SafeCoin

Safe for the world

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Introduction

SafeCoin is a decentralized community-driven project with a growing and dedicated group of talented and passionate individuals. We are aligned in the vision and necessity of building a safe, secure, and decentralized foundation capable of realizing the full potential of what blockchain has to offer humanity and the environment we depend upon. Through putting safety, security, and fundamentals first, Safecoin is able to offer unparalleled features for a growing decentralized community:

- Safety and Security
    - Proof of History - Vastly improved security means vastly improved performance
    - Sub-second finality
    - Reliable and efficient rust-based programming language
    - Modern WebAssembly smart contracts with parallel runtime
    - Increased decentralization and accessibility - A Safecoin innovation
- Significant advancements in energy efficiency - A Safecoin innovation
    - Innovative random per-slot voter subset selection
        - Several orders of magnitude better efficiency
            - (utilizes ~5 voting transactions per block for consensus instead of 1000+)
        - Dramatic reduction in resource requirements
            - Leading to improved accessibility and decentralization
- No ICO - Completely decentralized non-security
- No Sales of any kind
- Fair Distribution
- No Developer/Founder Fees
- A Fixed Cap of only 36 million supply with low emissions:
    - We leave hyper-inflation to fiat and some IEOs.
- Powerful Smart contracts with capabilities including, but not limited to:
    a. Decentralized Finance (DeFi)
        i. non Fungible Tokens
        ii. Decentralized non-custodial exchanges with performance of centralized ones
        iii. Erc20 compatible tokens
    b. High performance gaming
    c. Cross chain compatibility (including, but not limited to):
        i. Solana
        ii. Ethereum

SafeCoin begins with the belief that liberty, truth, and freedom in a digital age are only built upon the foundations of reliable and secure decentralized systems. For that, we are very thankful to the pioneers and their projects, without which, this endeavor could not exist. Solana [1], for its dedicated and groundbreaking focus on security, continuous advancement, and outstanding technology. Bitcoin [2] for revolutionizing our generation with blockchain and decentralized store of value, and Ethereum [3] for

implementing the first turing complete Smart Contracts for blockchain. Safecoin builds on Solana technology with a fairly distributed and decentralized store of value, as well as an improved, highly efficient consensus model that leverages randomly selected voting.   This consensus allows Safecoin to be both incredibly energy and resource efficient, as well as far more accessible for community participation.

A fundamental value in our project and our community is that we are stronger together.   Blockchain is for everyone. We support everyone who contributes to blockchain technology, and we believe that anyone with a dream to make this world better with blockchain should have a chance to realize that dream. Safecoin is not designed to compete with other blockchains. It is designed to compete with fiat and other centralized systems. At all possible turns, we choose to collaborate with other blockchain and cryptocurrency projects to make them stronger. We collaborate with businesses to give them the tools to prosper in a decentralized multifaceted economy. We work with individuals who strive to see their innovations realized. This philosophy is in every interaction we have, every feature we add, every goal we set, and all the code we write. It is never enough to have a single point of security.   We believe in a diverse, thriving network of innovation that allows creativity and inspiration to be realized in a store of value anywhere in the world at any time. We foster robust, safer decentralized communities through cooperation, collaboration, and innovative networking solutions that provide the security for realizing dreams.

Challenges

To improve blockchain technology, we must look at the challenges that the current fiat currency and centralized banking options present to the end-user and what can be improved over Bitcoin and subsequent cryptocurrencies.

- Security
    - Cryptocurrencies, while decentralized, are prone to single points of failure in their consensus mechanisms. Most notably, malicious double-spending exploits are inherent in proof of work projects.   There is a direct correlation between security and performance. The less secure, the more time required to probabilistically reach transaction finality.

    - Most cryptocurrencies suffer from at least one form of centralized dominance, which can be regional, investor-based, or founder-based.   As such, any single blockchain, no matter how large, may be prone to collusion [8]

    - Banks have security that is good at *protecting their assets,* but they do not protect their customers. Banks thrive on fees and customer mistakes, so the customer does not have security *from* the bank.

- o Cryptocurrencies have suffered from security breaches regularly since Bitcoin was released. The loss, theft, and false mining of millions of dollars worth of cryptocurrency have occurred.
- Centralization
  - o Banks, governments, and corporations all suffer from centralized points of failure which sacrifice freedoms, privacy, and effectiveness for more easily implemented control

  - o Blockchains and cryptocurrency projects also suffer from centralization in situations where a large amount of resources or funds are needed to participate.

- Accessibility and ease of use

  - o There is still a user-interface barrier to most cryptocurrencies. A project must have useful and intuitive wallets, including mobile wallets, without a security tradeoff.

- Inflation and emission rates can keep a coin from being usable as a store of value.

SafeCoin was developed to meet users' needs and has addressed as many of the challenges as possible.

