CRYPTONODES WHITEPAPER V.1.0.0

The purpose of this documentation is to describe the features and concepts of the cryptocurrency CRYPTONODES (CNMC). This document explains all technical details and the underlying advantages.

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1. INTRODUCTION

As the blockchain technology approaches the important phase of global change, the different products will be more and more different. However, the most important aspect of every cryptocurrency is the consumption of electrical energy. Most Coin's consume as much as entire cities or even small countries. Our goal is to solve just this big problem with the Cryptonodes Coin, to make a big contribution to the sustainability of our planet. Cryptonodes is a decentralized peer-to-peer transaction currency modeled on Bitcoin, with two key enhancements:

1. The Green Protocol

2. Deep transaction fees

2. WHY PARTICIPATE IN CRYPTONODES?

The traditional trade in established companies is driven by the Blockchain technology in a real change. All industries are influenced by new products. The way we think about security, money and transactions will be redefined. Our goal is to provide the public market with a secure, fast, and above all very energy efficient, digital currency.

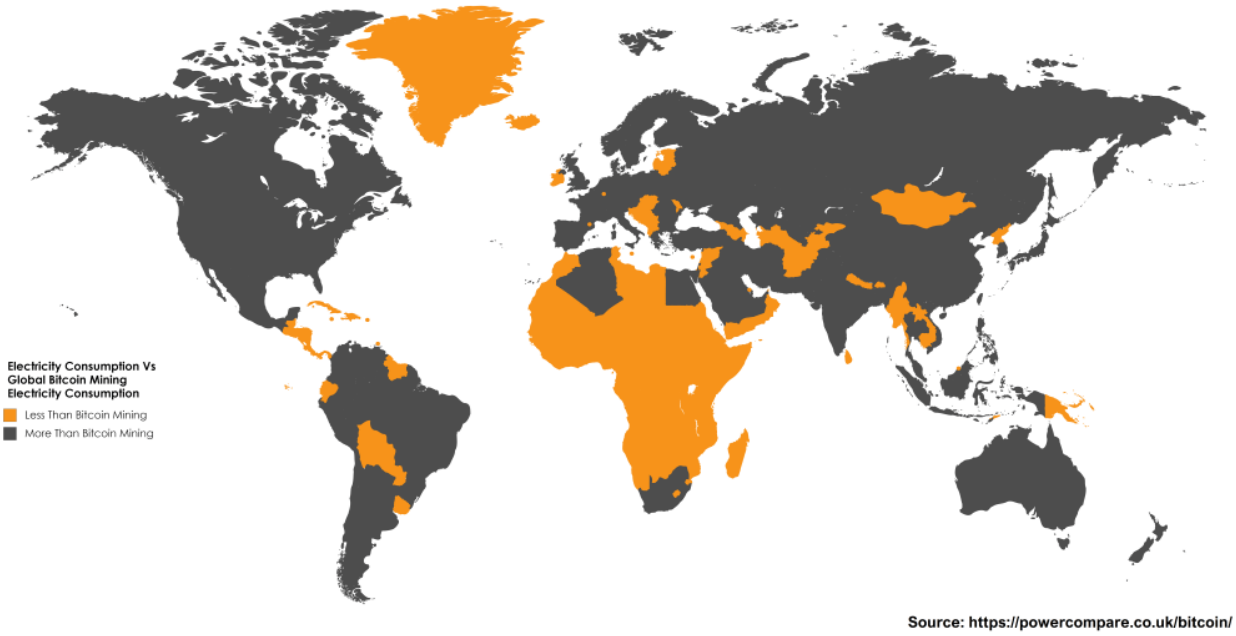
3. THE CHANGE

Cryptonodes has set itself the goal of offering the world new ways to mine (coin production). Through our modern method (Staken and Masternode Mining), the conventional grazing can be replaced. Benefits that result are clearly recognizable and can not be dismissed out of hand. The advantages we show you in the following explanations. These should change the current consciousness of the crypto currency friends.

