

Contents

Executive summary	3
Challenges	3
Recommendations	4
Introduction	5
Ramping up collaboration	7
How are APIs transforming industries?	9
Defining “insurance as a platform”	11
How can APIs help to realize insurance as a platform?	14
Building towards an application network by harnessing insurance as a platform	17
Conclusion	19
About MuleSoft	20

Executive summary

This whitepaper explores the “need for speed” within the insurance market and how the speed of change across all industries is demanding a new approach to delighting customers and growing revenue. This new approach involves the adoption of a digitally matured operating model, referred to as an “insurance as a platform”—a digital evolution of the traditional insurance platform model pioneered by the likes of Lloyd’s of London. By treating and packaging the organization as a discrete set of capabilities and processes, this approach enables internal and external parties to access and reuse components appropriately. This new model has the potential to grow revenue via more effective collaboration and the integration of innovative partners; it also has the potential to improve operational efficiency through reuse and productivity increases of up to 300%. We will describe – from a technology perspective – how to start adopting this new model using an API-led approach to connectivity, and the importance a new IT operating model plays in implementing it.

Challenges

- Market expectations in insurance are changing in line with other industries; insurance companies need to improve their customer and operational experiences through digital transformation.
- Distribution layers are increasing as insurance diverges from traditional B2C and single-tier B2B2C to multiple channels.
- New products are driving insurers to build partnerships – e.g. with InsurTech – that can bring richer and broader offerings to market at a faster speed than IT can deliver.

Recommendations

- Realize “insurance as a platform” by treating the organization as a set of discrete capabilities which can be accessed and reused by multiple parties at scale.
- Proactively consider new routes to market, using both traditional and non-traditional channels, through this new approach by plugging-and-playing into different capabilities and partnering with stakeholders to strengthen offerings and grow revenue.
- Build on a single technology platform, rather than a series of discrete units, for a consistent experience and increased resilience across internal and external audiences.

Introduction

The insurance industry has a perception, perhaps unfairly due to regulatory constraints, as a laggard: it has the reputation of being a slow adopter to change and risk-conscious by its very nature. Some argue that the industry is plagued with “a great deal of inertia,” especially when you compare the number of disruptors in the market compared to other industries.¹ However, the industry may be shaking off this image, with a 10x increase in digital and technology investment between 2010-2015.

Similar to other industries undergoing change, this investment is principally driven from customer pressure and expectations. As companies such as Amazon sharpen the way that customers interact across all of their services, customer expectation is set as to how they should interact with sellers when buying anything, including insurance. Even today, according to Fujitsu,² nearly a fifth of consumers would consider buying insurance from Amazon, a halo effect of customer’s experiences with Amazon in other places.

The fact that insurers are looking to build a better and more efficient brand and customer relationship is not new. However, what is different in today’s environment is the pace at which change is accelerating. 70% of insurance CEOs³ – a higher percentage than in any other industry – see the speed of technological change as a threat to their growth prospects. Because of the complex nature of evaluating risk and the expensive settlements that insurers have to pay, the barrier of entry to the insurance market has always been high, limiting

1 Leading Edge Forum. (2015).

2 Fujitsu. (2016).

3 PwC. (2015).

the number of insurance companies in the market (relative to other sectors).

This has created a limit to competition, agility and innovation. However, with the digital world being ubiquitous in every aspect of consumers' lives, the threat to traditional revenue lines by startups and digital innovation is real and will only grow. More than half of insurance consumers already want more digital tools to make decisions and this is rising.⁴ This is where the rise of InsurTech originates, as the industry is seen as ripe for disruption; they help drive innovation, the digitization of processes and organizational redesign (see Figure 1). This demand is being nurtured by regulators across the globe, such as in the UK's Financial Conduct Authority's 2016/17 Business Plan, and through startups' ease of access to scalable technology, enabled through cloud computing.



Figure 1: InsurTech Landscape (Source: Venture Scanner)

4 PwC. (2014).

Ramping up collaboration

The opportunity and challenge have left insurance leaders clamoring for answers. These challenges aren't exclusive to insurance, and many talented minds are working on solutions for similar problems in other industries. It's no surprise, then, that a common approach is to increase collaboration.

What MuleSoft has observed in many other industries is that when there are similar needs to rapidly increase collaboration, those needs are best met by changing the culture of an organization and embracing a new operating model. This typically comes down to two components:

- 1** Changing behaviors and culture: Building flexible commercial models that allow regulated and efficient collaboration.
- 2** Improving processes and technology: Enabling simple ways to share information and data, to enrich collaboration based on real business data

The first aspect is one that requires leadership and appropriate strategy setting within an organization. Historical parallels can be drawn in insurance to the likes of Lloyd's of London. Lloyd's radicalized the market through a new operating model and the establishment of a "platform," by which the market could standardize and reuse components (in this case: location and processes). For today's market, the prominence of technology means any new platform model needs to bring together this legacy world with the digital one.

