

# THE KIWI MASTERNODE COIN WHITEPAPER - ROAD MAP





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#### INTRODUCTION

Zealium is a full-privacy, New Zealand-based Proof of Stake decentralised cryptocurrency which uses peer-to-peer technology to operate with no central authority or banks. Managing transactions and the issuing of Zealium is carried out collectively by the network. Zealium is open-source; its design is public, nobody owns or controls Zealium and, the good thing is, everyone can take part!

New Zealand is adept at punching above its weight in many areas of technology – from Rocket Lab's lightweight, cost-effective commercial rocket launch services, to Weta Workshop's award winning visual special effects and movie props. It's a veritable breeding ground of open-minded, resourceful, forward-thinking techthusiasts. Indeed, given its optimal population size and relative isolation it's a common uptake testing ground for new products, brands and inventions. New Zealanders are bred for this type of innovation.

At Zealium, our goal is to vastly improve awareness, knowledge and understanding of cryptocurrencies within New Zealand with a view to the eventual mass adoption of decentralised finance and trade. Our ambitions are hefty - We want to make a decisive difference to the future of doing business in New Zealand. At the moment, for example, there are no products here to purchase via QR Code, plus New Zealand has only 2 BTC ATM machines nationwide. This must change. Our goal is to turn Zealium into a currency for one's daily payments; a coin that is not only traded for speculative reasons, but a currency that enables people to buy products and services in a secure and quick way.

Over the past decade there has been an explosion in the demand for cashless and digital payments. Global transaction volumes grew by 11.2% from 2014 to 2015 to reach 433 billion, an increase partially fuelled by Emerging Asia. In the past 24 months this growth has been enhanced by the introduction of mobile contactless payment solutions such as Apple Pay, Google Pay, Alipay and a whole host of other innovative solutions. Between 2015-2020, mobile proximity payment volume (such as Near Field Communication (NFC) and QR codes) is expected to rise by a compound annual growth rate (CAGR) of 80 percent, which would bring mobile proximity payments volume over US\$4 trillion by 2020. Moreover, the market for peer-to-peer payment is expected to grow at its highest rate in the next few years. The growing demand for compliance-free peer-to-peer transaction is driving the market for crypto in the peer-to-peer segment.

We want a piece of this. Cryptocurrency transactions are compliance-free, tax-free and charge a very low processing fee. Cryptocurrency transactions also do away with the need for certain third party inclusion such as banking enterprises and government backed money (Fiat currencies) – in short, a truly free market. This all, in addition to

growing awareness, acts as a major factor for the growth of crypto market for peer-to- peer, and a major driving factor behind our raison d'etre.



We believe our brand will resonate well not only with the whole of New Zealand - our indigenous Iwi, our European population, our Pacific cousins, indeed all of the plethora of cultures that now call New Zealand home - but also further ashore. Zealium was formed to put the benefits of cryptocurrency investing within the reach of everybody regardless of wealth and tech know-how. Our transaction times are low, our fees are slim, we're an environmentally aware and responsible cryptocurrency, plus the rewards for stakeholders are many!

Zealium is currently a small team, primarily based in a small country. Being in the rather tiny minority of successful cryptocurrency adopters within New Zealand we have only but one option to rate ourselves - The standard Kiwi way - By default; self-qualified to succeed:)

The purpose of this document is to explain:

- The general landscape of Crypto today
- · How POS is beneficial
- What Zelium does differently and where it fits into the crypto realm
- · What we have planned
- · How you'll be rewarded



#### LANDSCAPE:

Here follows a short history of bitcoin and the resulting rise of altcoins. It is less than 10 years since the creation of the Bitcoin, the world's first digital currency, which in turn was the trigger for a brand new financial ecosystem. On 18 August 2008, the domain name "bitcoin.org" was registered. A few months later, a link to a paper authored by Satoshi Nakamoto titled Bitcoin: A Peer-to-Peer Electronic Cash System was posted to a cryptography mailing list. Nakamoto then implemented the bitcoin software as open source code and released it in January 2009 on SourceForge. It was then that Nakamoto mined the first ever block on the chain, known as the genesis block. Embedded in the coinbase of this block was the following text: The Times 03/Jan/2009 Chancellor on brink of second bailout for banks.

This note has been interpreted as both a timestamp of the genesis date and a derisive comment on the instability caused by fractional-reserve banking. The mysterious Satoshi Nakamoto, whose identity still remains unknown, favoured the concept of decentralisation – freedom from the shackles of traditional banking systems and large corporations. He aimed to decentralize online banking and websites like PayPal with Bitcoin and the blockchain, allowing for easier and more private monetary transactions.

