Seci Blackpaper

Seci | *latin* | 'strive for'

The Seci team strives to design, engineer, produce, and deliver fair systems and platforms for commerce, and other private and public blockchain applications.

Hamrex - hamrex@seci.io
Nect - nect@seci.io
Soepchik - soepchik@seci.io

Abstract

Seci is a cryptocurrency based on Dash and Bitcoin, with various functionality and capacity improvements. Building on Dash's two-tier incentivized masternode network, Seci also brings increased capabilities and network security via Segwit 1,2, and 4. In addition, Seci offers an open source e-commerce solution, side chain hosting capabilities, and Reactive Balancing technologies building on the foundation of peer to peer trustless transaction, coined by Satoshi Nakamoto himself.

Contents

1. Blockchain and Cryptocurrency

1.1 Definitions

- Blockchain *(noun)*
  A digital ledger in which transactions made in bitcoin or another cryptocurrency are recorded chronologically and publicly.

- Cryptocurrency *(noun)*
  A digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.

- Masternodes *(noun)*
  A masternode is a special kind of node (computer) on a network that enables special features inside of a network that would not be possible without Masternodes.

- Trustless Transaction *(noun)*
  An exchange of value or other property that can be completed fairly without the belief in, or interference of, a central authority.

1.2 Bitcoin

In January 2009 Satoshi Nakamoto released a paper describing his vision for commerce and a peer to peer payment system similar to cash, but online. The electronic cash known as Bitcoin was created. Bitcoin is verified and secured through cryptographic hashes on a decentralized network, allowing the digital currency to be trustless. This is made possible by a technology, coined by Satoshi known as "blockchain", that allows a decentralized network of nodes that act like a database to hold a ledger of all transactions on the bitcoin network for new transactions to be checked and verified against.

These verifications are performed via proof of work (POW), first used in hashcash, which is a double iterated SHA256 hash. This is known as mining, which utilizes large amounts of computational power to verify transactions on the blockchain. POW was intended to be performed on CPU's, but eventually GPU's (video cards) and, more recently, ASICs *(application specific integrated circuits)* are being specially designed and used for mining Bitcoin and other cryptocurrencies, depending on their hashing algorithm. For example, Scrypt is used for Litecoin, and x11 for Dash. This can lead to centralization, where companies building large mining farms begin to have control over the network by owning the majority of the hashing power.

1.3 DASH

In 2015, Evan Duffield published the Dash Whitepaper, describing a payment system that improved on the original design of Bitcoin by adding a layered economic incentive, with a two-tier incentivized masternode network, as well as developing the idea of transaction upgrades such as Instant Send and PrivateSend. With these technical advances came higher TPS (Transactions per second) and better network security, thanks to the use of Masternodes.

As technology moves on, however, there are always improvements to be made. Our team formed under the shared vision for the need for a commerce-focused cryptocurrency. As such we created Seci.

2. Seci

Seci is an open-source, community-based payment solution for businesses and individuals. The Seci team will be releasing easy to integrate website plugins and application platforms, allowing businesses to painlessly accept and use Seci, both online and in store.

With a focus on community, open-source development, and functional products to build real world value; Seci aims to engage the masses, encouraging the development and usage of industry-changing applications. Seci also brings improved security to the table in comparison to its competitors in the cryptocurrency space, with true decentralization made possible by it's blockchain core and ASIC resistant algorithm.

Technical Specifications

Algorithm	Lyra2rev2
Block Time	1 Minute
Block Reward	10 SECI
Total Supply	150,000,000 SECI
SeciNodes Cost	30,000 SECI
Block Reward	Variable, 4-10 - *See Section 2.5*
SeciNode Block Reward	Variable, 0-6 - *See Section 2.5*
Premine	7%
Development funding	5%
Testnet Ports	RPC: 9828 / P2P: 9829
Mainnet Ports	RPC: 9818 / P2P: 9819

2.1 SeciPay

SeciPay is an integrated payment gateway for online commerce that will eliminate the need for payment processors, merchants, and brokers by allowing users to purchase goods and services directly on the website with their cryptocurrency wallet.

Initially, SeciPay will be implemented for the Wordpress platform via WooCommerce. Wordpress dominates the market share for content management systems (58.9% of market) and boasts a staggering 26.9% market share of all websites online.

