THEVAULT

LITEPAPER

A SECURITY CONSENSUS PROTOCOL UTILIZING AI-POWERED FRAUD DETECTION AND CONSUMER PROTECTION LAYERS

PREPARED BY

MARCO BAIK IL KYOUNG

DANNIE FRANCIS

What is TheVault?

Cybersecurity threats are the number one risk facing the cryptocurrency sector. Until a universal and decentralized layer of trust is established, the sector will never achieve its true potential.

TheVault is a **Security Platform** that comprises an **AI-Driven Distributed Consensus Protocol** for Securing Blockchain Transactions. Our Goal is to build a **Trust Layer** for the transfer of digital assets, **prevent fraudulent activities** on the blockchain, and guarantee transaction finality between parties.

Features of TheVault security platform

Darwini - *Consensus Network*

Consensus partners share and update fraudulent address data to create grey/black lists stored on a secured Inter-Planetary File System (IPFS). They also serve as network nodes to maintain the collective intelligence network and validate transactions

HUNTSMAN - *Fraud Detection System*

Data gained from user activity are modelled into business logic, designed to detect transaction anomalies, prevent fraud, and human error. Machine-learning algorithms strengthens our AI engine as the network grows, while shared black lists isolate digital addresses from participation.

GOLIATH - *Consumer Protection Layer*

The Vault Consumer Protection Layer is an end-user security solution that provides security features optimized for each environment to protect against various hacking, phishing, pharming, malware and other threats.

Why the world needs TheVault?

The cryptocurrency sector suffers from an acute lack of trust by various business and consumer sectors because it challenges the existing norms, and does so without the security structures and customer support services we as financial citizens have come to expect from our banks, payment gateways, and stock exchanges.

Additionally, crypto exchanges are primarily centralized, largely unregulated or self-regulated, and devoid of the standards of consumer protection we expect from modern-day retail commerce providers.

TheVault believes in a future where consumers are protected with guarantees for the safety of their cryptocurrency accounts, and the transactions that they make, and where crypto exchanges and banks provide the levels of consumer protection and support expected of responsible retail operators.

Today, crypto exchange and wallet providers go to great lengths to warn consumers that they bear zero responsibility for the safety of crypto transactions or for the storage of coins and tokens. If the cryptocurrency sector is to find mass adoption, we must do better.

A 2018 global fraud report by global data analyst giant Experian explored the issues of consumer trust and fraud exposing the flaws in the crypto sector's "trustless" subculture.

The Experian report reveals that 75% of merchants want advanced authentication and security measures without disruption to the consumer experience. 53% of consumers abandoned online transactions for a variety of trust-related security reasons, and that 66% of consumers like visible security measures because "it makes me feel more protected."

TheVault as a solution

With TheVault's AI-powered fraud detection and security consensus protocol, we can eliminate cybersecurity threats and establish a decentralized consensus ecosystem that both removes the need for a third party as well as enables cryptocurrency exchanges, wallets, and banks to guarantee the protection of their consumer's transactions and accounts. We may also drive consumer trust to levels capable of supporting mass adoption.

To do this, we need exchanges to adopt policies that give consumers confidence in the protection of their crypto assets and their transactions. However, many crypto exchanges, wallets and token providers have not invested sufficiently in the security processes and fraud management practices to protect their consumers. With TheVault, this can change.

TheVault has been established to deliver the security necessary to build a universal layer of trust, creating the consumer confidence necessary to l drive mass adoption and usage of cryptocurrencies. We have already signed relationships with key exchanges, with many more are in the pipeline, and invite you to join us on our journey towards a safe, secure, guaranteed future.

Problems in the ecosystem

Problem #1
Insufficient levels of protection

Cryptocurrency exchanges and wallet providers have failed to adopt the security practices and processes that provide sufficient levels of consumer protection, and therefore, lack the trust necessary to drive mass adoption.

Solution #1
TheVault Fraud detection system

TheVault's AI-powered fraud detection solution and consensus network enable exchanges to give consumers guarantees that their transactions and account storage methods are safe; ensuring authentication protection methods are recoverable and assure that their processes to manage security are safe. Lastly, TheVault mitigates risk and reduces exposure to cybercrime.

Problem #2
Extremely slow transaction times

Current blockchain technology is too slow. We live in a digital age of instant gratification, impulse buying from a global marketplace, and an age where decisions to buy or sell mean the difference between success and failure.

Solution #2
Instant transaction for whitelisted addresses

TheVault's hybrid blockchain fraud detection solution utilizes a side chain capable of processing thousands of transactions per second that enables whitelisted addresses preauthorization for immediate clearance. Managed by the Consensus Network, the nodes provide the consensus to enable transactions to occur instantly, anywhere in the world.

Problem #3
Poor security infrastructure

USD 9.1 Million is stolen from cryptocurrency consumers every day. The security trust issues are not just about the security capabilities of an exchange's infrastructure, but about cyberattacks on consumers.

Solution #3
Full cycle & strong security infrastructure

TheVault expertise extends beyond the exchange's backend security processes. TheVault's consumer protection solution extends all the way to the consumer's desktop or mobile environment, providing effective consumer protection against cyberattacks, viruses, and ransomware giving end users the level of trust necessary to trade and purchase online.

Proven experience

Effective cybersecurity requires proven expertise. TheVault's development partners are leading cybersecurity companies for the financial sector. As a result of this proven expertise and knowledge of best practices in deploying bank grade security processes, TheVault's AI-powered fraud detection, security consensus network and consumer layers are charged with second generation expertise building advanced security business rules only deep levels of experience can provide.

TheVault ecosystem

TheVault Ecosystem model operates on a Revenue Share Program that rewards nodes on participation in the consensus network, adoption of the fraud detection solution, and the delivery of consumer protection to its members. A small fee of 0.05% is applied to transactions to fund the continued research and development of TheVault platform and the Ecosystem Partner Revenue Share Program.

Product roadmap status

TheVault Fraud Detection Solution passed Minimal Viable Product (MVP) status in July 2018. The beta program is now on the road to a full production version. Multiple exchanges have already committed to the consensus network trials. The technical road map is on schedule. The business road map is on schedule.