Aside from this financial freedom, the advantages of Bitcoin over traditional fiat currencies are numerous, and impossible for fiat currencies to match. Today a transaction between two people in different countries can still take several days and cost the parties a significant share of the money transferred (the average cross border transaction fee is 7.45%) as each party in the chain, of which there are many, requires a small margin for their efforts. This can now be done in seconds using cryptocurrencies via the blockchain for practically zero cost and more securely than ever before.

In 2016 a major rise in alternatives to Bitcoin emerged. Also known as Altcoins, these new cryptocurrencies further decentralized the cryptocurrency community and hoped to either replace or improve upon at least one Bitcoin component. They also caused the Bitcoin developers to continue to be innovative by introducing healthy competition.

These altcoins tend to be application based in that they often try to fill in a gap that some feel Bitcoin does not fill, or engage those users who do not feel that Bitcoin satisfies their digital desires. For example, the first altcoin, created about two years after Bitcoin, was called Namecoin, and sought to, decentralize domain-name registration, which makes internet censorship much more difficult. Altcoins often address simple or singular issues of bitcoins, such as transaction speed, or the distribution method.



Some of the first ever alternatives to bitcoin were Ethereum, Litecoin and Monero. Ethereum, for example, takes blockchain to a different level, hoping to decentralize more of the internet by using blockchain to keep the online

data of people safer, instead of in the hands of large corporations. Ethereum allows for transactions and digital products to be exchanged using blockchain and the Ether coin. Instead of acting like Bitcoin, which wants to replace other currencies, Ether is used as a tool to make the transactions easier.

The emergence of cryptocurrency has given birth to a worldwide financial paradigm shift closing in on a trillion-dollar market cap, and growing at a phenomenal rate. Today there are over 1,000 digital currencies, and it is estimated that by 2020 the cryptoeconomy will exceed three trillion dollars and that by 2022 it could be equal to 10% of world GDP. As such, Bitcoin's dominance of the cryptolandscape has slowly been eroded, down from over 80% market share to just under half nowadays. Only time will tell whether these predictions are correct, but what is certain is that cryptocurrencies have passed their point of no return. They are here to stay, and their importance will only increase. Altcoins are sure to carve out many interesting developments in all matters of daily lives.

#### Comparing Proof of Work (POW) to Proof of Stake (POS)

In the traditional Proof of Work (or POW for short) model used by many cryptocurrencies including Bitcoin, network security is provided by peers doing work. They deploy their resources (computation/processing time) to reconcile transactions. Tokens are awarded to peers in exchange for work, with the frequency and amount varying with each cryptocurrency's operational parameters. This process is known as "mining".

The frequency of block generation, which determines each cryptocurrency's available mining reward, is generally intended to stay constant. The mining process itself is basically a race between cryptominers to solve complicated mathematical algorithms with cryptographic hash functions that are associated with a block containing the transaction data. This computational frenzy verifies transactions, the authenticity of information and updates the blockchain digital ledger. What's more, the difficulty of calculating the hashes also scales, so every new block of POW cryptocurrency becomes harder to mine as the work capacity of the network increases.

The cases against this methodology fall into a number of distinct categories:

- Expense a very high initial outlay on specialist mining technology;
- Environmental a heavy draw from the national grid to run these power-hungry machines leaves behind a massive carbon footprint, as well as hardware junkyards;
- Increased centralisation as smaller peers (those who struggle to keep up) drop out or combine their resources into "pools".



We will look at these main disadvantages in a little more detail now. As a Proof of Work network becomes stronger, there is less incentive for an individual peer to support the network, because their potential reward is split among a greater number of peers. In search of profitability, miners keep adding resources in the form of specialized, proprietary hardware that requires significant capital investment and high ongoing energy demands. As time progresses, the network becomes more and more centralized.

The centralisation that we are trying to avoid is exemplified by major corporations and the global banking sector. Such institutions cause a great divide between rich and poor - less than 1% of the world's population controls over 95% of the worlds wealth - and wield disproportionate political sway. The POW model is hardly ideal.

Bitcoin's creator, Satoshi Nakamoto, intended for the bitcoin network to be fully decentralized, but nobody could have predicted that the incentives provided by Proof of Work systems would result in the centralization of the mining process. - the top five bitcoin mining pools make up 70% of the Bitcoin network's hashing power . The concept of decentralization is at risk of being completely lost.

Many cryptocurrencies currently also require either the use of ASIC or Application-specific integrated circuit technology or a decent GPU graphics processing unit to provide consensus and secure transaction history, therefore its network.

ASICs require a lot of computer savvy awareness to operate, and as with most technology they quickly become obsolete. Moreover they also rely upon the honesty of the manufacturer. This is actually rather worrying as the cryptosphere is very much unregulated, so manufacturers of ASIC machines are under no obligation to reimburse you for faulty hardware or, say, a 'lost in transit' scenario.

