



WHITEPAPER

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1. Abstract

We all like to have our privacy and in today's digital world it becomes harder and harder to have it since we are all connected to the internet therefore enabling possibilities to violate that privacy in just a few clicks. We are using banking services, sharing pictures and information about ourselves, all via the internet connection. Yes, the internet made everything easier for us but also made our privacy more vulnerable. Manipulations of people with things they were depended on were done since the beginning of mankind but with modern age we have a solution to fight this. Mathematicians and developers came up with a way to fight this – blockchain technology with cryptographic protection. That was the start of Bitcoin and many followed it with different cryptocurrencies with different applications so we can continue using our services online but they are private and secure and hidden from nosy individuals who would use that information against us (“Learn to keep your private life private so the others can’t make your life their entertainment” – unknown author).



2. Disclaimer

This document outlines the vision, concepts, specifications and plans of Sprint (SPRX) and was created for the sole purpose of informing potential contributors to the Sprint project.

Before buying, downloading wallets or starting contribution to the project we suggest reading this document so you know our view and intention of the project. We cannot guarantee and set the value of the coin this project uses over any period of the time.

This whitepaper does not constitute legal trading advice and is not a solicitation to purchase SPRX.



3. Overview

3.1. Introduction to Sprint

Centralized banking and monetary systems all keep records of your personal information, account numbers and transaction history. Which, in turn, is monitored by the governments of the world. Your money, who you receive it from, where you are sending it, and your balance, is not private.

With blockchain technology we got the ability to send money without anyone knowing its origin or destination. As every solution there are flaws. With Bitcoin you are sending your whole transaction history and balances with coins you send to someone. Yes they are encrypted but there is no password in the world that can't be cracked.

Sprint was created in intention to remove major flaws in existing cryptocurrency projects and provide you with features that majority people seek.

You may be wondering what is Sprint anyway? Let us provide with an answer.

Sprint is a new cryptocurrency based on a blockchain architecture that was designed to be ASIC and GPU resistant, decentralized and accessible for the regular people. It implements hybrid proof of work+ proof of service system offering a unique way to financially incentivize the operation of full nodes (masternodes).



To follow the idea of truly decentralized system we have chosen following features for Sprint:

- Secure
- Private
- CPU friendly mining algorithm
- Masternodes
- Instant transactions
- Decentralized governance

3.2. Specifications

Name	Sprint
Ticker	SPRX
Type	PoW+MN
Algorithm	YesPower
Block time	2 minutes
Difficulty adjustment algorithm	DGW
Default port	9977
RPC port	5558
Masternode collateral	25,000 SPRX
Max supply	100,000,000
Block reward	38 (decreasing over time)



3.2.1. Private

Privacy has been achieved by implementing PrivateSend feature which gives you consumer grade financial privacy by shuffling your Sprint coin with other users. All Sprint coins in your wallet consists of different inputs, which you can think of as separate, discrete coins. It joins your inputs with the inputs of at least two other people in a single transaction, so the value in Sprint never leaves your wallet. You control your money whole time.

PrivateSend works like this:

- It begins by breaking your transaction inputs down into standard denominations. These denominations are 0.001, 0.01, 0.1, 1 and 10 SPRX
- Your wallet then sends requests to specially configured software nodes on the network called masternodes. These masternodes are informed then that you are interested in creating a certain denomination. No identifiable information is sent to the masternodes, so they never know who you are.
- When two other people send similar messages, indicating that they wish to join coins of the same denomination, a session begins. The masternode instructs all three users' wallets to pay the now-transformed inputs to themselves. Your wallet pays that denomination directly to itself but in a different address (called a change address).



- Your wallet can repeat this process number of times with each denomination. Each time the process is completed it is called a “round.” The user may choose between 1-16 rounds and difficulty of finding out the sender raises exponentially.
- Your funds will pass through at least the number of rounds you specify – the more rounds you specify the more private your transaction is
- This process happens in the background without any intervention on your part. When you wish to make a transaction using your denominated funds no additional waiting will be required.

