



Institute
and Faculty
of Actuaries

Block Chain: Application in General Insurance

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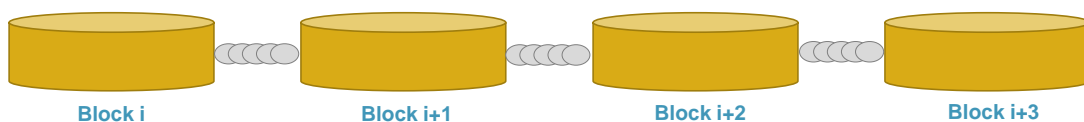
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What is Block Chain

It's a shared ledger for recording the history of transactions that cannot be altered.

- Block chain is a decentralized solution of distributing and storing data.
- There are many “blocks” as data storing point connected, together is “Block Chain”.
- The process is irreversible and data cannot be altered.



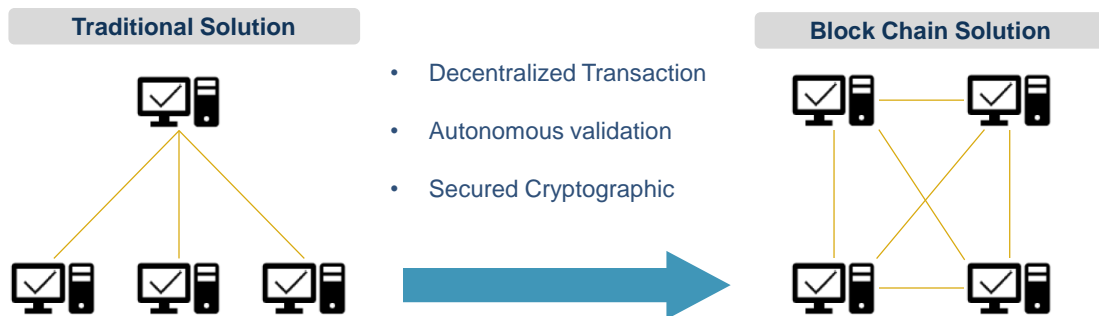
“The network is robust in its unstructured simplicity. Nodes work all at once with little coordination.”
-Satoshi Nakamoto



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The Benefits of Block Chain



- Decentralized Transaction
- Autonomous validation
- Secured Cryptographic



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How Block Chain Enhances Insurance Industry



Control Insurers' Operating Expenses

Resolve the trust issues among parties

Improve Underwriting Accuracy

Accelerate Claim Handling Process

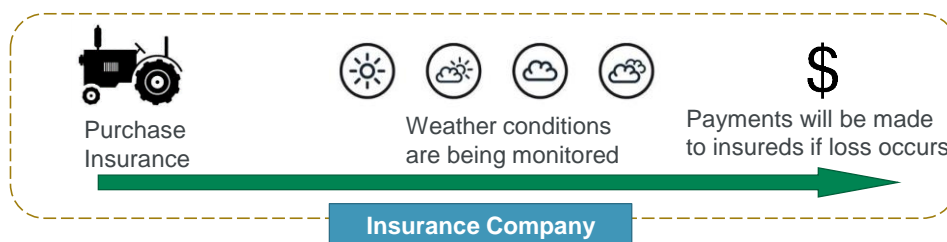


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Smart Contract: Agricultural Insurance

- Agricultural products are heavily influenced by weather and temperatures.
- Due to the high correlation, weather variables can be put into an index as an indicator of agricultural products' future values.
- Once the weather index shows it has reached the threshold of loss, claim will be automatically triggered and payment will be paid to insureds.



- ✓ Simplify and standardize the claim terms.
- ✓ All information is transparent and cannot be altered.

