WHITE PAPER

Do you *really* have a digital strategy?

The insurance industry is investing heavily in digitisation and analytics, but without enhanced inter-company systems interoperability, its efforts may be in vain.

By **Chris Cooksey**, Senior Director, Analytics and Advisory; **Charles Clarke,** Group Vice President, Guidewire Analytics; **Paul Mang**, Innovation Advisory, Guidewire Analytics

Like many other sectors, the insurance industry is on a digital journey. Digitisation promises efficiencies, enhanced customer experiences and potential growth opportunities. But a digital strategy that does not strive for seamless two-way communication with industry peers and partners can never fully meet these goals. It will fail to deliver the levels of collaboration and innovation that the industry desperately needs if it is to meet the demands of its customers.

In our industry, almost all organizations have a digital initiative that addresses the first four issues of our framework – only the leading entities, most furthest along in the journey to a digital business model, have a comprehensive strategy that includes all five elements (see box on right).

Insurance has information at its heart. The industry has a long history of using information, and today has huge quantities of information at its disposal, based on decades of underwriting and loss experience, modelling and analytics, as well as access to a growing pool of third-party information on risk. Insurance is also the original 'platform' industry (initially analogue, of course). Thousands of insurance and reinsurance companies, aided by an army of intermediaries, move risk exposure and capital around the globe in an interconnected network.

1. **Consume external data and effectively harness internal data**
2. **Analyse data for insights**
3. **Drive decisions and changes to behaviours/workflow**
4. **Modernize interface with customers**
5. **Create efficient inter-company communications among industry partners**

But the industry currently lacks the necessary digital infrastructure it needs to capitalise fully on all this data, its analytics and insights. More precisely, it lacks systems interoperability—the ability to communicate and share information, efficiently and effectively, among stakeholders. And we are not just talking about the exchange of data for the sole purpose of processing, or to drive efficiencies in the back office. True interoperability in insurance is about the sharing of granular risk information, of models, analytics and insights, across partner entities, up and down the value chain.

Our industry has all the pieces for a digital solution – it has data, it has trust, and it has the network. But without interoperability, without the connective tissue among industry participants, its digital infrastructure will never be fit for purpose. When we try to increase efficiency, collaborate or deepen relationships, and leverage investments in data and analytics, the lack of inter-company systems interoperability inevitably gets in the way.

Our focus, as an industry, has to include the interoperability of systems.

Optimising investments in analytics

Information is central to insurance, where decision making is at the heart of the business. Yet, the industry does not make the best use of its collective information, or the insights offered by third party providers of data, modelling and analytics. For a risk sharing industry, insurers and reinsurers share surprisingly little information with each other.

In the absence of interoperability along the value chain, the insurance industry will continue to struggle to apply high level modelling and analytical insights to front line underwriting. And without interoperability, stakeholders will only ever achieve a suboptimal return on their investments in modelling and analytics.

"The way people use data to get insight is their differentiator, not the data itself. And most importantly, can you put the information to use?"

—Ian Branagan, Chief Risk Officer, RenaissanceRe

A lack of interoperability clearly limits the effective use of information along the value chain. Where information is currently exchanged, it is often degraded as it passes between stakeholders. Think of a pixilated image. You can make out the image but not the detail.

Insurers are collecting more and more granular data, but this information is not finding its way up the value chain to reinsurers and capital markets. At the same time, information and insights are not being passed down to insureds and cedents as part of their products and services.

By sharing more information and insights, we could better meet the needs of customers by developing new products and services. We could also make more efficient use of capital, reducing uncertainty, and potentially reallocating surplus capital to support growth and new areas of risk.

More effective use of information

In a world that is increasingly digital, and where the risk landscape is being radically transformed, the insurance industry must find innovative ways to support its customers if the value and relevance of insurance products is to be maintained. Changes in the risk landscape also bring opportunities and potential sources of growth for insurers, including the ability to develop new products and services, close protection gaps and help businesses and individuals manage the risks of a changing world.

Responding to these opportunities, however, will require big changes in the industry's operating model, including higher levels of collaboration, and a more efficient and effective exchange of information between stakeholders, from insureds through to brokers, insurers and reinsurers. However, the lack of systems interoperability is holding back the industry's ability to capitalise on the opportunities in front of it.

> **"Things change and new attributes become available. If our data collection can't adjust to changes in a dynamic way, we won't stay flexible in our models. The industry has a need for data models that can adapt to a changing environment."**
>
> **—Marcus Winter, President & CEO Munich Re US, Munich Re**

> **"Insurance is basically the same as 200 years ago because we collect the same data as 200 years ago."**
>
> **—James Platt, Chief Digital Officer, Aon**

Availability of data, for example, limits growth in areas like cyber and supply chain insurance, potentially significant new markets for insurers if it were not for the lack of the right statistical base. Higher levels of interoperability would enable innovation, growing the industry's collective knowledge base and understanding of risk. This would in turn pave the way for new products and services, and potentially expand the pool of insurable risks open to insurers.

