APIS
MASTERNODE PLATFORM

APIS


APIS

Contents

0. Abstract

The APIS is building a “Masternode Platform” to familiarize the term “masternode” to a larger range of people and let them enjoy the advantages and benefits of a masternode. This paper is intended to give an overview of our approach in attaining this goal from explaining the concept of a masternode to elucidating how we will make this unfamiliar concept known to wider variety of people.

1. Introduction and Problem Statement

The APIS is a masternode platform that enables the entire spectrum of users to have easy access to the two-tier incentivized network, also known as the “Masternode Network”. Masternodes refer to nodes in the cryptocurrency market that fulfill a specific function beyond simply relaying transactions (Its definition will be further developed in the paragraphs to follow). A masternode’s most distinctive feature is that Anyone running masternode can get masternoding reward periodically just by locking up their cryptocurrency in the masternode. However, despite its attractive characteristic, hosting a masternode is quite out of reach for most individuals since most masternodes require substantial capital and intricate software engineering to set up.

By aiding these average individuals come together to form a whole masternode, we will be able to encourage more people to participate in masternoding as well as provide them with a much safer masternoding channel rather than the exchange market without adequate knowledge.

2. What is a Masternode?

2.1. Definition

Masternodes are “servers” in the cryptocurrencies network that relay transactions and sometimes also process other specific functions. The most distinctive characteristic of a masternode is that in a masternode and receive masternoding reward periodically, in the form of the specific masternode cryptocurrency. The yield varies primarily according to the masternode count and each coin might have different payout periods. This makes masternode a means to receive periodice reward from cryptocurrencies without having to run expensive mining equipment or having to actively trade in exchanges. To create a masternode, a user only needs to lock in a specific amount of coin. Users can then either set up a server to host the masternode or ask a service provider to do so on their behalf.

2.2. Proof-of-Work(POW) and Proof-of-Stake(POS)

Coin mining can be divided into two different methods: POW (Proof-of-Work) and POS (Proof-of-Stake). POW is a system in which the higher the hash reserve is, the more blocks one can find for more coins. There is also the concept of “difficulty” in order to keep the block-generation time constant. The difficulty increases as the total hash increases and more hashes are required for finding more blocks along with the increased difficulty, which consequently leads the block generation time to remain constant. However, this POW method has some limitations. On the economic side, there are cost problems such as high electricity consumption, high costs of expensive mining equipment (ASIC, GPU, etc) and their maintenance, as well as security and centralization issues regarding hash monopolization. For most coins, the POW method had been chosen in the past and the most typical examples are Bitcoin, Litecoin and Ethereum.

POS is a method designed to solve the biggest drawbacks of POW, namely security issues caused by hash monopolization and high cost for the purchase of equipment and their maintenance. For POS, the higher the stake proportion for the entire coin supply, the higher the

acquisition amount for the additional coins issued. In other words, the role of "hash" in the POW method is equivalent to the role of "stake" in the POS method. In addition, the POS method can also achieve strong security just by linking multiple wallets that keep coins inside. In recent years, coins based on the POS method have been increasing and existing coins are also changing from the POW method to POS method. Ethereum is a perfect example of this.

2.3. Masternode using POS method

Masternodes include mining through the POS method. In the case of mining, block generation time varies according to mining difficulty, and the mining output also changes according to the number of masternodes formed in the blockchain. In general, masternode coins are hybrid in the sense that they consist of both POW and POS methods. They will follow the POW method up to a specific block and subsequently change to the POS method after that.

2.4. Advantages and Limitations of a Masternode

2.4.1. Masternode's Advantages

PIVX	USD	Coin
Monthly Reward	217.80	10.7422
Yealy Reward	2,649.98	560.129
ROI(Annual)	5.60%	

DASH	USD	Coin
Monthly Reward	5,339.98	6.753
Yealy Reward	64,969.78	82.1615
ROI(Annual)	8.22%	

MEME	USD	Coin
Monthly Reward	940.30	709.674
Yealy Reward	11,440	8634.367
ROI(Annual)	57.56%	

KORE	USD	Coin
Monthly Reward	50.322	11.91
Yealy Reward	612.26	144.905
ROI(Annual)	28.98%	

** As of December 12, 2017*

A masternode has their own ROI. High ROI signifies that the masternoding was successful and cost-efficient. In other words, ROI is a financial term used to measure the efficiency.

2.4.2. Masternode's Limitations

Amount of money/coins required for the formation of each masternode

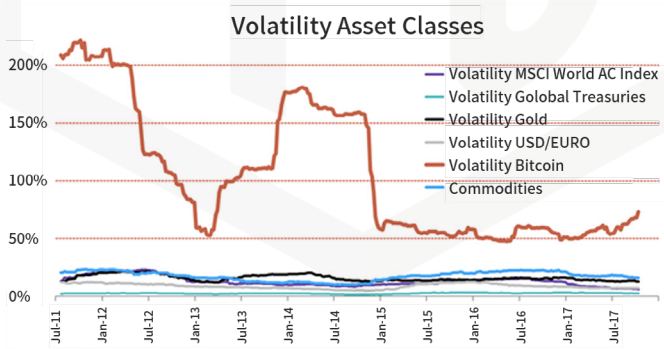
Coin / detail	Price	Change	Volume	Marketcap	ROI	Nodes	# required	Mn Worth
SIBcoin (SIB)	$2.4898	25.14%	$5,777,790.000	$39,699,846.00	8.42%	7,484	1,000	$2,489.75
Dash (DASH)	$761.456	-0.05%	$179,460,000.00	$5,889,854,116.00	8.63%	4,085	1,000	$761,456.00
Chaincoin (CHC)	$0.5095	43.45%	$98,033.00	$7,208,127.00	54.77%	2,356	1,000	$509.48
Crown SN (CRW-SN)	$1.6151	8.92%	$237,427.00	$26,301,331.00	40.41%	2,229	500	$807.53
PIVX (PIVX)	$5.3692	1.71%	$4.156,010.00	$295,627,784.00	5.75%	2,115	10,000	$53,692.00
ArcticCoin(ARC)	$0.0534	-4.25%	$26,568.70	$1,312,748.00	18.05%	1,684	1,000	$53.42
PURA (PURA)	$0.6333	8.23%	$593,478.00	$108,903,009.00	1.93%	1,022	100,000	$63,330.80
Crown (CRW)	$1.6151	8.92%	$237,427.00	$26,301,331.00	23.00%	979	10,000	$16,150.50
MonacoCoin (XMCC)	$0.5255	75.60%	$18,237.40	$1,379,848.00	66.78%	763	1,000	$525.49
Innova (INN)	$4.1425	-0.52%	$86,670.80	$3,647,433.00	374.51%	614	1,000	$4,142.51

◢ *source : http://masternodes.online*

However, the problem that most people face when forming a masternode is that in order to form a masternode, there is a minimum number of coins that participants need to possess, which often exceeds the capacity of most ordinary participants. For example, the minimum amount required to form a DASH masternode is 1,000 DASH coins (equivalent to USD 760,000). Another example is STRATIS coin, which requires 25,000 coins (equivalent to USD 1,700,000) to form a masternode.

