Insurance on The Blockchain

By Thomas J Connolly

The insurance market was originally a community sponsored way to share risk and in doing so the community protected the individual. In many ways, the blockchain provides an opportunity to disintermediate the insurance industry by bringing together a geographically dispersed community to fund protection against specific event risks.

Insurance needs of this generation are more about experiences in an event lifestyle with an asset-lite way of living. Therefore, housing and automobile insurance needs remain but the ownership of these assets by the individual appears to be less of a priority vs shared ownership or usage. Focusing on providing insurance in a matching new way that meets the lifestyle needs is important. Creativity in insurance products is a clear part of our future.

A new insurance offering that protects against specific common risks, risks that exist throughout the world, is an ambitious goal. Focusing initially on broad based insurance opportunities through the blockchain may be the best starting point for economic returns. More individual type service offerings for new forms of asset ownership/use will be next as larger user bases with real economic viability develop, but for the moment a more pressing and innovative blockchain insurance opportunity does exist today.

Lloyd's of London recently reported that less than half of the world's natural catastrophe exposure in 2018 was covered by insurance. To put a value on this, Lloyd's reports that natural catastrophe losses amounted to $225 billion, yet only $90 billion of coverage for such losses was in place.

Further, the economic losses from cyber-attacks were estimated by Lloyd's in 2017 to be $53 billion, yet the value insured was only 17%, or $9 billion.

There is significant opportunity in building a new insurance alternative DAPP on the blockchain.

An Event Insurance DAPP

Over the years we have witnessed many events that have caused destruction and economic loss. Hurricanes, Floods, Tsunamis, Earthquakes and other natural based events are not alone, as man-made disasters exist too, particularly cyber-attacks. These are all significant public events, with no need for any third-party agencies to validate their occurrence. Traditional insurance focuses on specific damage to a specific property to set the premiums, and the profit element to the insurance industry is large. Creating an Event Insurance product, that has capped exposure, which is automatically payable via the blockchain on the occurrence of the event, with no need to file a claim, gives the world the opportunity to participate in buying protection for these costly and often uninsured areas of life.

1. **Natural Disasters covered by insurance**

   Currently, if you live in an area prone to hurricanes, tornadoes or other natural disaster related events, your individual insurance needs to protect your assets against loss is very expensive or not available at all.   For example, hurricane insurance increases a homeowners' insurance premium by 69.7%. One of the reasons for the significant premiums is that the density of the population near hurricane zones comprise the population buying this insurance, and their number is low compared to the national population, so the loss coverage for dollar of premium must also be low, which means premiums are high.

   What if the insurance pool included the entire community of the United States? The amount of the premiums collected would expand significantly thereby reducing the per person dollar of premium needed to cover the exposure.

   a. **Example**: A new insurance enterprise develops or builds on their platform a DApp that offers Natural Event Insurance in the form of tokenized smart contracts. Assume the local market in a Hurricane zone, Houston, TX as an example, wants an alternative to traditional insurance. The DApp offers them that, as it prices policies for an amount of coverage based on the multiple of the capital to coverage within the DApp (custody maintained on the blockchain) and an actuarial derived risk of the event occurring (event defined as a category 3 or higher hurricane occurring). This hurricane coverage is available to anyone who wants it, regardless of where you live, at coverage amounts selected by the buyer (which are capped at a maximum coverage amount) in the form of tokens on the blockchain platform.

   b. **The Rub:** Current insurance laws in the U.S. require an insurable interest in the asset in order to receive loss coverage, and that would limit the number of policyholder participants. In this example, the asset is not insured for a damage event, but the occurrences of the event itself is insured against.

      The recommendation above warrants research as to whether a capped and pre-defined value of coverage would be viewed differently than a policy based on an assessment of an owner's discrete asset damage. It would also be important to extend the research to look beyond the U.S. border at event insurance opportunities. The growing nature of natural disasters, whether that be fires destroying property and agriculture, stronger and more frequent hurricanes/typhoons, etc, requires a different type of coverage from the existing insurance industry that must change to better serve the world.

      Alternatively, selling tokenized Futures Contracts on a Crypto-exchange that provide a level of protection from global economic fallout that occurs when any Nature driven disruptive event (hurricane, tornado, tsunami, fires, etc.) strikes a critical finance center,

or agricultural basin, or transportation pathway, etc., would provide some level of purchased protection that lies outside of the traditional Insurance industry.

2. Hack Insurance:

The existence of hackers and ransomware is a reality. Damage done by hackers most often results in a court settlement against the hacked enterprise requiring money to be distributed to the injured parties. This is after the fact money at pennies on the dollar of what was lost. There must be a better way to insure against a hack. This is where a DApp offering members of the community **hack insurance for any specific Ethereum Contract Address or other blockchain platform**, for a defined coverage period of time, with a pre-defined payout selected by the buyer (subject to caps), at a calculated premium that is paid upfront and mathematically supported to project profits, all done with a branded token used as the currency of the Hack Insurance business DApp.

There are tens of millions of blockchain users and that will only grow. The insurance buying population is potentially huge, and the number of DApps being built with contract addresses is growing even faster (there are 71 million unique addresses today and over 1 million smart contracts). This a potentially very serious community driven and member participation platform that is needed now and will grow exponentially in the future.

3. Revenue Share:

Each year the loss experience vs the premiums collected and assets on hand should provide a surplus available for distribution back to policy holders or as a reduction of premiums for the next policy period. Prior to policy holder distribution or premium adjustment, the blockchain based member participants will receive a 20% share of the surplus as a return on its services that support the platform.

Policies will be contracts on the blockchain and evidenced by tokens stored in each policyholders wallet.