TOMOCHAIN

Building an efficient blockchain infrastructure for decentralized applications, token issuance and integration

White Paper V4.0

Tomo team - January/28/2018

Contact: long@tomocoin.io

https://www.tomocoin.io/

Summary: In this paper, we outline the motivation, scope, system design characteristics and product roadmap of the Tomochain project - Building an efficient blockchain infrastructure for decentralized applications, token issuance and integration. This paper will also provide information such as token economics, market analysis and the sale structure regarding the upcoming token sale of TomoCoin.

1. INTRODUCTION AND MOTIVATION

> *"...Blockchains are a new invention that allows meritorious participants in an open network to govern without a ruler and without money. They are merit-based, tamper-proof, open, voting systems. The meritorious are those who work to advance the network. As society gives you money for giving society what it wants, blockchains give you coins for giving the network what it wants..."*
>
> *Naval Ravikant - CEO of AngelList - on 6/21/2017.*

The blockchain industry and the infrastructure of the Internet of Value are being built rapidly around the globe, and to many the atmosphere is eerily similar to the building of the Internet in the late '90s, with pioneers and dreamers coming together to build a new future. **TomoChain** and **TomoCoin** can be a leading part of this phenomenon through seamlessly merging an ecosystem of social and consumer applications integrated with cryptographic tokens used by millions of mainstream users with a **unique blockchain infrastructure architecture**, allowing for fast, frictionless payment and a secure, decentralized, and trusted store of value.

The Internet of Value is understood as a phase when values and digital assets exist as a packet of information on Internet via blockchain technology. These packets of information are transparent, secure, programmable, and globally accessible to anyone with Internet. Our mission is to be a leading force in building this era, designing its infrastructures and working toward a reality that will make knowledge,

decentralization, financial independence, and opportunities accessible to everyone, everywhere. Our goal is to make **TomoChain infrastructure** powering a host of multiple successful decentralized applications and supporting thousands of cryptographic tokens from established small and big companies and to make TomoCoin one of the most valuable and important digital assets for millions of people.

TomoChain is an innovative solution to the scalability problem with the Ethereum blockchain in particular and with all current blockchain network in general. TomoChain plans to support horizontal scaling via adding more second layer blockchains with good performance integrated with Ethereum network for backup and atomic cross-chain transfer. TomoChain is envisioned to be a network of chains that supports instant confirmation, near zero transaction fee, and smart contracts which will be an ideal solution for decentralized apps, token issuances and token integrations for small and big businesses alike. TomoCoin will be the protocol token that govern and regulate this infrastructure. TomoChain will be a critical part of the alternative financial system based on Internet and blockchain technology which is more secure, transparent, efficient, inclusive and equitable than the traditional regime.

The **Tomo application** will be the first consumer application utilizing TomoChain blockchain infrastructure. Tomo application aims to build a new decentralized social network with a built-in cryptocurrency. In this social network, each contributor role is highlighted and rewarded; user privacy is respected and micropayments are easy,

cheap and fast. Tomo application approaches this goal by focusing on building a Q&A social site in which a network of contributors are answering questions and creating valuable content. All Q&A contents are publicly available to create a public library of instructional videos and answers. It is planned that TomoCoin will be the native currency within Tomo application.

A big part of **TomoCoin** will be used in a Reward Engine/ Ecosystem Building program as a reward for developers and early contributors. With the Reward Engine, Tomo application users will have a built-in economic incentive to create valuable content that will help “bootstrap” the social network’s knowledge base until a network effect kicks in. At the same time, TomoCoin will gain a fundamental value by being the native crypto-currency of the social network. Each Tomo application account will integrate a coin wallet and will use this credit for financial transactions within the application. Ecosystem Building program for TomoChain will help to create a diverse set of d-apps and token community utilizing the technology and supporting the development of the infrastructure for the long term.

2. PRODUCT DEVELOPMENT

A | TomoChain Development

We are working on the **TomoChain**, a blockchain infrastructure framework, which is an open-source, high performance, zero (economically) fee and instant confirmation blockchain that can process billions of financial transactions per day. In the current plan, TomoChain is designed to be a public permissioned chain pegged to the Ethereum network. TomoChain is a technically innovative and significant component that makes TomoCoin and other cryptographic tokens issued on it secure, transparent and trustworthy enough to be a store of value as a digital asset. TomoChain will be integrated into the Tomo application when the development is completed, and then open up to be a separate service to external parties. The current feature plan of TomoChain includes:

