

Magic Cube: An open network for the development of an entertainment ecosystem

Rudy Rong, Andrew Bakst

magiccube.io

March 24, 2019

Abstract

We describe a network that facilitates the peer-to-peer development of an entertainment ecosystem, with an initial focus on the gaming industry. The network has two primary components: a utility token offering mechanism and an exchange mechanism to allow for liquidity and interoperability between utility tokens. Both the offering and exchange mechanisms achieve incentive compatibility between all involved parties through the design of the MCC token.

NOTICE AND DISCLAIMER

PLEASE READ THE ENTIRETY OF THIS “NOTICE AND DISCLAIMER” SECTION CAREFULLY. NOTHING HEREIN CONSTITUTES LEGAL, FINANCIAL, BUSINESS OR TAX ADVICE AND YOU SHOULD CONSULT YOUR OWN LEGAL, FINANCIAL, TAX OR OTHER PROFESSIONAL ADVISOR(S) BEFORE ENGAGING IN ANY ACTIVITY IN CONNECTION HEREWITH. NEITHER MAGIC CUBE TECHNOLOGY FOUNDATION LTD. (THE FOUNDATION), ANY OF THE PROJECT TEAM MEMBERS (THE MAGIC CUBE TEAM) WHO HAVE WORKED ON MAGIC CUBE (AS DEFINED HEREIN) OR PROJECT TO DEVELOP MAGIC CUBE IN ANY WAY WHATSOEVER, ANY DISTRIBUTOR/VENDOR OF MCC TOKENS (THE DISTRIBUTOR), NOR ANY SERVICE PROVIDER SHALL BE LIABLE FOR ANY KIND OF DIRECT OR INDIRECT DAMAGE OR LOSS WHATSOEVER WHICH YOU MAY SUFFER IN CONNECTION WITH ACCESSING THIS WHITEPAPER, THE WEBSITE AT [HTTPS://WWW.MAGICCUBE.IO/](https://www.magiccube.io/) (THE WEBSITE) OR ANY OTHER WEBSITES OR MATERIALS PUBLISHED BY THE FOUNDATION.

All contributions will be applied towards the advancing, promoting the research, design and development of, and advocacy for a trustworthy, fair gaming industry through the evangelism and promotion of the Magic Cube network. The Foundation, the Distributor and their various affiliates would develop, manage and operate Magic Cube.

The Whitepaper and the Website are intended for general informational purposes only and does not constitute a prospectus, an offer document, an offer of securities, a solicitation for investment, or any offer to sell any product, item or asset (whether digital or otherwise). The information herein may not be exhaustive and does not imply any element of a contractual relationship. There is no assurance as to the accuracy or completeness of such information and no representation, warranty or undertaking is or purported to be provided as to the accuracy or completeness of such information. Where the Whitepaper or the Website includes information that has been obtained from third party sources, the Foundation, the Distributor, and/or the Magic Cube team have not independently verified the accuracy or completion of such information. Further, you acknowledge that circumstances may change and that the Whitepaper or the Website may become outdated as a result; and neither the Foundation nor the Distributor is under any obligation to update or correct this document in connection therewith.

Nothing in the Whitepaper or the Website constitutes any offer by the Foundation, the Distributor or the Magic Cube team to sell any MCC Token (as defined herein) nor shall it or any part of it nor the fact of its presentation form the basis of, or be relied upon in connection with, any contract or investment decision. Nothing contained in the Whitepaper or the Website is or may be relied upon as a promise, representation or undertaking as to

the future performance of Magic Cube. The agreement between the Distributor and you, in relation to any sale and purchase of MCC Token, is to be governed by only the separate terms and conditions of such agreement.

By accessing the Whitepaper or the Website (or any part thereof), you represent and warrant to the Foundation, the Distributor, its affiliates, and the Magic Cube team as follows:

- (a) in any decision to purchase any MCC Token, you have not relied on any statement set out in the Whitepaper or the Website;
- (b) you will and shall at your own expense ensure compliance with all laws, regulatory requirements and restrictions applicable to you (as the case may be);
- (c) you acknowledge, understand and agree that MCC Token may have no value, there is no guarantee or representation of value or liquidity for MCC Token, and MCC Token is not for speculative investment;
- (d) none of the Foundation, the Distributor, its affiliates, and/or the Magic Cube team members shall be responsible for or liable for the value of MCC Token, the transferability and/or liquidity of MCC Token and/or the availability of any market for MCC Token through third parties or otherwise; and
- (e) you acknowledge, understand and agree that you are not eligible to purchase any MCC Token if you are a citizen, national, resident (tax or otherwise), domiciliary and/or green card holder of a geographic area or country (i) where it is likely that the sale of MCC Token would be construed as the sale of a security (howsoever named), financial service or investment product and/or (ii) where participation in token sales is prohibited by applicable law, decree, regulation, treaty, or administrative act (including without limitation the United States of America, Canada, New Zealand, People's Republic of China (but not including the special administrative regions of Hong Kong and Macau, and the territory of Taiwan), the Republic of Korea, Thailand, and the Socialist Republic of Vietnam).

The Foundation, the Distributor and the Magic Cube team do not and do not purport to make, and hereby disclaims, all representations, warranties or undertaking to any entity or person (including without limitation warranties as to the accuracy, completeness, timeliness or reliability of the contents of the Whitepaper or the Website, or any other materials published by the Foundation or the Distributor). To the maximum extent permitted by law, the Foundation, the Distributor, their affiliates and service providers shall not be liable for any indirect, special, incidental, consequential or other losses of any kind, in tort, contract or otherwise (including, without limitation, any liability arising from default or negligence on the part of any of them, or any loss of revenue, income or profits, and loss of use or data) arising from the use of the Whitepaper or the Website, or any other materials published, or

its contents (including without limitation any errors or omissions) or otherwise arising in connection with the same. Prospective purchasers of MCC Token should carefully consider and evaluate all risks and uncertainties (including financial and legal risks and uncertainties) associated with the MCC Token sale, the Foundation, the Distributor and the Magic Cube team.

The information set out in the Whitepaper and the Website is for community discussion only and is not legally binding. No person is bound to enter into any contract or binding legal commitment in relation to the acquisition of MCC Token, and no virtual currency or other form of payment is to be accepted on the basis of the Whitepaper or the Website. The agreement for sale and purchase of MCC Token and/or continued holding of MCC Token shall be governed by a separate set of Terms and Conditions or Token Purchase Agreement (as the case may be) setting out the terms of such purchase and/or continued holding of MCC Token (the Terms and Conditions), which shall be separately provided to you or made available on the Website. In the event of any inconsistencies between the Terms and Conditions and the Whitepaper or the Website, the Terms and Conditions shall prevail.

No regulatory authority has examined or approved of any of the information set out in the Whitepaper or the Website. No such action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution or dissemination of the Whitepaper or the Website does not imply that the applicable laws, regulatory requirements or rules have been complied with.

The information set out herein is only conceptual, and describes the future development goals for Magic Cube to be developed. The Whitepaper or the Website may be amended or replaced from time to time. There are no obligations to update the Whitepaper or the Website, or to provide recipients with access to any information beyond what is provided herein.

All statements contained herein, statements made in press releases or in any place accessible by the public and oral statements that may be made by the Foundation, the Distributor and/or the Magic Cube team, may constitute forward-looking statements (including statements regarding intent, belief or current expectations with respect to market conditions, business strategy and plans, financial condition, specific provisions and risk management practices). You are cautioned not to place undue reliance on these forward-looking statements given that these statements involve known and unknown risks, uncertainties and other factors that may cause the actual future results to be materially different from that described by such forward-looking statements, and no independent third party has reviewed the reasonableness of any such statements or assumptions. These forward-looking statements are applicable only as of the date indicated in the Whitepaper,

and the Foundation, the Distributor as well as the Magic Cube team expressly disclaim any responsibility (whether express or implied) to release any revisions to these forward-looking statements to reflect events after such date.

The use of any company and/or platform names or trademarks herein (save for those which relate to the Foundation, the Distributor or its affiliates) does not imply any affiliation with, or endorsement by, any third party. References in the Whitepaper or the Website to specific companies and platforms are for illustrative purposes only.

The Whitepaper and the Website may be translated into a language other than English and in the event of conflict or ambiguity between the English language version and translated versions of the Whitepaper or the Website, the English language versions shall prevail. You acknowledge that you have read and understood the English language version of the Whitepaper and the Website.

No part of the Whitepaper or the Website is to be copied, reproduced, distributed or disseminated in any way without the prior written consent of the Foundation or the Distributor.