4. THE CONVENTIONAL MINING

Example: The Bitcoin network

The Bitcoin network is driven by conventional mining. This has been the normal way to drive a blockchain up to now. The negative about this thing is clear. The consumption of energy that needs the hardware (miner) is very high. The following statistic shows the energy that consumes the Bitcoin network alone. But there are many other networks that take the Co2 outrage to a high level, completely unnecessary.



On Monday, November 20, 2017, the Bitcoin network consumed 29.05 TW / h or 29 million KW/h. This corresponds to 0.13% of the world's energy consumption. Sounds like not much, but that is more than 159 countries in the world consume together. If the Bitcoin network was a country, it would end up in 61st place in terms of power consumption. Which is clearly too much.

In the last few months alone, the Bitcoin network has increased its energy consumption by about 30%, unbelievable! If it continues to rise at this rapid pace, the Bitcoin alone by the year 2020, will consume about the same amount as the whole world!

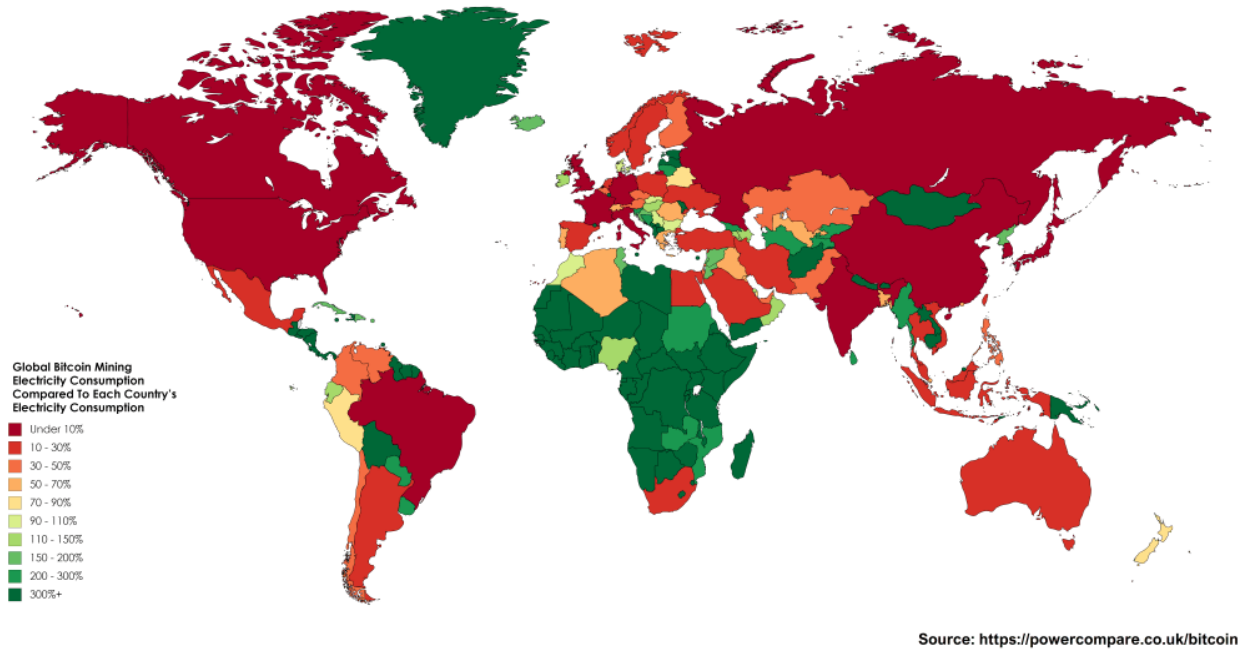
This is a development that needs to be changed urgently!

The following statistics show the consumption of the Bitcoin network, compared to the individual countries.

For example:

Ireland consumes about 25 TWh per year

The Bitcoin network consumes 116% energy in relation to Ireland. Or 16% more energy than all Ireland in a year!



5. THE PROBLEM OF PROOF-OF-WORK

With the traditional proof-of-work system, blockchain networks are divided into two groups. The producers as drivers and the owners who buy and sell. Conventional mining has become industrialized over the years.

It generates annual sales in the industry of $ 18 billion.

