

Blockchain Technology and Insurance

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Outline for Today's Discussion



Part 1

The Value of Blockchain

Part 2

Technological Advancement: The Building Blocks to the Blockchain

Part 3

What Exactly is a Blockchain? What Does it Do?

Part 4

Blockchain in Insurance

Part 5

An Overview of The RiskBlock Alliance






Part 1

The Value of Blockchain

Blockchain Offers Several Benefits for Financial Services



Insurers are burdened by many pain points that can be solved with blockchain technology

Insurer Pain Points	Blockchain Benefits	
<ul style="list-style-type: none">❖ Half of new business transactions in the insurance industry are paper-based❖ Manual data gathering process can be labor-intensive and susceptible to human error❖ Beneficiaries are frequently forced to undergo a series of time-consuming activities around basic claims❖ Fraud accounts for 5-10% of claims costs for US insurers and costs \$80B per year across all lines of insurance❖ Insurers are burdened with high administrative costs associated with complying with stringent regulations❖ Data is frequently stored in silos across different parts of the insurance company, making it difficult to access	 Automatic Execution of Underwriting & Claims	Underwriting and claims handling can be executed automatically by “smart contracts” that dramatically improve accuracy, increase speed, and reduce costs
	 Improved Customer Onboarding	Blockchain can facilitate a fast and simple customer onboarding process. It enables know-your-customer (KYC) data to remain secure yet easily accessible
	 Automatic Fraud Detection & Reconciliation	Blockchain technology can be leveraged to automatically detect fraud, perform reconciliation, and resolve disputes; all without human intervention
	 Efficient and Accurate Reporting	Blockchain’s reliance on to immutability of data sources results in faster and more accurate reporting due to complete, consistent, timely, and widely available data
	 Real-time Transaction Settlements	All transactions between insurance companies and their intermediaries (e.g., independent agents) can be settled near real-time

Blockchain Has a Strong Value Proposition in the Insurance and Related Sectors



*“According to the FBI, fraudulent claims cost...insurers more than **\$40 billion** per year. To...detect identity fraud, blockchain can be used as a...distributed registry with external and customer data” - McKinsey*



*“Personal auto insurers could save **\$21 billion** a year through lower costs, which can be realized through application of blockchain-enabled smart contracts” - Capgemini*

*“Reinsurance blockchain applications will create **\$5-10 billion** cost saving opportunity through faster, more efficient claims settlement and compliance checks.” - PWC*



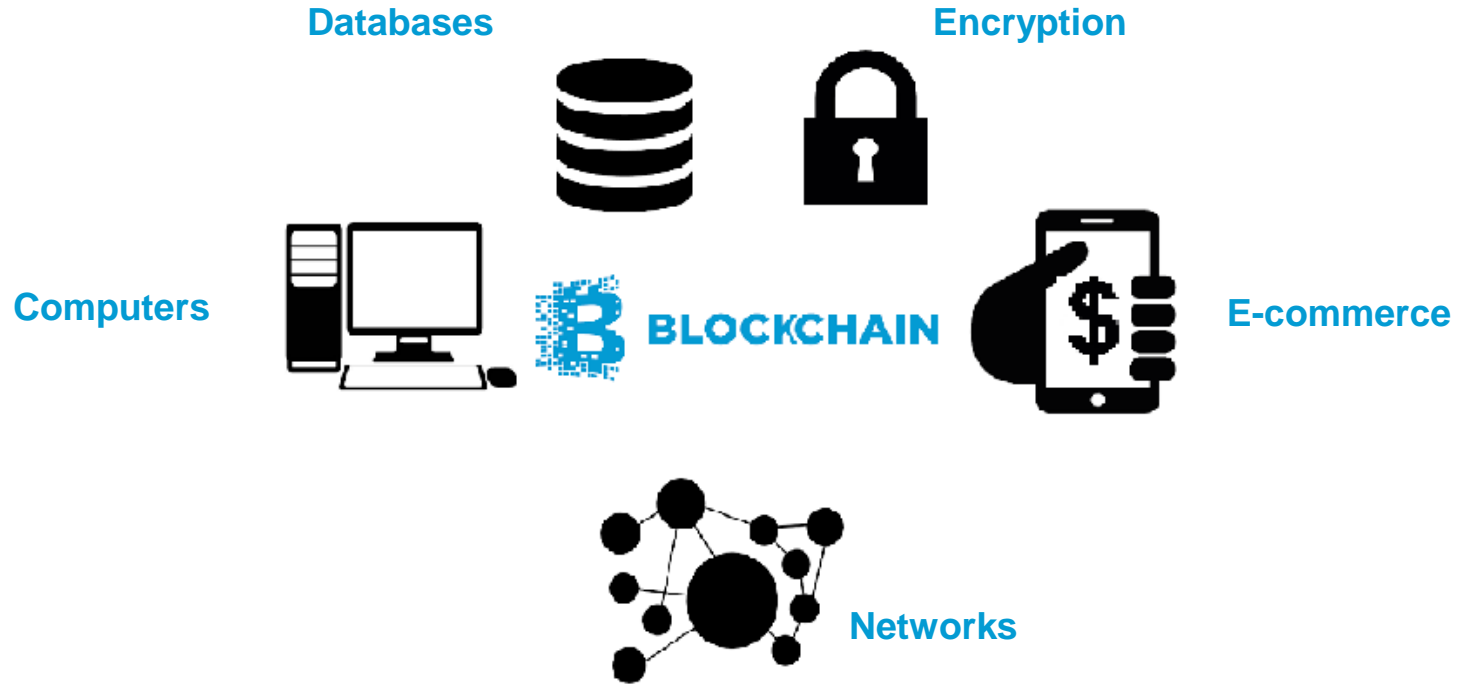
*“The path to broad blockchain adoption looks strikingly well paved. Gartner Inc. projects that blockchain’s business value-add will grow to **\$176 billion** by 2025” - Deloitte*