Table of Contents

- 1 Introduction..... 3
- 2 Gaming Industry Overview..... 4
 - 2.1 Pain Point 1: Funding..... 5
 - 2.2 Pain Point 2: Traffic Generation..... 5
 - 2.3 Pain Point 3: Retention Rates..... 5
- 3 Our Position..... 6
- 4 Architecture..... 6
 - 4.1 Governance..... 6
 - 4.2 Exchange..... 7
 - 4.3 Ring Trading..... 8
 - 4.4 MCC Token Standards..... 9
- 5 Ecosystem Incentivization Through the MCC Token..... 10
 - 5.1 To Upgrade the Network..... 11
 - 5.2 To Reward Relayers..... 11
 - 5.3 To Avoid Monopolization Among Relayers..... 11
 - 5.4 To Pay For Utility Tokens..... 12
 - 5.5 To Ensure That Developers Stay Truthful..... 12
 - 5.6 Challenge Periods..... 14
 - 5.7 To Bridge the Online and Offline..... 15
- 6 Formalized MCC Operations..... 15
 - 6.1 Governance Module..... 15
 - 6.2 Funding Mechanism..... 15
 - 6.3 Token Curated Registry..... 16
 - 6.4 Submitting a Candidate..... 16
 - 6.5 Challenging a Candidate..... 16
 - 6.6 Voting on a Candidate..... 16
 - 6.7 Decentralized Exchange..... 17
 - 6.8 Prepared-for Scenarios..... 18

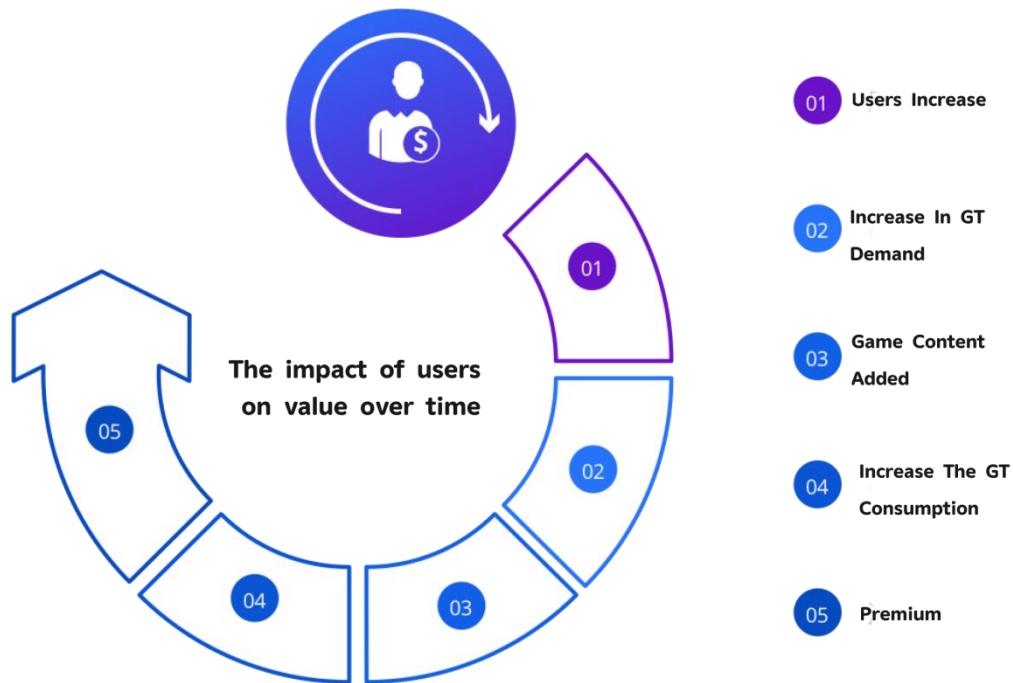
6 Product Features of the Magic Cube Platform.....	18
6.1 For Users: A Digital Wallet/Browser.....	18
6.2 For Developers: The Cube Kit.....	19
7 Magic Cube Technology.....	20
7.1 Use the innovative cross-chain mechanism SOP.....	21
7.2 Hard-core analysis of SOP.....	22
7.3 VR + AI.....	22
8 MCC Utility Token Offering.....	23
8.1 Token Distribution.....	24
8.2 Magic Cube Foundation.....	25
9 Magic Cube Technology.....	26
10 Development Plan.....	27
11 References.....	28
12 Risks.....	40

Introduction

The Magic Cube network (herein referred to as Magic Cube) is a blockchain-based, decentralized entertainment ecosystem. Magic Cube is committed to asset-binding all virtual consumer goods (games, music, film, etc.) and implementing a new token economy that drives network effects for entertainment projects. Magic Cube Technology Foundation Ltd. (the **Foundation**) is putting these ideas into practice based on its own experience in distributing, channeling and publishing games.

The promise of blockchain is a leap forward in the ability to engage in trusted transactions regardless of the surrounding institutional environment. Magic Cube intends to use blockchain technology to circumvent existing unfair institutional environments and drive network effects among users, with the goal of creating an entertainment ecosystem that fairly rewards producers and consumers of content. Magic Cube will initially focus on the gaming industry, due to our already established presence in the space. Blockchains can benefit game developers and players in the following ways:

- Reward the creators and early adopters of games
 - Game development can be funded by the pre-sale of utility tokens to players.
 - Players can have exclusive rights to certain features of their favorite digital media.
- Network Effects
 - Game developers can have an alternative marketing approach to the monopolistic channels that currently capture a large percentage of developers' revenue. Scarce, useful, liquid tokens in the hands of players will encourage players to market new games. Currently, it is difficult for developers to incentivize players to try new games. No one wants to play a game that no one else is playing. Rewarding players for putting their "skin in the game" can turn players into early adopters and therefore marketers of the ecosystem, similar to what we have seen in the ICO (Initial Coin Offering) market.
 - Game players may resale utility tokens on an open and fair secondary market, potentially for a profit. Currently, players seldom receive benefits for being early adopters of a new game.



The Foundation will help game developers complete their own secondary IGOs (Initial Game Offerings) on the Magic Cube platform, during which the developer releases a secondary utility token with provable scarcity that provides exclusive access to in-game props and experiences. After the completion of a game’s IGO and the proven development of the token within the game (measured by the game’s status on the Magic Cube Token Curated Registry), the game’s utility token will be exchangeable on an open market with other tokens that also provide in-game and out-of-game utility.

The Magic Cube platform consists of the following primary parts:

- MCC Token Standards for Utility Token Offerings (UTOs)
 - MCC7 for mobile game IGOs
 - MCC15 for PC game and video console game IGOs
 - MCC40 for AR/VR game IGOs
 - More UTO standards will be listed for film, music, and other entertainment media. An IGO is simply a type of UTO.
- A mobile wallet/browser
- A decentralized exchange

- A kit for developers to deploy smart contracts with minimal friction
- A decentralized voting model, whereby holders of the MCC token would be able to vote (see below) on features of the Magic Cube platform

Gaming Industry Overview

In 2016, the global gaming industry's output value exceeded \$100 billion USD for the first time, exceeding the sum of that of the film and music industries. It is estimated that by 2020 the global gaming industry output value will reach \$129 billion USD. Mobile games will account for 51% of the gaming industry's output, surpassing the value of traditional gaming platforms, such as remote-controlled video game consoles.

In 2016, the number of Chinese gamers reached 600 million people and their market size reached \$24.6 billion USD, surpassing the \$24.1 billion market size of the US market. The Asia-Pacific region accounts for 46% of the global game market. In China, 93% of local gamers play games that have been developed by Chinese game development companies. For context, 56% of US game players play games developed by American companies.

Chinese users' demand for games continues to increase, but small and medium-sized game makers have been severely hampered by poor user traffic and fund raising obstacles driven by monopolistic middlemen and restrictive government policies. The difficulties faced by small and medium-sized game developers is specified below:

Pain Point 1: Funding

In 2017, the CSRC (Chinese Securities Regulatory Commission) suspended the listing of numerous companies in the gaming and film industries. In 2018 alone, five gaming companies, such as Suzhou Snail Digital Technology and Shanghai Green Bank Network, have had their IPOs suspended. Mergers and acquisitions, as well as refinancing, were also suspended.

Instead, the CSRC encourages already publicly listed companies to develop gaming platforms themselves, leading to monopolies over the gaming marketplace.

Without having a viable exit strategy, fundraising for small and medium-sized developers has become extremely difficult. The poor financing environment has led to developers not having enough incentives to support long development cycles, causing a drop in user experience, which has created a compounding negative feedback loop.

Pain Point 2: Traffic Generation

The cost to receive traffic continues to increase, but the conversion rate of real users is extremely low. Most games are sold partially to a publisher, leaving the developer with the rights to only 10% of the future income of the game that the developer made him/herself. The publisher buys users through channels, such as Facebook, the App Store, offline marketing, etc.

However, fake accounts currently make up for approximately 62.5% of the users on-boarded through marketing channels, making the sale to the publisher highly unlikely to generate enough user growth for that 10% to amount to any substantial income.

Small and medium-sized developers still have no viable alternatives to using a publisher. Additionally, the immediate selling of most of their rights disincentives developers to continuously update their games.