Which makes it almost impossible for the private small citizen to participate efficiently in the Bitcoin generation process. Furthermore, prospector pools have partially aligned so that they automatically switch between the different networks, depending on the profit. This is an

attractive system for people mining but does not provide the necessary stability of a cryptocurrency.

From the point of view of Cryptonodes this system has to be changed!

6. TRANSACTION FEES TOO HIGH

Another problem which has become clear in the Bitcoin network is the transaction fees. These are calculated per kB (kiloByte), which is basically okay. But if this value is set too high, as is usually the case, this leads to the following scenario:

If a user captures several small amounts in his wallet or wants to send them as an amount, often the transaction fees are higher than the amount to be sent. This inevitably means that only large sums are transferred and the small user remains on the track. Moreover, this means that such a network is hardly scalable and remains.

Cryptondes is therefore of the opinion that a change will be inevitable!

7. THE CRYPTONODES SOLUTION

From our point of view, the proof-of-stake system is the foundation for creating a sustainable solution to this problem. The Proof-of-Stake process offers an energy-efficient and scalable solution. The consensus mechanism can also regulate the relationships between investors (masternode holders) and stakes (stakers). This option helps to secure the entire Blockchain network in the long term.

Another big benefit of proof-of-stake, the Coin holders are given new opportunities. Not only can you trade with it, no, generating interest is also possible. This increase in interest rates is called staking. Staking is thus the replacement of the conventional mining process. Any user who owns a wallet and has at least 1 CNMC at his disposal can join here. This gives a much wider mass the opportunity to participate in a novel and fair network.

By staking, the wallet becomes a simple node in the time it's online. For the communication and the confirmation of transactions in the network, the owner is rewarded with interest. Consumption due to vast amounts of electricity is considerably reduced by the device (PC or

notebook). For example, using a commercially available computer that is currently being worked on generates interest without additional energy consumption! If a new block was generated by staking in a wallet, this wallet will be rewarded. Same as in conventional grazing.

In the proof-of-work system, the rewards are distributed proportionally to the processing power a user provides.

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In the proof-of-stake system, on the other hand, rewards are calculated in proportion to the amount of coins a user has on the network. Thus, by simply increasing the amount of Coin in the Wallet more profit can be achieved. Here we clearly see the advantage over proof of work. Because there the performance of the mining hardware must be increased in order to keep the profit or to increase. Which in turn only leads to more energy consumption!

Masternodes are the second part that make up the Proof-of-Stake system. A masternode holder can be considered as an investor. If a user is enthusiastic about a network, he has the opportunity to buy the necessary amount for a masternode and to deposit it as a masternode security. This amount is for the time in which a master mode is operated, inviolably deposited as security. A masternode performs various tasks in a network. He signs transactions, confirms the scraped blocks for the Stakers and signs the transactions from SwiftTx. For the fact that the Masternode is 24x7 hours online and carries out this work, this will then be rewarded.

The obvious benefits of the proof-of-stake system are obvious. Once again, the reward will not be given to third parties, but only to those who support the network. This makes the network bigger and more stable.

The staking can thus be compared with the following behavior: You store your money saved at a bank, completely central and local, which earns you 0.1% interest on the capital.

A staker deposits his capital in the wallet and, in our case, is rewarded with 15% if he finds a block.

8. THE INFLATION

Interestingly enough, inflation did not cause the value of the proof-of-work to rise. But from our point of view, it is not right to give the entire inflation to the prospectors and let the owners of Coins outside. Because the network needs both parties in the long term.

Again, proof-of-stake has a positive impact on behavior. Because inflation is spread between masternode holders and stakers, so these values stay with people actively participating in the network.

This gives the active members of the crypto-ecosystem the economic incentives to improve the technology of the network and to promote wider acceptance.

9. PROOF-OF-STAKE SECURITY

The proof-of-stake system works well over the 51% rule. Which requires that a user own and trade more than 50% of the total amount of coins in a network. Only then does he become an attacker for the network. Should a user buy a majority stake and try to cheat the network, all other participants in the network are immediately alerted to the malicious activity. The public would lose confidence in the network and sell their coins. This in turn would lead to a massive loss of value for the malicious attacker.