A lack of interoperability is also a barrier to collaboration, including partnerships with third parties to develop new products, or extend the reach of insurance and access new customers. In a world where businesses and consumers are moving towards digital communication and commerce, insurers will increasingly need to seamlessly connect with their customers and third parties in order to offer embedded insurance, or products for the gig and shared economies. All too often, such opportunities are not pursued because of the challenges of connectivity and the exchange of data.

More efficient sharing of information

In addition to the more effective use of information, higher levels of interoperability could also generate huge efficiency gains throughout the value chain, as well as improved customer service levels.

Ideally, decisions around underwriting and claims would be automated and efficient, as much as possible. In reality, each stakeholder is forced to collect, recollect, rekey and clean up data, resulting in huge inefficiencies, and a lack of data granularity as information moves through the value chain. Even by sharing basic core data, such as policy information, exposure and loss data, you could create material efficiencies, as well as speed up processing time and increase transparency.

The sharing of core data would also help the industry with its increasing compliance burden, whether it is regulatory and rating agency requirements, sanctions, or the introduction of ESG (environmental, social and governance) reporting and underwriting criteria. Interoperability could speed up and automate the process of compliance, freeing up underwriters and claims professionals to focus on their real work.

So, how do we enhance interoperability?

Most stakeholders understand the value of data and the need for increased levels of interoperability as a way to improve operational efficiency and effectiveness, and strengthen the industry's value proposition. However, an industry-wide shift to enhance interoperability remains elusive, while individual attempts at increasing interoperability have met with only limited success.

How can the industry exchange information, models and insights in a secure, trusted environment, in order to get mutually beneficial outcomes? We believe there are three key questions that an organization should be thoughtfully addressing if they truly have a comprehensive interoperability plank in their digital strategy:

Do we have the right cultural and leadership mindset?

Sharing information is not a technical challenge, but a cultural and leadership challenge. How many organisations ask themselves the question: Do we keep everything in-house or engage in a more open innovation process?

Progress is often hindered by the lack of enterprise and data architecture expertise, as well as ownership and leadership on interoperability. The industry needs to cultivate people that can grasp the issue and demonstrate the business case in order to drive enhanced interoperability.

> **"All of the pieces are there, but we have to deal with the industry's capacity and competency for change to fully embrace the concept of interoperability. I'm not just talking about modernising legacy technology, but also the underlying culture, values and incentives, and the underlying business processes. Technology is critical, but strategic intent and change capacity also present real challenges."**
>
> **—Bill Pieroni, Chief Executive Officer, ACORD**

Do we have a comprehensive view of standards?

Industry efforts to smooth the exchange and processing of data between stakeholders have, until now, been primarily focused on industry electronic data standards, such as those developed by the Association for Cooperative Operations Research and Development (ACORD). While they have an important role to play in the efficient exchange of data, without interoperability, data standards will only get you so far. And when developing standards, we need to focus on insights and models, not only data.

> **"Standards are the common language. But standards alone are not sufficient. You also need the intent, business process, people, infrastructure and architecture – you need all of this."**
>
> **—Bill Pieroni, Chief Executive Officer, ACORD**

Do we have a dynamic view of what is proprietary?

One of the biggest barriers to meeting customer needs in the insurance industry is the perceived competitive value of data. Understandably, stakeholders regard certain data and insights as proprietary and a potential source of competitive advantage, while some may see advantage in the frictional exchange of information. However, what we consider "proprietary" changes over time. Relationships, brand, and system integration are increasingly important sources of competitive advantage, while core data is not.

> **"It will be key to figure out what data does not differentiate, and what information could be shared, versus what should not... What feels proprietary today, may well not feel proprietary tomorrow."**
>
> **—James Platt, Chief Digital Officer, Aon**

The industry's competitive mindset means we miss obvious opportunities for exchanging information and insights that can be shared, and collaborating on mutual initiatives. Interoperability does not mean sharing everything. It's about exchanging data and insights where it makes sense – where there is a common benefit or goal, a shared problem to be solved or a growth opportunity.

> **"As an industry, we talk about putting the customer first. If we genuinely mean it, then we need to identify the information that can be shared and that serves the customer in the best way possible. At present, this does not happen in the strategic way it needs to."**
>
> **—Jörg Thews, Swiss Insurance Leader, PwC Switzerland.**

While healthy competition is good for customers, guarding and withholding data is not. A truly customer focused industry would worry less about hoarding information, and focus more on how information can be shared and used to the ultimate benefit of its customers.

Creating interoperability

The litmus test for interoperability is efficient two-way communication among partners; not just unadorned data, but the movement of information and insights as well. For example, an insurer can pass on advice and information-led services to corporate customers, while reinsurers could provide insights and services to their cedents. However, sharing information at each stage of the value chain presents its own challenges and requires different solutions.

Understanding the incentives and disincentives of sharing information is also key. Information collected by one party could have immense value to others in the chain, yet the benefits and motivations of sharing or not sharing will differ depending on the stakeholder and the direction of the flow of information. Technology solutions, however, could help overcome concerns. For example, there are solutions that enable stakeholders to limit and control data access, granularity and usage permissions as their information moves through the value change.

Eating the elephant, one bite at a time

So where do we start? Like the proverbial elephant, interoperability needs to be eaten one bite at a time. We first need to describe the elephant, and then slice it into manageable pieces.