System build-up and maintenance that require professional knowledge is another problem that deters most small participants. For example, a well-known masternode coin, DASH, requires both 1,000 DASH coins to form a single masternode and 24 hours of non-stop servers and related programs for periodic operation.

2.5. Opportunities



Bitcoin volatility means "more regulation" of cryptocurrency is on the way. As can be inferred from the graph above, Bitcoin's price volatility outstrips all other assets. High volatility implies high risk and this is the main reason why many people regard in cryptocurrency as "speculation", thus bringing about various regulation. This misconception has become an obstacle to the development of cryptocurrency, in a further sense, blockchain.

However, with the introduction of masternoding, ordinary participants can now minimize their risk taking and still generate sizable earnings. Moreover, now that many participants are seeking to find a reliable place, and it is high time that we start focusing more on masternode platforms rather than existing exchange markets.

Scope / content	Country	Addition information
Prohibition	China	Banks and payment systems prohibited from dealing in bitcoins. Individuals free to trade.
	Russia	Bitcoins cannot be used by citizens legal entities.
	Iceland	Foreign exchange activities with Bitcoin illegal.
Prohibition df ATMs	Taiwan	Approval For bitcoin ATMs refused.
Protection from money Laundering & illicit activities financing	Singapore	Finacial intermediaries to verufy the indentities of their customers and report suspicious transaction.
	USA	Bitcoin exchanges and most miners obliged to collect information on potentially suspicius transactions and report these to the federal government
Taxing Bitcoin	USA	The sale, exchange or use of Bitcoin for payment in a real-world economy transaction may result in tax liability.
	Japan	The tax will cover gains from trading Bitcoin, purchases made with Bitcoin and revenues from transctions. Banks and securities firms will be prohibites from Bitcoin trades.
	Finland	Rules on taxation of capital gains apply when profits are made from transfer to another currency. increase in value in Bitcoin after it was obtained as payment is also taxable.
	Germany	Profits from mining or trading subject to capital gains tax unless hoarded for at least one year.

3. The APIS Masternode Platform

3.1. Business Model

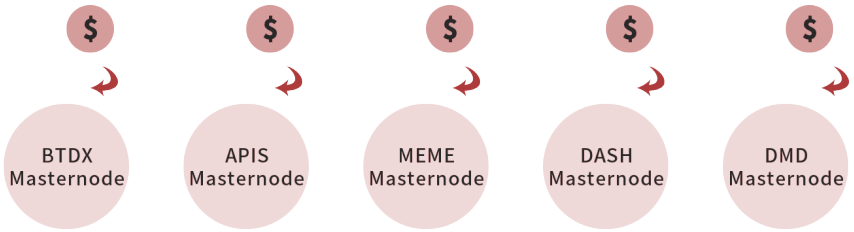
Cryptocurrency, which has emerged with the development of blockchain that opened up with the Fourth Industrial Revolution, is characterized by decentralization, anonymity, and reliability and is now attracting new participants from various fields. Nevertheless, large price fluctuation is making cryptocurrency seem “speculative” and is raising fears of becoming a social problem.

The APIS Masternode Platform will provide both participants with a cyclic reward with minimized risk and the market with reliability, accessibility and and reduced volatility. Ultimately, APIS aims to become the first key currency of masternode coins.

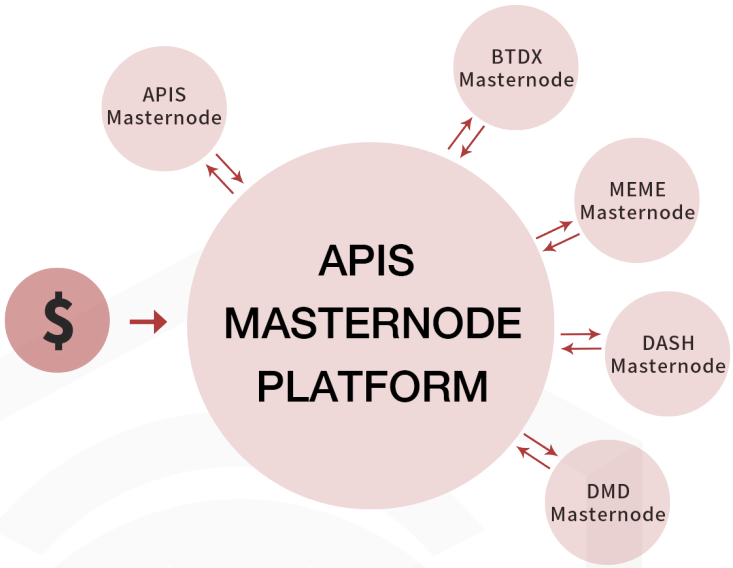
3.2. Platform Overview

The APIS Platform (also called “The APIS Core”) is a Ethereum public-chain based masternode platform that aims to help individual and corporate users participate in desired masternodes easily and effectively. It supports both PC (personal computer) and mobile devices, thereby providing users with the chance to make periodic reward and enjoy more cryptocurrency’s benefits conveniently. This section explains the importance of the APIS Core along with the usefulness and innovativeness of its official coin “APIS”, named after the ancient Egyptian bull deity.

Typical way of
Masternode Participation



The APIS
Masternide Platform



In the case of existing masternode coins such as DASH, MEME and others, not only maintaining a certain amount of coins on the software wallet but also implementing them on a Linux server that can be operated 24 hours stably is also very crucial. However, these conditions are problematic for most people as they are not familiar with IT and resolving maintenance problems inherent in hardware management, software update and security assurance. One purpose of our platform is to deal with such inconveniences and let non-professional participants who wish to form a masternode take part just by becoming a member of the APIS Platform without having to consider any of the annoying complications such as hardware or software manipulation.

3.3. Platform Configuration

3.3.1. Masternode Core

A masternode core is a distributed database consisting of cutting-edge encryption technology to manage APIS Masternode user reports, shares and trading records on the platform. Individual participants' wallet information is securely stored in the form of a Ethereum-based blockchain that also ensures system stability and asset protection through systemic data backup and restoration. Masternode information that is already incorporated on the platform will be accessible in the future through API and SDK that will be provided and all data communication will be encrypted as well. Through this process, we can strengthen the scalability of the APIS platform.

3.3.2. Masternode Hub

Masternode Hub composes and manages various coins such as DASH, MEME and BTDX's masternodes systematically. When a masternode is newly formed from user participation, the masternode hub automatically creates VPS (Virtual Private Server) for each masternode, prepares required up-to-date software and operates the masternode by depositing designated amount of cryptocurrency in the wallet through the masternode core. All processes are carried out automatically and the users are informed with a push-message every time there is progress in the procedure such as the building of VPS, installation of software and creation of wallet.

Masternode Hub constantly reports rewards obtained from the running of each masternode to the masternode core and allows them to clearly track their rewards through the APIS Core. Masternode Hub's hardware operates 24 hours by our highly-experienced management team.

3.3.3. APIS Core

APIS Core manages user information as well as APIS assets and provides all core functions that correlate with the masternode core. APIS Core is an EVM (Ethereum Virtual Machine)-based blockchain program that can be connected with various platforms such as Ethereum or Qtum and it makes use of POS methods. APIS Core supports multiple Operating Systems (OS) such as Windows, Linux, Mac, Android and iOS.