“Blockchain could be one of the most disruptive innovations since the advent of the internet.” -McKinsey

Part 2

The Building Blocks to the Blockchain

Blockchain Stems From Advances in Technology



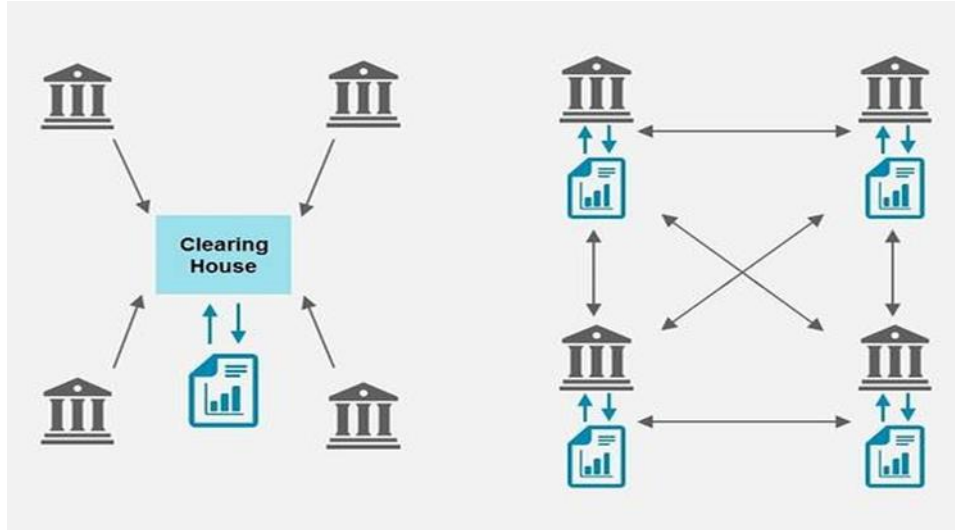
Part 3

What Exactly is a Blockchain? What Does it Do?