- Proof of Authority consensus based on Ethereum codebase
- Masternode and servicenode system
- 2 second confirmation and zero transaction fee for transactions
- Support all Ethereum smart contracts
- API supports for token issuances and integrations
- Zero-fee atomic cross-chain transactions (between Ethereum and TomoChain back

and forth)

- Sending transaction within TomoChain with zero fee and fast confirmation
- Mining, cashing in and cashing out features based on smart contracts
- Node protection against spamming algorithm
- Built-in exchange protocol and ICO smart-contract templates
- Decentralized governance application

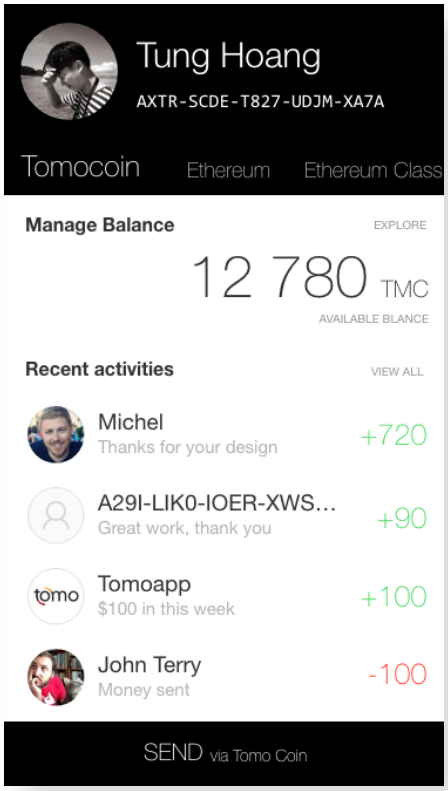
The testnet for TomoChain is available at https://stats.TomoCoin.io/

The demo wallet is available at https://wallet.TomoCoin.io

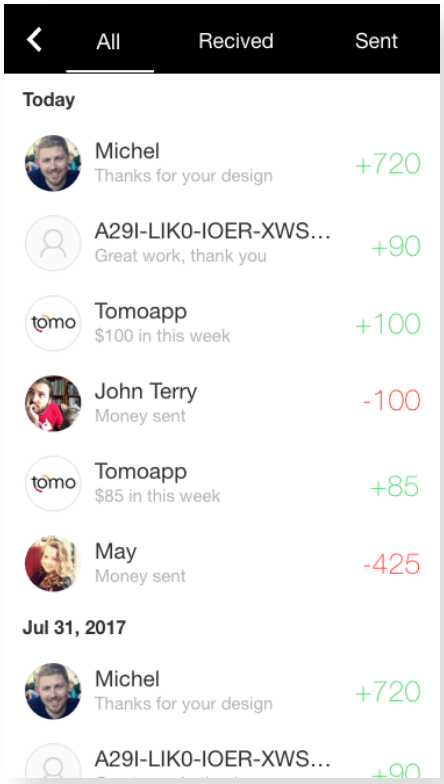
B | Tomo Wallet

In our opinion, a secure and user-friendly coin wallet that gives financial control back to the end-users is one of the most important parts of the infrastructure of the "Internet of Value". It will bridge the gap between a cryptocurrency enthusiast and a mainstream user – and possibly increase the adoption rate of cryptocurrency by 10-fold if done right. Tomo wallet shares the same backend infrastructure of Tomo application such as TomoChain, third party APIs, decentralized identity system, coin exchange smart contract and APIs etc. The planned feature set of Tomo wallet will be as follows:

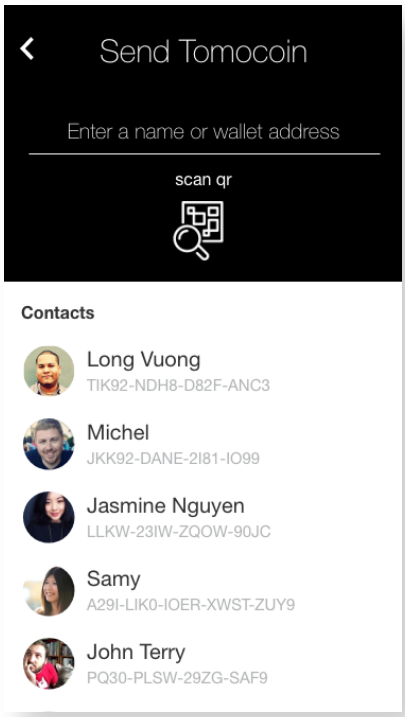
- Will allow users to safely store TomoCoin, Ethereum, and other coins and tokens on Ethereum or TomoChain.
- Users will be able to safely send TomoCoin, messages and other coins and tokens to friends and contacts.
- APIs for 3th party bots and applications