Pain Point 3: Retention Rates

Because of the premise of the first two points, the retention of new real users, thus turning them

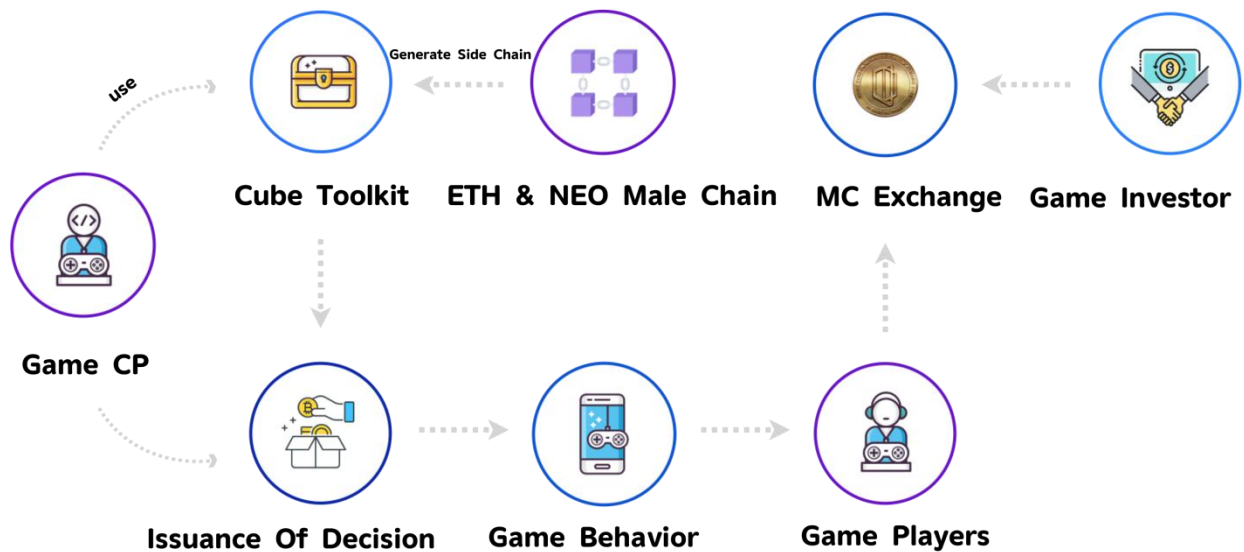
into early adopters, has become the key to survival. However, a lack of incentives for early adopters during early-stage game development creates a negative feedback loop. Game players do not wish to play a game that no one else is playing, as most view it as a waste of time. Small and medium-sized game companies need to find a way to retain real users.

Our Position

Magic Cube LLC is an internet company headquartered in Hangzhou, with its own game development team, online and offline channels and offline wallet business. Magic Cube LLC already has 23 games that are live with active product development. Each of these games will likely IGO on the Magic Cube network. Our games average a monthly active user rate of 150,000 people (per game). At present, our total number of users exceeds ten million people. We also have strong connections with other game developers and publishers, allowing the Magic Cube ecosystem to expand significantly beyond Magic Cube LLC.

Architecture

Magic Cube has designed the Magic Cube network to solve the pain points of the gaming industry outlined in the above the sections. The primary design principles of the Magic Cube architecture are modularity (for ease of upgradability), trust and security.



Governance

The governance module allows for token holders to vote on the features of the MCC ecosystem, for example upgrades to the Generalized Proxy, which in turn allows them to make upgrades to both the MCC token standard sub-proxies and the MCC exchange module, or add entirely new

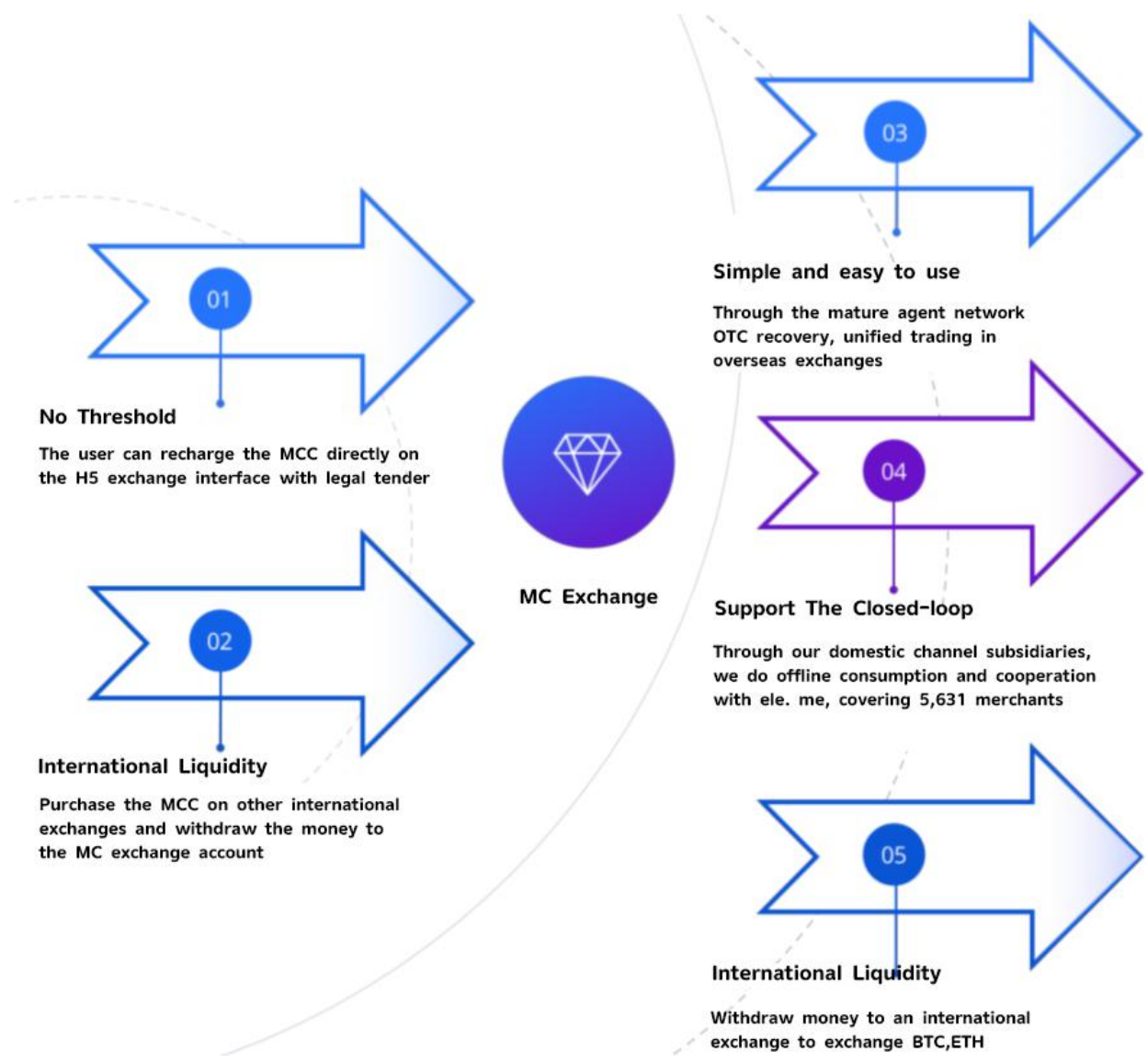
modules to the MCC ecosystem. The execution of network upgrades has been designed to with a priority of avoiding any disruption to the security of user funds. For the avoidance of doubt, the right to vote is restricted solely to voting on features of Magic Cube; the right to vote does not entitle MCC Token holders to vote on the operation and management of the Foundation or its affiliates, or their assets, and does not constitute any equity interest in the Foundation or its affiliates.

Exchange

The MCC Exchange is designed to minimize on-chain transactions, so as to satisfy the scalability requirements necessary to function at the same speed as a centralized exchange. There are at least three parties in every trade: a seller, a relay and a buyer.

A seller is the account that sends the initial order, stating the exchange rate at which they wish to sell Token A for Token B. A relay broadcasts and matches trades through an order book. A buyer is the account (or group of accounts) that fills an open order at an agreed-up exchange rate with the seller.

The sequence of a completed trade goes as follows:



1. The relayer cites its fee rate (for the inclusion of the sell order on its order book) to the seller. The NEO blockchain does not charge fees for computationally light transactions, thus allowing the relayer to keep any fees it charges. Relayers decide their own fees, creating a competitive market for the business of sellers.
2. The seller creates an order and signs it with its private key, thereby validating the data contained within the order and agreeing to the fee set by the relayer. Relayers are expected to create orders that resemble today's user experience standards by providing interfaces that makes forming and signing an order as easy as possible.

3. The seller sends its signed order to the relayer, thereby paying the relayer a fee.
4. After checking that the order is valid (the fee was properly paid; all data was filled out correctly and signed), the relayer updates the order book with the seller's order listed. Any valid order may be cancelled through the cancel function on the MCC exchange contract, in which case the relayer would need to re-update its order book. If the order is not valid, it is rejected, and any fees paid to the relayer are kept by the relayer.
5. Buyers receive an updated version of the order book that includes the seller's order.
6. Buyers fill the seller's order by properly parameterizing and calling the MCC exchange contract on the NEO blockchain. It is up to relayers both to provide the user interface for buyers to fill orders and to handle partial fills through modification of order books.

This set-up may still not be secure enough to prevent the front running of orders by NEO block producers. A NEO block producer could see the data contained in an already filled order, decide to fill the order itself, and then publish a block containing its purchase instead of the purchase by the original buyer(s). To prevent the possibility of front running by NEO block producers, we are researching the computation viability of zero-knowledge proofs such as zk-SNARKs and Bulletproofs.