3.2.2. Masternodes

In addition to traditional Proof of Work (PoW) rewards for mining Sprint, users are also rewarded for running and maintaining special servers called masternodes. Thanks to this two tier network, Sprint can offer innovative features in a trustless and decentralized way. Masternodes are used to power PrivateSend, InstantSend, and the governance system. Users are rewarded for running masternodes; 60% of the block reward is allocated to pay the masternode network.

Masternode owners must have possession of 25.000 SPRX, which they prove by signing a message included in a special transaction written to the blockchain. The SPRX can be moved or spent at any time, but doing so will cause the masternode to fall out of queue and stop earning rewards. Masternode users are also given voting rights on proposals. Each masternode has one vote and this vote can be used on budget proposals or important decisions that affect Sprint.



Masternodes cost money and effort to host so they are paid a percentage of the block reward as an incentive. Because only one masternode is paid in each block, the frequency of the payment can vary, as well as the value of the Sprint paid out. Masternodes cost money and effort to host so they are paid a percentage of the block reward as an incentive. Because only one masternode is paid in each block, the frequency of the payment can vary, as well as the value of the Sprint paid out.

Masternode rewards on daily, weekly or monthly basis can be easily calculated by formula:

$$F=R * (T / 2) / M$$

- F – reward per desired period
- R – 60% of current block reward
- T – desired time period in minutes
- M – masternode count (can get it by running a “*masternode count*” command in debug console)

3.2.3. Instant transactions

Classic cryptocurrencies must wait for certain number of blocks to pass so that a transaction is both irreversible and not an attempt to double-spend money which was already spent/sent elsewhere. This process can take from 10 minutes to 1 hour. One of the ways to speed that up was achieved by creating central authority on the various degree but that’s not something we like.

Sprint has a decentralized solution thanks to the network of masternodes. Masternodes regularly form voting quorums to check whether a submitted transaction is valid. If it is valid, the masternodes “lock” the inputs for the transaction and broadcast this information to the network, effectively promising



that the transaction will be included in subsequently mined blocks and not allowing any other spending of these inputs during the confirmation time period.

Sprint InstantSend technology allows to compete with almost instantaneous transaction system for example in banks, credit card sales while not relying on centralized authority.

3.2.4. Decentralized governance

Governance in a decentralized project is difficult, because there are no central authorities to make decisions for the project. In Sprint, such decisions are made by the network, that is, by the owners of masternodes. The governance system allows each masternode to vote once (yes/no/abstain) for each proposal. Therefore if proposal passes, it is implemented.



4. How can you get the coin

Currently the most common methods to obtain a cryptocurrency are: POW, POS and DPOS.

In a PoS mechanism, there is no mining at all. Instead, the validation of new blocks on the blockchain happens based on the number of coins being staked. Users lock a certain number of coins as a stake — and at given moments, users with stakes are randomly assigned validation rights for the next new block.

In a Delegated Proof-of-Stake (DPoS) system, participants still stake coins. However, rather than becoming responsible for validation themselves, stakeholders outsource that work to a delegate — groups of which are then responsible for reaching consensus between themselves.

DPoS blockchains are generally faster than blockchains running on PoW and PoS systems, with a higher per-second transaction rate. However, DPoS is in its infancy, and it is not generally considered secure enough to be the basis of money-transacting blockchains.

POS rewards the rich and early players and, DPOS rewards the marketable and popular and most often rich. A regular user that is just starting out cannot simply begin using POS token and have the same ability to mine a block as a “whale” that has been there from day one.

POW requires specialized hardware and a very high amount of electricity usage to find a block. Same as POS and DPOS, regular user has no chance against large mining farms in countries with cheap electricity.