This leads to the second aspect, technology, which requires focus and strategic selection of tools that can help realize the first vision. The engine of transformation that is driving a new operating model are that of APIs (Application Programming Interfaces). When well-designed, we are seeing APIs being used as building blocks to help industries embrace change and be

more flexible. However, ProgrammableWeb, one of the largest databases of APIs globally, lists less than 30 active APIs for Insurance, which is small when compared to other industries, such as banking (over 150) or transportation (over 400). There is an apparent opportunity for insurers to embrace this engine more than they are already doing so.

How are APIs transforming industries?

Before we delve into the insurance specifics, we need to first outline why APIs have suddenly risen to prominence across industries. Over the past few decades, the term “API” has been used generically to describe a connectivity to an application. However, in recent years, the definition of a ‘modern’ API has taken on some characteristics that completely change the narrative:

- Modern APIs adhere to standards that are easily accessible and understood broadly.
- They are treated more like products than code. They are designed for consumption for specific audiences (e.g., developers in an InsurTech organization), they are documented, and they are versioned in a way that users can have certain expectations of its maintenance and lifecycle.
- Because they are much more standardized, they have a much stronger discipline for security and governance, as well as monitored and managed for performance and scale

This new iteration of APIs has been used to transform industries dramatically. Organizations use APIs for everything from unlocking assets to gain market share, to reducing time-to-market by becoming more operation resilient. If you look at other industries, you can see ways that APIs are disrupting the value chain (see [Figure 3](#)).

Industry	How is the value chain being disrupted?
Banking	The rise of Open Banking will see banks both intermediating and being disintermediating, as they opt for an increased open data interchange between financial services organizations and third-parties, such as FinTech. This levels the playing field and means that traditional incumbents could have their services fronted by other parties. This is all enabled through APIs.
Government	The Tax Department in the United Kingdom (HMRC) is using high-quality APIs to encourage new and more sophisticated tax software products on its tax platform. The aim is to provide more choice for customers, and allow third-party developers to support intermediaries.
Transportation	Flydubai started as a 'no-frills' airline and have grown 30 percent year on year. To expand their growth, they began opening up their Passenger Services Systems via APIs. Everything is now bookable through the flydubai website. This enables existing business partners to connect, but also opens up new areas of partnership, such as partnerships with freelance developers.

Table 1: Examples of industry value chain disruption via APIs

Defining “insurance as a platform”

What all these examples have in common is the fact these organizations have become composable and treat their business and processes as a series of discrete elements, exposed via APIs. Applying this best practice to insurance, most insurers are organized in silos with a team or group of systems that handle compartmentalized processes or products. These processes and products may involve a personal lines insurer, or motor versus specialty products such as travel. Communication between these silos is often what slows down the ability to change, as it is ad-hoc and difficult to unpick. One can see that by building the appropriate strategy and architecture, different internal and external partners – InsurTech or otherwise – can reuse and access components appropriately. This reuse can start to bridge gaps in a portfolio or strengthen of existing capabilities that drive competitive advantage, as each organization begins to play to their own strengths. This concept is an evolution of Lloyd’s original operating model, a bridging of the legacy and digital, and the modern “insurance as a platform.”

How does this differ from the current approach to transformation? An insurer’s typical first step to approaching ‘digital transformation’ has been to introduce an innovation or digital team to “take care” of innovation, expecting it to disseminate across the organization as a result. These are often ring fenced from the traditional constraints and processes, and given free rein to innovate in areas closest to the customer. These new teams have been as much about trying out new techniques focused on more agile development, automation, new team structures and utilizing cloud-based platforms as developing some new innovative customer-facing solutions.

They've often focused on kicking the tires on approaches to moving faster and innovating. However, individual innovation teams do not ultimately provide a scalable way to change the culture of a large insurer with multiple lines of business. An interesting development is now the desire to be able to conceptually change the whole insurer into a laboratory for carrying out many experiments, enabling innovation across all areas and not just within a single team. These initiatives are focused on changing the IT delivery model across the whole insurer into one that fosters a fail fast approach to new technology solutions in any area; in other words, the industrialization of innovation. This was reaffirmed by research firm Pierre Audoin Consultants.⁵ They asked 200 large and mid-sized insurance companies about their innovation strategies and found they are moving from having pockets of initiatives around digital to adopting formal enterprise-wide strategies. By setting up your organization as a composable one, where you can provide appropriate access to the discrete component (via modern APIs) to internal and external parties it enables this industrialization.