Woocommerce integration will be followed by plugins for common donation, form, and membership platforms, such as Gravity Forms, targeting charities and businesses that do not utilize full e-commerce solutions but still require additional information with their products, services, or signups.

While Seci will be the initial currency of choice, we will soon thereafter integrate other mainstream currencies that can be accepted on any platform utilizing SeciPay.

The SeciPay roadmap continues, with integration into other e-commerce platforms such as Shopify, Magento, and others based on market share.

A SeciPay application will be available on all platforms for users to easily adopt Seci into their daily lives and easily transact with Seci, benefiting from its technologies.

2.2 Seci Blockchain Services

Seci has the ability to host dedicated and/or application-specific side chains to provide services and applications while sharing the Seci Network's POW Pool and SeciNodes (Masternodes). Seci Blockchain Services are competitive with other commercial blockchain services, such as Microsoft Azure Blockchain Services and Ripple Labs xVia and xCurrent solutions, allowing Seci to provide:

- Commercial Public Ledgers
- Commercial Private Ledgers
- Public and Private Financial and Capital Service Applications
- Supply Chain Applications

In addition to commercial applications, Seci Blockchain Services can be used to provide public services as well, such as a public side chain that is used to track and certify election results, or a side chain pro viding public or private messaging services, and many other applications.

Unlike other commercial and private Blockchain applications, such as those offered by Ripple Labs, Seci Blockchain Services ties commercial and private blockchain applications back to the main chain and rewards members of the Seci network by charging side chains a service fee in the form of a "Toll".

The Blockchain Service Tolls are paid in the form of Seci coins, either directly or via an atomic swap of another currency. These tolls are then distributed to members of the Seci network (SeciNodes and Miners) in the form of additional rewards. This ensures Seci's commercial offerings generate demand and usage for the Seci coin, and directly rewards members of the Seci network for hosting these applications.

More information and technical specifications of the toll system and side chain creation will be released in a separate white paper as development continues.

2.3 SeciBusiness

The Seci Team aims to make the integration and management of Seci and it's products painless and simple. SeciBusiness will make this possible.

Outside the release of separate open-source products, Seci will be releasing a deployment management application for business users to manage their Seci products and monitor the performance and statistics of their Seci integrations. This app management and business intelligence platform will help companies be more efficient, improve their bottom line, and continue to grow.

SeciBusiness is slated for initial release as per the roadmap and will be the hub for Seci product management, business intelligence, and analytics as the Seci platform and ecosystem continues to expand, adding new products and services.

2.4 SeciNodes

SeciNodes, known commonly as masternodes, allow the Seci Network to operate securely and soundly, as well as bring in new payment technologies to improve and benefit the project.

A vital component in the Seci ecosystem, it is important that SeciNodes have impeccable uptime and are not treated as throwaway or 'get rich quick' schemes. They are necessary to allow the network to provide fast and reliable payments at scale, host Seci Blockchain Services and in return will offer long term positive ROI for SeciNode holders.

2.5 Reactive Rebalance Algorithm: ReX Rev. 2

To ensure long-term network stability, protect the ROI of SeciNode holders and miners, and to assist in stabilization of price and market volumes via buy and sell pressure on the markets, Seci makes use of a Reactive Rebalancing Algorithm: ReX rev. 2. This technology shifts incentives toward network and market health via variable rewards.

The Seci Network will dynamically alter the block reward and Blockchain Service Toll splits between miners and SeciNode holders. At the commitment Target, rewards will be split equally between SeciNodes and Miners, if the number of SeciNodes falls below the target, the reward split will rebalance, increasing the SeciNode reward to 60% of the block reward. This increases ROI and puts buy pressure on the market. If the Seci Network becomes overly saturated with SeciNodes, the reward split will rebalance all the way down to 0% (at 90% circulating supply), putting sell pressure on the market.

This process incentivizes a healthy stability of committed circulating supply and market volumes, protecting miner and SeciNode holder returns alike.

Specifications on following page...