In order to fix these issues and inequities, Sprint uses hybrid Proof of work + Proof of service reward system. Furthermore we removed the need of specialized hardware and high electricity costs by implementing a CPU friendly mining



algorithm (YesPower). You can run a miner on your pc on several cores without even noticing it in terms of performance.

Sprint can be obtained by process of mining, running a masternode or participating in community servers (Discord). Use case implementation of the Sprint ecosystem by developing or adopting to existing apps is also rewarded.

4.1. Mining - POW (Proof of work)

YesPower is designed to be CPU-friendly, GPU-unfriendly, and FPGA/ASIC-neutral. In other words, it's meant to be relatively efficient to compute on current CPUs and relatively inefficient on current GPUs.

Yespower is a Proof-of-work (PoW) focused fork of Yescript, which in turn builds upon Script. While Yescript is a password-based key derivation function (KDF) and password hashing scheme thus is meant for processing passwords, YesPower is meant for processing transaction inputs such as block headers (including nonces) in PoW-based blockchains.

4.2. Proof of service (Masternodes)

Masternodes are servers designed to provide advanced services and governance on the blockchain. Masternodes host wallets with full copies of the blockchain and provide a unique second layer of services to the network facilitating advanced functions such as InstantSend and PrivateSend. Masternodes must be backed by collateral, and in return their operators receive regular payment for the services they provide to the network as running a full node (Masternode) can build up costs while running



4.3. Community involvement

Since the value or utility of a cryptocurrency is proportional to the number of user's, we reward from the premine funds any activities that help us reach our main goal : mass adoption.

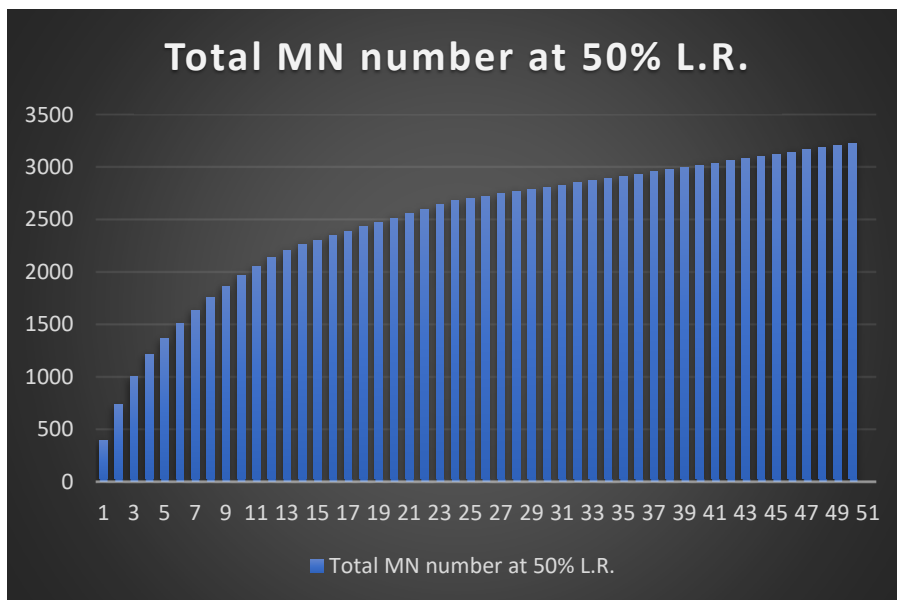
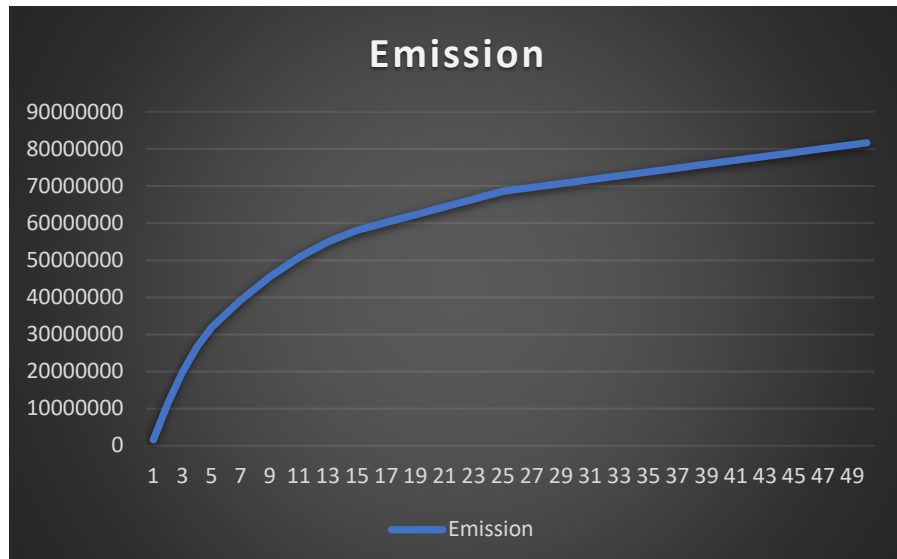
5. Economics