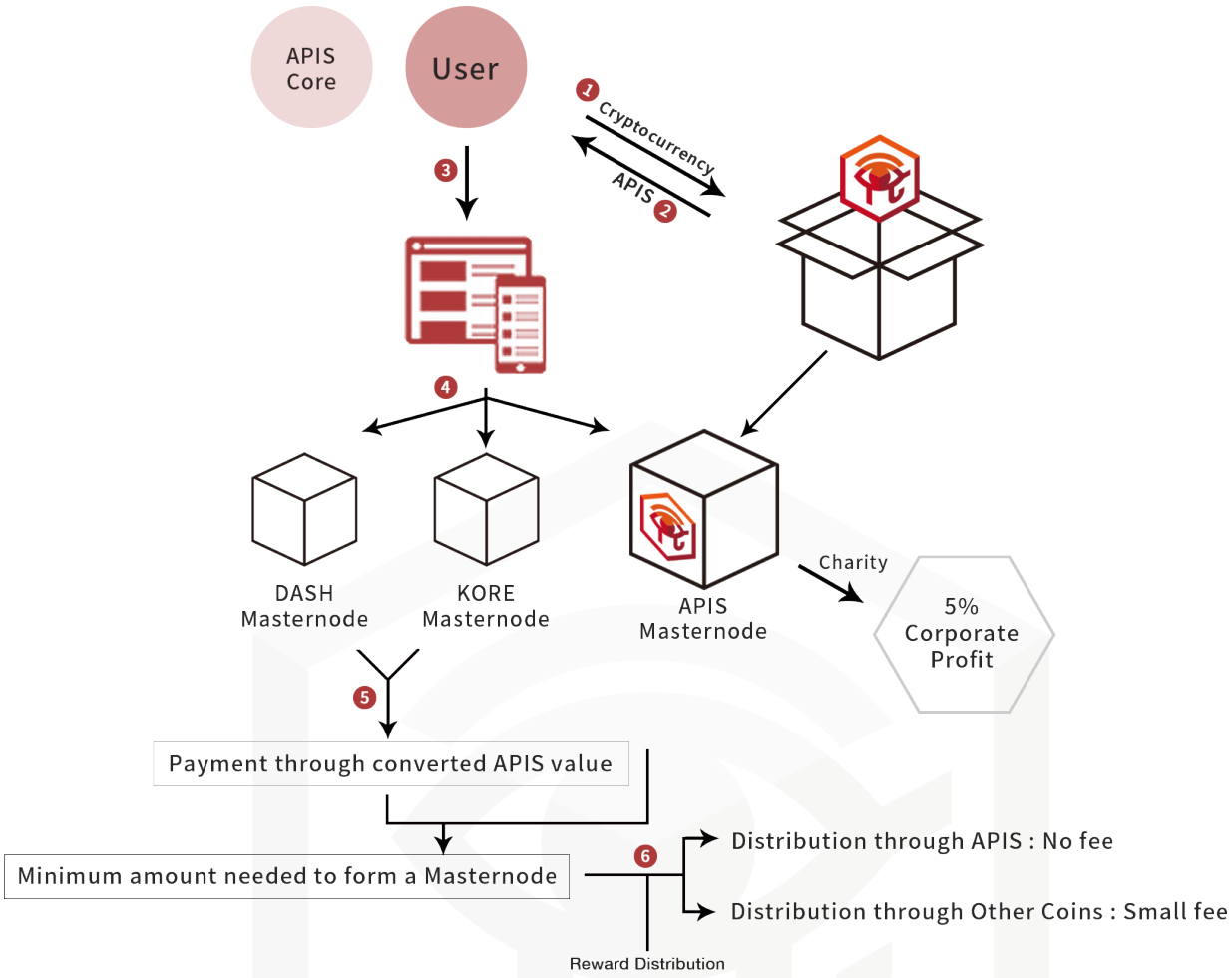
3.4. Platform Accessibility and Security

Distributed Network of APIS

Distributed Denial of Service(DDoS) attacks aimed at cryptocurrency are increasing these days. Cryptocurrency network at its incipient stage is very vulnerable to attacks owing to its small number of nodes. Moreover, if nodes consisting a network are regionally concentrated or disproportionately dispersed, there is a high chance that the transaction signals might decrease in their efficiency.

In order to prevent this from happening, we will distribute our networks and evenly provide signals to different places. For this purpose, APIS will build its system servers all around the world distributed and these servers will be located in main IDCs worldwide, operating multiple servers.

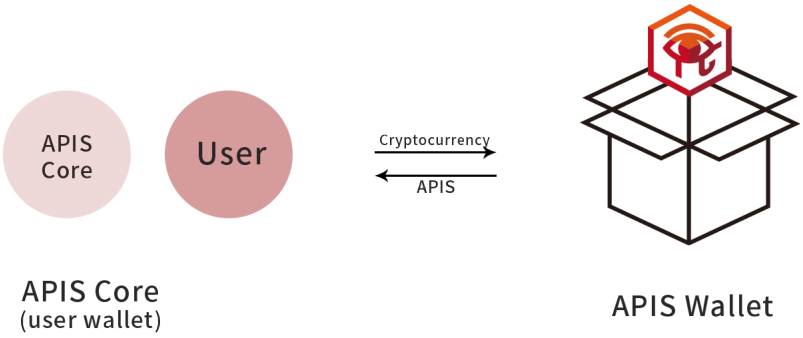
3.5. Platform Operating System



When users transfer other cryptocurrency(such as Bitcoin or Ethereum) to the APIS Core, they receive APIS coins of the same value converted, which means all transactions on this platform are carried out in APIS coinage and are ready for participating in desired masternodes through a function in the APIS Core.

Once the masternoding terminates, participant can receive their rewards according to their share/contribution. 5% of the company's reward generated from the APIS masternode platform will be donated to related foundations of blockchain programming and development to improve current poor development condition.

3.5.1. How to get an APIS coin



APIS Core
(user wallet)

