**Advisory topic: Blockchain**

**Industry Maturity Index:** ***Future***

**Why this is important:** As digital transformation takes hold, traditional business models will be challenged with new technologies. Blockchain is one of the digital technologies starting to draw attention in the insurance industry. Five insurers and reinsurers; Aegon, Allianz, Munich Re, Swiss Re and Zurich initially announced the Blockchain Insurance Industry Initiative (B3i) in Oct 2016, this has now grown to 15 members. The alliance will explore Blockchain’s distributed ledger and how it can be used to streamline paperwork and reconciliations for insurance contracts, while accelerating cycle times and the ability to audit.

**What is it?**

Blockchain is a distributed ledger most known for its use supporting the Bitcoin digital currency. The distributed ledger includes information on the date, time, participants as well as other information for every single transaction. Multiple copies of the ledger are stored across the network and are updated with advanced cryptographic algorithms that must be in agreement on the validity of the transaction before it is added to the Blockchain ledger creating a shared, single source of the truth.

The Blockchain technology can be leveraged for more than a financial ledger. When coupled with smart contract technology it can store rules for negotiating the terms of a contract, automatically verifies the contract and then executes the agreement. Blockchain removes the reliance on central systems between transacting parties. Several use cases are now forming in the insurance industry that goes beyond payment transactions.

**Broad Implications / Uses:**

The most effect use of Blockchain will require an industry-wide implementation that facilitates collaboration between market participants and technology leaders, to gain the true operational transformation.

**Possible Use Cases:**

* Speed up and simplify the onboarding of new customers.
* Automate underwriting and claims handling.
* Make fraud detection easier.

**Economic Impact(s):**

Many have predicted the insurance industry could be disrupted significantly in the near future with insurance potentially becoming cheaper, more inclusive and more personalized.

* Cost reduction and improved efficiency could change the way the industry operates, enabling revenue growth from higher-quality service, leading to new business.
* Know-your-customer (KYC) data, customers can store and grant access to verified identity data.
* Reduce claim fraud by rejecting multiple claims for one accident.
* Smart contracts could be used for underwriting risk.

**Insurance Industry Implications:**

* Bankers and capital markets are significantly ahead of the insurance industry when it comes to blockchain. They have their dedicated consortium, the [*R3CEV consortium*](http://www.r3cev.com/).
* What effect will Blockchain technology adoption in markets have on the public’s perception of risk?
* The traditional insurance industry is highly centralized, but what could it look like if it were decentralized?
* Can the Blockchain improve customer relations and confidence?
* P2P (Peer-to-peer) emerging markets could adopt Blockchain with smart contracts to lower handling costs on micro-insurance.
* There are numerous back-end applications yet to be explored, such as upgrading the invisible infrastructure (e.g., the millions of data sources that are called every time someone submits a claim, or applies for new coverage).
* Potential industry applications: Payments/finance, claims management (glass, etc.), subrogation, other underwriting and risk management areas, reinsurance.

**Recommended Actions:**

**Agents & Brokers –** It is recommended that agents become familiar with Blockchain as a concept and understand its potential applications within our distribution channel. While Blockchain implementations will likely occur in many industries before taking ahold in the IA distribution, once forward movement is begun, agents & brokers will need to be clear on the concept to quickly respond.

**Carriers -** Participation in the Blockchain Insurance Industry Initiative (B3i) is open to insurers and reinsurers who are interested in joining. Carriers should take the opportunity to perform in-depth research, and experiment with Blockchain technologies within their own organizations.

**Vendors –** This is an opportunity to take leadership within our distribution channel. Management System vendors as well as third-party providers need to take the lead in determining impact areas of highest probability, and address this as an industry – similar to [ID Federation](http://idfederation.org/).

**Examples/Resources:**

 [What is Blockchain Technology? A Step-by-Step Guide for Beginners](https://blockgeeks.com/guides/what-is-blockchain-technology/)

 [B3i Insurance Blockchain Consortium](http://www.insurancejournal.com/news/international/2017/02/06/440629.htm)

 [R3 CEV – Financial Blockchain](http://www.r3cev.com/about/)

<https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Innovation/deloitte-uk-blockchain-app-in-insurance.pdf>

<https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/innovation/ch-en-innovation-deloitte-blockchain-app-in-insurance.pdf>

<http://www.mckinsey.com/~/media/McKinsey/Industries/Financial%20Services/Our%20Insights/Blockchain%20in%20insurance%20opportunity%20or%20threat/Blockchain-in-insurance-opportunity-or-threat.ashx>

[http://www.ey.com/Publication/vwLUAssets/EY-blockchain-technology-as-a-platform-for-digitization/$FILE/EY-blockchain-technology-as-a-platform-for-digitization.pdf](http://www.ey.com/Publication/vwLUAssets/EY-blockchain-technology-as-a-platform-for-digitization/%24FILE/EY-blockchain-technology-as-a-platform-for-digitization.pdf)

**Evolving Technology Caution:**

• At least currently, there is a lack of necessary standards defined for a true digitalization of insurance.

* Regulators are going to have to investigate new and innovative ways to regulate the blockchain.
* There are immediate-term challenges with some of the components needed to enable blockchain to succeed: access to an unlimited and variable number of volunteer computers on a worldwide basis, as well as concern over the storage requirements on the host computers.

**Call to Action:**

* Ensure a clear base understanding of blockchain technology, and its potential applications.
* Work with partner organizations (carrier, vendor, etc.) in our distribution to determine possible areas which will be most immediately impacted.

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