient.

Historically, insurance providers face many challenges which relate to complex fraudulent claims, compliance issues and handling large amounts of sensitive data. It is important to understand this data and provide consumers with the right products and services they need. However, a heavy focus on financial loss and little understanding on the data that sits behind these core systems has constrained innovation. To use

technology such as AI, they must understand the data to be able to learn from it. A well-curated and structured set of data will enable insurers to train an AI system and extract value in a meaningful way. Nevertheless, it is insurers' sensitivity to data that has resulted in the belief that in-house solutions are the best method to protect data.

ISG evidence indicates that in 2020, insurance companies are now prioritizing cloud, with 51% considering spending their IT budget on cloud transformation. This change in mindset is paramount as the success of insurtech start-up companies like Trov Inc, Lemonade, WeFox, and CoverWallet prove that cloud technology can drive a high growth future in the insurance industry.



CLOUD TECHNOLOGY

Cloud technology is an evolving and growing trend. It refers to servers accessed over the internet and applications that run on those servers allowing organizations to access a range of hosted services for compute, storage, and application development. The success of major cloud service providers, AWS, GCP and Microsoft Azure, and emerging providers such as Alibaba Cloud and Snowflake, has popularized this technology as an alternative to on-premises infrastructure.

This highly global and scalable infrastructure offers several characteristics:

- **On-demand computing and self-service provisioning** provided by AWS, GCP and Microsoft Azure offers unlimited and elastic resources to cloud users which provides them with a vast amount of storage, processing, and network bandwidth, resources that on-premise infrastructure cannot provide without predicting how much infrastructure is needed. This self-service provisioning enables users to select the resources and tools they need to build right away without the need for physical servers.
- **Resource pooling** enables organization to have access to vast resources i.e. storage, processing, network, at low cost. This is achieved by cloud service providers accommodating more users at the same time through a multi-tenant architecture.
- **Rapid elasticity** enables organizations to deploy products and services faster. This is because resource pooling provides the flexibility to scale as much as the organization needs to, depending on demand, and in real-time. On-premises architecture requires advanced planning of what the business needs so that physical servers can be purchased which is why it is not as easy to scale.
- **Consumption-based pricing** means that your organization can pay for services as needed which means you pay for only what you consume. This will enable your business to focus on innovating instead of the physical infrastructure needed to scale.

- **Broad network access** means that users can access data from any location and from a wide range of devices, such as tablets, PCs, Macs, and smartphones.

Insurers are significantly increasing their investment and evidence indicates that the willingness to adopt the public cloud is highest in insurance than any other regulated financial services sector. It is an important reason to consider cloud and ensure a competitive lead since the rise of emerging disruptive Insuretechs. Evidence indicates that Insurance CIOs want cloud computing to play a role in modernizing their core systems and that they plan an increased level of investment. Investing in cloud technology will allow an integrated approach to provisioning services to customers enabling a more convenient way for clients to shop for insurance products. Insurance companies will benefit from cloud adoption as it impacts the entire insurance value chain including underwriting, claims processing and data analytics. A cloud-based approach can transform all these areas which insurers have previously been reluctant to address without understanding the real benefits. The adoption of this technology will not only benefit the insurer but the consumer too.

HOW WILL INSURERS BENEFIT FROM CLOUD ADOPTION?



Cloud adoption will impact the entire insurance value chain, from the types of products and services developed through to how insurers interact with their consumers. It will innovate their entire infrastructure.

1. Reducing costs and increasing efficiency

- Cloud involves more than just renting servers and storage on demand. This virtual infrastructure will enable cloud automation tools to be implemented which supports automated underwriting and pricing decisions. Process automation will reduce labor-intensive processes and free up employees, significantly reducing operating costs and capital investment costs
- This virtual scalable technology will enable insurance providers to scale based on changing demands. This means insurers can handle large volumes of demand keeping processing times to a minimum. This also means no upfront expenditure for infrastructure.

Adopting cloud will not just reduce costs and process claims quicker, it will result in a better customer relationship due to the speed, ease, and efficiency of the claims process. Consumers will massively benefit from a more positive experience and insurers will notice an increase in internal efficiency with high returns on investment.