APIS Wallet

APIS
4,800,000

Converted value BTC : 142 / ETH : 4000

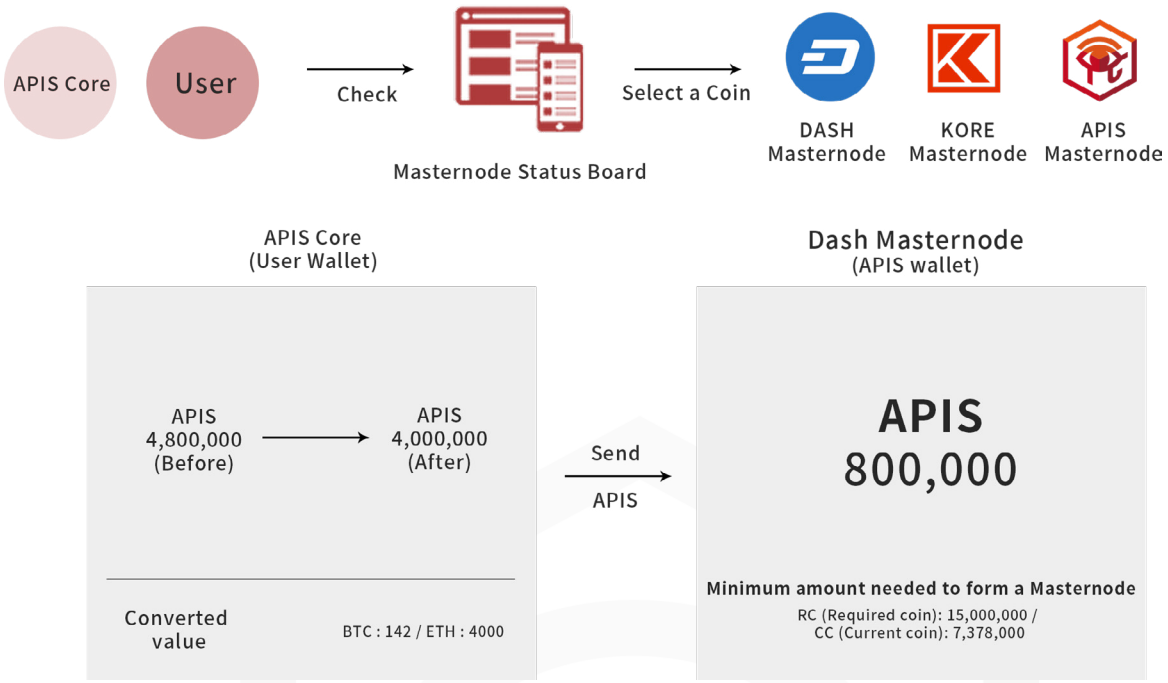
Bitcoin	670
Ethereum	17,400
Dash	41,000
Litecoin	180,000
Ripple	89,568,241
Monero	624,000
:	

a) APIS coin can be purchased at other exchange platforms(to be listed)

b) APIS coin can be purchased in the APIS Core by sending other cryptocurrencies such as Bitcoin and Ethereum to the APIS
(Wallet in the APIS Core(Cryptocurrencies sent will be automatically converted to APIS of equal value)

c) APIS coin can be purchased in our webpage using Paypal or other cryptocurrencies.

3.5.2. The APIS Core -PC

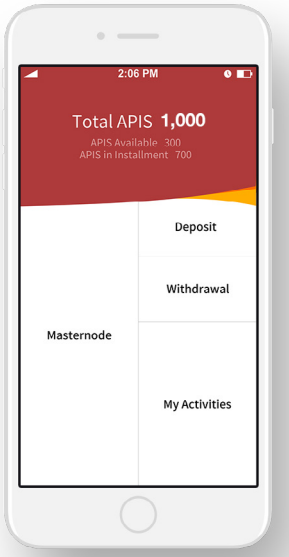


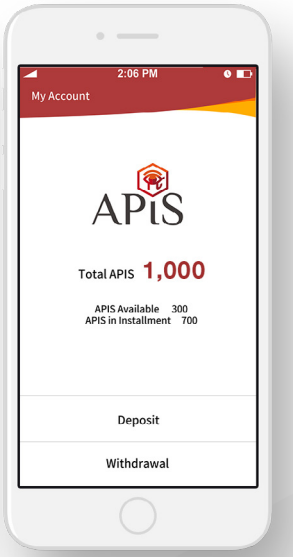
The APIS core is a proprietary program that supports masternoding to various cryptocurrencies, participating in the APIS masternode, APIS coin charges, APIS coin deposit and APIS coin withdrawal.

The role of the "masternode selection" function is to let users identify the conditions of a certain masternode such as ROI, technology and price needed to form its masternode. Once the user selects a masternode to run from the list in the APIS Core, the user can send any amount of APIS coins to the desired masternode.

Example) Kevin wants to form a DASH masternode, but he can only afford 100 DASH coins whereas the minimum number of DASH coins needed to form a DASH masternode is 1,000. Kevin is aware that he can use the APIS Core to form a DASH masternode with only 100 DASH coins. Once the designated time for masternoding ends, Kevin will receive 1/10 of the total reward gained, which includes both principal and the total reward gained.

3.5.3. The APIS Core - Mobile





MAIN

A. My Account
- Shows Total APIS, APIS Available, APIS in Installment

B. Masternode
- Used when checking and joining masternode installment products

C. Deposit
- Used for depositing APIS coin

D. Withdrawal
- Used for transferring APIS to other accounts or platforms

E. My Activities
- Displays all the activities conducted by the user

My Account

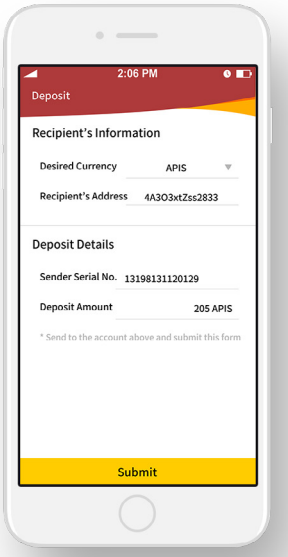
A. APIS Logo

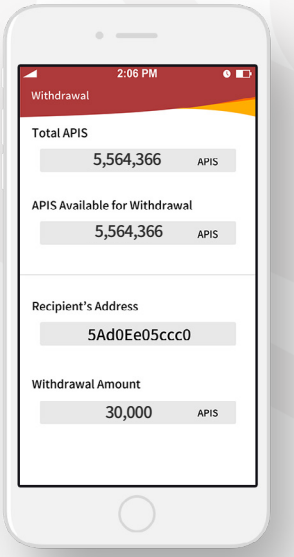
B. APIS Balance
- 'APIS Core', namely, shows the total amount of APIS in APIS Wallet, APIS available and APIS in installment

C. My ID Number
- Show the user's serial number

D. Deposit
- Used for depositing APIS in APIS core. Upon clicking, connects to the internet browser. The user gets to transfer cryptocurrency to our APIS Wallet ("My ID No." required)

E. Withdrawal
- Used for transferring own APIS to other accounts or platforms





1) Deposit

A. Recipient's Information
- User gets to select the currency he/she wants to send
- Deposit address generated according to the currency that the user intends to send

B. Deposit Details
- Sender's Serial Number
- Amount of currency to deposit
- Desired deposit amount will be automatically converted to APIS value real-time
- Transfer the currency to our company's wallet and submit a form with user's serial number on it

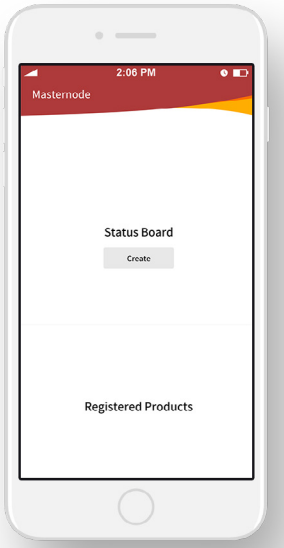
2) Withdrawal

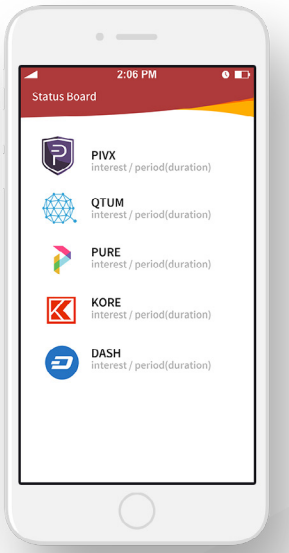
A. Total APIS
- Total APIS including the ones in installment