Proof-of-Stake networks do not require high-performance hardware and are therefore extremely energy-efficient. Fees are also significantly lower for proof-of-stake networks than for a proof-of-work network.

10. THE GREEN PROTOCOL

It has a revolutionary consensus mechanism called the Green Protocol. The protocol is energy efficient and combines proof of stake and masternode stake. The protocol is intended to provide a sustainable replacement for the sha256 proof-of-work algorithm. The protocol reduces generation to Staker and Masternode owners. Thus, no energy for the production (mining) must be wasted. The consensus mechanism distributes the generated value among masternode holders and stakers. A Masternode holder gets 85% because he invests in the network to deposit the Masternode security deposit.

Also, the high reward is justified by the important work that does a masternode for the network.

The staker who found the block together with a masternode will then be paid 15% of the block payout.

This procedure treats all master nodes in the network equally. The staker can change his weight with more or less coins in the wallet. This achieves fair mining.

11. ENERGY EFFICIENCY

Thanks to the Green protocol, a Cryptonodes Wallet can also be run on extremely energy-efficient computers. For example, a Rasperry PI is already able to run a Cryptonodes Wallet.

Assuming that all wallets are run on average computers, the maximum power consumption for the Cryptonodes network is about 0.06% over the Bitcoin network. However, this consumption is achieved only with maximum supply of all Masternodes and Stakern on their own computer. This in turn is unlikely.

An average calculation results in an average energy consumption of 0.0006% to 0.006% of the current consumption of the Bitcoin network. But until we reach this value, a lot of time will pass.

12. THE DISTRIBUTION OF CRYPTONODES COINS

Through airdrops and bounties for our users, more than 30,000 CNMC are distributed throughout the world. 70,000 coins were sold to generate the first revenue for the project. These revenues will be fully reinvested in the project. For example, it can be used to finance advertising, development and the preservation of the project.

The premine of Coins is frozen for the project and deposited as collateral. It is equivalent to 2.4% of the total amount of CNMC 21 million. That's exactly 500K CNMC, with more than 100K CNMC being distributed to the world through airdrops and bounties. This reserve is intended to save the project from ruin in bad times. However, we are positive that it does not have to be touched on the time we are working on the project.

BLOCK	REWARD	MASTERNODE	PROOF-OF-STAKE
0 - 200	Premine	-	-
201 - 5000	1 CNMC	0.85 CNMC	0.15 CNMC
5001 – 25’000	30 CNMC	25.5 CNMC	4.5 CNMC
25’001 – 100’000	20 CNMC	17 CNMC	3 CNMC
100’001 – 1’050’000	10 CNMC	8.5 CNMC	1.5 CNMC
1’050’001–2’100’000	5 CNMC	4.25 CNMC	0.75 CNMC
2’100’001–3’150’000	2.5 CNMC	2.125 CNMC	0.375 CNMC
3’150’000–4’200’000	1.25 CNMC	1.0625 CNMC	0.1875 CNMC

Then the block reward splits every 1'050'000 blocks, until the total is generated.

Consensus mechanism: - Proof-of-Stake (85% Masternodes, 15% Stakers)

Masternodes handed over to the team:

The team members and investors who made the project possible are each given a master node for their own use. These are provided by the servers operated by the project. Thus four Masternodes are handed over to the active team. Two Masternodes are given to the investors who supported the team in the start-up phase. These are switched on at intervals, so that users who buy Masternodes can benefit from a good ROI. The project itself starts with two master nodes. These bring the project revenues for future investment.

13. CRYPTONODES INFORMATION

Our goal is to point the world to such abuses and lead them on a better path. By building the Cryptonode network, we can prove that there are already solutions to these problems. By informing and pointing out the existing problems, we want to create a sustainable awareness among the friends of the cryptocurrencies. This is the long term mission of Cryptonodes. In the long term, this will benefit our planet, which we all inhabit.

We also set ourselves the goal of better informing the public in Europe about cryptocurrencies. The pros and cons show colloquially. What is hardly offered in the mentioned zone until now.

If we succeed in the future and can generate revenue through the project, parts of it will also be used to develop and bring new technologies to market. All this in the sense of a green and sustainable future for future generations.