5.1. Supply and emission

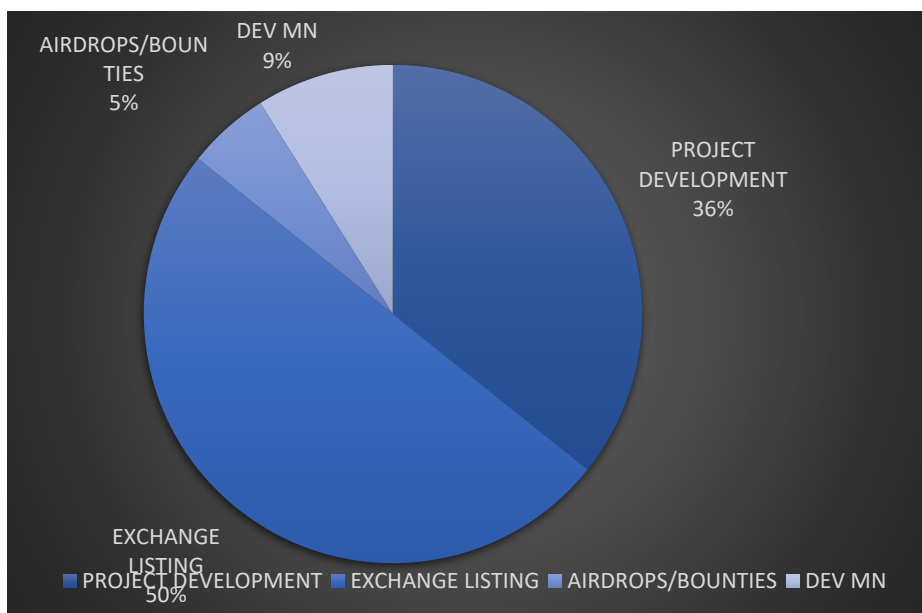
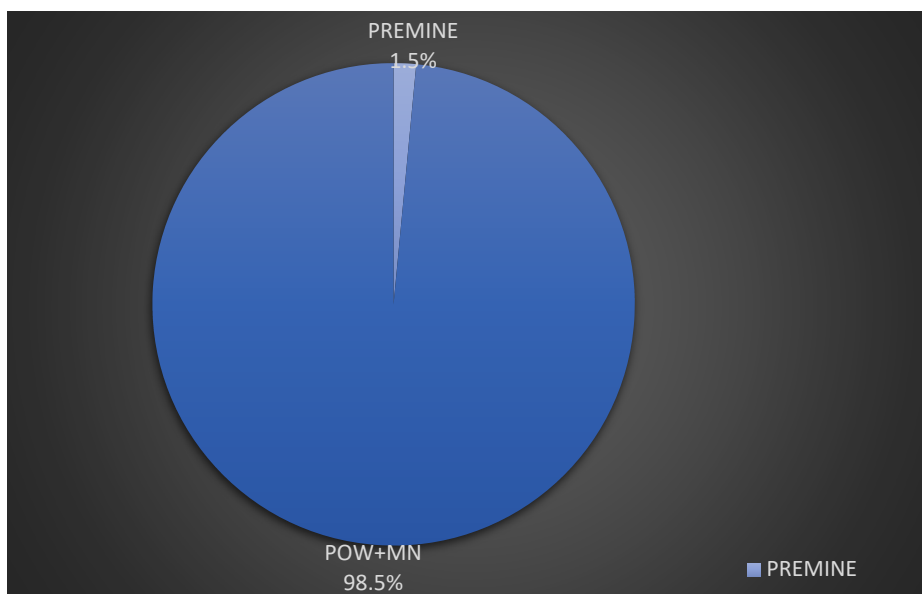
Sprint will have a total of 100 million supply with fixed schedule of block reward reduction.