Interoperability will not be achieved through an industry-wide IT infrastructure project. Neither is it a task that one organisation can solve. It will take collaboration between stakeholders, including the third-party providers that can provide technology solutions and the technical skill.

Enhancing interoperability is an iterative process, finding mutually-beneficial solutions where incentives are most aligned. There is a suite of technologies and solutions that can potentially solve specific problems or unlock benefits, which will collectively increase interoperability in the value chain over time.

> **“Using AI to interpret data schemes has the potential to ease a lot of the interoperability burden and lessen the need for data standards.”**
>
> **—Fabian Winter, Group Chief Data Officer, Munich Re**

Achieving interoperability will, however, require leadership and specialist skills. Organisations will need people with enterprise and data architecture skills, who can map a clear plan, bring the various pieces of the puzzle together, and create a vision to build towards. The industry will also need to work with trusted third parties that can help facilitate and develop solutions.

> **"Interoperability requires certain skillsets which are scarce. However, a coalition of stakeholders, with different skillsets, will be needed. The industry needs to work with its partners to identify the business value, outline the transformation and create solutions."**
>
> **—Jörg Thews, Swiss Insurance Leader, PwC Switzerland**

Specialist insurance technology service providers are well positioned to support the insurance industry as it increases levels of collaboration and the exchange of data and insights. Independent technology solution providers like Guidewire understand the industry, its processes, complex relationships, and are free from conflicts of interest. As another example, Oasis recently announced the extension of their Open Exposure Data standard for Cyber.

The stakes are getting higher, and the potential gains from increased levels of interoperability ever larger. We believe low levels of interoperability is a challenge that can be met. By working together, we can use a range of tools and solutions to enhance interoperability bit by bit, focussing on where business value is strongest, and where incentives are most aligned.

Potential use cases...

Potential use cases for enhanced interoperability are wide ranging. For example, interoperability might help address complex risks or emerging technologies, where data and analytics can help overcome the absence of historical loss data. Interoperability could also make for more efficient collection of data for regulatory, rating or ESG purposes, more effective reinsurance and capital management, as well as to close protection gaps.

Some applications will be easier to get off the ground than others, but over time interoperability should spread as the benefits of collaboration and the exchange of core data and insights become apparent.

Perhaps the biggest rewards from enhanced interconnectivity are to be found in distribution, where insurers, brokers and agents are currently unable to monetize their data due to a lack of interoperability. The ability to exchange data and insights with customers will open the doors for new products and risk-related services in areas like mobility and the gig economy, embedded insurance and the Internet of Things, as well as bancassurance and affinity products.

There is also a strong use case at the opposite end of the insurance value chain, reinsurance. Reinsurers have deep and lasting relationships with some insurers, but in many cases the interaction between reinsurer and cedent is confined to the annual renewal. However, where desired, a reinsurer could become a partner, sitting alongside the insurer. Enhanced interoperability would enable reinsurers to interact more frequently with their customers, sharing insights and providing more targeted solutions and services.

Brokers are in a unique position to connect cedants and insurers, to provide information and insight that ultimately benefits the end customer. Brokers also bridge the very different views of risk that primary insurers and reinsurers have. This diversity of views is an industry asset which creates a more complete understanding of the market risk.

"Diversity of model creation and usage is encouraged by open data. This is in the industry's interest."

—Ian Branagan, Chief Risk Officer, RenaissanceRe

Helping insurers better manage their risks could give reinsurers and insurers access to business that is currently outside their risk appetite. It could also help insurers optimise their reinsurance protection, while enabling reinsurers to deploy their capital more efficiently for a higher return.

Higher stakes, bigger gains

Why now, and not before? The industry has grappled with the problem of interoperability for decades, mostly through the lens of efficacy and data processing between agents and insurers. But times are changing. The stakes are higher, the gains bigger, and the risks of inaction are unthinkable.

Enhanced interoperability offers potentially huge efficiency gains. It would also pave the way for growth, help close protection gaps, facilitate product innovation and enable new business models, service offerings and solutions. We also know companies that are digitally mature tend to outperform. One recent industry analysis shows that insurers that are more open have higher total shareholder returns, stronger premium growth and superior cash flow, while at the same time achieving higher levels of customer satisfaction. Clearly progress has been made in digital transformation.

The business case for interoperability grows stronger every day, and technology can now overcome many of the historical barriers, trust issues and competitive concerns. We just need to make a start, and bit by bit we can enhance interoperability to benefit customers, and help solve the industry's growth problem along the way.

We would like to thank the following industry partners for their generous contribution of time and insight in writing this paper:

1. Jörg Thews, Partner, Swiss Insurance Leader, PwC
2. Dr Fabian Winter, Group Chief Data Officer, Munich Re
3. Marcus Winter, President & CEO Munich Re US, Munich Re
4. Michael Quigley, Head of Property Underwriting Munich Re US, Munich Re
5. Ian Branagan, Chief Risk Officer, RenaissanceRe
6. James Platt, Chief Digital Officer, Aon
7. Bill Pieroni, President and CEO, ACORD