2. Improving speed to market

- As consumer demands increase, insurers must build products and services that meet these needs. Cloud can enable insurers to respond rapidly to these demands through quicker go-to-market for different products and services
- New product development can be achieved quickly as cloud will provide insurers with connections to established providers and therefore does not require launching a new system with multiple integrations to support this.

CLOUD COMPUTING USE CASES FOR CONSIDERATION IN INSURANCE

DATA ANALYTICS

Investing in cloud will enable insurers to better understand their data, unlock key insights and produce better business outcomes for consumers. The flexibility of computing resources that cloud provides means large data sets can easily be analyzed. This technology will provide greater IT agility and will holistically transform the customer experience as insurers will be able to meet demand, deploy new products and services to the market more rapidly. Customers demand simplicity and are becoming digitally empowered requiring new means for insurers to stay relevant and engaged. Insurers must provide solutions that offer value-added services that can streamline identifying insurance needs, selling policies, customer support, and settling claims. The analytics services that cloud provides can enable insurers to obtain the necessary business intelligence and develop services that meet customers' needs in a hyper-targeted manner and generate greater returns without having to invest considerable capital.

EXAMPLE:

Lemonade Insurance uses AI to drive its innovation and guides its approach to the claims process. Their mobile application is powered by AI which provides them with data that enables them to understand why customers are putting in claims. This data transparency and customer focused model has resulted in rapid growth.

CORE SYSTEM MODERNIZATION

Insurers that have invested heavily in legacy systems and are continuously investing a considerable amount of capital into complex outdated systems should reconsider this approach. Cloud computing modernizes and updates core systems and technology, such as underwriting and claims and policy which does not require a massive amount of capital investment.

EXAMPLE:

AXA has invested more than one billion dollars in digital transformation, focusing on cloud transformation to support improvements in customer service. Their investment in a single platform for digital channels enabled agents to handle multiple customer interactions simultaneously, increasing productivity. HDFC Life is also investing heavily in its customer experience by building an integrated platform to provide customers with a simplified purchase and service experience and deliver services beyond insurance. Revenue doubled & staff productivity increased by 24 percent year on year.

ENHANCED BUSINESS SERVICES

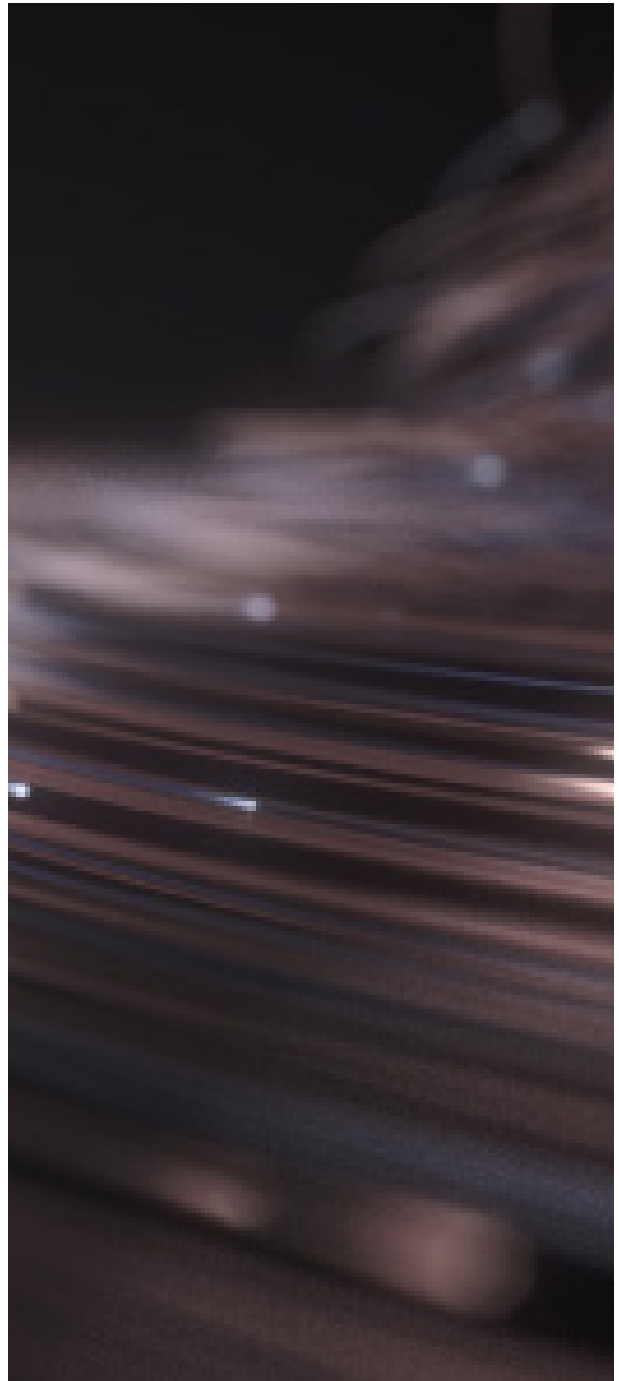
A vast ecosystem of business applications that are used by insurers can be migrated to the cloud. The cloud will not only support the consistency and availability of applications; it will also enable the development of new applications.