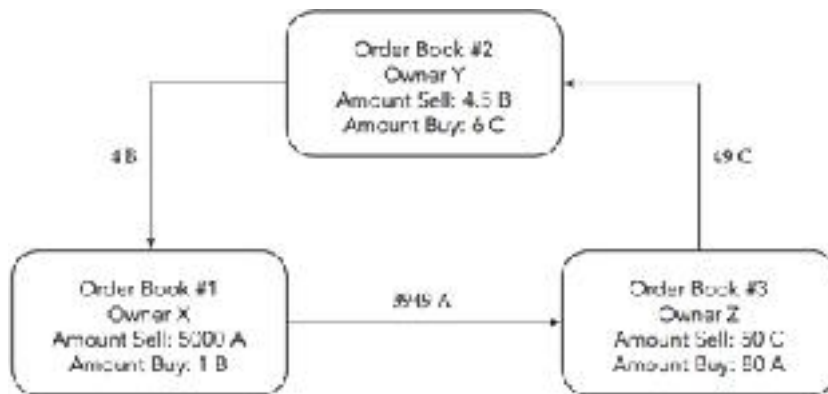
Ring Trading

The MCC Exchange supports the mixing and matching of multiple orders in a circular trade known as ring trading. By using multiple orders (potentially across multiple order books) instead of a single trading pair, the MCC exchange achieves a dramatic increase in liquidity. Ring trading is a feature of the MCC network, and is not a requirement, as it is computationally heavy for any relayers who choose to do it. Ring trades can be satisfied under the following requirement, where, for any given order, x is the amount Token A wanting to be sold and y is the Token B wanting to be bought:

$$\frac{x_1 \cdot x_2 \cdot x_3 \cdot \dots \cdot x_n}{y_1 \cdot y_2 \cdot y_3 \cdot \dots \cdot y_n} \geq 1$$

This property ensures that all traders in the ring order are receiving an exchange rate equal to or better than the exchange rate they messaged to the relayer.

Below is an example of a ring order between three traders across three order books, where each trader receives a significantly better rate than their ask price:



The pricing formula behind a ring trading rewards all buyers and sellers with the same discount percentage, so as to ensure fairness in the multi-partied transaction. If r is the initial asking rate of an order and β is equal to the discount that all traders in the ring trade received, the ring-trading rate of each order would be:

$$r_{0 \rightarrow 1} \cdot (1 - \beta), r_{1 \rightarrow 2} \cdot (1 - \beta), r_{2 \rightarrow 0} \cdot (1 - \beta)$$

and satisfy: $r_{0 \rightarrow 1} \cdot (1 - \beta) \cdot r_{1 \rightarrow 2} \cdot (1 - \beta) \cdot r_{2 \rightarrow 0} \cdot (1 - \beta) = 1$

hence,
$$\beta = 1 - \frac{1}{\sqrt[3]{r_{0 \rightarrow 1} \cdot r_{1 \rightarrow 2} \cdot r_{2 \rightarrow 0}}}$$

If the transaction involves n different orders, the discount β would be solved through the following formula:

$$\beta = 1 - \frac{1}{\sqrt[n]{\prod_{i=0}^{n-1} r_i}}$$

This formula ensures the relayers that execute ring trades can fairly discount all traders involved.

MCC Token Standards

MCC Token Standard sub-proxies set the rules for the funding contracts that allow for secondary IGOs on the Magic Cube platform, as well as the rules that govern developer payout after an IGO has been completed.

Separate token standards exist for the purpose of creating appropriate rules for different types of entertainment utility token offerings. Not all entertainment development cycles are the same: a PC game may require thousands of dollars to upkeep while a film may require millions of dollars. It may take 2 weeks to push a mobile gaming update, but 2 years to create a film. The rules governing these developer discrepancies should be allowed to be unique.

To achieve this, The MCC token standards define not only different smart contract funding mechanisms, but also different rules for their respective token curated registries (TCRs). Each TCR exists in the following structure:

Game Data [1]	Status Data [1]
Game Data [2]	Status Data [2]
Game Data [3]	Status Data [3]
Game Data [n]	Status Data [n]

Game Data contains the following data:

Token_Ticker (the unique identifier for the token launched on the MCC platform); Token_Supply (set by the developer at the time of IGO); Balance (funds currently locked in the TCR) ; Developer_Account_Address (for intermittent payments to the developer); Timestamp_Proposed (showing the date the game was proposed to the TCR); TCR_TokenStandard (a hash of all token standards taken at Timestamp_Proposed); Timestamp_Approved (showing the date the game approved to join the TCR).

Status Data contains one of the four data options: Proposed, Challenged, Paused, Approved.

The goal of the TCR is to maintain community consensus around the state of the development of a game after the game has been funded through an IGO. See the **To Ensure that Developers Stay Truthful** sub-section below for more details.

Any token following an MCC token standard can be exchanged for any other token following an MCC token standard, as all MCC token standards also follow the NEP-5 token standard.

Ecosystem Incentivization Through The MCC Token

The goal of the native digital cryptographically-secured utility token of Magic Cube (**MCC Token**) is to create a decentralized entertainment ecosystem that exhibits a high level of trust by making use of embedded incentives that reward good behaviors, such as relayers' providing liquidity or developers' delivering promised updates to games, and punish bad behaviors, such as cartel formation amongst relayers or developers' fleeing the ecosystem with unearned funds.

MCC Token is a major component of the ecosystem on Magic Cube, and is designed to be used solely as the primary token on the network. MCC Token is a non-refundable functional utility token which will be used as the unit of exchange between participants on Magic Cube. The primary goal of introducing MCC Token is to provide a convenient and secure mode of payment and settlement between participants who interact within the ecosystem on Magic Cube. MCC Token does not in any way represent any shareholding, participation, right, title, or interest in the Foundation, the Distributor, its affiliates, or any other company, enterprise or undertaking, nor will MCC Token entitle token holders to any promise of fees, dividends, revenue, profits or investment returns, and are not intended to constitute securities in Singapore or any relevant jurisdiction. MCC Token may only be utilised on Magic Cube, and ownership of MCC Token carries no rights, express or implied, other than the right to use MCC Token as a means to enable usage of and interaction within Magic Cube.

The following use cases of the MCC token describe our current framework for achieving this:

To Upgrade the Network

MCC token holders may vote on features of the MCC Ecosystem. To vote on upgrades to the network, MCC token holders give a voting contract access to their coins for the time period of the vote with a 3 day buffer on both sides of the time period. The purpose of the buffer is to give the network time to recognize potential malicious attacks and take the necessary steps to prevent jeopardizing the network's security. For the avoidance of doubt, the right to vote is restricted solely to voting on features of the MCC Ecosystem; the right to vote does not entitle MCC Token holders to vote on the operation and management of the Foundation or its affiliates, or their assets, and does not constitute any equity interest in the Foundation or its affiliates.

To Reward Relayers

A seller (the trader whose order is filled) on the exchange will pay competitive fees to relayers. Sellers can pay their trading fees to relayers using the MCC token or any other token that the relayer accepts for payment.

To Avoid Monopolization Among Relayers

Relayers will be incentivized to give other relayers access to their order books. Relayers will set competitive fees (whose required payment is in MCC Token) for filling trades listed on their order books to reward themselves for providing other relayers with liquidity. A percentage of these open order book fees (the exact amount of basis points will be determined by the MCC token holders) will be sent to an MCC burn contract.

A percentage of MCC tokens in the burn contract (the exact percentage will be determined by the governance module) will be randomly released to MCC token holders who partake in the maintenance of the MCC Token Curated Registry (more details in the **To Ensure that Developers Stay Truthful** sub-section below). The purpose of burning MCC tokens is to prevent potential monopolization or cartel formation, where select relayers wash trade between each other to give the illusion of decentralization. Burning tokens makes Sybil attacks and cartel formation more expensive.

When ring trading takes place, the ring miner will be awarded a competitive fee (the exact amount of basis points will be determined by the MCC token holders) from all the relayers to which it helped find liquidity. In this instance, the relayers do not charge the other relayers fees. Only the ring miner is awarded inter-relayer fees, with the token burn still in effect at the same rate as on all other open order book trades.