After all, the trend in most startups and InsurTech is to solve a small part of an overall insurer's value chain, and the challenge for incumbents is to integrate these innovations in their own real processes. This has precipitated a movement in the focus of the IT organization towards brokering the incorporation of pre-built capabilities, alongside delivering value added components on top of those. The company SnapSheet, one of many startup motor adjudication services, is an example of this. It aims to revolutionize the claims experience of a motor accident by getting customers to simply take a picture of the incident and have it adjudicated via this method. This promises to speed up the claims process to less than 3 days, which makes it cheaper for the insurer and provides a better customer experience. The principle of insurance as a platform is the ability to

5 Pierre Audoin Consultants. (2017).

plug-and-play with partners in a way that will be competitively advantageous. A simple analogy is that it is the equivalent of a jigsaw puzzle, where each part of your business is a piece that can be swapped out or built on quickly as necessary (see Figure 2). This brokered capability can then be surfaced through an “insurance as a platform” operating model.

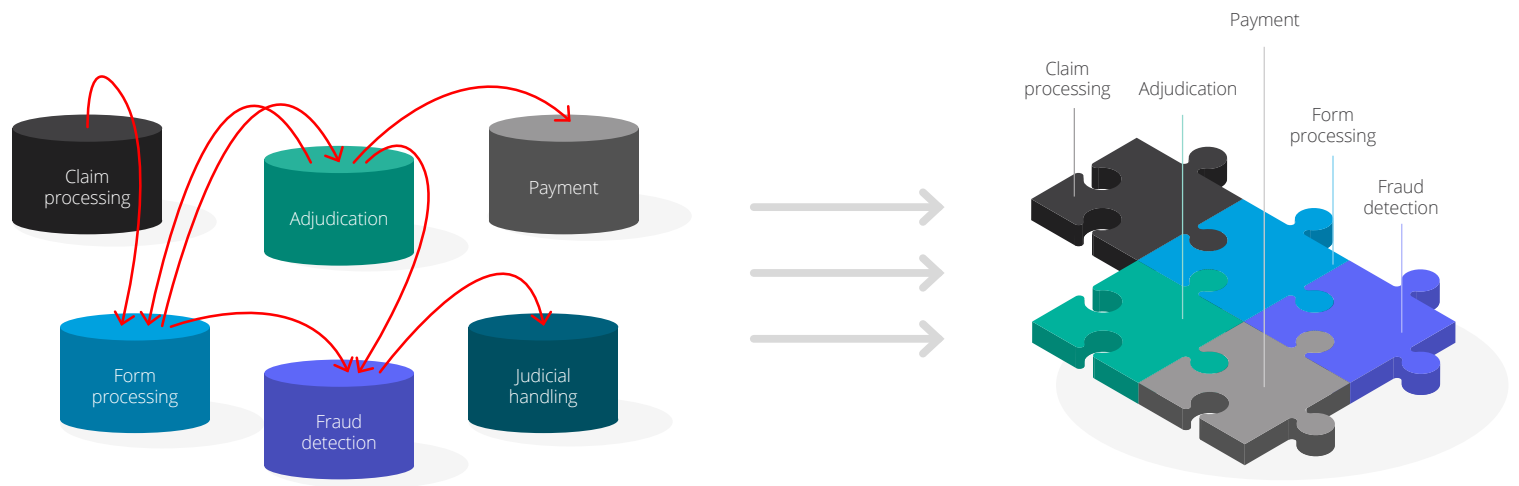


Figure 2: Simplified visual of moving from a siloed organization model (left) to insurance as a platform (right)

Central to this brokering function is a replaceable component architecture that allows an ever changing set of composable digital capabilities to be combined together and underpin the insurer’s go to market strategy. Ultimately this serves to:

- Increase speed to market through efficient collaboration
- Take cost out via efficiency gains
- Increase interoperability through simplification of data management and improved coordination among connected devices
- Improve customer engagement by implementing innovation faster

Interestingly, there are also many indirect benefits of this business model. For example, as the ability to swap solutions in and out becomes quicker and simpler, this increases competition and the quality of solutions from third-parties, such as InsurTech, should improve because insurers have more control and fewer ties.

How can APIs help to realize insurance as a platform?