Blockchain Fuses Database with Network and Establishes Trust



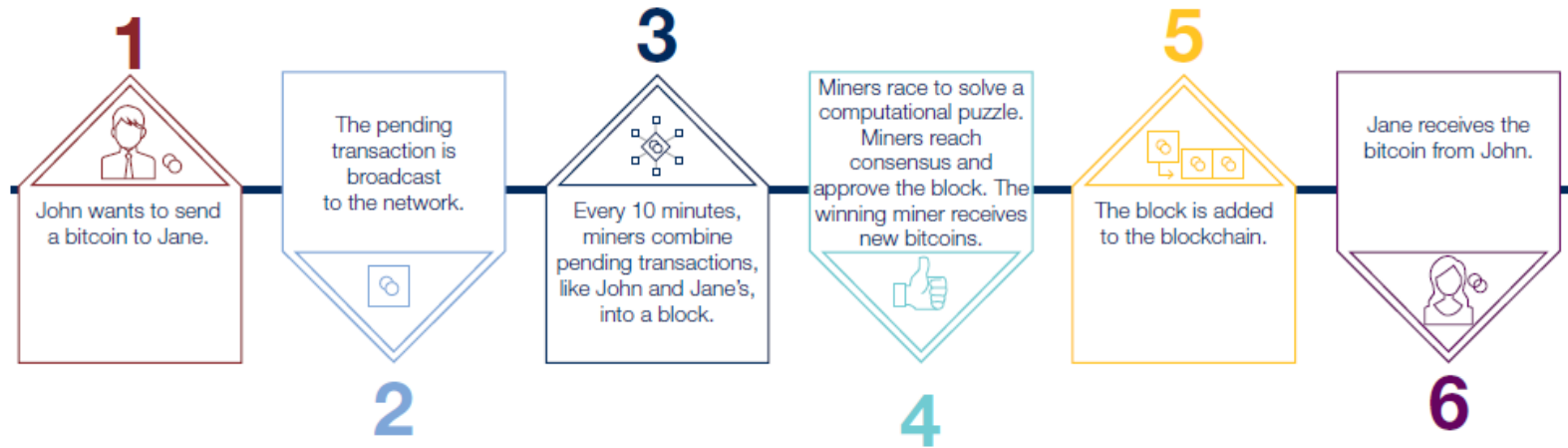
Blockchain is a distributed database and shared ledger that maintains a continuously growing list of chronologically added records called blocks. In most blockchains new blocks and the data within (transactions, smart contracts, and so forth) are confirmed and verified through a decentralized consensus process called mining. This verification process removes intermediary validation and establishes trust without the use of a centralized authority



Blockchain

- Adding anything to ledger is permanent
- Solves double-spending problem
- Establishes trust and reduces dependencies, which:
 - 1) Increases security
 - 2) Tears down walls
 - 3) Speeds up transactions
 - 4) Improves privacy

How the Blockchain Process Works





Public blockchain: A public blockchain is a platform where anyone on the platform would be able to read or write to the platform. This is a fully decentralized blockchain.

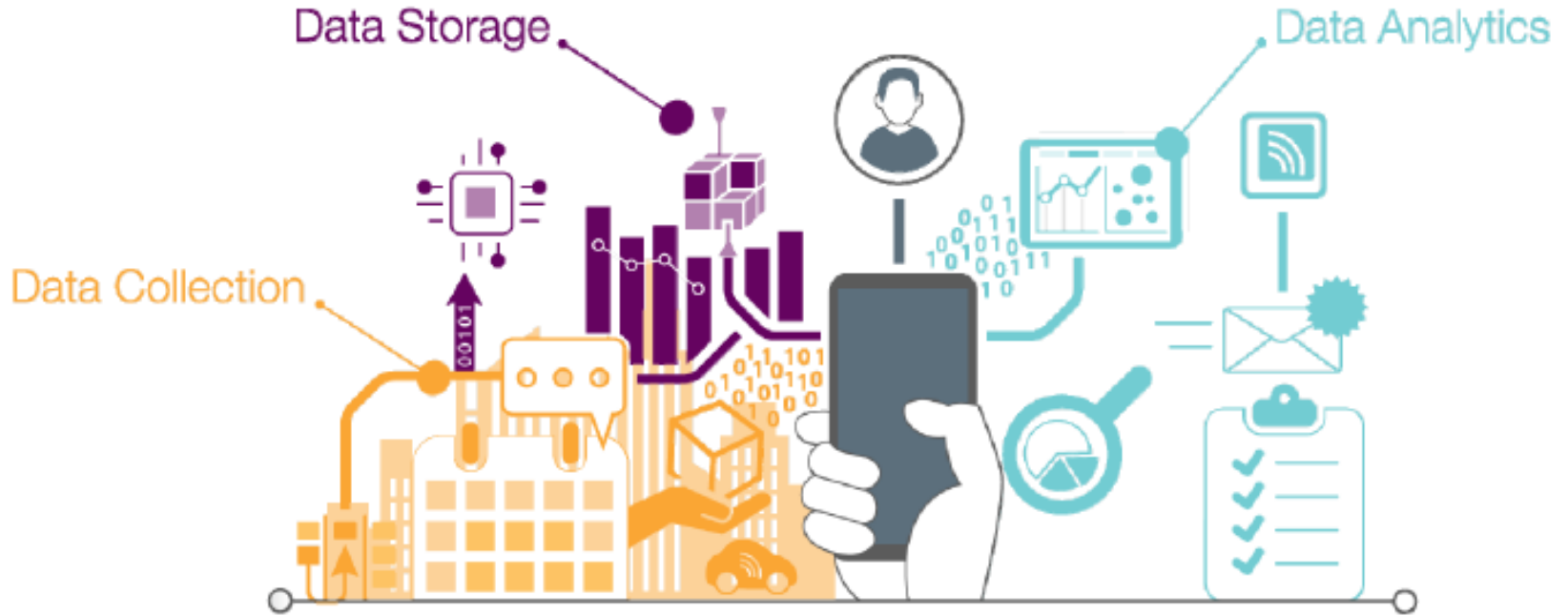
Private blockchain: A private blockchain allows only the owner to have the rights on any changes that have to be done. This could be seen as a similar version to the existing infrastructure wherein the owner (a centralized authority) would have the power to change the rules, revert transactions, etc. based on the need.