To Pay For Utility Tokens

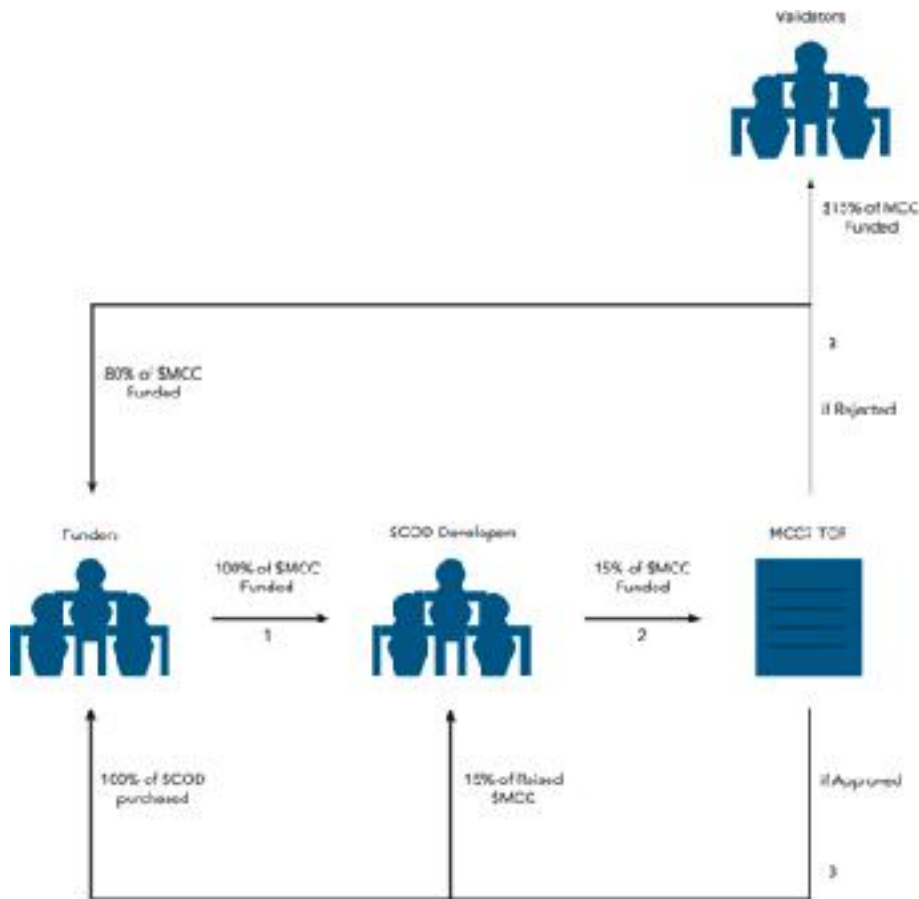
Secondary IGOs carried out on the MCC network must be completed using the MCC token as the base unit of exchange. Upon completion of the IGO, the game joins its respective token standard's TCR; the game's status becomes Proposed; and the timestamp of the proposal is recorded. Similar to an ICO, developers decide the percentage of their total game tokens they wish to sell at the IGO. They could keep some for team to add additional incentives for continued development.

To Ensure That Developers Stay Truthful

In order for a token to be listed by relayers after its IGO, it must be listed on its appropriate MCC token standard's TCR with its status as Approved. Once a token is listed as Approved, it can always be traded on the Magic Cube network, regardless of what happens to its status on its respective TCR.

Until the game's status is changed to Approved, a certain percentage (dependent upon the MCC token standard that the token complies with) of those funds remain locked in funding contracts; a certain percentage (dependent upon the MCC token standard that the token complies with) is immediately given to the developer; and a certain percentage (dependent upon the MCC token standard that the token complies with) is staked in the TCR contract until the game's status is either changed to Approved or the game is removed from the TCR. For a game's status to change from Proposed to Approved, it must go a certain amount of time (dependent upon the MCC token standard that the token complies with) without being Challenged or it must survive a Challenge Period.

The remaining aspects of developer rewards will be uniquely specified by each MCC token standard. Below is an example of how an MCC token standard could specify a payout timeline:



- Upon completion of the IGO, the developer immediately receives 5% of MCC funds raised, while the Funding contract locks 80% and 15% is staked in the MCC7 TCR.
- If the game's status is changed to Approved, the developers could immediately receive the 15% that was staked in the MCC7 TCR Contract. The remaining 80% of the raised funds could be awarded to the developer on a linear basis, with 10% released at a constant monthly time interval. The funds are released at the slotted monthly intervals only if the game's status remains Approved. Funding is paused if the game's status is Challenged or Paused. If the status is reverted back to Approved after a Challenge Period, the developer receives any funds that were missed during the Challenge Period. If the game's status becomes Paused, the developer payout time schedule is also paused and only resumes if the game's status is reverted to Approved. If the game ever becomes de-listed, all locked developer funds are returned to the initial funders.
- If the game is Rejected by the validators, the initial funders are refunded 80% their MCC contributed. The 15% staked is awarded to the challengers and voters of the TCR.

Because the structures of each token standard's reward mechanism will be decided by the token holders of MCC token, developers are further incentivized to hold MCC token to play a role in the governance process for token standards. A hash (TCR_TokenStandard) of all token standard at time of proposal is stored in the game's data field on the TCR, so that developers do not have that their rewards schedules altered ex post facto.

Relayers cannot list coins whose status never change from Proposed to Approved. If relayers list coins that did not meet development requirements, the MCC network will lose significant value, which should decrease the value of relayers' business models and MCC token holdings, encouraging them to remain honest. There may be the deployment of a TCR whose purpose is to moderate rule-following relayers in the future, although we do not think that is necessary at this time.

Challenge Periods

A Challenge Period may be initiated against candidates in their application period or against already approved TCR members. The Challenge Period begins when an ecosystem member stakes a certain amount of MCC tokens (the exact amount of basis points will be determined by the MCC token holders) in a proper challenge contract, which will be voted on by the validators.

The only criteria to be a validator is for the user to have locked a certain amount of MCC tokens (the exact amount will be dependent upon the MCC token standard that the token complies with) in the TCR for the duration of the vote plus a buffer period. There, validators could be relayers, evangelists, consumers, or other developers. Developers with funds locked in the TCR contract could also be validators.

Once a challenge has been made, all participating validators send their votes using a commit-reveal scheme (to ensure that validators cannot see other validators' votes before submitting their own). A vote can contain any of the following messages: Status_Delist; Status_Approved; Status_Paused. Whichever message receives the highest number of votes becomes the game's status (except in the event of Status_Delist, which would cause the game to be removed from the TCR).

All validators who vote receive random TCC token rewards to incentivize continuous

participation. These rewards come from the pool of tokens burned by relayers (for open order book trades) locked in the burn contract. We prevent Sybil attacks for random rewards by requiring a tokens to be bonded in order to be a validator.

To Bridge the Online and the Offline

At present, there are 250 merchants in the provinces of Jiangsu and Zhejiang that accept the MCC token as payment. We plan on partnering with 50,000 merchants before the end of 2018.

Formalized MCC Operations

Governance Module

The Governance module provides a backdoor to the Generalized Proxy module for the governance of all other smart contracts on the MCC platform. The Proxy module acts as a whitelist for which contracts are valid to be called on the MCC network. The Governance contract contains the following function calls:

Bond — users bond tokens for a buffer period placed both in front of and behind the deadline to vote; users' votes will be proportionate to their stakes; users can bond and vote before the buffer period begins.

Delegate — an account can delegate their stake to another account (the tokens remain bonded during the delegation period, and therefore cannot be spent during this period).

Vote — an account publishes their vote on a Magic Cube Improvement Proposal.

Abort — an account can abort any participative actions (such as bonding or delegating) before the buffer period of the vote, if their vote is made before the buffer period. This will be useful if the account needs to spend MCC token for a reason economically more important than the outcome of the vote to them.

The Governance module has the ability to vote on the parameters of the Governance contract itself as listed in the Proxy module.

Funding Mechanism

The Funding Mechanism is executed through the launch Contract. A launch contract is published by a contract owner (one address per contract initially, for the representation of either a decentralized autonomous organization, centralized organization, or lone individual). The launch contract contains the following data fields:

Owner_Address; Token_Symbol; Price (of the utility token offering in MCC for the duration of the utility token offering); Expiration_Time (of the utility token offering, to be executed through Time_Stamp); (total native) Token_Supply; Percentage (of token supply allocated to the utility token offering); Inflation_Rate (if applicable); Contract_Upgradability.

The Owner_Address will be the receiver of the developer payout of the MCC raised in the launch contract, with the money received at a rate as detailed in the MCC Token Standard under which the launch contract was deployed.

It will be likely that contract owners promote their utility token offerings through other networks designed for designed media and/or centralized media platforms. On the Magic Cube wallet, we will provide free promotion of token offerings launched on our platform.

Token Curated Registry

The Token Curated Registry consists of two contracts, the TCR contract and PLCR Contract. There are three primary actions to support the functioning of each MCC Token Standard TCR (The creation and upgrading of MCC Token Standards will be maintained by the Governance module through the Proxy module.):

Submitting a Candidate

Interaction 1: Users approve that the TCR contract is allowed to transfer their funds from their wallet.

Interaction 2: Users submit the candidate for application into the registry, which includes the necessary bond to engage the validators.

Challenging a Candidate

Interaction 1: Users approve that the TCR contract is allowed to transfer their funds from their wallet.

Interaction 2: Users challenge the candidate's application into the registry, which includes the necessary bond to challenge as a validator.

Voting on a Candidate

Interaction 1: Users approve the PLCR contract to transfer funds from their wallet.

Interaction 2: Users requests voting rights from the PLCR contract.

Interaction 3: Users submit their committed vote to the PLCR contract.

Interaction 4: Users submit the reveal hash (for their committed vote) to the PLCR contract

The results of the challenge allow for the updated data of each listing's status. A challenge can be performed for any applicant or for any current member of the TCR. All members of the TCR are required to hold a small stake in the TCR in order to remain listed.

We would like to note some of the beneficial properties of the PLCR contract. The tokens locked in the PLCR contract to vote are only partially-locked, meaning that they can be used in multiple polls, so long as the tokens locked are owned by the same address and the polls are executed by another PLCR contract. The PCLR contract does not punish the voters who vote not in the majority group. The PLCR contract returns the status of the candidate to the TCR contract to decide who the winner of the challenge is (in the event of a Pause, the vote is a draw until the status is changed again), and the loser's funds are distributed to the challenger and majority voters appropriately. Votes can be changed during the Pause Period to signal the future result until an additional challenge is created, at which point validators must lock in their votes to end the Pause Period.