B. Withdrawable APIS
- Usable APIS excluding the ones in installment

C. Recipient's Address
- Write down the recipient's APIS blockchain address

D. Withdrawal Amount
- Amount to be withdrawn(in APIS)





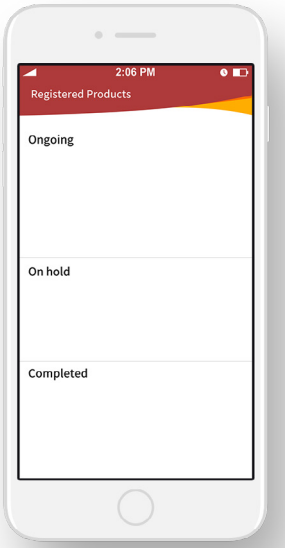
Masternode

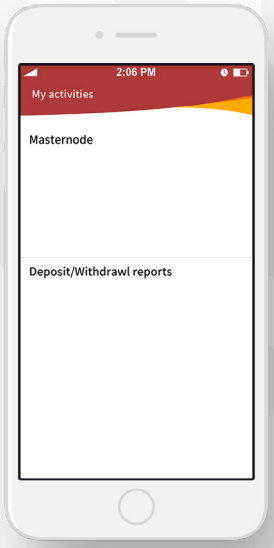
A. Status Board
- Shows all the POS-based and ongoing masternode products
- Shows each masternode coin's information such as reward rate, minimum APIS required to form a masternode and installment period
- If any of the coins seems reasonable, then one can 'select' and start on the installment

B. Registered Product
- Lists all the masternode products that the user currently is registered in
- By clicking on the product names, the user can see the details real-time

Status Board Example

A. Lists all the coins that are available for masternode installment
B. Lists information such as coin's name/current price/minimum requirement/installment period





1) Registered Masternode

A. Ongoing
- Products that the user is now in and is currently ongoing
- Shows details such as installment time left and reward

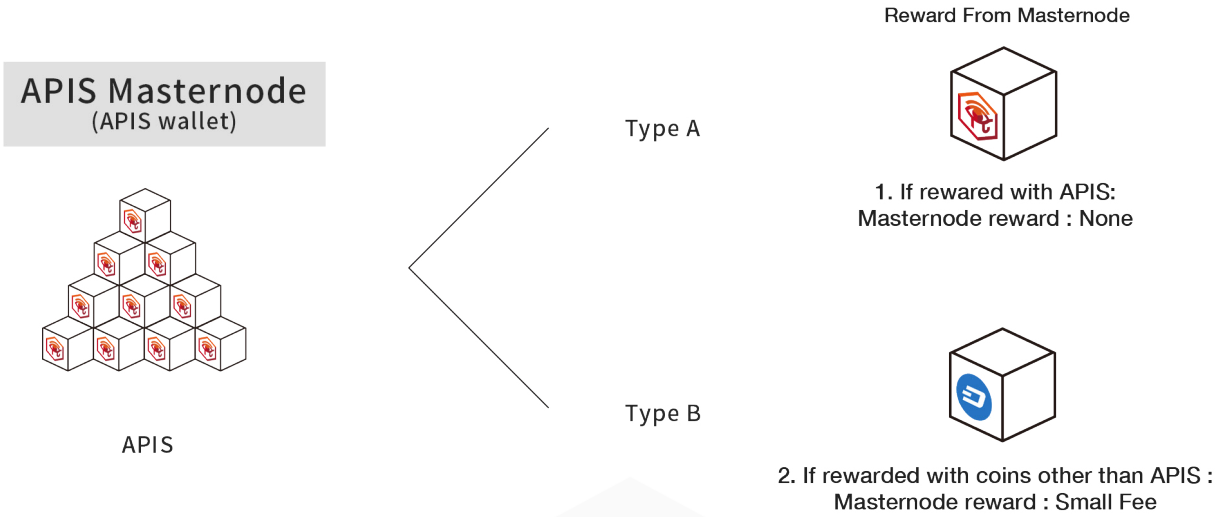
B. Completed
- Lists the ones that the user had participated and are completed

2) My Activities

A. Masternode
- Shows all the masternode products that the user had participated in

B. Deposit/Withdrawal records
-Shows all the deposit/withdrawal records of the user

3.5.4. Reward Distribution



If the user chooses to receive the reward in the form of the paritcular coin they participated, a small fee applies.

Conversely, if the user chooses to receive the reward in APIS, there will be no fee charged.

3.5.5. APIS Coin

3.5.5.1. APIS Specifications

Types	BTC	ETH	APIS
Coins Issued	About 16.5 milion	About 96 milion	9.52 bilion
Decentralization	Middle	Low	High
Stability	Middle	Middle	High
Transaction Fee	0.0005 BTC	0.01 ETH	0.005 APIS
Method	POW	POW	POS
Governance Model	Distributes Opensource governance	Centralized opensource governance	Decentralized Opensource governance

- Total amount of coins issued : 9,520,000,000
- Block Time : 120 seconds
- BLock Reward : Decrease by 11.37% per year
- Minimum Number of APIS needed to form its masternode : 50,000APIS
- Anonymity : Kept through “APIS Private Send”

3.5.5.2. Features of APIS

1) Atomic Swap

A technology scheduled to be applied in Q4 2018, Atomic Swap refers to the direct transaction between two different coins operated on separate blockchains. The distinguishing trait of this technology is that there is no third-person or party involved in the middle. Once applied, it will make it greatly easier for users to buy cryptocurrencies, as no further complicated maneuvering of any kind is required. Once commercialized, users will be able to buy coins directly from their wallets without having to go through separate platforms. In the APIS platform, we are planning to apply this technology in masternode formation in the sense that users' APIS will be automatically converted to specific coins that they want to participate in through Atomic Swap.

2) Lightning Network

Just like Atomic Swap, Lightning Network is also a technology that makes use of "hash time lock contract". The only difference between the two is that when Atomic Swap connects blockchains, Lightning Network connects each payment channel.

If A and B have a payment channel and B and C have a payment channel, A and C can trade through B even if A does not trust C personally. For example, Rachel, who only has 1 Litecoin intends to buy Jack's car that Jack labeled "1 Bitcoin" as the price. Rachel and Robert already have a Litecoin channel open, and Jack already has a Bitcoin channel open with Robert. Rachel sends 200 Litecoins to Robert and Robert sends 1 Bitcoin to Jack. All these transactions are carried out by hash time lock contracts and Robert functions as the payment conduit that does not require trust between Rachel and Robert in these transactions.

If Rachel and Jack had both their Litecoin and Bitcoin channels open with Robert, they would have been able to exchange their coins via this platform called "Robert". If Rachel sends 200 Litecoins to Robert, then Robert transmits these directly to Jack. Similarly, the 1 Bitcoin that Jack sends to Robert will be forwarded directly to Rachel. These transactions are also made possible through hash time lock contracts and Robert in this case, functions as an altcoin exchanger that does not require any degree or form of trust between the two entities involved. Robert's role in this case, is what our masternode platform, the APIS Core, would undertake.