PLANS:

A platform for the European area that benefits the German-speaking crypto friends. It should be built in German and then soon be offered multilingual.

PLATFORMS:

Community, Coin-Ranking page where Cryptonodes can be used for listing. (with CNMC 10% cheaper than with BTC) Same procedure for a masternode statistics page. This should help to bring the German-speaking community closer to the crypto world. Establishment of shared-masternode service as well as pooled-staking service. As well as offering VPS systems for hosting Masternodes. These services are set up and operated on our already established infrastructure.

At present, coin-to-pay systems are establishing themselves in Europe, allowing payment in crypto currencies when shopping in online shops. We are following this development and will turn to it in due course.

TECHNICAL RENEWAL FOR CRYPTONODES:

The wallet is constantly evolving to meet the increasing demands of the systems. An Android Wallet will also be in development in due course. To give Cryptonodes a better value for money, the idea is to create a decentralized trading exchange. In this case, Cryptonodes can be used as a basic trading pair.

This idea has already been developed. But there is a point in the DEX system that we do not like. With DEX systems we are still dependent on third parties. What we are used to from conventional stock exchanges, which has already led to various problems in the past.

A cross-chain swap is a trade between two users of different cryptocurrencies.

For example, one party may send CNMC to the CNMC address of a second party while the second party sends Bitcoin to the bitcoin address of the first party.

However, since the blockchains are unrelated and transactions can not be reversed, this provides no protection against the parties, which never honor the completion of the trade. A common solution to this problem is the introduction of a mutually trusted third party for transmission.

A CNMC cross-chain swap solves this problem without the need for a third party.

CNMC swaps involve every party that pays into a contract business for one contract for each blockchain. The contracts contain an issue that can be issued by both parties, but the rules required for redemption are different for each of the parties involved.

A party (called counterparty 1 or initiator) generates a secret and pays the intended trade amount into a contract transaction. The contract issue can be redeemed by the second party (opponent 2 or participant) as long as the secret is known. If a period expires (typically 48 hours) after the contract has been established but not redeemed by the subscriber, the contract issue can be returned to the initiator's wallet.

For the sake of simplicity, we assume that the initiator Bitcoin wants to trade for Cryptonodes with the subscriber. The initiator may also be Cryptonodes for Bitcoin and the steps will be the same, but with each step being performed on the other blockchain.

The participant can not issue the Initiator's Bitcoin contract at this time because the secret is unknown to him. If the initiator discloses his secret at this time, the participant could withdraw from the contract without ever confirming the end of the trade.