EXAMPLE:

Trov Insurance offers a white-label platform comprising three subsystems which includes consumer experience, insurance policy and business tools. The platform is a cloud-native customer acquisition, marketing, and policy engine, supported by business intelligence tools for claims, customer management and analytics. This platform is being used by Lloyds Banking Group to launch insurance products.

Although this journey has generally been quite slow for the insurance market, it should be something that all insurers consider carefully. Cloud-based platforms are more than a platform to run core businesses; they enable organizations to create a large digital ecosystem with a wide range of on-demand services that can be accessed at any time on any device. Insurers will be able to take advantage of analytics capabilities, accelerate innovation and deliver products and services that exceed customers' expectations adopting a more customer-centric mindset.

Capco believes insurers should focus on identifying a suitable public cloud provider that will expertly collaborate and enable them to consume cloud services securely and safely. The easiest way for insurers to adopt the cloud is to replace existing technology with cloud platforms by collaborating with providers such as Amazon Web Services (AWS), Google Cloud Platform (GCP) and Microsoft Azure.



WHAT MUST INSURERS CONSIDER BEFORE ENGAGING PUBLIC CLOUD SERVICE PROVIDERS?



1. CLOUD VISION AND STRATEGY ALIGNMENT

Identify business motivations for moving to the cloud and ensure all business units agree. Define clear business objectives and business-wide cloud strategy. Align all relevant stakeholders and develop a global cloud architecture function to ensure the right capabilities are in place to manage cloud services.



2. ORGANIZATIONAL TALENT

Identify business motivations for moving to the cloud and ensure all business units agree. Define clear business objectives and business-wide cloud strategy. Align all relevant stakeholders and develop a global cloud architecture function to ensure the right capabilities are in place to manage cloud services.



3. TACKLE TRANSFORMATION CHALLENGES

Identify business motivations for moving to the cloud and ensure all business units agree. Define clear business objectives and business-wide cloud strategy. Align all relevant stakeholders and develop a global cloud architecture function to ensure the right capabilities are in place to manage cloud services.