How can insurers use modern APIs to move to this model without a big bang organizational shift that could put the whole business at risk? It requires an approach which orders and focuses the organization to the processes and capabilities that are most relevant to them. MuleSoft pioneered an approach, called API-led connectivity. With this approach, every service, process or asset becomes a managed API, and is made discoverable to the appropriate teams in the business. It is designed to liberate resources to innovate and move quickly. This methodology allows insurers to easily add more devices and solutions into the mix, while maintaining high performance of the whole system. As a result, significant changes can be done within a matter of days or weeks – instead of months – because the processes are already there. This applies to the other end of the spectrum; even after a merger or acquisition, systems, processes, and devices of the organizations can be interconnected through APIs—thereby decoupling the two parties and allowing both to work independently.

Insurers have complex, interwoven connectivity needs that require multiple APIs. In this context, putting in a framework for ordering and structuring these building blocks is crucial. API-led connectivity provides the agility and flexibility that can only come from a multi-tier architecture containing three distinct layers. This is very relevant for the insurance market, as there are numerous onerous regulatory pressures that require data to be managed in certain ways. The layered approach advocated within API-led connectivity allows insurers to minimize differences in systems and processes, by aggregating the data needed to perform a pricing calculation for a policy, for example. These tiers are described below and illustrated in [Figure 3](#):