Year	Reward/block	Reward/year	Emission	MN number at 50% L.R.	Total MN number at 50% L.R.
	Premine:	1500000	1500000		
0	38	9959040	11459040	199	199
1	32	8386560	19845600	168	367
2	26	6814080	26659680	136	503
3	20	5241600	31901280	105	608
4	14	3669120	35570400	73	681
5	14	3669120	39239520	73	755
6	12	3144960	42384480	63	818
7	12	3144960	45529440	63	880
8	10	2620800	48150240	52	933
9	10	2620800	50771040	52	985
10	8	2096640	52867680	42	1027
11	8	2096640	54964320	42	1069
12	6	1572480	56536800	31	1101
13	6	1572480	58109280	31	1132
14	4	1048320	59157600	21	1153
15	4	1048320	60205920	21	1174
16	4	1048320	61254240	21	1195
17	4	1048320	62302560	21	1216
18	4	1048320	63350880	21	1237
19	4	1048320	64399200	21	1258
20	4	1048320	65447520	21	1279
21	4	1048320	66495840	21	1300
22	4	1048320	67544160	21	1321
23	4	1048320	68592480	21	1342
24	2	524160	69116640	10	1352
25	2	524160	69640800	10	1363
26	2	524160	70164960	10	1373
27	2	524160	70689120	10	1384
28	2	524160	71213280	10	1394
29	2	524160	71737440	10	1405
30+	2	524160	72261600	10	1415

LR (Lockup Ratio) - Proportion of locked SPRX in Masternodes compared to circulating supply.



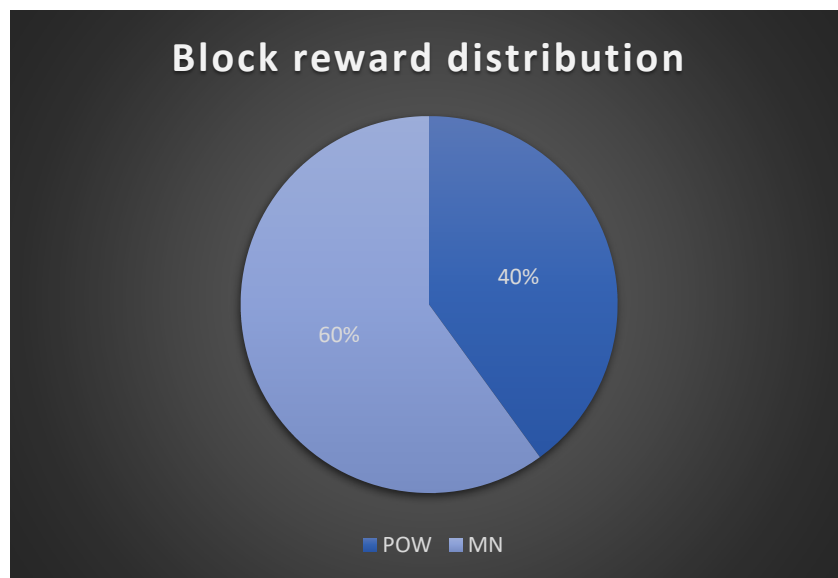
5.2. Premine allocation



5.3. Block reward distribution

Block reward distribution

Block	POW	MN
1-10000	60 %	40 %
10001-20000	55 %	45 %
20001-30000	50 %	50 %
30001-40000	45 %	55 %
> 40000	40 %	60 %