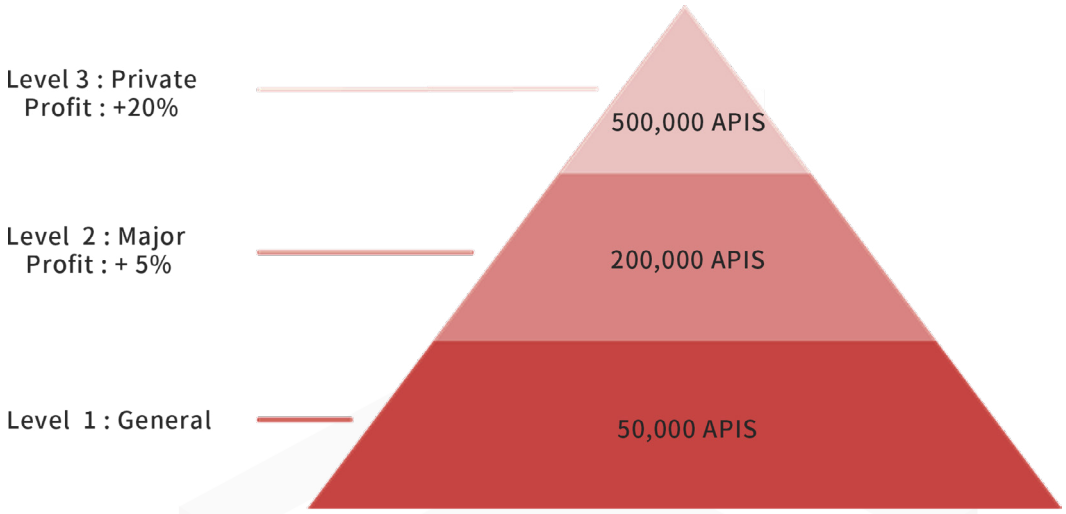
However, in order for the successful launch of lightning network, we first have to deal with service DoS problems. Even though Lightning Network itself is already devised to deter malicious individuals from stealing coins, someone in the middle (Robert in the case above) can postpone or block the transaction. Such concerns can be resolved

by closing out channels with uncooperative participants. By doing so, uncooperative participants that still want channels open can be ruled out, taking part in service DoS attacks.

However, in order to ensure that all the uncooperative channels are closed and attackers ruled out, each participant in the payment chain should be able to monitor all the participants. There is also the problem of six individuals having to keep track of transactions with Litecoin, even if only 2 people in the chain use a Litecoin channel, in order to prevent possible blockage of the channel. This problem, however, can also be easily resolved if our platform performs the role of middleman.

3.5.5.3. Benefits for APIS Users

We are aiming for a differentiated operating policy from existing masternode coins. In the case of APIS, we adopt a hierarchical operation system by differentiating rewarding rates according to the amount of masternoding volume made in the APIS masternode. Moreover, by applying Parallel Masternodes Technology, POS Algorithm, we will realize 1 PC - Multi Masternodes, but not 1 PC - 1 Masternode.



Cryptocurrency Plant Masternode Hierarchy

Grade	No. of APIS	Bounce
1 (General)	50,000	N/A
2 (Major)	200,000	+5%
3 (Private)	500,000	+20%

3.5.5.4. APIS Vision and Platform Scalability

The ultimate goal of APIS is to "lower the entry barrier of cryptocurrency for everybody to join". In order to make this possible, we will start by achieving the followings:

1) Smart Contract on Canvas

As bitcoin's simple script is evolving into smart contract with Ethereum, the use of cryptocurrency is also expanding into various areas including ICO funding, token issuance, identity verification, and cloud storage service.

However, most "smart contracts" are not so smart; they are heavily developer focused and often neglect much needed user interface for everyday users. As a result, deployed smart contracts are hardly user friendly, if usable at all.

Smart contract end-users are also forced to utilize the user interface provided by the core program of the respective cryptocurrency or web-based application, so a smart contract may have more than one correct use case, which could further confuse its already perplexed users. As a result, users often have to refer to technical manual for the smart contract they are using or get help from experienced individuals. This is counterintuitive to the whole concept of smart contract, which is to make cryptocurrency accessible to many users.

APIS plans to solve this problem by

implementing so-called “smart contract on canvas.”

Smart Contract made smarter Developers can register UI elements(the canvas)written in HTML when they deploy their coded smart contract on the blockchain. Canvas consists of a single HTML file and can include CSS, javascript, and image. Javascript code included in the contract can be obfuscated, but it is recommended that obfuscation is not conducted in order to provide transparent data processing mechanism to the contract users. Image files can be registered to the document through Base64 encoding. SmartContracts element implemented in javascript can be called within a canvas.

The HTML file that functions as canvas cannot be saved on the blockchain, so developers must provide an environment in which canvas files can be accessed through web addresses. Theses addresses could be allocated through creation of CanvasLocation variable within the smart contract. In addition, the entire canvas code must be hashed with Keccak-256 and saved on the CanvasHash variable in its respective smart contract to prevent secretive, unannounced changes. Through these measures, applications can decide on the existence of a canvas, organized a GUI, and verify immutability of the canvas used.

2) Address Masking

The use of Public and Private Key in cryptocurrency is innovative in the security perspective, but the actual written addresses such as hexadecimal address is near impossible to use without copy and pasting, not to mention memorizing. It’s not an overstatement to say that user convenience was not among the highest priorities when cryptocurrency addresses were developed.

For blockchain technology to go mainstream, however, complex address such as the ones used now must also be simplified like phone numbers or email addresses in order to be used by the masses. APIS aims to bring “address masking” concept to the reality for this particular reason.

Through the APIS core program, anyone can register a simplified address that gets rerouted to their original hexadecimal address. The simplified address consists of a name identifier, @, and a domain name. Such easily identifiable, simplified address can increase user recognition of each address and resolve issues arising from sending and receiving complex address.

To prevent uncontrolled creation of address and their abuse by random individuals, public use addresses and authorization-requiring addresses are distinguished. Open domain addresses that may be owned by any individual are limited to the following, but can be added through user requests:

Me(personal wallet), edu(educational facility), com(company), org(organization and group)

The owner of a domain has the authority to mask the given address and can transfer that authority to another person through ownership validation. Owner of a masked address can also change the original wallet address linked to that masked address through ownership validation in the form of a wallet private key. In case of a dispute regarding a masked address or a domain, their ownership may be changed or even terminated in accordance with the decisions made by the country-level settling authority. In order to deter uncontrolled address creation, there will be a certain fee associated with masking an address.

3) Mineral System

Most cryptocurrencies present in the market today has a small fee for using the resources required for transfer of the currency or smart contract initiation. This fee is provided to the node creating a new block as block reward, thereby giving incentive to people running nodes to continue running them. However, most cryptocurrency users are seldom

involved with block rewards, so the fee typically comes off as a burden of cryptocurrency use, not advantage. Although the fee is small, each and every transaction necessitates a fee. This is rather cumbersome and inefficient, particularly in countries where domestic bank wire to the same bank does not require a fee. Cryptocurrency use fees may therefore be a major barrier to entry for people who wish to use the currency in a daily basis.