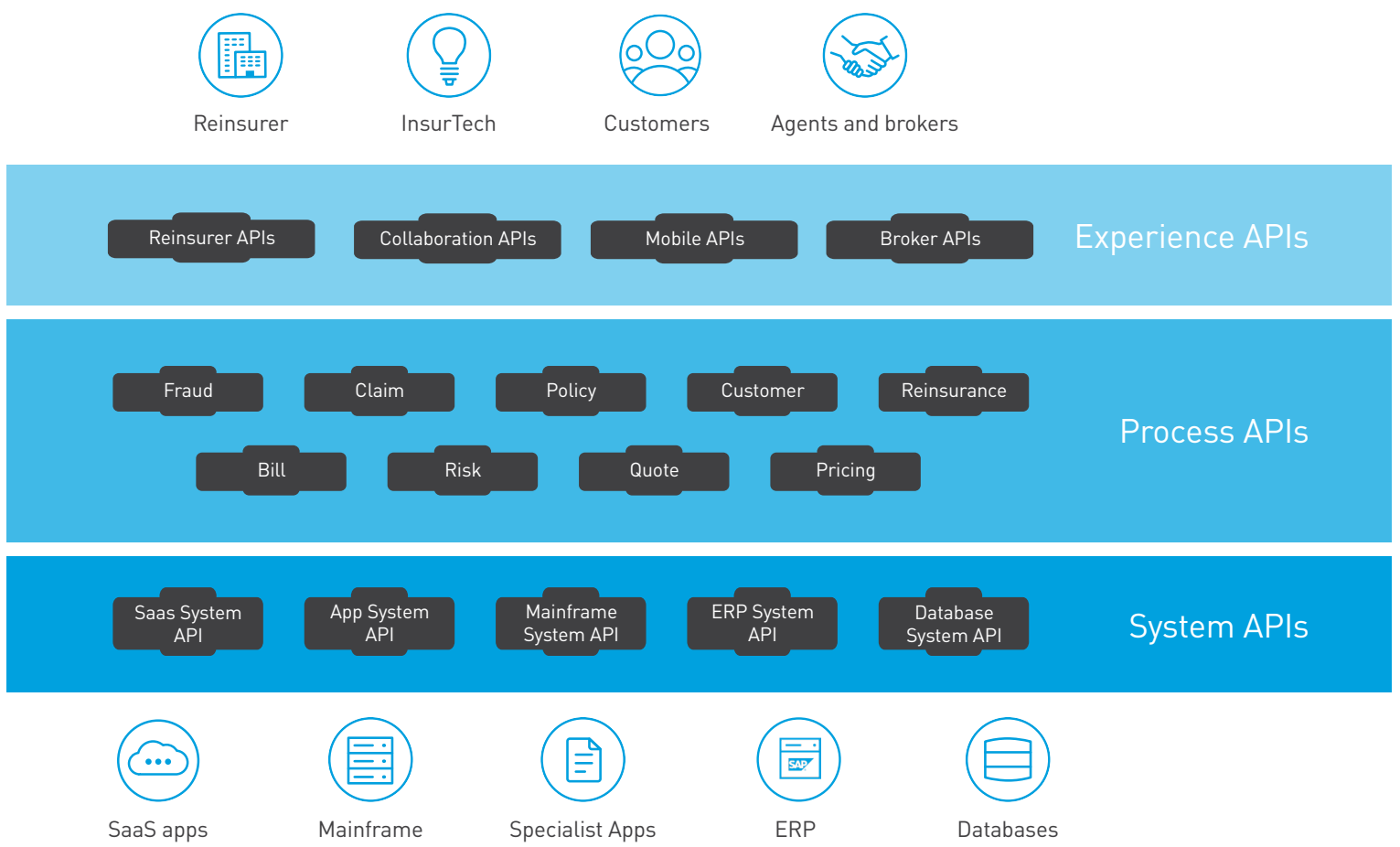


Figure 3: Diagram of an API-led architecture in the context of insurance

- > System Layer:** Underlying all IT architectures are core systems of record (e.g. policy management, key customer systems, billing systems, proprietary databases, etc.). Often, these systems are not easily accessible due to connectivity concerns and APIs provide a means of hiding that complexity from the user. These APIs will likely change more infrequently and will be governed by central IT given the importance of the underlying systems.
- > Process Layer:** The underlying business processes that interact and shape this data should be strictly independent of the source systems from which that data originates, as well as the target channels through which that data is delivered. For example, in a claims management process, there is some logic that is common across products, geographies, and retail channels that can and should be distilled into a single service that can then be called by product, geography, or channel-specific parent services. These APIs perform specific functions and provide access

to non-central data and may be built by either central IT or Line of Business IT.

- **Experience Layer:** Data is now consumed across a broad set of channels, each of which want access to the same data but in a variety of different forms. For example, an insurer's mobile application may want access to all of the same customer information fields, but each will require that information in different formats. Experience APIs are the means by which data can be reconfigured, so that it is most easily consumed by its intended audience from a common data source—rather than setting up separate point-to-point integrations for each channel.

Building towards an application network by harnessing insurance as a platform

As you realize insurance as a platform with API-led connectivity, you're building what is known as an application network, one building block at a time. An application network is a network of applications, data, and devices connected with APIs to make them pluggable and to create reusable services. With every additional node, the value of the network goes up dramatically.

That network allows consumers from other parts of the business to discover and use those assets. Creating an application network is a matter of establishing an organizational discipline of developing reusable assets defined around consumption models. These assets can get used and reused in different ways inside your organization. Understanding that is going to happen will help you shape the way you define the consumption model for that asset.

Then, you build connections between these assets from the ground up. You only build things as you need them, and then expose them to the rest of the organization to be reused. This avoids a big bang approach because what teams start to do is build the APIs when they do their normal day-to-day activities. Then, through self-service, teams are enabled to innovate and "plug-and-play" with different APIs and partners.

- 1. Startup mode:** In order for the API-led connectivity vision to be successful, it must be realized across an organization. However, in large insurers, it is simply not possible to wipe the slate clean and start from scratch. Consequently, the API-led connectivity customer journey must start with a vertical slice of the business, for a specific use case or line of business. By bounding the problem, you can reduce the scope of change and increase the

probability of success. Training and coaching to drive role modeling of new behaviors is critical at this stage.

- 2. Scale the platform:** Once initial proof points have been established, these use cases will naturally become lightning rods within the organization that will build mindshare, and become a platform to leverage greater adoption. In addition, the service-oriented approach results in the natural creation of reusable assets, which exponentially increases the value of the framework as the number of assets increases.
- 3. Build a Center for Enablement (C4E):** Once scale has been established, it's critical to quickly codify best practice and provide a platform for discovery and dissemination. The result of such a process is mass adoption across the enterprise. The core of this C4E may also be built during the startup mode and scaled as required.



Learn more about how to establish a [Center for Enablement](#).

Conclusion

By following these steps, the refined business model of “insurance as platform” is one that can be realized to help address some of the industry’s most strategic challenges.

“MuleSoft has helped us become massively productive. Developers work much faster and we can introduce products to market in less time.”

VP Platform Chief Architect

Fortune 1000 financial software provider

MuleSoft is already working with 1 of the top 3 global insurers to realize this vision and through effective collaboration, the industry can continue to shed its unfairly attributed “laggard” label.



Take a look at further information about [API-led connectivity](#) and how it could help your organization.

About MuleSoft

MuleSoft's mission is to help organizations change and innovate faster by making it easy to connect the world's applications, data and devices. With its API-led approach to connectivity, MuleSoft's market-leading Anypoint Platform™ is enabling over 1,200 organizations in approximately 60 countries to build application networks.

For more information, visit mulesoft.com

*MuleSoft is a registered trademark of MuleSoft, Inc., a Salesforce company.
All other marks are those of respective owners.*