On the other hand, the use of GPU graphics processing units makes matters somewhat easier for your average entry level participation. However, purchasers of these units suffer rising prices and shortage in supply every time a certain coins price increases quickly. Plus, if the coin involved price drops, suddenly, like ASIC units, the cost to maintain the equipment running can become unjustifiable very quickly, and it takes a lot of knowledge to build and also maintain a stable GPU coin mining rig to generate any real reward worth considering – So beware!

Nowdays, for you and me, the daunting entry barriers into the proof of work system makes for almost certain income loss right away. In most cases without even having generated or mined a single Satoshi (or fraction of a coin).



#### WHAT IS P.O.S ??

A central objective in the development of the POS platform was to create a secure digital currency without the centralized dependency on a few big-time miners who participate in an energy intensive consensus algorithm required to solve blocks. Proof of stake works by having a decentralized network or community of people that hold physical ownership of their digital coin assets. These coins are held in personal local PC digital wallets or by remote VPS- Virtual Private Server.

With user encryption and the "unlocking of wallets FOR STAKING" status, network user's wallets sync in a way that each any every staking wallet tracks and verifies the balances and transactions of all accounts simultaneously. Whichever wallet proves verification of the current block and transactions first is then allocated a set network specific reward (in the form of a small amount of currency in question). This is an ongoing process. All you need to do is HODL!

POS staking does not demand the wasteful and inefficient consummation of scarce resources, nor does it entail an associated risk in terms of hardware! It simply provides the dual benefits of securing the blockchain network as well as creating an opportunity for users to get incentives or dividends on their holdings.

Zealium is proudly in the POS camp. Network security is governed by peers having a stake in the network. The incentives provided by this algorithm do not promote centralization in the same way that Proof of Work algorithms do.

So how are the rewards determined? While each individual STAKES their balance totals, in a combined sense, this creates what is called a 'Network Weight'. A single wallet's individual weight then basically battles the entire network weight for ongoing rewards. For example; If you have what is 1 weight. And the entire network (everybody else) has say 100,000 weight, then your average reward would be expected to be approximately a 1:100,000 chance.



#### WHAT ARE MASTERNODES?

These are incentivised nodes that add an extra layer of security to the standard proof of stake system. Masternodes require a user to own a pre-determined collateral amount (eg 4,000 coins). Nodes owners have a better chance to receive staking rewards, and with this higher incentive for owners to keep their coins "locked down" this provides the network with a more secure, decentralised eco-system. Moreover, there is less risk of a majority (or 51% consensus) attack. As people tend to HODL, or retain possession of, their coins this means the price is far less volatile than that of POW coins for example. Masternodes are the backbone of the Zealium network.

#### ZEALIUM POS & MASTERNODE REQUIREMENTS.

1 x local personal PC with 2GB spare RAM, or a VPS server.

This PC must be internet connected & running [24/7 preferably] in order to be eligible for POS staking rewards. No connection no rewards, sadly.

Download and run the ZEALIUM wallet application. Available on windows and Linux.

Encryption is highly recommended- backup password, write it down, never share, keep it secure and PRIVATE and never lose it!!

#### WHAT ARE ZEALIUM'S BENEFITS?

#### **ECO-FRIENDLY**

Zealium is proudly energy efficient – Our coin uses Proof of Stake, which only consumes a fraction of the energy used to mine using Proof of Work. So no wasted resources and energy, plus no associated hardware risk! Hurrah!!

#### **SOCIAL**

We're sick of scam coins. We are an honest bunch, who want to create a real community - A community based around an anonymous peer-to-peer currency. We've started a great social presence, and our dev team is highly engaged and responsive. Rest assured, we're in this for all the right reasons.



#### **FLEXIBLE AND FAIR**

We want choice. We want people to be able to choose how much other's know; to be able to choose their level of involvement; to be able to choose when they join and when they leave the community. Zealium, at its core, is people-oriented. It's Fair.

#### **FAST AND RELIABLE**

It super quick. Zealium Coin's transactions complete almost instantly. Your transaction is guaranteed by a network of masternodes so there's no need to wait for numerous confirmations to enable contracts.

#### **SIMPLE**

Zealium is simple to understand. Our community shuns complicated rules and conditions. We want to be easy to work with. Our efficient web wallet is easy to set up, and we're always developing – increasing the user-friendliness of our interface and seeking new opportunities.

#### LOW COST

We're about bringing down the barriers to adoption. Zealium offers incredibly low transaction fees. Our aim is for mass adoption in New Zealand, and beyond!

#### **SECURE**

Security is one of the most important principles of the Zealium ethos, and will always influence all aspects of our development.

#### WHAT IS ITS ARCHITECTURE?

Zealium is based on PIVX. Our wallets are forked from their technology, based on the version 0.10 or higher Bitcoin codebase, and have been tweaked a little and boast our own coin specs. The algorithm is Proof Of Stake only.