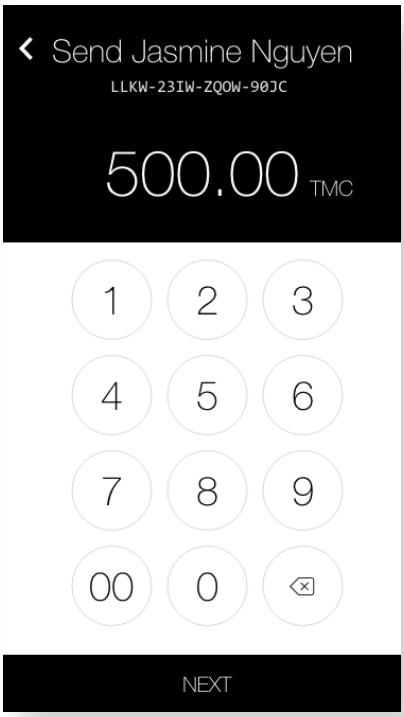
Home screen



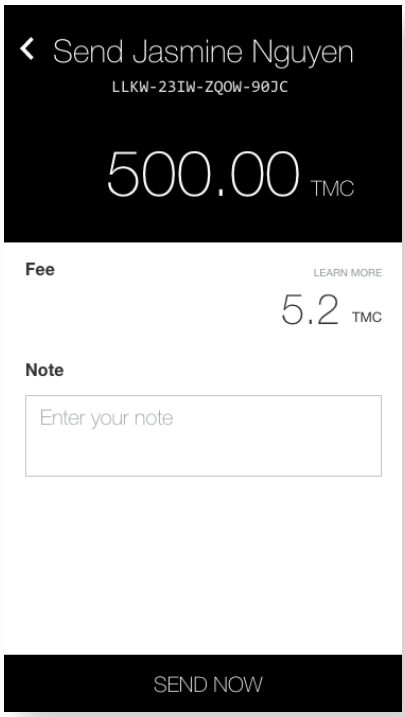
Account details



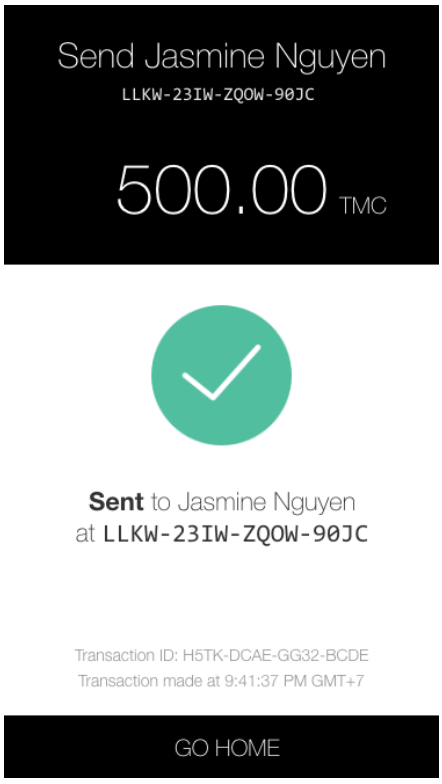
Step 1: Choose a contact or enter new address