This set up allows for validators to assuredly and easily vote in multiple polls simultaneously, while holding accountable the Applicant and Challenger for capturing the network's time.

Decentralized Exchange

There are two types of orders that will be executed through the exchange: point-to-point orders and broadcast orders. Each type of order uses the same DEX contract, but begin with different data sets.

Point-to-point orders specify the buyer address(es) that can fill the order at a specific rate and quantity, only requiring the buyer's signature. Broadcast orders leave the buyer's address as null and specifies the buyer's address when there is a buyer. The buyer still must sign the order in order for the order to be verified by the DEX contract.

The DEX contract verifies the buyer's, seller's and relayer's signatures against each of their account addresses to ensure that the all three parties have agreed to execute the listed trade at the listed exchange and fee rate. The DEX contract does care if an order is publicly or partially filled. Relayers can perform partial fills through providing the additional argument: `Partial_Fill`, where the `Partial_Fill` is less than the `TokenB_Amount` (the amount of TokenB to be bought). It is up to the relayer to maintain the order book appropriately after a partial fill has been executed.

Orders contain the additional data to be processed by the DEX contract: `DEX Contract` (pointing to the address of the DEX contract needing to be called); `Token_S` (the token to be sold; the developer is given access to this token by the seller); `TokenS_Amount` (the amount of TokenA to be sold); `Token_B` (the token be to bought); `TokenB_Amount` (the amount of TokenB to be bought); `Fee_Amount` (the fee paid to the relayer); `Fee_Address` (the relayer's account address); `Timestamp` (the time at which the order was signed); `Expiration` (the duration of time that the buy order may be broadcasted on the relayer's order book).

Prepared-for Scenarios

Because blockchains are not yet scalable for mainstream adoption, we will carefully follow all scaling progress on public platforms. Should we wish to decentralize our platform before adequate scaling has been achieved, we may temporarily implement a Proof of Authority side

chain, pegged to the public NEO main chain. Our Proof of Authority side chain would require Authorities to stake a significant amount of MCC tokens, thereby turning the platform into an emergency Authorized Proof of Stake side chain. Because this model is still centralized, we would look forward to moving back to the main chain, once scaling solutions have been resolved.

Cross Chain Game Asset Trading

In the current gaming industry, uniqueness of the new released games has gradually disappeared with the proliferation of homogeneous products, and has made game developers increasingly concerned with how they can secure larger profits from their various competitors.

On the other hand, the "devaluation" caused by the over delivery of game equipment often makes gamers suffer.

These are the main problems that Magic Cube hopes solve for the rapidly growing gaming ecosystem. As a blockchain-based entertainment ecosystem, Magic Cube helps game developers issue game core tokens, called GTOs (Game Token Offering), by helping them use smart contracts, and by lowering consumption and trading thresholds in the game, which in turn improves the game's user retention.

Up to now, Magic Cube's game operators include Shanda Game, Perfect World Game, Blue Harbor Game, Linekong, along with other large game manufacturers. The total number of registered users on the platform has reached 15 million.

Starting in June of this year, Magic Cube will launch a layer2 chain-based on the Tendermint consensus in an effort to help traditional games convert onto the blockchain through the use of our GTO model. After that, Magic Cube will gradually start expanding from NEO, ONT, and other public chains, which will help us encourage more cross-chain interactions with other public chains, which will help us create a truly decentralized entertainment ecosystem.

Technical roadmap

Additionally, with the acceleration of 5G technology, Magic Cube will also use VR (Virtual Reality) and AI (Artificial Intelligence) technology to better serve game users.

Use the innovative cross-chain mechanism SOP

Since the advent of blockchain technology, numerous different chains have been born, and the isolation of information on many chains inevitably lead to a "so-called" value-isolation island effect. The so-called cross-chain is analogous to connecting bridges between two islands, connecting different blockchains. In practice, the problem to be solved in a cross-chain model is how to transfer the token from one chain and onto another chain. This process is not only one that entails the transmission of information, as the value transfer behind the information flow also needs to be accurately recorded.

It can be said that solving the problem of isolated islands between blockchains has always been a key problem that requires a solution in the field of blockchain technology. However, to this day,

there is still no cross-chain mechanism in the market that can be universally recognized. On the one hand, efficient centralized exchanges can effectively meet the basic needs of users, which makes the demand for cross-chain abilities of low urgency. On the other hand, cross-chain technology is not perfect in its current state.

According to research, the problems currently existing in current cross-chain technology are mainly reflected in two aspects:

1. How to verify the transaction status on the original chain and how to ensure that the nodes that deal across chain won't be bad nodes that aren't able to prevent double payments;

How to ensure that the total amount of tokens on the original chain will not decrease or increase due to cross-chaining transaction process;

In order to solve the two major problems existing in cross-chain technology, Magic Cube constructed a chain consensus mechanism based on Tendermint's layer2 according to Montesquieu's theory. We call it Separation of Powers (SOP).

So, what is the separation of powers SOP?

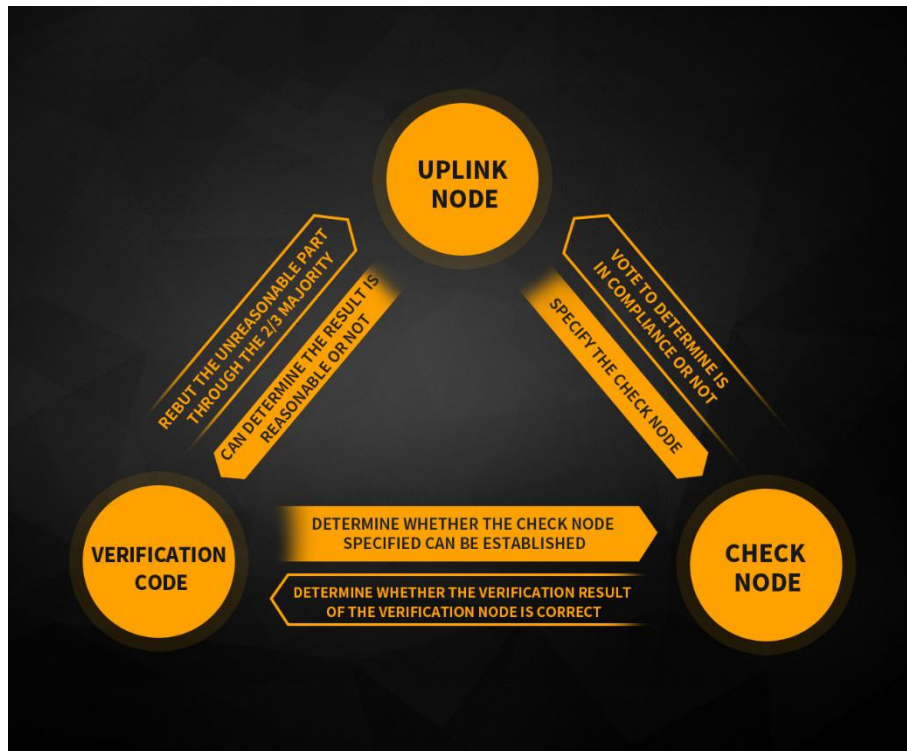
Tendermint is a Byzantine fault-tolerant algorithm that is optimized for PBFT (Practical Byzantine Fault Tolerant Algorithm), that requires only two rounds of voting to reach consensus. In Tendermint, there is the concept of a validator, which is responsible for verifying blocks and voting. On this basis, Magic Cube has optimized this and proposed Separation of Powers (SOP).

First, Magic Cube divides the validator into three roles: (1) check node; (2) uplink node (3) verification node;

The check node is responsible for clearing the transaction information generated in the main chain, obtaining the result and recording the transaction specific information, and transmitting it to the uplink node.

The uplink node is responsible for accepting the transaction results and transaction content transmitted by the check node and sending it to the side chain or other main chain.

The verification node is responsible for verifying the uplink content submitted by the uplink node and performing verification broadcast.



These three types of nodes perform their duties, cooperate with each other, and at the same time restrict each other, thereby achieving separation of the three powers.

In addition, in order to achieve the high scalability of the decentralized application (DApp), Magic Cube has been building a network with Ethereum as the backbone and high-throughput Layer-2 sidechain.

These side chains use the Delegated Proof of Stake (DPoS) as a consensus mechanism. This means they will protect the network with a limited number of high-performance verify nodes, enabling large-scale sub-second acknowledgment times. While inheriting the security of the Ethereum main network, it also makes up for the lack of DPoS in decentralization.

Hard-core analysis of SOP

Well, the above section talked about our innovative separation of powers (SOP), but there may be many individuals who believe that the above explanation is not enough, and want to further understand this new and innovative mechanism. Because of this, we will give a more detailed analysis:

First, the system randomly extracts the uplink node, which not only can settle and record the transaction content in the main chain, but also can specify the check node, and as the check node, can vote to determine whether the uplink node is in compliance;

In addition, the verification node may determine whether the check node specified by the uplink node can be established, and the check node may determine whether the verification result of the verification node is correct;

At the same time, the uplink node can determine whether the result of the verification node is reasonable, and the verification node can rebut the unreasonable part determined by the uplink node through the 2/3 majority.

In this way, the separation of the three powers in the classic Montesquieu theory is formed.