#### **HOW WILL YOU BE REWARDED?**

Our POS standpoint means our community reaps their rewards from staking and masternoding. Masternodes require a 4000 NZL investment. These masternodes generate a handsome payout of 10 NZL per reward that the masternode finds. If you have less than a masternode you can stake the coins for payouts of 4 coins per staking reward. What's more, there is NO minimum of coins required with POS staking. All you need to do is wait approximately 6hrs for any newly arrived coins to 'Mature'. That's all. With maximum integrity in mind, the block rewards will change over time as the coins are produced.

In order to get the most out of your staking you must keep your wallet open at all times, resulting in more constantly available nodes, strengthening the network. No more users opening their wallet once or twice a month for a few minutes and getting rewarded equally with those that have 24/7 uptime with their wallet.

What's more, Zealium is all about fairness. We'd hate to see a 1%er scenario emerging, increased uncertainty with market dumping, so we're committed to the reward reduction philosophy. Reward reductions are needed in order to keep the supply of a coin down thereby helping prevent market flooding. We want our community to stay positive. This method also helps decentralization as the process takes many years to reach total supply.

Zealium block rewards will decrease at block numbers-

- 500,000
- 1,000,000
- 1,500,000

#### WHY THE 1,000,000 COIN (1.25%) PRE MINE?

These coins will be used for

- 10% to pay Zealium development team. (this equals a very small 0.125% of total supply).
- 80% Masternode ICO Sales = 200 Nodes.

These sales will fund all platforms required to have a healthy stable tradable exchangable coin in its early stages. (community voted choices, bare in mind exchange listing requirement factors).

That leaves 10% or 100,000 coins to cover unforeseen costs, including support and services.

Remaining to be airdroped and or community ideas put forward.



#### COIN SPECS.



#### Name: Zealium

• Ticker: NZL

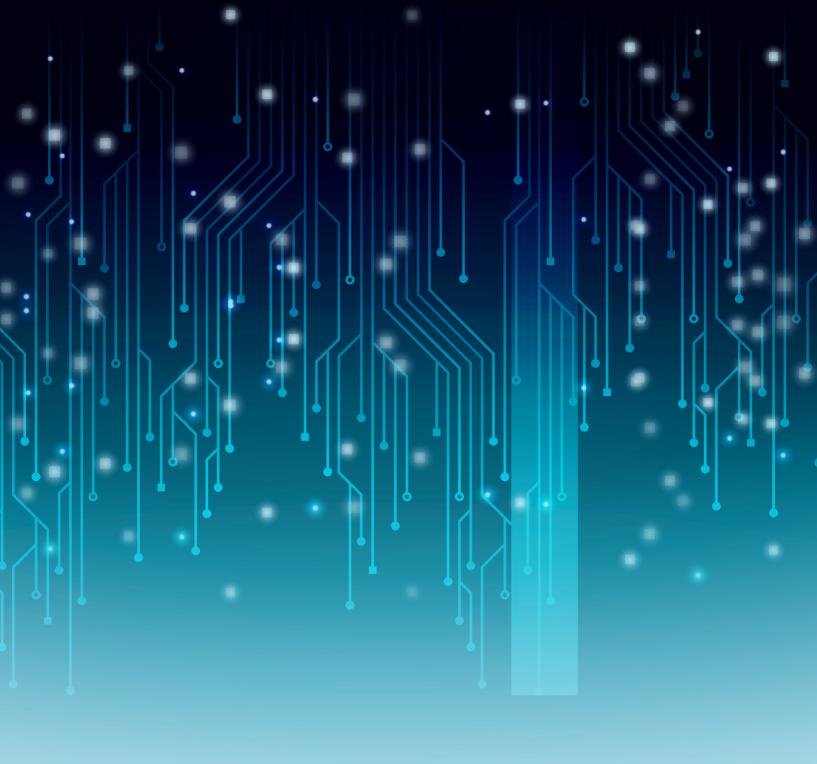
· Algorithm: POS

• Total Coins: 80,000,000

• Total Premine: 1,000,000 [1.25%]

#### **Block Rewards:**

- Block 0001 -1001 [1 Million Pre Mine, POW Ended Here].
- Block 1002-500000 MN 10 / STAKE 4 / GOV 1
- Block 500001-1000000 MN 7,5 / STAKE 3 / GOV FUND 0,75
- Block 1000001-1500000 MN 5 / STAKE 2 / GOV FUND 0,5
- Block 1500001-Infinity MN 2,5 / STAKE 1 / GOV FUND 0,25
- MN Collateral 4,000 NZL
- Staking Maturity: 6 Hrs
- Block Time: 60 sec



## **ZEALIUM COIN**

MASTERNODE. DARKSEND.
ENVIRONMENTALLY FRIENDLY PROOF OF STAKE CRYPTOCURRENCY.
MADE IN NZ.