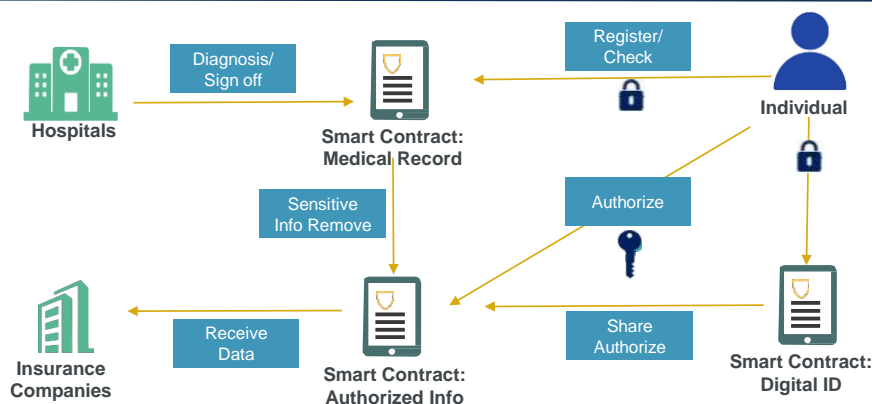


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Health Insurance

Health Insurance Application in Block Chain Environment:



Block chain seamlessly connects all parties and protects sensitive information.

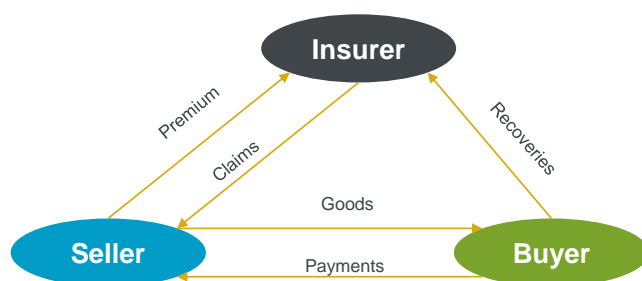


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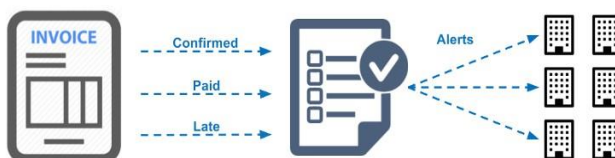
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Trade Credit

- Trade credit usually involve sellers and buyers are in different countries, thus validating buyer's credibility is difficult.
- Block chain can easily connection all parties and build trust.



Smart invoice simultaneously updates transactions and minimizes manual operations.



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Block Chain & Insurance Securitization

Insurance linked security ("ILS") is a alternative method of reinsurance.

1. ILS can be integrated into smart contract

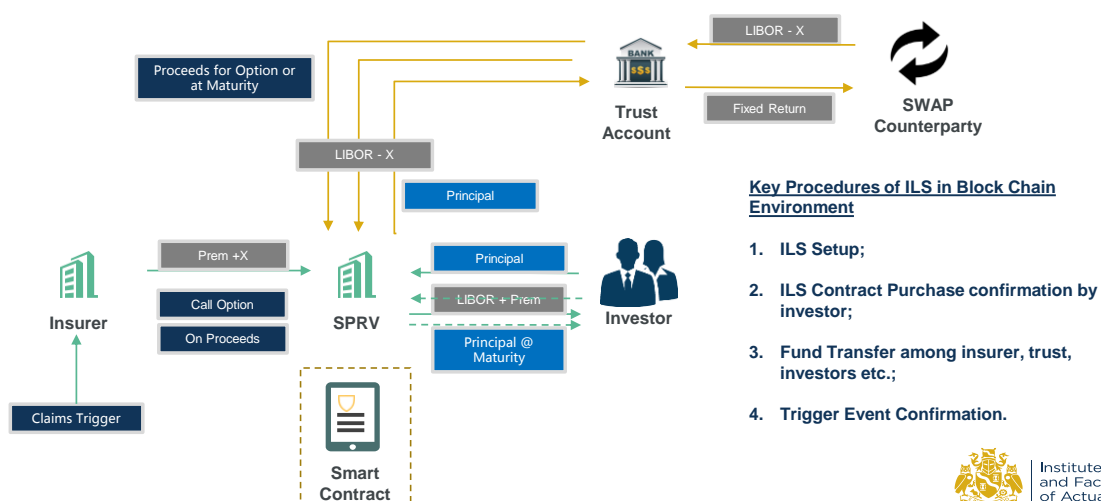
2. Distributed ledgers can lower the cost of information processing

3. Block chain enhance the data validation between investors and insurers

4. Smart contract shortens the claim handling cycle



Flowchart of ILS in Block Chain



Questions

Comments

Thank you