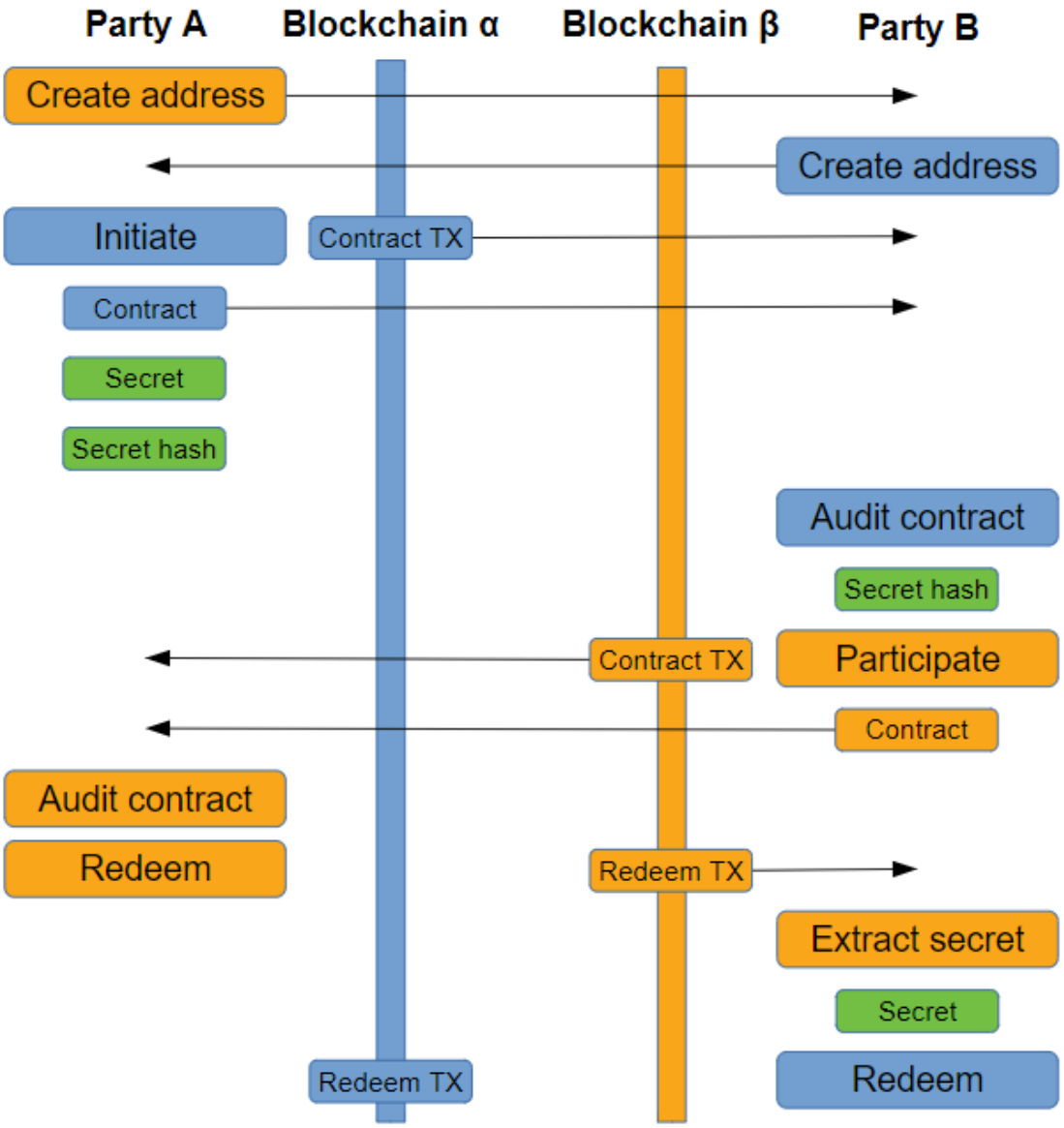
The participant creates a similar contract to the initiator but to the Cryptonodes Blockchain and pays the envisaged CNMC amount into the contract. However, for the initiator to redeem the issue, his own secret must be revealed.

In order for the participant to create his contract, the initiator does not need to reveal to the participant the secret but a cryptographic hash of the secret. The participant's contract may also be refunded by the participant, but only after half the time the initiator must wait before his contract can be refunded (normally 24 hours).

If each page concludes a contract for each blockchain and each party fails to complete its redemption until the expiration of the allotted time, the initiator resolves the subscriber's Cryptonodes contract, thereby revealing the secret to the subscriber. The secret is then extracted from the Initiator's redeeming Cryptonodes transaction, allowing the subscriber to redeem the Initiator's Bitcoin contract.

This procedure is called CNMC-swap (with timeout) as it gives each party at least 24 hours to redeem their coins in the other blockchain before a refund can be made.

The following image shows the steps that each party performs and the transfer of data between each party.


Party A
Blockchain α
Blockchain β
Party B
Create address
Create address
Initiate
Contract TX
Contract
Secret
Secret hash
Audit contract
Secret hash
Contract TX
Participate
Contract
Audit contract
Redeem
Redeem TX
Extract secret
Secret
Redeem TX
Redeem

13. CUTOUT COIN ROADMAP

Q2 2018

Release CNMC

Block Explorer 1

Paper Wallet

Lists on at least two exchanges

Advertising for the project via airdrops, bounties and giveaways.

Q3 2018

Block Explorer 2

Further advertising through airdrops, bounties and giveaways.

The entry in three other exchanges.

Release whitepaper

Q4 2018

Improvements to the source code for security and stability.

GUI extensions for the wallet.

Start of Development, Mobile Wallet (Android)

Start of Development, Web-Wallet