Hybrid (or consortium) blockchain: A consortium blockchain would be a mix of both the public and private. Wherein the ability to read and write could be extended to a certain number of people/nodes. This could be used by groups of organization/firms, who get together, work on developing different models by collaborating with each other. Hence, they could gain a blockchain with restricted access, work on their solutions and maintain the intellectual property rights within the consortium.

We are here

Part 4

Blockchain in Financial Services





What does the blockchain offer?

- Immutability
- Decentralized Consensus
- Security
- Trusted Process
- Smart Contracts
- Other



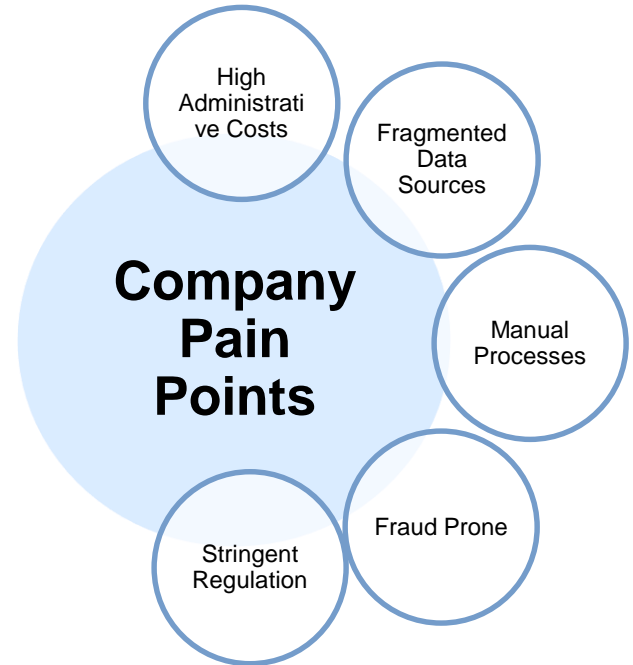
What could this mean?

- Audit trail
- Automated Processes
- Potential for Self-sovereign Identity
- Risk Registries
- Faster Transactions
- Other



Common Themes

- Automation
- Improved 3rd party integration
- More extensive market reach
- Greater efficiency



Blockchain Use Cases Across Entire Insurance Value Chain





- Many potential use cases
- Hull Insurance
 - doesn't seem to be a top priority right now
- Emerging use cases
 - Coverage of goods shipped speculatively
 - Value changes during the voyage several times
 - IOT tracking of goods shipped
 - Not just location but humidity, temperature, etc.
- Soren Skou – Chief Executive - Maersk
 - *Maersk must become more integrated to compete against Amazon, he says: he wants to make it “the DHL of the sea,” offering worldwide door-to-door delivery. He plans to replace paper bills of lading with digital ones secured using blockchain technology”*
 - *Maersk Line Operating System – put data in a common format*