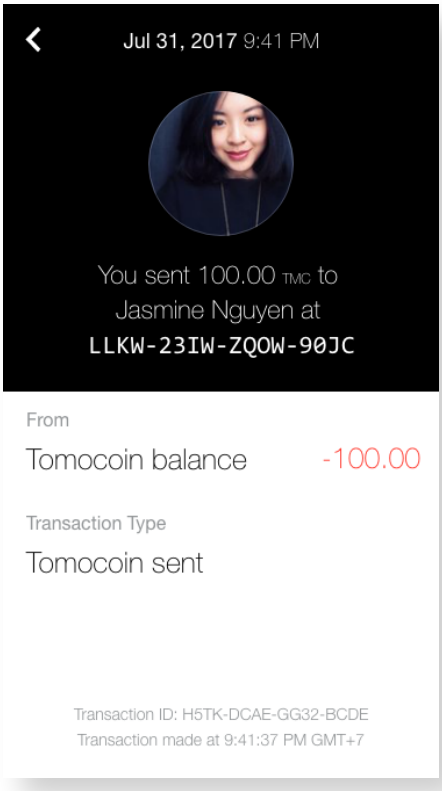
Step 2: Enter amount



Step 3: Enter optional note and confirm info



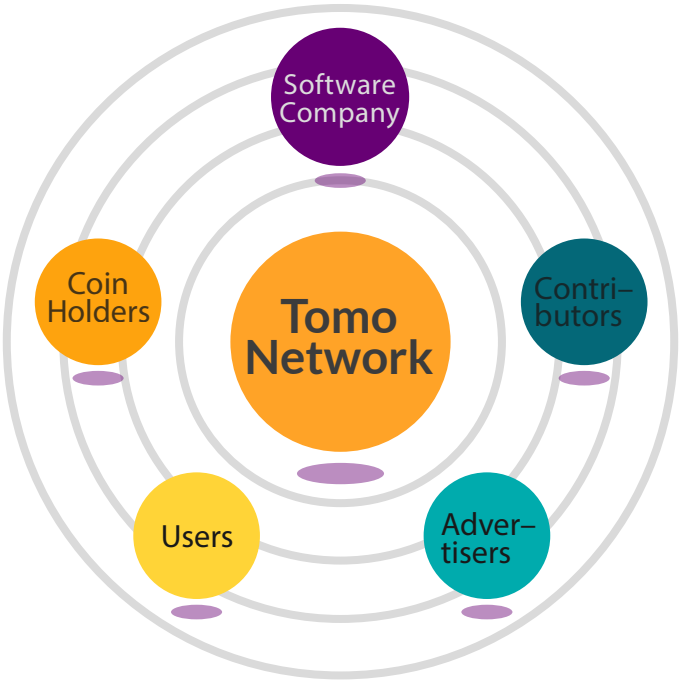
Transaction confirmation



Detailed view of transaction

C | Tomo decentralized knowledge sharing application

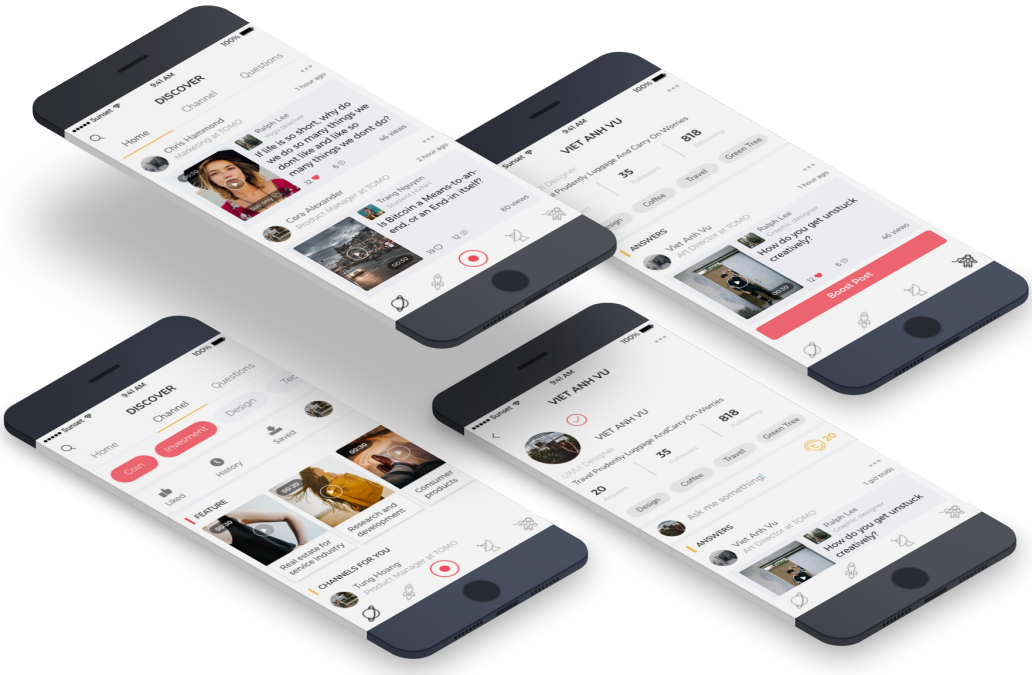
This Tomo application will be the first social consumer application utilizing TomoChain infrastructure. The beta version is now available at *TomoApp.com* with **thousands of weekly active users** and is available for download on the Apple App Store and Google Play Store. The app is characterized by decentralized governance by multiple stakeholders in the Tomo application. The app was able to solve the problem of building a contributor's network by designing an incentive system that empowers and entices users to contribute and work together to build a new knowledge sharing network. The rationale is written in more detail by Long Vuong in "The missing roles in social network".