ReX Rev. 2 Specifications:

Reactive Rebalance: ReX rev. 2
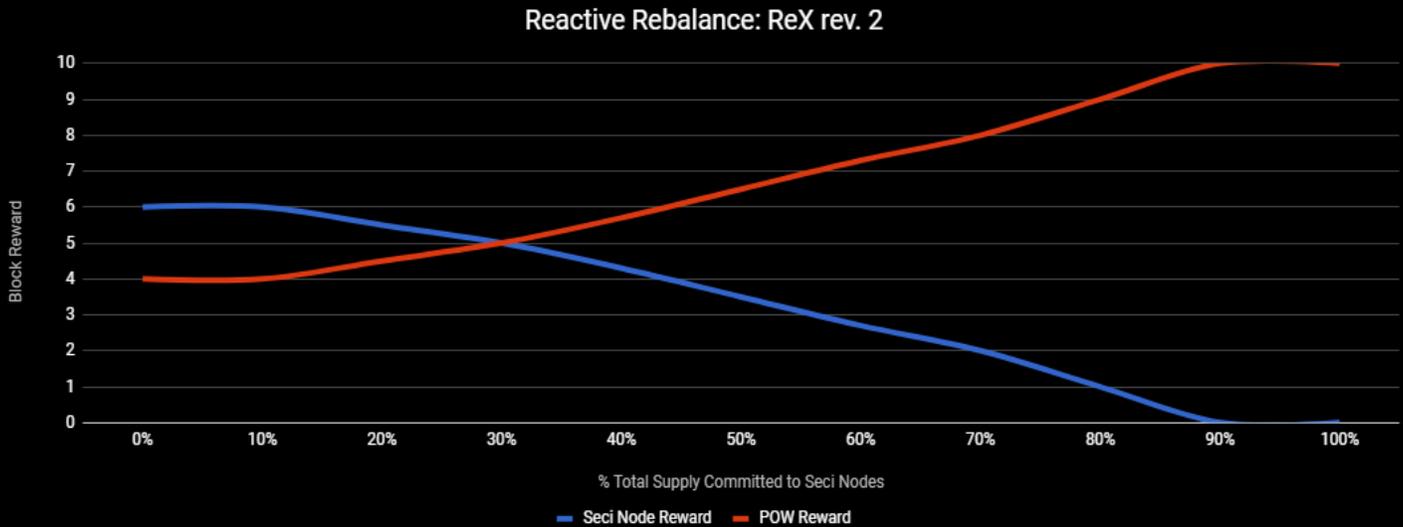
SeciNode Commitment Target	50% reward @ 30% Circulating supply
Max SeciNode Reward	60% Reward @ <= 15% Circulating Supply
Min SeciNode Reward	0% @ >= 90% Circulating Supply
Target Node count at launch	100

2.6 D106 Difficulty Algorithm

In public discussions on how to address oscillations in network difficulty on other coins, a new approach was introduced by Bitcoin Cash Developer Amauy Sechet, dubbed the D106 Algorithm. Through deep analysis and studies of other implementations of the D106 algorithm, the Seci developers have implemented a slightly modified version of D106 to ensure smooth and consistent difficulty adjustments that will yield consistent block time intervals, even when hosting multiple child chains via Blockchain Services.

2.7 ASIC Resistance Policy

Seci is committed to a truly distributed platform. As such, the Seci team is committed to maintaining ASIC resistance. If any ASIC mining devices are released that are compatible with the current Seci POW algorithm, Seci has the capability of modifying parameters that will break ASIC compatibility. If necessary, the Seci team is also prepared to change the POW algorithm entirely.

3. Seci vs. Competition

SECI is a unique cryptocurrency, offering many improvements over traditional coins like Bitcoin and DASH, as well as many others that have surfaced over the years. It's faster, allowing for many more transactions per second and day, ASIC resistant to fight centralization, and compatible with many upcoming technologies, such as the Lightning Network.

Comparison Chart

	SECI	Bitcoin	DASH	ZCASH
Alogorithm	Lyra2rev2	SHA256	X11	Equihash
Block Time	1 Min	10 Mins	10 Mins	2.5 Mins
Block Reward	10	12.5	~3.35	12.5
Total Supply	150M	21M	21M	21M
Premine / Dev Fund	7%	0%	10%	20%
MasterNodes	Y	N	Y	Y
ASIC Resistant	Y	N	N	N
Segwit	Y	N	N	N
Lightning Network Compat.	Y	Y	N	N
Development Funding	5%	0%	10%	20%
Block Size	4MB	1MB	1MB	1MB
Transactions / Sec	133.3	3.3	13.3	13.3
Transactions / 24hr	11,520,000	288,000	1,152,000	1,152,000
Difficulty Algorithm	D106	KGW	DGW	Mod. Digishield V3