Part 5

The RiskBlock Alliance



An industry-led consortium unlocking the potential of blockchain within risk management and insurance (for now)

RiskBlock™ provides the building blocks for your organization's leap into blockchain

Future Proof and Interoperable

We support the foundation of a "build once, use many" approach

Unlimited Flexibility

We develop open-source framework upon which to build competitive advantage

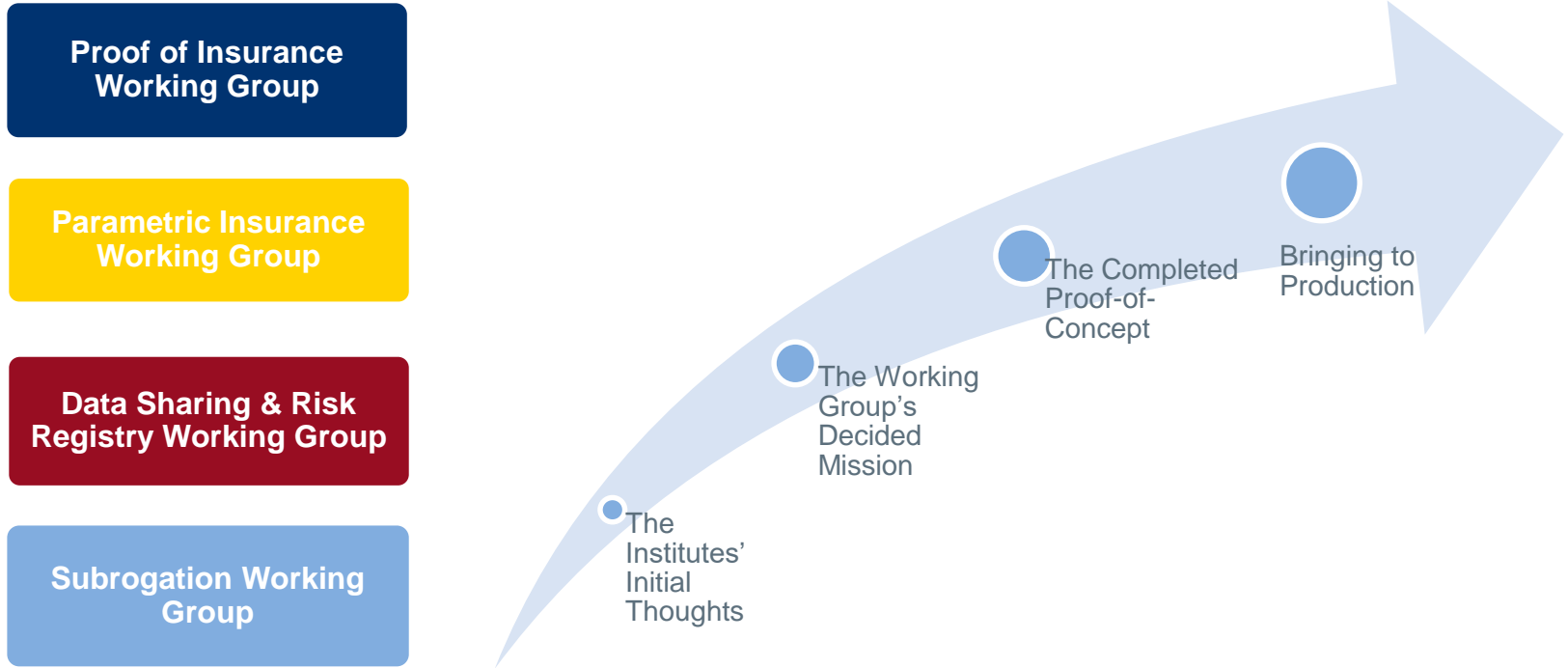
Business Issue Solutions

We make decisions based on your business strategy as opposed to technical details

Simple Scalability

We promote an extensible foundation through standardization of the lexicon

Overview of the Four Use Cases





More information available here:
<http://www.theinstitutes.org/blockchain>

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