This separation of powers allows the system to achieve better decentralization. In addition, the higher the efficiency of the node, the more likely it is to be randomly selected, resulting in positive feedback, resulting in complete disappearance of the evil behavior.

In the Tendermint consensus, protocol participants are called validators: they take turns to package out blocks and collectively package the blocks. Only one block commit is allowed at each height. In the case where a block cannot be submitted in the round, the protocol moves to the next round, and the new verification node will propose a block of that height. Two rounds of voting are required to commit a block; these two rounds of voting are often referred to as "pre-vote" and "pre-commit". In each round of voting, more than 2/3 of the verification nodes need to pre-commit the same block to get the last block commit.

The validator will fail when compiling blocks in each round, for example, the current offeror may be offline, or the network may be slow. Tendermint allows the validator to be skipped, and the validator waits a short time to receive the complete proposal block from the proposal and then proceeds to the next round of voting. This dependency on timeout makes Tendermint a weak synchronization protocol, not an asynchronous one. However, the rest of the protocol is asynchronous, and the verifier can only make progress if it receives more than two-thirds of the votes. The two-round voting mechanism of precommit and propose is the same.

Assuming that less than one-third of the validator are Byzantine nodes, Tendermint guarantees that security will not be violated. That is, the validator will never commit conflicting blocks at the same height and will not fork. To this end, it introduces some "locking" rules. Once the validator inserts a block in advance, it will be locked on the block, then:

The prevote block must be locked;

After precommit a new block, the validator can be unlocked;

In combination with Tendermint's non-forked feature, Magic Cube's SOP mechanism can effectively eliminate evil nodes, form secure synchronous transaction information between chains and chains, and ensure efficient and secure non-forked, each node will compete to become a high-efficiency node. As a cross-chain method of a relay scheme, there is no problem that the additional resources are consumed in the original chain due to the synchronization state. At the same time, the data structure of the heterogeneous chain is different, and data conversion can be solved here. Therefore, this scheme is not only economical, but can also transfer money in the heterogeneous chain, and in the MC's SOP mechanism, the asset account is locked, the status and data are responsible for three roles.

VR + AI two major technical advantages that serve game users

In addition to using blockchain technology, the Magic Cube game asset ecosystem also uses two other new technologies: VR (Virtual Reality) and AI (Artificial Intelligence);

The technological process in the field of computer science, according to the current development law, has a driving force that consists of nothing more than two aspects: one is the innovation of computing power and algorithms, the other is the iteration of terminal form, and the emergence of VR/AR belongs to the latter.

With the acceleration of 5G technology, the network transmission speed in VR technology is no longer a pain point.

Previously, Magic Cube had a very mature VR technology, that could achieve VR a real-time live broadcast function. Now, based on the speed of 5G networks, role functions, real-time VR interaction with in-game scenarios and online players is possible. For example, while looking at the popular "PUBG" game, players can now enter the game map through VR, which will undoubtedly give players a more realistic and exciting operation experience.

In the future, Magic Cube will also introduce the ability to directly map the game's characters to the player's characters, and will synchronize the user's actions and communication with the player's game characters.

Furthermore, modern banks have begun to use artificial intelligence (AI) technology in an effort to meet growing regulatory demands while minimizing labor costs. The low-cost approach is no longer to hire cheap labor, but to automate. Resource-intensive repetitive tasks such as data entry and transaction processing are ideal for automation and artificial intelligence. In addition, communication barriers between traditional systems still have data islands and privacy issues, and AI and blockchain can fit together perfectly and effectively solve these problems.

This is because the data on the blockchain is inherently highly secure, and the blockchain helps us track, understand, and interpret AI decisions, while AI can manage blockchains more efficiently than humans (traditional computers).

Initially, Magic Cube will provide a trading robot called small M. In terms of finance, the M robot can be used to provide financial counseling/consulting services for users and can also automatically classify customers according to their risk status from low to high. Underwriting, pricing, and trading risk assessments can also be used to quickly calculate asset valuations using data points around assets and historical examples. If players trade frequently, M can quickly analyze data and make decisions to benefit users (games), thereby realizing the self-investment of user (game) assets to the upward direction.

Product Features of the MC Platform

For Users: A Digital Wallet/Browser

The Magic Cube Wallet/Browser will be compatible with all virtual assets such as game titles and skins that can be purchased with tokens launched on the MCC network. It will have social features such as instant messaging and user profiles, with the potential for other social features added on based on user feedback. The wallet/browser will be accessible on both mobile and desktop devices across all popular operating systems (iOS, Android, Linux, Windows, etc).

Most existing encrypted digital currency wallets require a high level of expertise from mainstream users, such as transaction fees, private keys and alphanumeric addresses. Magic Cube will offer an opt-in centralized custody of wallet funds so that users do not have to have to worry about losing their private keys. Additionally, all transactions using our wallet will be fee free, as NEO does not require fees for computationally light transactions.

The Magic Cube wallet has already reached more than 250 shops in Zhejiang and North Jiangsu. Users can quickly use the currency in their wallet by scanning other Magic Cube wallets' QR codes. Magic Cube plans to on-board 50,000 merchants onto the Magic Cube wallet by the end of 2018. The types of merchants who we are seeking are in the businesses of: leisure and entertainment, shopping malls, food catering, and schools.

For Developers: The Cube Kit

The Cube Kit will be an open-source template for the deployment of different MCC smart contracts to guarantee that our gaming developers securely execute their abstracted business logic. Initially, we will focus on the IGO contract, referencing the Launch smart contract necessary to launch a gaming token on the Magic Cube network. The IGO contract template will require only that the developers assign values to variables that will be unique to each project, with the audited template providing the additional code for the deployment of the contract.

As we on-board increasingly complex games and blockchains scale, we will develop numerous additional templates, allowing for more intricate IGOs that could involve non-fungible tokens,

dual token models and dual game models. Like other first and second layer networks, we believe that creating tools that promote ease of creation will lead to greater creation and therefore accrue more value to the platform. Additionally, we will release open-source templates for the creation of relayers once the MCC exchange shifts to a decentralized model. This is less of a priority because of our development timeline. Please see our **Development Plan** for more details.

Examples of other people offering similar developer tools in the crypto space:

<https://blog.airswap.io/airswap-developer-series-part-1-makers-and-takers-8c0c7c6d594b>

<https://blog.dharma.io/dharma-relayer-kit-73dea1d665c1>

MCC Utility Token Offering

The private placement UTO (utility token offering) for the MCC token will be conducted in NEO or ETH (which would then be converted into NEO), as the MCC token is a NEP-5 token.

MCC Token are designed to be consumed, and that is the goal of the MCC Token sale. In fact, the project to develop Magic Cube would fail if all MCC Token holders simply held onto their MCC Token and did nothing with it. In particular, it is highlighted that MCC Token:

- (a) is non-refundable and cannot be exchanged for cash (or its equivalent value in any other virtual currency) or any payment obligation by the Foundation, the Distributor or any affiliate;
- (b) does not represent or confer on the token holder any right of any form with respect to the Foundation, the Distributor (or any of its affiliates), or its revenues or assets, including without limitation any right to receive future dividends, revenue, shares, ownership right or stake, share or security, any voting, distribution, redemption, liquidation, proprietary (including all forms of intellectual property or licence rights), or other financial or legal rights or equivalent rights, or intellectual property rights or any other form of participation in or relating to Magic Cube, the Foundation, the Distributor and/or their service providers;
- (c) is not intended to represent any rights under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss;
- (d) is not intended to be a representation of money (including electronic money), security, commodity, bond, debt instrument or any other kind of financial instrument or investment;
- (e) is not a loan to the Foundation, the Distributor or any of its affiliates, is not intended to represent a debt owed by the Foundation, the Distributor or any of its affiliates, and there is no expectation of profit; and
- (f) does not provide the token holder with any ownership or other interest in the Foundation, the Distributor or any of its affiliates.

Token Distribution

There will be a supply of 20 billion MCC tokens. The tokens will be distributed as follows:

- 15% will be allocated for the Development Team.
- 25% will be allocated for strategic private purchasers.

- 10% will be allocated to the Foundation.
- 50% will be allocated to the Ecological Incentive.

The contributions in the token sale will be held by the Distributor (or its affiliate) after the token sale, and contributors will have no economic or legal right over or beneficial interest in these contributions or the assets of that entity after the token sale. Approximately 10% of the tokens allocated to the Foundation will be distributed to the traders who use the Magic Cube Exchange (see Development Plan) via secondary smart contracts, effectively granting traders a rebate of 80% of their trading fees. The rebate will be paid with MCC token as the platform currency. This transaction fee rebate model has proven to be effective by FCoin, a cryptocurrency exchange that surpassed a billion dollars of daily volume in just months after its launch. This model also distributes the MCC tokens to Magic Cube users proportionally to their usage of the system, thus ensuring fair decentralization of the network. The Magic Cube exchange will launch in Q4 2018.

Magic Cube Foundation

The Magic Cube Foundation is established in Singapore. The Foundation is committed to the development of a trustworthy, fair gaming industry through the evangelism and promotion of the Magic Cube network. The Foundation will achieve its commitment by:

- Generating consumer traffic. The Foundation will reward users who perform desired behaviors, such as trading on the Magic Cube Exchange.
- On-boarding gaming projects. The Foundation will market the platform to gamers both in China and the US, so as to show them the benefits of using Magic Cube versus the current status quo.
- Funding select third-party projects that wish to built on top of the Magic Cube network.

