



## Overview

The insurance industry is dominated by companies that have complex system architectures, including legacy systems, built up over decades. This leads to differing processes across all insurers and intermediaries forcing them to carry unnecessary inefficiencies and cost.

Blocksure has developed a proof of concept platform that can benefit insurers, intermediaries and customers using blockchain technologies. It is a full cycle sales and administration platform including claims.

First level benefits are around speed and quality of data transfer. This radically improve processes and deliver major costs saving. Second level benefits allow insurers to develop new distribution models based on lower distribution and administrative costs.

Blockchain and Blocksure OS can provide insurers with major financial benefits at a time when most are facing ROE pressure.

## Blockchain Opportunities for Insurance

Attributes	Current Industry Issues	Blockchain
Faster transactions	Transaction notification and settlement takes months e.g. bordereau reconciliation and premium payment.	Blockchain transactions processed and synchronised across all parties in seconds and 24/7.
	Less technology and process components required to provide instant notification across all parties e.g. removal of bordereau requirements.	
Lower transaction costs	Processing of insurance transactions involves trusted third parties  Adds unnecessary overhead costs	All processing is done securely  All data/monetary exchanges are processed automatically
	UK commercial lines industry operates currently at 19% expense ratio. Future expense ratio could be as low as 13%.	
High quality data	Major issues with data quality and reconciliation  Each party use their own system	The instant sharing of the data ensures it is complete, consistent, timely, accurate, and widely available

	Periodical reconciling of data between parties.	Insurers can be specific about requirements
	Every party involved in a transaction gets all data in real time. It will provide greater control over underwriting at intermediaries.	
<b>Process integrity</b>	Very limited trust in quality and integrity so requires trusted 3rd party e.g. Xchanging for Lloyds of London.	Required logic is encapsulated in a smart contract and so all transactions will be executed exactly as requested and verified by all participants.
	Transactions certainty exist as execution is in line with smart contract terms e.g. automated claim payment.	
<b>Simplified ecosystem</b>	Complex and different system architectures and processes across insurers and brokers.  Leads to inefficiencies and integration costs.	All transactions are added to a single infrastructure  Reduces complications  Allows all parties to interact with minimal change
	All intermediated systems costs are removed and intermediaries do not need underwriting systems or to issue policies. All underwriting and policy actions are completed by insurers. Potential expense reduction of 1% - 2%	
<b>Transparency and immutability</b>	Changes can be made in isolation without informing other parties.	Changes are instantly viewed and verified by all parties  Historic transactions cannot be altered or deleted.
	Intermediary regulation and management becomes much easier. Customer have more certainty about their insurance contracts.	
<b>Durability, reliability, and longevity</b>	Single points of failure, such as a service provider or data centre outage, brings the whole ecosystem down.	Decentralized networks mean there are no single point of failure  Better security and ability to withstand attacks.

	No reliance on a central technology provider e.g. recent issues with SSP in the UK.	
<b>User Empowerment</b>	Customer data is duplicated and held by a number of entities across the value chain.  User is dependent and required to trust them.	Users can be in control of all their own information  They decide who can see it.
	Improved security and user confidence in data management	
<b>Disintermediated &amp; trustless exchange</b>	Many transactions require oversight or intermediation of a third party e.g. regulators.	Two parties are able to trade with lower oversight or intermediation of a third party as business logic and rules can be encoded and enforced by smart contracts.
	Further area of cost reduction and certain regulations can be lightened e.g. client money, KYC and TCF	

## Blockchain Applications for Insurance

### Blockchain can be applied in three main areas across insurance: -

- Delivering expense reduction:-
  - Insurer's internal operating model
  - Intermediary interaction
- New product models
- Improved cash management and investment income

### Delivering expense reduction

#### Insurers internal operating model

A number of areas will require reduced processing or be completely removed. Blocksure projects that this will drastically reduce internal operating expenses. For the UK's commercial insurance industry, we project a reduction in the industry expense ratio from 19% to 13%. This will be delivered through a number of areas: -

- Process removal or improvement e.g.: -

- Requirement for bordereau and cash transfers between intermediaries and insurers removed.
- Underwriting authorisation levels built into smart contracts so cannot be abused.
- Reinsurance arrangements controlled via smart contracts and data transferred via distributed ledger technology.
- Smart claims that pay out automatically in line with policy terms
- Smart settlement across the claims supply chain facilitated by smart contracts. All parties involved in a claim, e.g. claimant, insurers, suppliers and loss adjusters, are automatically paid (including cash settlement) once the claimant digitally signs the claim settlement letter.

### **Intermediary interaction**

Intermediaries can still deliver existing levels of profitability at a lower level of cost. This can lead to insurers paying lower commission levels and all parties being economically better off. Certain processes are removed (e.g. client money, premium reconciliation, bordereau), and other are made much easier (e.g. KYC and AML checking). This could reduce the commission requirements by 3% - 5%.

### **New Product Models**

Blockchain radically drives down the base cost of issuing a policy - US\$1 or less. This allows insurers to consider new and exciting product solutions in areas such as IoT (internet of things), the sharing economy, micro insurance etc.

### **Improved cash management and investment income**

Cash transfers become quicker and eventually insurers should receive all premiums directly from a customer, even in intermediated business. Intermediaries only receive their brokerage and insurers will be paid risk premiums direct.

Also, insurers will not need to provide loss adjuster with claims floats as they will be able to settle all claims direct due to the functionality of smart contracts.

This means that all insurers should have larger cash balances to invest and increase their investment income. The benefit of this depends on an insurer's business model. Intermediary focussed insurers will see the greatest benefits.

### **Summary**

Blockchain can deliver major benefits to insurers, especially those with intermediary based models. There is a potential to substantially improve their ROE through a number of areas.



Blocksure

For further details see <https://blocksure.com/>

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