

# XYO Network in Insurance

Johnny Kolasinski, Christine Sako

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### Abstract

Loss and theft protection is a major feature that many insurance companies offer. From mobile phones to sports cars, owned assets that roam around on a regular basis are prime candidates to be covered under this type of insurance. The XYO Network (XY Oracle Network) can report an insured item's location by providing independently verified and trustless location data. The ability to recover an item that has been reported as lost or stolen satisfies the insured party, and the ability to locate such an item in the case of a falsely reported claim protects the insurer from fraud. The XYO Network's decentralized blockchain technology thusly gives both the insurer and the insuree access to the same verified data and ultimately establishes unprecedented accountability for both parties.

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## 1 Problem

Insurance for vehicles, modular homes, and other high-value, high-mobility objects can reimburse for theft, but can't inherently assist in locating the original good. The insurance industry is also susceptible to fraud, especially in the case of insured items that are highly mobile.

## 2 Solution

XY is already working with an insurance company that covers high value, high mobility goods to help them process claims and recover insured goods. Using the XYO Network, a decentralized and trustless location-based blockchain ledger, the company and its customers have access to an independently verifiable location history in the event of a claim. Additionally, police investigators can access this location history in their attempt to recover stolen goods.

### 3 How it Works

Each insured good is equipped with an XYO Network device that serves as both a “Sentinel” and a “Bridge.” Sentinels record heuristic data like location, temperature, speed, and other situationally appropriate information. They also record their connection with other nearby Sentinels along with the history of those Sentinels, building a distributed ledger or blockchain. Bridges are IoT devices that report data received from Sentinels to decentralized nodes, creating a decentralized ledger (blockchain). The interaction history between Sentinels and Bridges, combined with the heuristic data that is recorded, allows for a high degree of both accuracy and certainty for each individual Sentinel’s record. Nodes which report and archive highly accurate and certain data will be rewarded with XYO Tokens, which provides a cryptoeconomics-based incentive to expand and grow the XYO Network.

When a claim is made on an insured item that is connected to the XYO Network, the owner and the company can access its Sentinel’s historical data on the blockchain. The decentralized and trustless nature of the blockchain helps prevent insurance fraud, as data archived in the blockchain cannot be altered and can be accessed by either the company or the insured party. The installed XYO Network Sentinel/Bridge will also continue actively reporting, aiding in the recovery of the insured item. Unlike systems like the Lojack, XYO Network devices record location history and can be accessed by the devices’ owners, not just law enforcement.

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## Glossary

**accuracy** A measure of confidence that a data point or heuristic is within a specific margin of error. 2

**Bridge** A Bridge is a heuristic transcriber. It securely relays heuristic ledgers from Sentinels to Diviners. The most important aspect of a Bridge is that a Diviner can be sure that the heuristic ledgers that are received from a Bridge have not been altered in any way. The second most important aspect of a Bridge is that they add an additional Proof of Origin metadata. 2

**certainty** A measure of the likelihood that a data point or heuristic is free from corruption or tampering. 2

**cryptoeconomics** A formal discipline that studies protocols that govern the production, distribution, and consumption of goods and services in a decentralized digital economy. Cryptoeconomics is a practical science that focuses on the design and characterization of these protocols. 2

**heuristic** A data point about the real world relative to the position of a Sentinel (proximity, temperature, light, motion, etc...). 2

**Sentinel** A Sentinel is a heuristic witness. It observes heuristics and vouches for the certainty and accuracy of them by producing temporal ledgers. The most important aspect of a Sentinel is that it produces ledgers that Diviners can be certain came from the same source by adding Proof of Origin to them. 2

**trustless** A characteristic where all parties in a system can reach a consensus on what the canonical truth is. Power and trust is distributed (or shared) among the network's stakeholders (e.g. developers, miners, and consumers), rather than concentrated in a single individual or entity (e.g. banks, governments, and financial institutions). This is a common term that can be easily misunderstood. Blockchains don't actually eliminate trust. What they do is minimize the amount of trust required from any single actor in the system. They do this by distributing trust among different actors in the system via an economic game that incentivizes actors to cooperate with the rules defined by the protocol.. 1, 2

**XY Oracle Network** XYO Network. 1

**XYO Network** XYO Network stands for "XY Oracle Network." It is comprised of the entire system of XYO enabled components/nodes that include Sentinels, Bridges, Archivists, and Diviners. The primary function of the XYO Network is to act as a portal by which digital smart contracts can be executed through real world geolocation confirmations. 1, 2