4. SECURITY CONTROLS

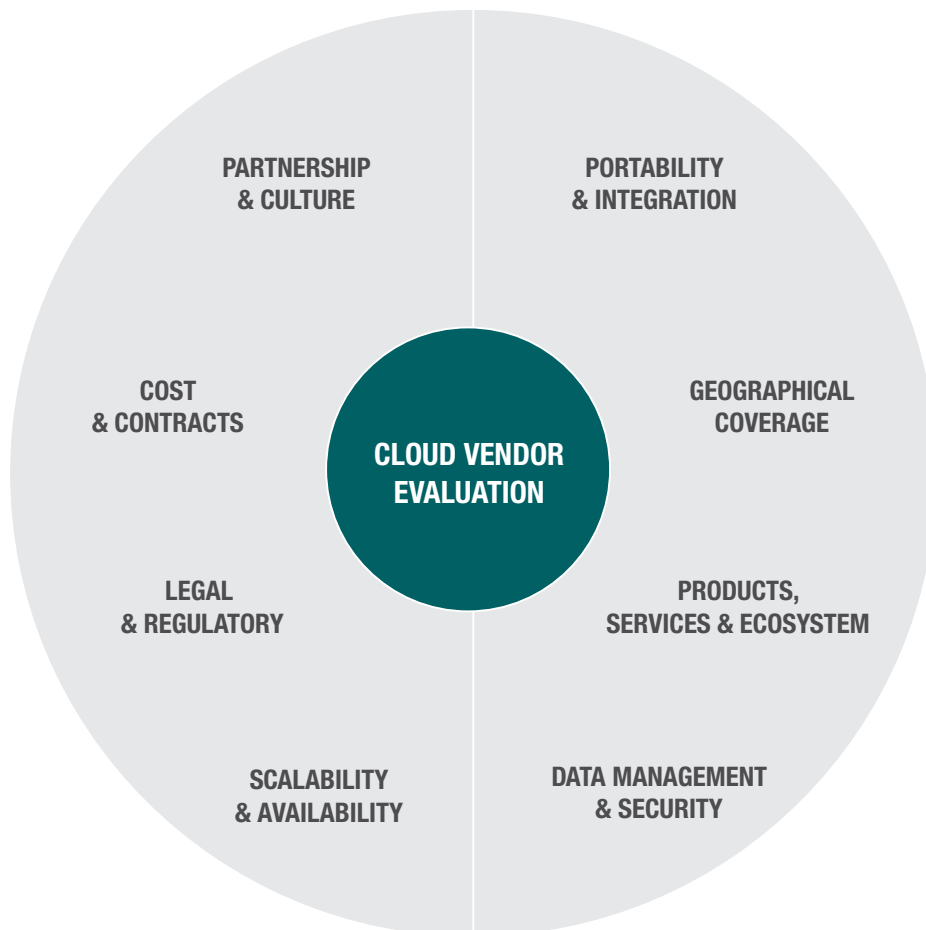
Identify business motivations for moving to the cloud and ensure all business units agree. Define clear business objectives and business-wide cloud strategy. Align all relevant stakeholders and develop a global cloud architecture function to ensure the right capabilities are in place to manage cloud services.

Insurers must begin by determining if there is evidence to suggest which CSPs have a better understanding of certain industry regulations and international frameworks specific to the insurance sector. They may include GDPR, PCI DSS (payment card industry data security standard), HIPAA or NAIC. The 'big three' CSPs (AWS, GCP and Azure) possess a breadth of experience in the insurance industry. The insurer should consider selecting the right cloud service provider(s) depending on the breadth of their microservices that can address insurance-specific use cases.

HOW CAN CAPCO HELP CLIENTS?

Capco's proven experience of supporting large financial organizations in selecting the right cloud service provider(s) makes us a reliable choice to help clients with their cloud adoption journey. This cloud vendor selection approach supports both banks and insurance companies. It enables providers to select the right cloud service provider(s) by shortlisting a choice of appropriate providers that assessed to decide which one is most suitable for the organization's requirements. Capco

has developed the 'Capco Vendor Assessment Framework,' which summarizes the key parameters to evaluate the CSPs for consideration. The requirements each organization has, and the evaluation criteria used will be unique to each firm. Although there are some common areas of focus for each of these parameters - several aspects should be considered to ensure a detailed assessment is conducted.



PARTNERSHIP & CULTURE (ICON)

Insurers expect providers to understand the industry and provide confidence that they are willing to collaborate with them rather than support. Analyze the CSPs internal professional services functions to determine if they have the right capability to help with strategy, adoption, architecture, and security. Ensure the CSP you wish to choose understands your business objectives and the specific challenges you face. You must select a CSP that has the correct experience and internal capability to support you with practices commonly used for application development. Service providers may have multiple vendor relationships ...that are must be assessed too.

DATA MANGEMENT & SECURITY (ICON)

You may already have a data classification scheme in places that defines data according to data residency policies. It is crucial to understand how data is protected from unauthorized access and what are the policies regarding local and foreign law concerning your data. What tools and techniques do the CSP(s) use to prevent access to sensitive data? What is the process to continuously evolve security posture and how much is invested in security? The investment in security can reflect how critical the CSP(s) considers security to be. For insurers, data security will always be a major concern and it is critical to evaluate CSP(s) security operations and governance as well as security and compliance regulations from country to country.

