

Blockchain applications in insurance

“When I saw what the fundamental principles of the blockchain provided, it was just patently obvious to me that it would make sense around reducing fraud related instances of valuables.”¹

Leanne Kemp, Chief Executive Officer, Everledger

Insurers, like banks, are intermediaries and, at first glance, there is great potential for insurers to use blockchain technology to streamline payments of premiums and claims.

In addition, blockchain technologies could support the significant digital transformation underway in the industry because much of this transformation relies on data. For example, actuaries and underwriters are using the ever-expanding universe of data to build models that more accurately estimate risk and price it accordingly. Arguably the most exciting example of this trend is in telematics: insurers are using data from sensors to price motor risk more accurately, reducing the premiums of young safe drivers, and this technology is spreading to other types of cover, such as home insurance.

However, unlike in banking, the general view among the industry is one of ‘wait and see’. *“Insurers do not necessarily need a current Bitcoin strategy to remain competitive,” says one observer, “but should nonetheless continue to monitor the space and consider it as an area for potential innovation.”*²

Early activity has tended to focus on optimising current ways of working within organisations rather than on investigating the potential of a blockchain to address industry-wide problems and opportunities.

Everledger, for example, uses the blockchain to create a distributed ledger that records details of precious stones like diamonds.³ This ledger allows insurers (as well as potential purchasers) to check the history of any individual stone, including previous claims that have been made, helping insurers prevent, detect and counter fraud.

Example: Claims handling

What are the current bottlenecks or issues?

For customers, insurance contracts are typically complex and difficult to understand because of the legal language used. In addition, when accidents or crimes happen, customers can often be faced with a complex and drawn-out claims process.

From the insurer’s perspective, the industry is facing ever-tighter regulation and a growing threat from fraud – whether from small-claims fraud by individuals or more serious and organised fraud spanning multiple insurers in the industry. The Insurance Fraud Bureau (IFB) is a not-for-profit body set up to tackle organised crime affecting the UK general insurance industry. In a typical motor insurance scam, for example, drivers deliberately stage or cause an accident or even pretend to have had an accident, and claims are then made by the various criminals involved. These so-called ‘crash for cash’ scams cost the industry around £400 million a year.⁴ Where claims are made against multiple policies held by different insurers, it becomes difficult to detect the fraud unless cross-industry data is shared.

How the blockchain could help

Smart contracts powered by a blockchain could provide customers and insurers with the means to manage claims in a transparent, responsive and irrefutable manner. Contracts and claims could be recorded onto a blockchain and validated by the network, ensuring only valid claims are paid. For example, the blockchain would reject multiple claims for one accident because the network would know that a claim had already been made. Smart contracts would also enforce the claims – for instance, triggering payments automatically when certain conditions are met (and validated).

Edgelogic provides a bridge between the Internet of Things – devices connected to the internet – and a blockchain, conceivably allowing accidents or problems detected by sensors in the home to trigger a set of instructions that automatically transfer cash for repairs from an insurer.⁵

Adopting a common blockchain across the sector could create a step-change in value in the insurance industry: claims-handling could become more efficient and streamlined, resulting in an improved customer experience. Such an approach could also help to reduce further, if not entirely prevent, fraud if identity management was also enforced on the blockchain – meaning that criminals could no longer crash for cash, or exploit the current challenges of sharing data unless their methods for obscuring identities became significantly more sophisticated.

Implications

A common claims-handling platform would still make it possible for individual insurers to compete for customers, offering a range of products and prices by virtue of the smart contracts they set up. Moreover, a blockchain could allow the industry as a whole to streamline its processing and offer a better user experience for customers who have to make a claim. Simultaneously, storing claims and customer information on a blockchain would cut down fraudulent activity – it would certainly make it much harder for criminals to mask their identities or attempt to claim more than once. Indeed, in many respects, with projects like the IFB now long-established, the general insurance industry faces a smaller cultural and organisational hill to climb than does banking and other sectors.

Endnotes

1. "Blockchain Tackling Insurance Woes", Mario Cotillard, *Brave NewCoin*, July 2015. See also: <http://bravenewcoin.com/news/blockchain-tackling-insurance-woes/>
2. See: <http://novarica.com/Bitcoin-and-insurance-overview-and-key-issues/>
3. "Bitcoin: possible bane of the diamond thief", Sally Davies, *Financial Times*, February 2015. See also: <http://www.ft.com/cms/s/0/f2b0b2ee-9012-11e4-a0e5-00144feabdc0.html#axzz3Qm7XPPbZ>
4. See: <https://www.insurancefraudbureau.org/insurance-fraud/crash-for-cash/>
5. "Bitcoin: possible bane of the diamond thief", Sally Davies, *Financial Times*, February 2015. See also: <http://www.ft.com/cms/s/0/f2b0b2ee-9012-11e4-a0e5-00144feabdc0.html#axzz3Qm7XPPbZ>

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