A big part of the coin emission from the Tomo reward engine will go into the Tomo application and be distributed to users via the Reward Engine's Proof of Contribution.

The roadmap for product development is as follows:

- Set a price in TomoCoin for your answer to your fans; Set a price for people to watching your content
- Boost a video you produce using TomoCoin
- Create a channel and charge a fee in TomoCoin to access your channel
- Give virtual gifts of TomoCoin to live streamers
- Reward engine integration with TomoCoin
- Access a digital avatar and masks marketplace driven by TomoCoin
- Access a private messaging system for secure communication



3. TECHNICAL DISCUSSION

This section discusses some current technical issues behind TomoChain, TomoWallet and Tomo application and how they connect with the Ethereum blockchain.

Ethereum platform limitations and the off-chain solution

Currently, the average confirmation time on the Ethereum blockchain is 17 seconds. The number of transactions in the Ethereum blockchain is increasing day by day, from 38,730 to 102,103 in the first quarter of 2017 – a rise of 163% – and it will continue its steady increase, with new applications and users joining the Ethereum ecosystem by the minute. The Ethereum blockchain can process around 8.5 transactions per second, equivalent to 740,000 transactions per day. There are some significant changes to the Ethereum protocol planned in its roadmap, such as a transition from proof-of-work distributed consensus to proof-of-stake consensus, which will potentially raise the bandwidth further.

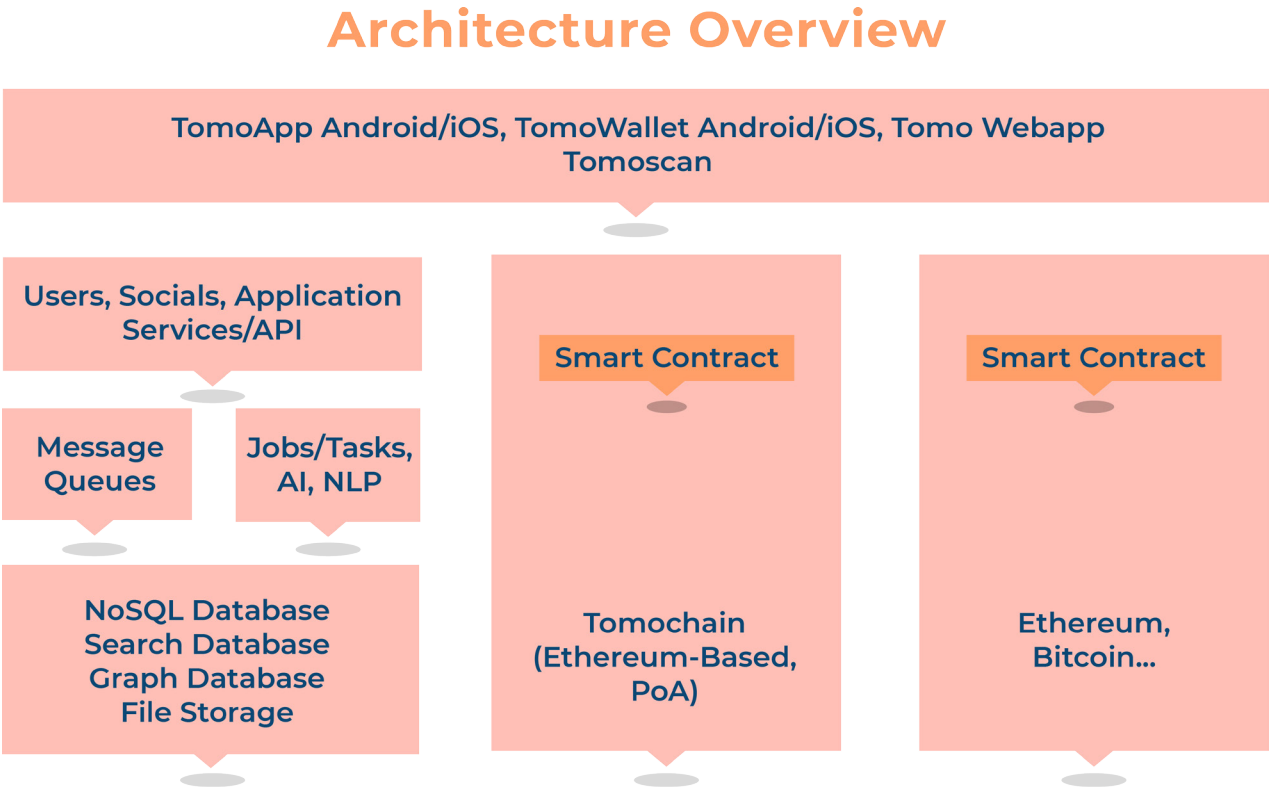
With a conservative estimate of 50 million active users after the first three years of operation, the Tomo application's goal is to become a first-class, mainstream application using cryptocurrency. This requires, **firstly**, instantaneous financial transactions within the app; **secondly**, minimal or no-cost financial transactions within the app. With that goal in mind, Ethereum mainnet would not be the ideal choice for