LEGAL & REGULATORY (ICON)

Recognized regulatory standards can be helpful in shortlisting a potential supplier. You must ensure that the CSP (s) follow compliance guidelines that apply to your organization. They may include GDPR, PCI DSS, HIPAA or NAIC. You will need to understand how they will help you to achieve full compliance once your applications are in the cloud. Security of data is vital to the insurer; some cloud service providers will provide customers with ownership and control over their content by design using powerful tools, which will allow them to decide where the content will be stored. This may be a favourable option.

COSTS & CONTRACTS

Cloud service providers will provide agreements that be multifaceted and there may be hidden costs that need to be carefully analyzed. The costs include You must understand the services the CSP(s) is committing to provide vs the consumption required by the organization and carry out a comparative analysis of the costs to ensure you are getting value for money. It is also essential to evaluate the SLA terms for each provider and ensure they offer fair service credits or monetary redress in the case of service failure. Pricing is much more than usage, there are variances by region, discounts for reserved instances and different licensing costs that must be considered. The size of the CSP will play a part in the price.

PORTABILITY, INTEGRATION AND GEOGRAPHICAL COVERAGE

Whilst contract termination details should be in the commercial contract with the CSP - clients need to carefully consider cross-platform integration and portability capabilities of the services and tools they are using. They must also get clarity on the roles and responsibilities of the services and how this is distributed between the customer and provider. Major cloud service providers have extensive global reach and are always looking at ways to increase their global footprint by building more data centers in different locations. It can support insurance companies by having data physically located in the same country. If there are limitations to where data can be accessed, a CSP with global infrastructure in depth is ideal.

SCALABILITY & AVAILABILITY

How fast and effective is the service to scale with load/overload situations? You must be clear on which locations you would like to receive services from as this will determine if the cloud service provider needs to have a global footprint. If so, it is crucial to identify a cloud service provider (s) that has data centers in multiple locations and the ability to scale. Determine which provider is economical at scaling to ensure costs managed well as the business scales i.e. competitive pricing models for autoscaling. Can the CSP continue service even under outages of individual components or all backends? The resilience of the CSP is determined by their contingency planning and recovery to ensure services are always available. A mature CSP will be able to provide you with the tools and techniques to create a redundant infrastructure to reduce disruption. It is critical to assess the methods and techniques that the provider uses for adequate testing to ensure resiliency strategies will work as expected.

PRODUCTS, SERVICES AND ECOSYSTEM

Does the CSP(s) product offering align with your demand view? The CSP must be able to articulate how their services will enable insurance companies to accommodate unique insurance processes. You must also assess the CSP' capabilities to support the build of new APIs and how they will integrate with the on-premise estate. How will the CSP' technical architecture and ecosystem integrate with your organizations now and in the future? It may be worth considering that if your company has already invested in a provider's ecosystem such as Microsoft Office 365, you may want to consider using their cloud services. This choice could result in benefits such as service credits or reduced licensing costs.

CONCLUSION

Capco's CSP vendor evaluation method will help insurers make the right transformation decision on which provider is most suitable to their organization. Adopting cloud is the right choice for most insurance companies today. It will enable you to meet the needs of your interactive customer environment whilst remaining competitive in a marketplace that proves to be challenging.

Insurers must focus on continuing to evolve digitally in 2020-2021 which includes changing their mindset and investing in cloud to strengthen their technology capabilities. To support this cloud transformation journey, it is important to start defining your organizations' motivations for moving to cloud, the key business drivers, and the benefits you wish to realize.

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ABOUT CAPCO

Capco is a global technology and management consultancy dedicated to the financial services industry. Our professionals combine innovative thinking with unrivalled industry knowledge to offer our clients consulting expertise, complex technology and package integration, transformation delivery, and managed services, to move their organizations forward.

Through our collaborative and efficient approach, we help our clients successfully innovate, increase revenue, manage risk and regulatory change, reduce costs, and enhance controls. We specialize primarily in banking, capital markets, wealth and asset management and insurance. We also have an energy consulting practice in the US. We serve our clients from offices in leading financial centers across the Americas, Europe, and Asia Pacific.

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