Decentralized vs. Centralized

Decentralization is a core principle of cryptocurrency. But what does that mean, and why is it important? Modern banking with fiat currency is a centralized system. One entity controls the use and even the destiny of the currency. Even at a more personal or local level, your bank controls your access and ability to transact with your money. The idea of a decentralized ledger takes away the power of one entity to control the supply, distribution, or fungibility of the currency on the ledger.
Decentralization also applies to the development of cryptocurrency, as all the involved parties (or nodes) have to have a majority agreement on what software version is being used.

So, the benefit of decentralization also has some drawbacks. One is that because of the need for a majority of nodes to agree if a group of nodes does not want to agree with the first group, they can continue their own blockchain ledger, a "chain split" or "fork" occurs. So now there are essentially two versions of a cryptocurrency. These forks have occurred over disagreements about what the future development of a coin should look like, so these arguments can slow the growth of a project and render it unreliable for significant transactions.

With that said, because decentralization is such an important, even the most important, aspect of cryptocurrency, every effort must be made to make a blockchain that is as advanced and yet as secure as possible early in its development. While there is no such thing as "future-proof," SafeCoin has built on

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the strengths of others in the open-source cryptocurrency community and contributed its own innovations to be as forward-thinking as possible, with the same open-source doctrine as other cryptocurrencies before.

Why SafeCoin?

Mission Statement

SafeCoin prioritizes safety and security as fundamental necessities in building a successful foundation for adoption of high performing decentralized systems. When deciding to move to a modified Solana codebase, the most important factor was the considerable security advancements Solana had made across their codebase and into their consensus mechanisms.   It is in fact this security which allows Solana and Safecoin to offer performance levels beyond any pre-existing decentralized systems.   Safety, Security, and Privacy are the three pillars that SafeCoin is built upon and should be, we believe, the first consideration for any decentralized project to have long term success.

SafeCoin Platform - Protocol

Many cryptocurrencies preceding SafeCoin have pioneered innovations that have yielded network architecture, distributed ledgers, and consensus mechanisms for storage, transmission, and security.

SafeCoin has selected the best of these innovations to establish our technology stack and platform, ensuring we evolve from established development efforts and innovate further to ensure SafeCoin's long-term viability and stay true to our Mission Statement. The SafeCoin team thanks and acknowledges the foundational projects: Bitcoin, Dash, Komodo, SuperNET, Horizen (Zencash), and Zcash for their support in the past. The SafeCoin team would also like to acknowledge the fantastic advances in blockchain technology brought forth by the Solana team, on which SafeCoin now builds our ecosystem on a modified version. Through further community support on these projects, it can ensure that SafeCoin innovations add to the global community pool of knowledge by remaining owned by the public domain, which is a shared Satoshi vision.

Consensus

SafeCoin utilizes a novel consensus mechanism for confirming transactions called Proof of History, designed and implemented by the Solana team. This confirmation bias uses a globally synchronized clock to verify the order of transactions instead of the traditional method of using miners or staking to verify the order of transactions on the blockchain.

Proof of History is a sequence of computations that can provide a way to verify the passage of time between two events cryptographically. It uses a cryptographically secure function written so that output

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cannot be predicted from the input and must be executed entirely to generate the output. It can be seen as providing a second layer of defense of Safecoin's POS (Proof of Stake / byzantine) consensus which protects against many outstanding POS vulnerabilities such as (but not limited to) sybil attacks.

SafeCoin Consensus Efficiency - Proof of History with Random Voter Selection

SafeCoin has taken the hybrid PoS+PoH consensus and modified it to fit the "Fair-Launch Community Coin" mold that our project so proudly stands behind. SafeCoin utilizes the security, speed, and scalability of Solana's version, and modifies it slightly to enable even a basic home setup to support the network. Our innovation here is not new, rather it is a tried and tested concept implemented on Algorand, Elrond, and many other emerging Defi-focused blockchain projects. A randomly selected subset of voters is chosen for each slot. These randomly selected voters vote on the next block, and then another subset of voters is randomly selected for the subsequent block. Random per-slot voter selection offers a robust defence against planned malicious actions as a potential attacker is not able to predict how subsequent blocks will be voted on and confirmed. The result is dramatically higher consensus efficiency in terms of resources and costs. Fundamental cornerstones of Solana such as Proof of History remain intact and functional through this process.

One of the major barriers of entry into the Solana Validator program are the hardware requirements. In order to own and operate a validator, a user must use a state-of-the-art hardware rig just to keep up with the network. SafeCoin, remaining true to the "Community Coin" standard set forth years before, slightly modified the voting consensus to allow almost anyone to contribute a Validator to the SafeCoin network. SafeCoin has also made improvements to the consensus, and on top of that, SafeCoin's implementation of an improved compression algorithm decreases the amount of space a transaction takes up on the blockchain, resulting in less storage being required to keep a full copy of the blockchain.

In summary, these changes allow anyone the chance to participate in and utilize the incredibly energy efficient and advanced blockchain technology Safecoin offers.