directly hosting all of TomoApp financial transactions given that a single app such as the Crypto Kitty app can quickly slow down the whole network after achieving popularity. We are designing our TomoChain solution to better satisfy the given objectives but also maintain the cryptocurrency characteristics of TomoCoin.

TomoChain is a blockchain infrastructure solution to the scalability problems with building TomoApp or other mainstream applications on Ethereum or other blockchain technologies in general. TomoChain is a public permissioned blockchain with integrated smart contract functionalities (currently based on the Ethereum code-base) which allows for nearly **zero fee & instant transaction speed** with public auditability of financial transaction records. TomoChain opts to use Proof of Authority and build nodes in multiple locations to make sure the database in a highly secure, immutable state. APIs for third parties will also be standardized and published in the next phase of development.

Architecture overview

Below is the integrated architecture of TomoApp and TomoWallet utilizing TomoChain infrastructure and connect with Ethereum blockchain.



Tomo App

TomoApp is a social network with a native cryptocurrency. TomoApp uses Microservice architecture to be flexible and extendable. At the storage layer, TomoApp uses several type of databases to satisfy requirements from specific functionalities.

Microservice

There are three main sub-trees in TomoApp: i) User Services: This tree serves functionalities related to users and this tree will work for both TomoApp and

TomoWallet; ii) Social Services: This tree serves social functionalities such as Comment, Like, Feed, Notification; iii) Question Services: This tree serves functionalities such as Question, Answer, Post and Post Ranking. Depending on future upgrades of the application, there will be additional new sub-trees.

Databases, Cache, and Message Queue

TomoApp uses noSQL database which operates Master-Slave model to maintain high-performance. Sharding techniques are used in both database and application layer to ensure a read and write at high speed level. TomoApp uses Cache in multiple layers of the system such as Client-side (Mobile Application, Web Browser), Webserver, Server-side, Database. Besides reading and writing databases, TomoApp deals with natural language processing, ranking algorithm and use Message Queues such as Kafka, RabbitMQ to deal with non-concurrent processing.

Search and Recommendation

Search is a very important part of TomoApp. We pre-process the data and serve data to search databases such as Elasticsearch and Apache Solr. Recommendation services connect users and experts to questions and answers they are interested in. TomoApp uses natural language processing techniques and Graph databases such as Neo4J to deliver suggested content and related topics.

Artificial Intelligence

We will be using AI for a number of functions within the Tomo application such as: i) optimization of personal feed based on public profiles and activities; ii) optimization of suggestions of people to follow and content; iii) spam and fraud detection and iv) image and video recognition. We commit to only using publicly available information in the Tomo application to improve the user experience, while maintaining the privacy of any personal and private communications within the network. We take advantage of available and powerful tools for AI such as Tensor Flow, Scikit-learn, Inception V3 etc.

Blockchain and Smart Contract

The Reward Engine will emit coins to users based on the contribution of users to the network. TomoCoin will also be used as a mean of payment for all services and third-party applications provided. Financial transaction will be hashed and stored in blockchain to ensure the security and transparency of the data and to maintain a high level of trust. TomoApp works with two chains: the first one is the Ethereum blockchain which will be used to issue ERC-20 token and allow users to sell and buy tokens via third party exchanges. The second is a side chain (TomoChain) that will host all financial transaction within TomoApp. Both the sidechain and the Reward engine will interact via our Smart Contracts.

Reward Engine and Contributor Score

TomoApp will reserve a part of the coin supply for the Reward Engine's emission over the year. The process mimics Bitcoin block rewards in that at a fixed interval, the Reward Engine will emit a predetermined amount of coins to Tomo application users based on their relative contributions to the application, hence the process is called Proof of Contribution. A published algorithm will calculate the relative contributions based on the quality of contents in the given period based on factors such as number of Likes, number of Comments weighted by the Contributor Score (C-score) of users performing such actions. New users in TomoApp will have an equal starting C-score and their C-score will increase and accumulate over time based on the relative amount of contributions he/ she gives to the network.