APIS aims to improve this fee system by introducing the Mineral system. To use smart contract on APIS or transfer APIS to another wallet, a separate currency called Mineral must be used. APIS users may purchase Mineral through APIS whenever required, and the APIS tokens spent on such transactions will be distributed as block rewards. Mineral could also be obtained as reward to APIS tokens placed in a personal wallet. Mineral will be distributed proportional to the amount of APIS tokens held in the wallet. The upper limit of Minerals receivable as reward can also be adjusted depending on the level of contributions a wallet has made to APIS network(such as APIS transactions), so the most active APIS user can receive the most Minerals.

Of note, Minerals can only be used as transaction fees; they cannot be sent to another wallet or user and cannot be exchanged into APIS. Mineral still provides almost no-fee environment to active APIS users, so a significant increase in user transactions is expected as users attempt to minimize their fees. Mineral system will therefore help real-world use of APIS ecosystem.means a greater “fee” for them. To improve this disincentive, APIS will do the following.

1) Mineral will automatically accumulate according to the amount of APIS stored in the wallet.

2) Mineral can be purchased with APIS, but Mineral cannot be converted to APIS.

3) Mineral cannot be sent to other addresses, but can only be created and burned.

By creating this new Mineral system, we intend to contribute to the popularization of the cryptocurrency market by enabling faithful users of APIS to carry out several transactions without any fee.

4. Token Sale

Our APIS Token Sale amount this time is 5,236,000,000 APIS, which is 55% of the total APIS valued at 1,000,000 QTUM. 35% of APIS shareholding(equivalent to 45% of total APIS) will be locked-up for an year after listing and 10% will be used as liquid asset. All stage's unsold token will be burned. Our sale this time will be divided into 3 main stages.

4.1. Private Offering Stage

Coins Allocated : 1,380,000,000 APIS / 240,000 QTUM

Many leaders in related fields, companies and angel investors contributed to the establishment and development of the APIS platform. In return, we are providing a bonus of 15%. In other words, 1QTUM = 5,750 APIS Total capitalization for this stage is 240,000 QTUM.

All the APIS tokens sold in Private Sale will be locked up for 3months after listing.

4.2. Pre-sale Stage

Coins Allocated : 756,000,000 APIS / 140,000 QTUM

As a means of appreciation for APIS early investors, we are planning to sell APIS through Qtum Smart Contract before the actual crowd sale begins. There will be a 8% bonus given.

1QTUM = 5,400 APIS

Total capitalization for this stage is 140,000 QTUM.

4.3. Crowd Sale Stage

Coins Allocated : 3,100,000,000 APIS / 620,000 QTUM

In this stage, we are planning to sell APIS through Ethereum/Qtum Smart Contract. 1QTUM=5,000APIS.

The Total Cap for this stage is 620,000 QTUM

In this stage, we will set-up global communities and attract from the general public(except US and China) for the development of the APIS Platform.

-Currency Supported : QTUM, ETH

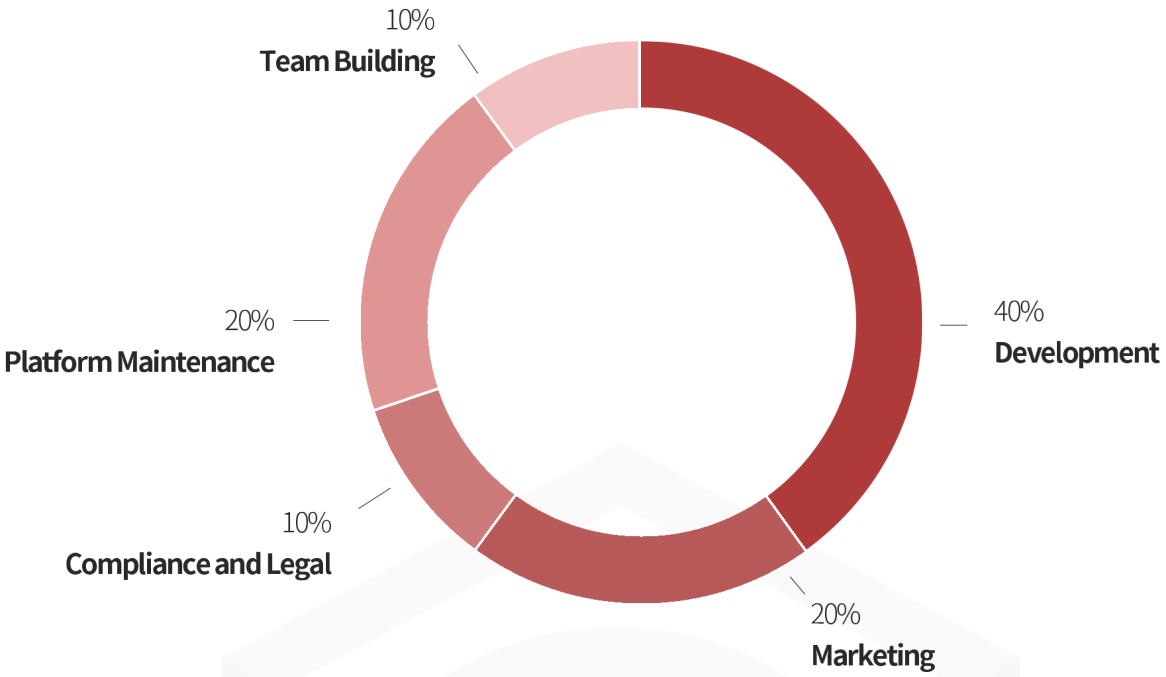
-Participation Routes : Official Website, Platforms in countries like Singapore, England, Russia, Japan, Canada and Thailand.

	Token Sale		
APIS Sales Plan	Private	Pre-Sale	Crowd Sale
Total Sale Amount	5,236,000,000		
Sale Amount	1,380,000,000	756,000,000	3,100,000,000
Token Bonus	15%	8%	-
APIS per QTUM	5,750	5,400	5,000
APIS per ETH	-	-	ETH/QTUM ratio will be announced 2 hours before the sale and will follow CMC

** ETH/QTUM ratio will be announced at Website.*

5. Budget Allocation

The APIS Platform will be developed by QTUM, ETH financed through crowd funding. The fund will be used for six years.