SAFE Ecosystem

"The definition of blockchain ecosystems points to a group of elements capable of interacting with each other and the surrounding world for creating an environment with desired special features. You can also define a blockchain ecosystem as the agreed-upon governance structure for a specific use case. The governance structure defines the acceptable behavior of participants, data ownership, funding, exit and entrance criteria, and conditions for information sharing among participants." [4]

The SafeCoin Ecosystem will be built around the idea of Decentralized Finance or DEFI, with interaction between all SAFE products. Smart Contracts, Tokens, NFT's, and other 3rd Party Platforms are encouraged to build upon the SAFE Blockchain, arguably the most advanced and safest blockchain in cryptocurrency. Additional 3rd Party projects participating in Safecoin's ecosystem, such as SafeTrade CEX [5] and SafeSwap DEX [6], also integrate SafeCoin as the primary coin on their platforms.

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Community Focused, Technologically Driven

SafeCoin can utilize all this technology as it strives to be the standard in safety while providing enhancements, innovations and leveraging a passionate and talented community.

No other coins have ever distributed this much-advanced technology fairly for adoption by the community without an initial coin offering (ICO)or hidden fees.

- SafeCoin only established a small transparent and published pre-mine (4 million Safe), which is never sold but used as appreciation for contributions from the Safecoin community that include but are not limited to: development, marketing, enhancements, and innovations. These funds remain fully intact today as they have, to date, been bought back as they were gifted.
- No ICO
- No sales of any kind
- Fair Distribution
- No Developer Fees
- No Derivative Fees
- A Fixed Cap of 36m Supply

SafeCoin builds upon these already tested protocols and adds in the Validators utilizing a hybrid PoS+PoH, operating on a modified consensus, allowing substantially lowered hardware requirements to bring Solana's advanced blockchain technology to the general public.

SafeCoin Wallets

SafeCoin has released a non-custodial web wallet for storing SafeCoins.   This open source wallet is derived from Sollet [7], an open-sourced wallet platform built for the Solana blockchain. it may be operated over the internet or locally.

A key community focus has been collaboration with hardware wallet providers to provide multiple means of secure offline key storage.   Security remains a priority at every level down to available wallets.

SafeCoin will target, as a Roadmap item, an update to our multi-coin wallet "SafePay" in 2022. In addition, we aim to support many newer technologically advanced blockchains and integrate Staking for these blockchains.

SafeCoin Community P2P / B2B

SafeCoin's most powerful resource is a fantastic and talented growing community of individuals who care about our future and privacy rights and are working hard to make this world a better place through their contributions at SafeCoin. As a fully open and inclusive project, all kinds of contributions and support have flowed into our community from around the world.

We are growing by the minute, attracting talented developers, miners, traders, long-horizon investors, partner organizations, exchanges, bloggers, and many more. Our community already has an enduring history of positive relationships, friendly interactions, spontaneous support, and engagement emerging to prevent or solve disparate problems.

Future Development of SafeCoin

We are committed to long term development of the thriving and secure ecosystem we're building. We believe in the decentralized, fully inclusive, voluntary, and flexible community we're growing and we believe that our pillars of safety and security aren't just a good strategy, but the only strategy worth considering for true long term success with decentralized systems.

The advent of blockchain technology makes such a thing possible, and we believe many people already do and will share our vision for a better world, especially when they see how we can accelerate innovation and improve human welfare by empowering everyone with innovative tools and freedom to express their values.

We are dedicated to executing our Roadmap and doing everything in our power to see this vision come to fruition. There are sure to be challenges along the way. There already have been. However, flexibility, passion for our values, and peaceful cooperation will consistently carry us through adversity. We are fortunate to live in an age of incredible innovation in both technology and ideas.

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Upcoming

- SafeTokens - Live on-chain September 2021
- Smart Contracts - Live on-chain September 2021
- SafeSwap DEX Release
- Wormhole Bridge to Ethereum, Binance Smart Chain, and Terra.
- Liquidity Pool Integration
- Privacy Transaction Integration
- Privacy Smart Contract Implementation
- SafePay 2.0 Release with Staking
- Oracle Integration
- Merging technology to expand exchange into mainstream markets
- Additional Cross Chain Bridges to Wormhole, including Avalanche, Polkadot, and Cardano
- On-Chain Two Factor Authentication "SafeID"
- On-Chain Chat Function "SafeChat 2.0"
- IDO Launchpad for projects building on SafeCoin "SafeStarter"
- New Safecoin.org website
  *this is an ever-expanding list as we examine and improve solutions

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References

[1] https://solana.com/solana-whitepaper.pdf

[2] S. Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System https://bitcoin.org/bitcoin.pdf

[3] https://ethereum.org/en/whitepaper

[4] https://101blockchains.com/blockchain-ecosystem/

[5] SafeTrade CEX

[6] SafeSwap DEX

[7] Sollet Token Wallet

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