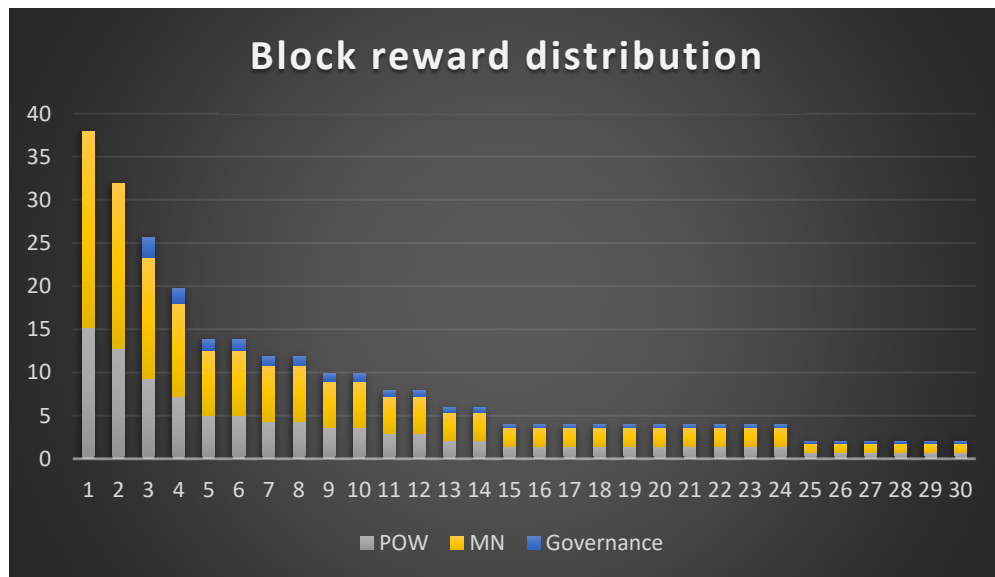


Block	Governance	POW+MN	
>525000	10%	90%	
		POW 40%	MN 60%

Block reward distribution over 30 years

Year	POW	MN	Governance	Reward/block
0	15.2	22.8	0	38
1	12.8	19.2	0	32
2	9.36	14.04	2.34	26
3	7.2	10.8	1.8	20
4	5.04	7.56	1.26	14
5	5.04	7.56	1.26	14
6	4.32	6.48	1.08	12
7	4.32	6.48	1.08	12
8	3.6	5.4	0.9	10
9	3.6	5.4	0.9	10
10	2.88	4.32	0.72	8
11	2.88	4.32	0.72	8
12	2.16	3.24	0.54	6
13	2.16	3.24	0.54	6
14	1.44	2.16	0.36	4
15	1.44	2.16	0.36	4
16	1.44	2.16	0.36	4
17	1.44	2.16	0.36	4
18	1.44	2.16	0.36	4
19	1.44	2.16	0.36	4
20	1.44	2.16	0.36	4
21	1.44	2.16	0.36	4
22	1.44	2.16	0.36	4
23	1.44	2.16	0.36	4
24	0.72	1.08	0.18	2
25	0.72	1.08	0.18	2
26	0.72	1.08	0.18	2
27	0.72	1.08	0.18	2
28	0.72	1.08	0.18	2
29	0.72	1.08	0.18	2
30	0.72	1.08	0.18	2

Block reward distribution over 30 years



6. Roadmap





7. References

- [1] <https://coinmarketcap.com/alexandria/glossary/delegated-proof-of-stake-dpos>
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