1) Development

APIS team will spend most of the fund raised in developing the system and reinforcing members such as the Development Team, Production, Operation and Maintenance Team, Android/ios team, APIS and Web Community Team, Test/Management/Maintenance Team, Big Data Statistics Team and the Design Team. Through this, we will ensure our platforms':

- Security
- Scalable design with easy maintenance
- Highly reliable professional operation and maintenance team

2) Platform operating costs

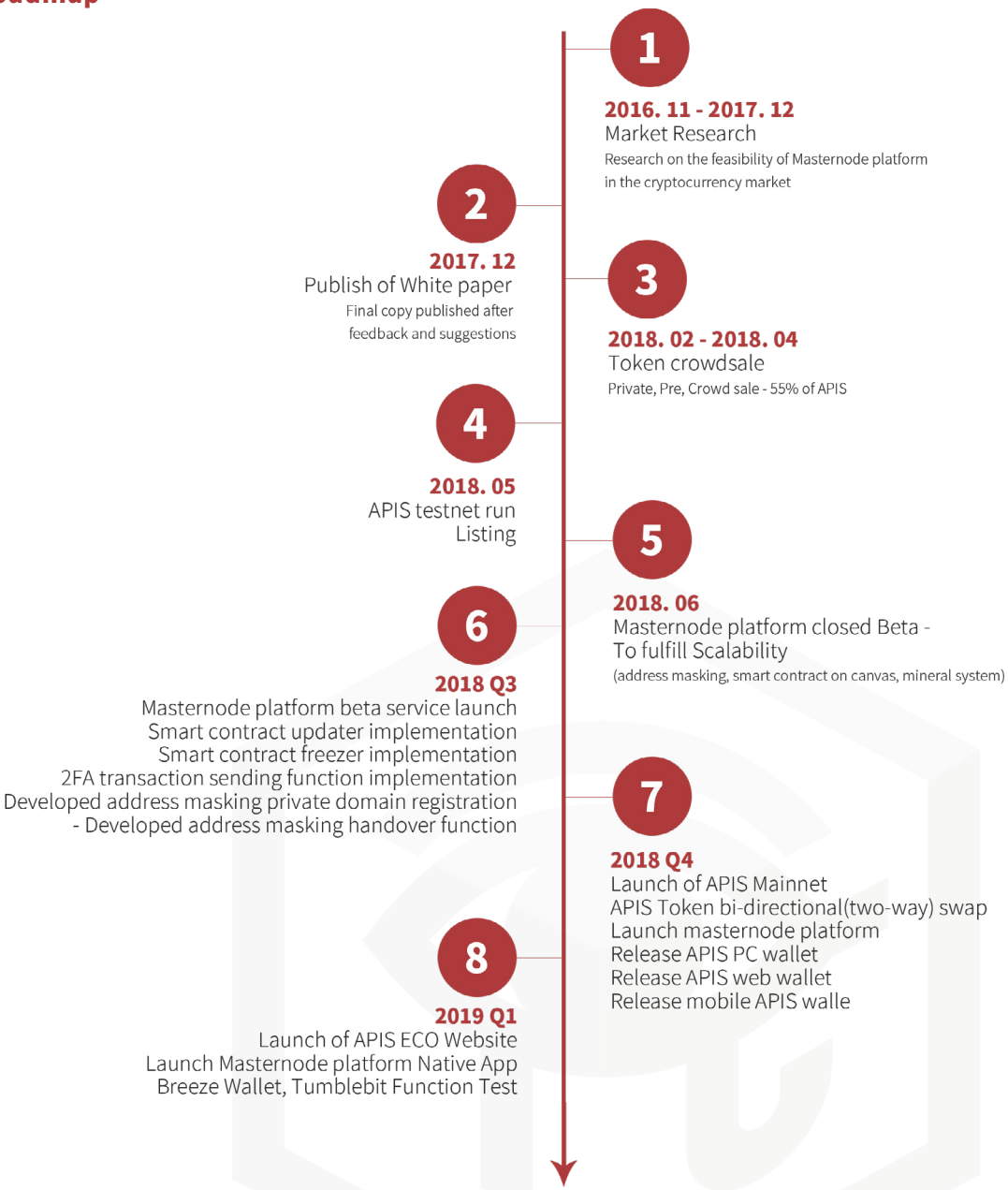
Good products come from good operation. The APIS team uses 20% of the funds to build professional products, operations and customer service teams. We will handle customer issues in a timely manner, actively respond to the needs of the local community and continue to remedy products promptly.

3) Market and Marketing Costs

In this Internet era, a good application can never do without market promotion, reasonable marketing, and business cooperation. The APIS team will use 20% of the funds for market and marketing activities and will strive to promote and disseminate APIS worldwide.

The APIS social networks will support eight different languages: English, Japanese, Korean, Simplified Chinese, Traditional Chinese, Russian, Spanish, German and Thai. More languages are planned in the future and we are positive that through reasonable market and marketing budgets as the basis, APIS will become the most widely used currency worldwide. Moreover, in order for users to better understand the APIS platform, we will actively take part in various blockchain activities for global promotion and marketing.

6. Roadmap



2018. Q3

- Masternode platform beta service launch
- Smart contract updater implementation
- Smart contract freezer implementation
- 2FA transaction sending function implementation
- Developed address masking private domain registration
- Developed address masking handover function

2018. Q4

- Launch of APIS Mainnet
- APIS Token bi-directional(two-way) swap
- Launch masternode platform
- Release APIS PC wallet
- Release APIS web wallet
- Release mobile APIS wallet

2019. Q1

- Launch of APIS ECO Website
- Launch Masternode platform Native App
- Breeze Wallet, Tumblebit Function Test

7. Disclaimer

The information provided in this whitepaper and accompanying material is for informational purposes only. It should not be considered legal or financial advice. You should consult with an attorney or other professional to determine what may be best for your individual needs.

APIS and the APIS Team do not make any guarantee or other promise as to any results that may be obtained from using our currency or content. No one should make any investment decision without first consulting his or her own financial advisor and conducting his or her own research and due diligence. To the maximum extent permitted by law, APIS disclaims any and all liability in the event any information, commentary, analysis, opinions, advice and/or recommendations prove to be inaccurate, incomplete or unreliable, or result in any investment or other losses.

Content contained on or made available through our website or affiliated websites or social media channels is not intended to and does not constitute legal advice or investment advice and no attorney-client relationship is formed. Your use of the information on the website or materials linked from the Web is at your own risk. Also, we limit the meaning of word 'reward' to mean cryptocurrency on specific blockchain, which can be received by contributing to the blockchain network by the method of masternoding.

References

1) A.M ANTONOPOULOS. Mastering bitcoins, 2014

2) M.Vukoli'c The quest for scalable blockchain fabric: Proof-of-work vs. bft replication. International Workshop on Open Problems in Network Security,pages 112~125. Spriger, 2015

3) A peertopeer electronic cash system (2008)

4) O.Bussmann. The Future of Finance : FinTech, Tech Disruption, and Orchestrating Innovation, pages 472~485. Springer International Publishing, Cham, 2017

5) P Vasin. Blackcoina A-Z's proof-of-stake protocol v2, 2014

6) C.Cachin. Architecture of the hyperledger blockchain fabric. InWorkshop on Distributed Cryptocurrencies and Consensus Ledgers, 2016

7) Proof-of-stake, 2 January 2018. https://en.wikipedia.org/wiki/Proof-of-stake

8) PoS 2.0 Whitepaper, 2014. http://blackcoin.co/blackcoin-pos-protocol-v2-whitepaper-cn.pdf

9) What Is A Masternode, March 7, 2017. https://themerkle.com/what-is-a-masternode/

10) Proof of Stake (PoS), May 15, 2017. https://www.investopedia.com/terms/p/proof-stake-pos.asp

11) Distributed Applications (ĐApps), May 15, 2017. https://www.investopedia.com/terms/d/distributed-applications-apps.asp

12) Smart-Contract Value-Transfer Protocols on a Distributed Mobile Application Platform 2017 https://qtum.org /en/white-papers

13) NIST hash function competition, 20 November, 2017. http://en.wikipedia.org/wiki/NIST_hash_function_competition#Finalists