Example: The TomoApp has three users A,B,C and the corresponding C-scores are X,Y,Z. At the current interval, A contributes 1 answer, B contributes 1 answer and C contributes 1 answer to the network. Assuming C's answer is liked by A and B; B's answer is liked by A; A's answer is liked by C. The relative calculated contributions of A,B and C in the current interval are Z, X and X+Y respectively and the payout in coin to A,B and C will be given accordingly. C-scores of A,B,C will also increase by the same amount after the current interval.

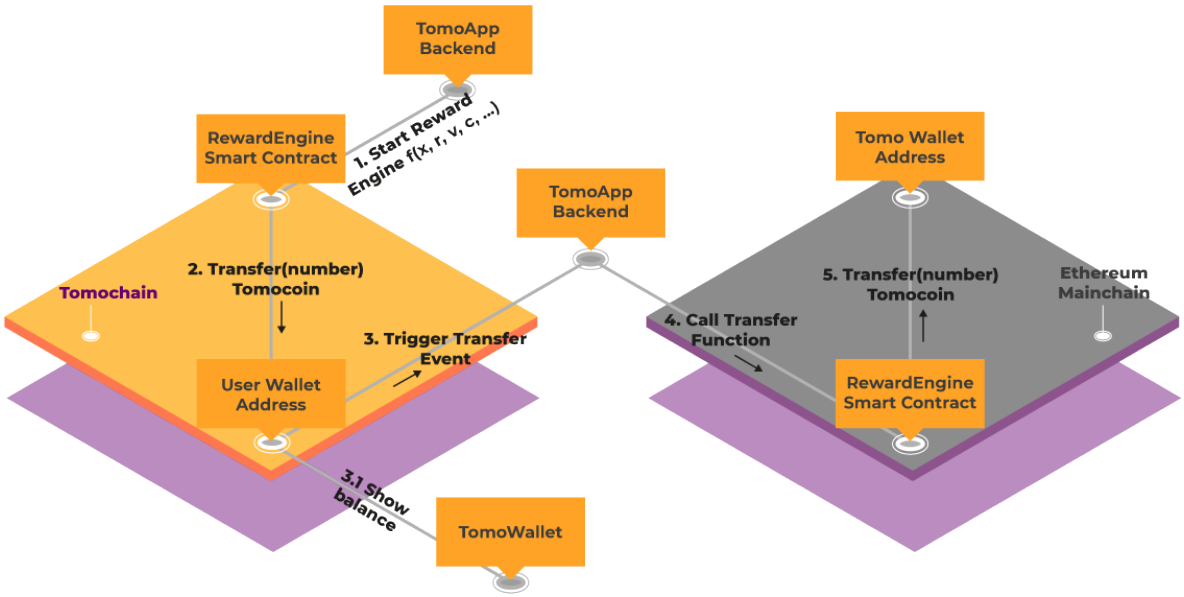
We will publish a separate paper on Reward Engine and C-score implementation for public viewing and commenting before deploying the solution to the mainnet at a later date. AI will later be used to aid in the process to make the Proof of Contribution fair

and cheat-resistant. The updated C-score for contributors in each interval will be input to the payout smart contract to automate the coin reward payout. The process is illustrated via a diagram below.

Step 1: TomoApp Backend calls Reward Engine function in Reward Engine Smart Contract in TomoChain.

Step 2: Based on the calculated results, RewardEngine Smart Contract sends the payouts to users.

Step 3: TomoApp Backend catch Reward Event and send notifications to users and resulting payout will appear in TomoWallet.



Step 4: TomoApp Backend call transfer function RewardEngine Smart Contract in Ethereum.

Step 5: TomoCoin will be transferred to TomoWallet address and users can cash this out.

Users and Authentication

TomoWallet and TomoApp will share an identity database so that users can use the same account to login to applications. There will be published APIs for third parties to use the same service. TomoChain development will create a secure and decentralized identity service for Tomo network.

Public/ Private key and Passphrase

The TomoWallet allows users to control and use multiple addresses. The addresses could be from different blockchains such as TomoChain, Bitcoin, Ethereum. Private key will be encrypted with a passphrase and saved in both client and server. The process of encrypting and de-encrypting will stay only at the client side. Therefore, no one has an access to the private key without the passphrase. If users change devices, users will need to use the passphrase to synchronize the data and access to their

accounts. The security of digital assets from users is very important to us. We are using BIP32 and BIP39 to generate random passphrase and ask users to save the passphrase securely.