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4. Roadmap

- **May '18**
  - Mainnet Launch
  - Announcement
  - Whitepaper
  - Website Launch
  - Block Explorer
  - Windows/Linux Wallet
  - SeciNodes launch
  - Reactive Rebalance Active
  - Launch Social Media & Web Properties

- **June '18**
  - Marketing Campaign
  - Mobile, Cross-platform Wallet
  - Mac QT Wallet
  - Launch SeciPay Beta
    - Wordpress/WooCommerce Integration
  - DEX Listings (ZelTreZ, Crypto-Bridge, BarterDex)
  - Small/Medium Exchange Applications

- **July '18**
  - Secipay V1 Release
  - SeciPay Launch Marketing Campaign
  - Begin SeciPay V1.5 Development
    - Continue Wordpress integrations (Gravity Forms, etc)
  - Begin SeciBusiness Development
  - Top 50 Exchange Application

- **Aug / Q3 '18**
    - Continue Marketing Campaign
    - SeciPay V1.5 Release
    - Begin SeciPay V2 Development
        - Shopify & Magento integration
        - Support for BTC, ETH, LTC
    - Continue SeciBusiness Development
        - First Look / Beta
    - CoinMarketCap Listing
    - Top 20 Exchange Listing

- **Q4 '18**
    - SeciBusiness V1 Release
    - SeciPay V2 Release
    - SeciBusiness Marketing Campaign
    - SeciPay V2 Marketing Campaign
    - Top 5 Exchange Listing
    - Seci Blockchain Services V1 Beta

- 2019
    - SeciPay support for additional commerce platforms and currencies
    - Seci Blockchain Services V1 Launch
    - SeciPay Point of Sale Integration / Partnerships
    - Continue Iterating on SeciBusiness
    - Convention Attendance & Marketing
    - Podcast/Event Speaking Engagements
    - Team Growth & Expansion
    - SeciBusiness Integration w/ third party analytics/BI services (Google Analytics, etc)

5. Team

Hamrex

Engineering | SysAdmin | Development | Product Design

Hamrex is a twenty-seven year veteran of the professional IT industry and boasts an impressive number of Fortune 100 and 500 companies on his extensive client list. His skill sets include Development, Business Intelligence, Data Science, Solution Architecture, Cloud Solution Architecture and Distributed Architecture.

Within the enterprise world, Hamrex has held titles of Director, Principal Architect, Enterprise Architect, and multiple consulting roles to include Principal Consultant and Enterprise Solution Architect for several international consulting firms, to include "The Big Three" firms. His project list includes numerous enterprise and web scale solutions for some of the most well known companies the globe over.

Passionate about the technology and how it can be utilized to conduct business and facilitate the paradigm shift cryptocurrency represents in multiple industries and personal financial freedom, Hamrex has transitioned his career to this exciting and revolutionary field, leveraging his decades of experience, in order to bring Seci to the forefront of the cryptocurrency industry and produce functional products with real world uses for individuals and enterprise.

Nect

Development | Product Design | Operations | Community

Nect brings years of experience, not only in cryptocurrency development but also product development, working for large payment processing firms in the past. This experience is extremely valuable to the Seci team as it allows quick development and implementation of payment technologies.

Nect shares similar beliefs to Soepchik and heads the community management from launch, as he enjoys healthy discussion and debate. With a desire to be on the cutting edge of technology, Nect works on Seci full time and aims to bring it to the global stage.

Soepchik

Design | Web | Marketing | Operations | Community

Soepchik is a seasoned web professional with over a decade of web, technology, and marketing industry experience. He has worn many hats, including Operations Manager, Director of Marketing, and Development Team Lead at multiple technology companies.

With a disdain for corporate structure, bureaucracy, and useless meetings, Soepchik transitioned to a freelance contractor and consultant career in 2010, and has never looked back. In 2013, he hired his first employee and is currently growing a successful web design, development, and marketing agency with dozens of clients and multiple internal products and services under development.

6. Sources

Bitcoin | https://bitcoin.org/en
Dash | https://www.dash.org
W3Techs | https://w3techs.com