

From pipe dream to pipeline: blockchain for captives

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Introduction

Disruptive technologies are evolving at an unprecedented pace. Very few, if any, industries are immune to this innovation, including insurance, where large costs can appear relatively fixed. Emphasis is shifting towards efficiency, transparency and data integrity, as new technology rapidly develops and new ways of doing business emerge. As the lines between brick-and-mortar insurance business and technology blur, blockchain is moving to re-sharpen focus on efficiency and process effectiveness as a new way for captives, and the insurance industry as a whole, to embrace technology and achieve its goals.

Practicality for captives

The underlying concept of blockchain is Distributed Ledger Technology (DLT). The basis of DLT is to allow multiple parties on a network to have simultaneous access to the same decentralized information (ledgers). All data on these ledgers is kept in single units or “block s,” which are updated in real time if any one party makes a change. As changes are made, new blocks are added to the end of the chain and are accessible to all authorized users. This concept offers some compelling advantages, particularly in the captive insurance space.

Captives could prove an ideal forum for blockchain exploration within insurance. While still operating in a regulated sector, the level of innovation at the level of captive stakeholders is growing. Even some of the comments from regulators point to an industry that has been adaptable to new ideas and is ready for upcoming change. As such, a new wave of innovation with blockchain use being piloted in captives could be a plausible next step.

Enhanced risk management, underwriting and claims management capabilities

Maintaining a large decentralized pool of current data and information about the real-time financial position of the captive may also facilitate better-informed underwriting and policy design. Everyone involved in the policy-making process could have access to the same suite of current data. By leveraging this, the captive would be able to better adapt coverages offered to its current capacity and risk appetite in a responsive manner, rather than based on potentially outdated models. In terms of driving client-centricity, the wealth of data maintained on the decentralized ledger could also be leveraged to further enhance policies and tailor them to individual client needs. On the claims management side, the real time data update and access allows for enhanced claims assessment and processing experience, as well as a reduction in fraudulent claims.



Streamlined data access and regulatory reporting

Captives are often managed in domiciles geographically distant from key stakeholders. On a blockchain, information can be passed instantaneously around the globe. Consider a case, for example, where captive owners want to get real-time information on loss reserves and captive solvency. Blockchain would boost efficiency of this information flow by allowing access around the clock, irrespective of whether the captive manager is online, allowing for enhanced governance and faster, better-informed decision making. A progression of this theory may also lead to a regulator’s ability to view captive metrics on an ongoing basis to monitor compliance by directly plugging in to the distributed ledger. This could completely revolutionize regulatory oversight, with manual reporting being almost entirely replaced with a continual process of real-time monitoring by the regulator. Rising customer expectations call for disruptive system innovations and enhancements. Virtual processing protocols, improved security procedures and business models are needed to provide tailored services, heightened privacy, added value and competitive pricing in the market.

Added efficiency will also result in changes to the service provider market. The ability to streamline needed data, evaluate and audit transactions, and assess premium flows and risk centralizations will allow audit, tax, and other service providers direct access to the most up-to-date information. So whether it is a question around latest loss reserves subject to discounting, self-procurement tax questions, regulatory rules assessment, transaction verification, or any other process that can be streamlined and made less manual - the blockchain and smart contract approach is viewed to be an industry disruptive and innovative solution.



Data integrity and fraud prevention

Blockchain also creates one solitary “version of truth” in an immutable way: once an entry or transaction is approved and posted to the blockchain it is, in theory, irreversible. This provides a secure audit trail with data verifiable at any given point in time. With such decentralization and security of transactions, visible by all with authorization, the technology has the potential to reduce fraud along the entire chain within a particular transaction, enhance transparency and streamline the audit process - saving time and costs.

For example, a fraudulent claim by multiple parties for the same car accident to multiple different insurers could be identified on a one single decentralized blockchain. This would prevent multiple claims and potentially eliminate this type of fraud, generating savings for both the insurers (i.e., fewer losses) and the insureds (i.e., lower premiums). This will also facilitate a more efficient claims process, which will save claims handling expenses, shortening the settlement cycle as information is traced and verified more efficiently. Add financial institution integration into the mix, and now you have a fully autonomous circle that provides security, reliability, efficiency, and cost savings.

Use cases and potential benefits

Smart contracts and the “Internet of Things” (IoT)



At its simplest, a single smart contract is a self-executing agreement, which is automatically processed once certain conditions are met. It is perhaps more akin to a computer code, as opposed to an insurance contract, although the underlying code will reflect contract terms. Combined with IoT technology, blockchain-based smart contracts provide a great opportunity for captives. To realize blockchain's full potential as a business transformation opportunity, insurers will need to leverage a number of other technologies in tandem, including advanced analytics, artificial intelligence, and IoT, as well as collaborate with a wide range of stakeholders.

For example, consider a captive providing insurance to a crop farmer. By using blockchain's decentralized data, the captive will be able to monitor environmental and meteorological activity transmitted from IoT devices in real time, at the same time as the farmer who makes decisions based on data outputs. Once a determined set of parameters are reached, such as drought, excessive rainfall, pests or pollutants which hinder yields, loss payment will automatically be triggered per the underlying coverage.

With clearly defined terms, the time-consuming process of loss adjusting and the associated costs may be significantly curtailed, with a far more automated settlement process. When operating as part of a blockchain, with real-time access to data on all aspects of the insurance and claims cycle, the claims process could be revolutionized, saving time and reducing administrative burden. Contracts which are relatively straightforward, non-contentious and with predetermined payouts would appear perhaps best suited to automation. Complex, litigious cases, on the other hand, perhaps will continue to be served by more traditional means for the foreseeable future.

Challenges

With such potential benefits, it is important to note that while the technology underpinning blockchain continues to develop, there are a number of challenges which will need to be addressed before wholesale adoption of the technology is feasible. At this stage, these include its scalability, the availability of personnel with adequate skillsets, and how blockchain could be integrated with established systems and operations. The question of how such a decentralized system with no single ownership will be regulated is also an interesting one.

Conclusion

With some challenges yet to be overcome, blockchain and its underlying technology still point to intriguing potential benefits in the captive sector. A continued investment both in the technology itself and in educating markets is critical in laying the foundations needed for the next phase in its evolution. However, in the meantime, blockchain (together with smart contracts) is undoubtedly transitioning from vision towards practical real world implementation and it will be interesting to see how this develops over the coming years.



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