Development Plan

The Magic Cube wallet, which displays all IGOs, was completed in early 2018. The Magic Cube roadmap for the next year is the following:

- 2019 Q2: Launch controversial game product through IGO mode to gain influence in the industry and attract more CP. Shorten the game CP partner access time to less than 1 month; First round of token sale; Do IGO mode promotion and exchange trading activities promotion around this product; More than 100,000 people trade daily.
- 2019 Q3: Establish clear screening rules and potential cooperation CP docking library; Create customized trading activities and community operation plans around one main product every month; The number of daily transactions exceed 200,000.
- 2019 Q4: Begin to increase the coin-selling fee, and begin to promote the independent APP of MC exchange; Second round of token sale.
- 2020: The transaction volume exceed 100 million dollars. On the basis of the original mobile game business, we expand the cloud game core player market and other entertainment sectors.
- 2021: With a market capitalization of \$1 billion, Cayman Islands prepare for a pre-ipo listing on the international main board.

On the technical side MCC tries to create a decentralized network to serve the true need of game publishing and operation.

- 2019 Q3: Building a layer two based on Tendermint. Assisting games to use layers two access our Cubit Kit SDK including decentralized payment kits and game token trading kits.
- 2019 Q4: Start expanding our layer two's compatibility from NEO and ETH to other public chains. Release the beta version cross chain game assets trading platform.
- 2020 Q2: Releasing our fully compatible cross chain games' trading and payment tools and platforms. Cube Kit 3.0 is going to be compatible with all major public chains' DAPPs and allow them to take in fiat currency as well.
- 2022 Q1: Expand MC's layer 2 beyond gaming. Start testing out solutions for other entertainment services and products.

investors



Our Team



Rudy Rong / CEO

- Forbes-30 under 30 Entrepreneurs, USC Film production & Business Administration
- Work experience: Philadelphia Overseas Investment Financial Derivatives Analyst, Shanda Group's Bianfeng game operation manager, Kirin Films Overseas Market Director
- Entrepreneurial experience: Born an extraordinary club. At the end of 15th, the total amount of sales of 6 million yuan per day was created. And open up P2P super-run rental, private club membership card, event planning and other services. Widely followed by the media.
- Academic experience: Participated in the development of virtual reality optical field at the ICT Institute. Created the company and take gap year from college. Member of the Wharton Global Youth Leadership Program at the University of Pennsylvania (only 3 in China).



Andrew Baskt / CTO

- Cryptography Engineering
- System Architecture
- Graduated from Stanford, majoring in product design. He designed an automated trading exchange in Crusoe Capital. He is proficient in network consensus algorithm.



Andrew Musk / Product Manager

- UCLA Computer Science Major; The Nephew of Elon Musk; The Founder of UCLA Blockchain Club
- Work Experience : TESLA AI Lab , Gigafactory Plant Analytics.



Zhechen Shi / CTO

- Programming Lead
- Zhejiang University Grad, T4 engineering from Tencent, Alibaba.
- Tianmao programming lead. 8 years experience in Cloud Gaming. 5 patents on AI and Smart Contract.

Consultant Team

Chen Tianqiao



- Founder, chairman and CEO of Shanda Investment Group, founded in 1999 by Chen and his family.
- Chen is credited with having pioneered and built the online game industry and the online literature industry in China. Chen stepped down as CEO of Shanda Interactive Entertainment in 2012 and then took the company private. Chen and his wife Chrissy are active philanthropists, supporting research programs on brain science.

WangFeng



- Founder of Mars Finance, founder, chairman of the board, chairman of the Board of Directors, and MBA of Peking University, has over 20 years of experience in the Internet industry.
- In March 2007, the founding of the Blueport Interactive, after the Chinese game industry from the end of the tour, page tour to mobile games three times, was called "the most

storyteller" in the industry. After the listing of the Blueport Interactive in the Hong Kong Stock Exchange in 2014, it has owned three major businesses: Blueport Games, Blueport Pictures and Blueport Technology. He was selected as "Forbes 2015 China Mobile Internet Top 30", and Wang Feng himself was elected "Fortune" Chinese version 2016 "China 50 Business Pioneer".



Da Hongfei

- Founder of NEO, an onchain distribution technology CEO, an early participant in the Chinese Bitcoin community.
- Since 2013, he has worked full-time in the digital currency community and co-founded the “Bit Pioneering Camp”. Since 2015, he has been hosting the “Little Ant” project and is now the top 10 global currency. Da Hongfei is a

representative of China's blockchain industry, an early participant in the Chinese Bitcoin community, and a member of the Financial Technology Group of the Shanghai Pudong International Finance Association. It has deep insights into the underlying technology, application scenarios and industry structure of the blockchain. It is a blockchain technical consultant for many banks, brokers and registration agencies.

References

This paper would not have been possible without the work of our peers in the industry. We would like to give credit to the following people and projects:

Hongfei Da

Vitalik Buterin

Mike Goldin

Eddy Munoz

The 0x Team

The Loopring Team

The FCoin Team

Risks

You acknowledge and agree that there are numerous risks associated with purchasing MCC Token, holding MCC Token, and using MCC Token for participation in Magic Cube. In the worst scenario, this could lead to the loss of all or part of the MCC Token which had been purchased. **IF YOU DECIDE TO PURCHASE MCC Token, YOU EXPRESSLY ACKNOWLEDGE, ACCEPT AND ASSUME THE FOLLOWING RISKS:**

1. Uncertain Regulations and Enforcement Actions

The regulatory status of MCC Token and distributed ledger technology is unclear or unsettled in many jurisdictions. The regulation of virtual currencies has become a primary target of regulation in all major countries in the world. It is impossible to predict how, when or whether regulatory agencies may apply existing regulations or create new regulations with respect to such technology and its applications, including MCC Token and/or Magic Cube. Regulatory actions could negatively impact MCC Token and/or Magic Cube in various ways. The Foundation, the Distributor (or its affiliates) may cease operations in a jurisdiction in the event that regulatory actions, or changes to law or regulation, make it illegal to operate in such jurisdiction, or commercially undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction. After consulting with a wide range of legal advisors and continuous analysis of the development and legal structure of virtual currencies, a cautious approach will be applied towards the sale of MCC Token. Therefore, for the token sale, the sale strategy may be constantly adjusted in order to avoid relevant legal risks as much as possible. For the token sale, the Foundation and the Distributor are working with Tzedek Law LLC, a boutique corporate law firm in Singapore with a good reputation in the blockchain space.

2. Inadequate disclosure of information

As at the date hereof, Magic Cube is still under development and its design concepts, consensus mechanisms, algorithms, codes, and other technical details and parameters may be constantly and frequently updated and changed. Although this white paper contains the most current information relating to Magic Cube, it is not absolutely complete and may still be adjusted and updated by the Magic Cube team from time to time. The Magic Cube team has no ability and obligation to keep holders of MCC Token informed of every detail (including development progress and expected milestones) regarding the project to develop Magic Cube, hence insufficient information disclosure is inevitable and reasonable.

3. Competitors

Various types of decentralised applications are emerging at a rapid rate, and the industry is increasingly competitive. It is possible that alternative networks could be established that utilise the same or similar code and network underlying MCC Token and/or Magic Cube and attempt to re-create similar facilities. Magic Cube may be required to compete with these alternative networks, which could negatively impact MCC Token and/or Magic Cube.

4. Loss of Talent

The development of Magic Cube depends on the continued co-operation of the existing technical team and expert consultants, who are highly knowledgeable and experienced in their respective sectors. The loss of any member may adversely affect Magic Cube or its future development. Further, stability and cohesion within the team is critical to the overall development of Magic Cube. There is the possibility that conflict within the team and/or departure of core personnel may occur, resulting in negative influence on the project in the future.

5. Failure to develop

There is the risk that the development of Magic Cube will not be executed or implemented as planned, for a variety of reasons, including without limitation the event of a decline in the prices of any digital asset, virtual currency or MCC Token, unforeseen technical difficulties, and shortage of development funds for activities.

6. Security weaknesses

Hackers or other malicious groups or organisations may attempt to interfere with MCC Token and/or Magic Cube in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing and spoofing. Furthermore, there is a risk that a third party or a member of the Foundation, the Distributor or its affiliates may intentionally or unintentionally introduce weaknesses into the core infrastructure of MCC Token and/or Magic Cube, which could negatively affect MCC Token and/or Magic Cube.

Further, the future of cryptography and security innovations are highly unpredictable and advances in cryptography, or technical advances (including without limitation development of quantum computing), could present unknown risks to MCC Token and/or Magic Cube by rendering ineffective the cryptographic consensus mechanism that underpins that blockchain network.

7. Other risks

In addition, the potential risks briefly mentioned above are not exhaustive and there are other risks (as more particularly set out in the Terms and Conditions) associated with your purchase, holding and use of MCC Token, including those that the Foundation or the Distributor cannot anticipate. Such risks may further materialise as unanticipated variations or combinations of the aforementioned risks. You should conduct full due diligence on the Foundation, the Distributor, its affiliates and the Magic Cube team, as well as understand the overall framework, mission and vision for Magic Cube prior to purchasing MCC Token.