Whitepaper

Blocksafe Foundation

v1.0

Contents

1 Abstract

Blocksafe presents the first Blockchain solution for Smartgun safety. By using the consensus provided by Blockchain technology, Blocksafe allows for cryptographically enforced safety for connected Smartgun technology. Blocksafe undertakes to provide the solution to the gun safety debate. Correspondingly, Blocksafe provides the final argument by providing an all-inclusive solution to gun safety issues.

2 Introduction

Smartgun technology inevitably transforms the way we make use of arms. But the inherent risks associated with this paradigm-shift are too serious to ignore. To think that a bug could cause harm to an unsuspecting user cannot be justified by any means. That's why Blocksafe undertakes to solve this issue with Blockchain technology.

Although Smartguns can, and are, connected to smartphones and servers currently through wireless networks and protocols like Bluetooth and infrared, this structure lends itself to detrimental security flaws. Most notably, centralizing the control and data of smart devices on a gun leave open detrimental consequences. Particularly on a national level, where hacking takes place as political warfare, connecting arms en masse to each other needs to be done with a guarantee for safety.

That is why Blocksafe makes Smartgun tech smarter by making innovations speak with each other securely.

3 Filling the Industry Gap

Until now, Smartgun technology innovators have steered away from centralized servers because of the fatal liabilities that can result from having a single point of vulnerability.

As such, Smartgun technologies tend to use short-range wireless protocols, like Bluetooth, to make sure that remote malignant users cannot abuse the wireless technology. The problem with the current implementation lies in that this severely limits the ways in which Smartgun innovations can be used. That is why a trustworthy solution is needed.

4 Use Cases

As a whole, Blocksafe provides the use case that it enables development for enhanced firearm solutions that were never possible before. These solutions

focus in particular on the secure distribution and storage of data that would otherwise be too risky to communicate over insecure lines.

4.1 Examples

- Protective Gun Vault
  - Guard your guns from unauthorized users.
- Sharing sensor data through decentralized applications
  - Military or law enforcement having guns that take data that is shared and interpreted securely.
  - Consolidating and interpreting sensors data with for development and use of artificial intelligence (AI).
  - Alert medical support when heat sensor goes cold - indicating disarmed weapon, breach of protocol or injured gun owner.
- "Smart locks"
  - Using sensor data to test whether the triggering of the gun is justified in that instance. This can prevent people from using guns irresponsibly or accidentally.
  - Using fingerprint sensors to verify whether the gun holder is licensed to hold.
  - Linking health records with gun ownership to ensure mental adequacy of user.
- Preventing ransomware from taking control of IoT devices
  - Stop malignant attacks from taking control of IoT devices and demanding ransom to unlock.
- Litigation
  - Video camera to use in court for questioning.
- Product theft
  - Gun store recouping stolen firearms.
- Insurance
  - Monitoring and managing firearm usage for employees of armored truck and security companies.
- Training
  - Recorded analytics used to tailor training programs to optimize learning curves and to prevent accidents.

5 Economics

$Triggers power the Blocksafe network just like ethers power the decentralized apps on the Ethereum Blockchain.

5.1 Distribution

100 million tokens in circulation, distributed as follows:

- Development: 10 million
- Marketing: 10 million
- Founders: 10 million
- Locked with Foundation: 27894407.4897
- Foundation: 40 million

$Triggers are ERC20 tokens. They may later be exchanged with ERC223 tokens – a development which is still to be unveiled at Coin Agenda in Las Vegas.

Blocksafe's consensus engine is what makes the network self sustainable in the sense that devices and decentralized applications (dapps) have built in wallets and an integrated consensus engine. Tokens are doled out as rewards for verifying consensus demands.

Discussions regarding mining pools and nodes are still underway.

6 Consortium

The Blocksafe consortium consists of a team of dedicated innovators dedicated to contributing to the Blocksafe infrastructure. Sign up at https://blocksafe.network to participate in the pilot program.

The consortium aims to create a well connected community of Smartgun tech individuals who encourage each other to innovate in tandem. Blocksafe envisions an ecosystem where innovators build on each other's achievements so as to promote exponential growth of innovation.

7 Consensus

Blockchains famously make use of consensus algorithms to establish objective truth from a pool of subjective data in the Blockchain.

Blocksafe makes use of more than three consensus mechanisms to support the decentralized apps that make use of the innovations integrated into the Blockchain.

7.1 Consensus Implementations

1. Encryption consensus
   (a) PoE (Proof of Encryption).
      i. Managed with separate 'data' key required to decrypt data.
2. Storage consensus
3. Delivery consensus

7.2 Decentralized Ledger Tech (DLT) Stack

- P2P network.
- Secure IoT data management.
- P2P messaging allowing secure communication between mobile and non-mobile apps.
- Torrent tech layer to store media.
- Decentralized VPN as added layer of security.

All while dodging security risks by omitting collection of personal data.

8 Incentive

The main incentive for Blocksafe lies in that it provides a way for innovators to outsource security concerns. Instead of having to design and implement securely decentralized communication media for every Smartgun innovation, instead, just run your innovation on Blocksafe to guarantee the project's security needs.

In order to achieve exponentially growing and mutually beneficial innovations, modularization plays a key role for Blocksafe. As such, innovations that are integrated into Blocksafe are encourage to exists in a modular network simply by nature of being connected.

Lastly, participation in the work required to establish Blocksafe consensus will be proportionally rewarded with tokens.

9 Privacy

Innovators have their apps powered privately. In other words, use of Blocksafe does not disclose or make use of private information. User anonymity is paramount considering that lives are at stake. Private data is not collected, and the information exchanged focuses almost exclusively on the physics data passed between devices and the decentralized ledger for secure use.

10 Projections and Goals

10.1 Roadmap

Testing TrackingPoint firearm technology in NV, Las Vegas, at Coin Agenda.

10.2 Tests and Demonstrations

- Tracking Point M400
  - Firearm that makes use of smart triggers and smart scopes.
  - Ideal candidate for Blocksafe testing.
- 'Gunshot Spot'
  - Dapp for mobile phones and tables.
  - Free gunfire mapping app and token wallet. Geographically maps gunfire activity in specified area.

10.3 Goal

Blocksafe's decentralized security ledger can provide the backbone to more than just the firearm industry. Some industries that show promise to be integrated with Blocksafe are:

- Logistics
- Manufacturing
- Retail
- End-user firearms

11 F.A.Q.

11.1 How can I connect my Smartgun innovations to Blocksafe?

Blocksafe is still being tested, meaning that innovations are still under development. To take part in the consortium, sign up at our innovator's page at http://blocksafe.network.

11.2 What are $Triggers tokens?

Triggers are based on Counterparty technology. To store your Triggers just make a Counterparty wallet. Note that most wallets handle transaction fees with BTC. Also, by using Counterparty, Triggers effectively run on the Bitcoin Blockchain - the most stable Blockchain to date (often referred to as "THE Blockchain" due is sheer size and crypto market dominance).

11.3 Where can I purchase $Triggers?

Triggers can be traded for BTC at Bittrex.com.

11.4 To what extent is Blocksafe private?

Blocksafe has no interest in collecting your private information. The decentralized ledger only deals with the transfer of physics related sensor data to-and-from mobile and non-mobile applications.