TomoWallet Backend

TomoWallet has a separate backend following microservice architecture. This backend collects data from blockchain for analysis and serves features such as Notification, Message, Feed etc. Financial transactions will not go through this backend but will go through TomoChain to maintain security and transparency at the highest level.

SDK and APIs

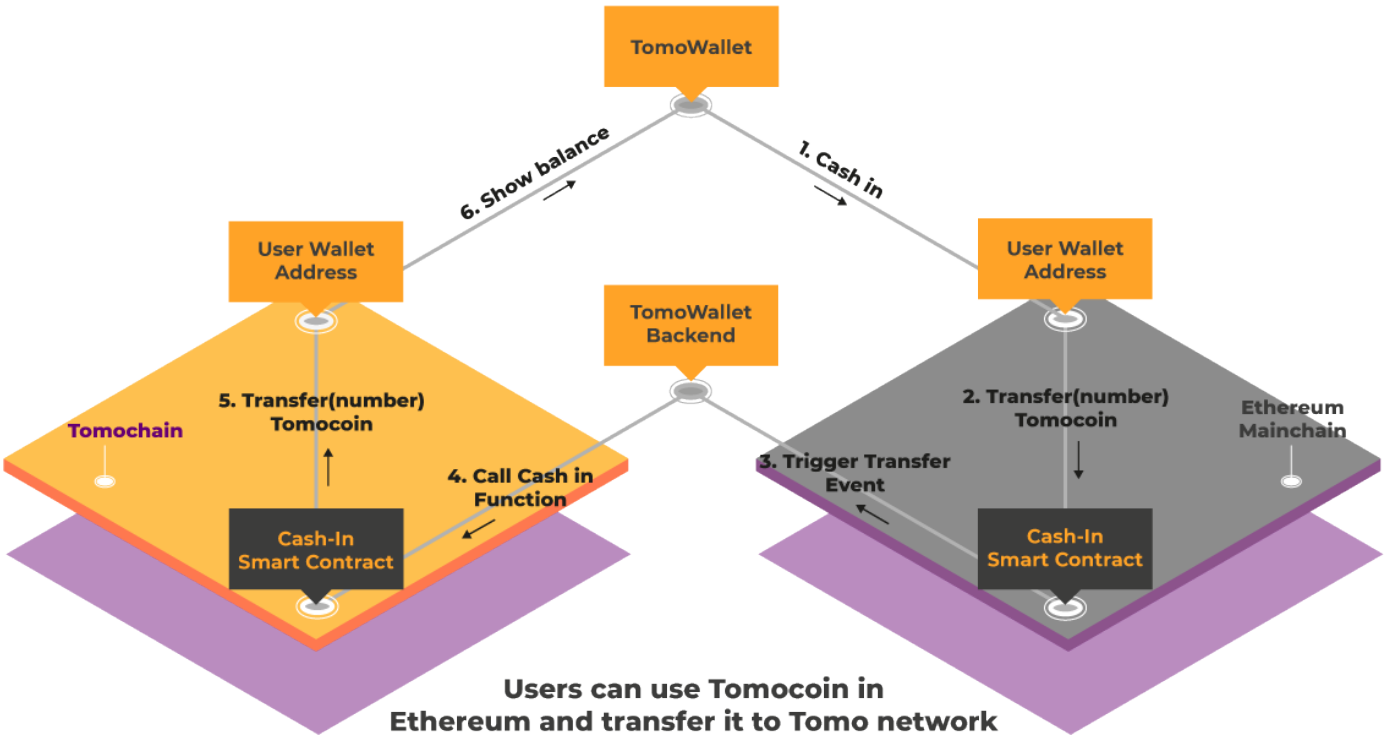
The TomoWallet allows third parties to use its infrastructure and user's graph. Third parties can use the open source SDK provided by Tomo or to use the standard APIs using Restful and Swagger documents. TomoWallet also provides WebHooks at multiple levels to the third parties.

Instant Messaging and QR code

Messaging is an important communication function in TomoWallet. We use client encryption and peer to peer communication protocol allowing messages to pass between users not through TomoWallet's servers. QR codes is the chosen interface for TomoWallet transactions and micropayments.

Cash in and Cash out

Users can use TomoCoin for many services within TomoApp and TomoWallet. Users can use TomoCoin in Ethereum and transfer it to Tomo application. The process is done via smart contract as described below:



Step 1: TomoWallet creates a TomoCoin transfer transaction in Ethereum

Step 2: TomoCoin is deposited in user's wallet using Cash-In Smart Contract in Ethereum

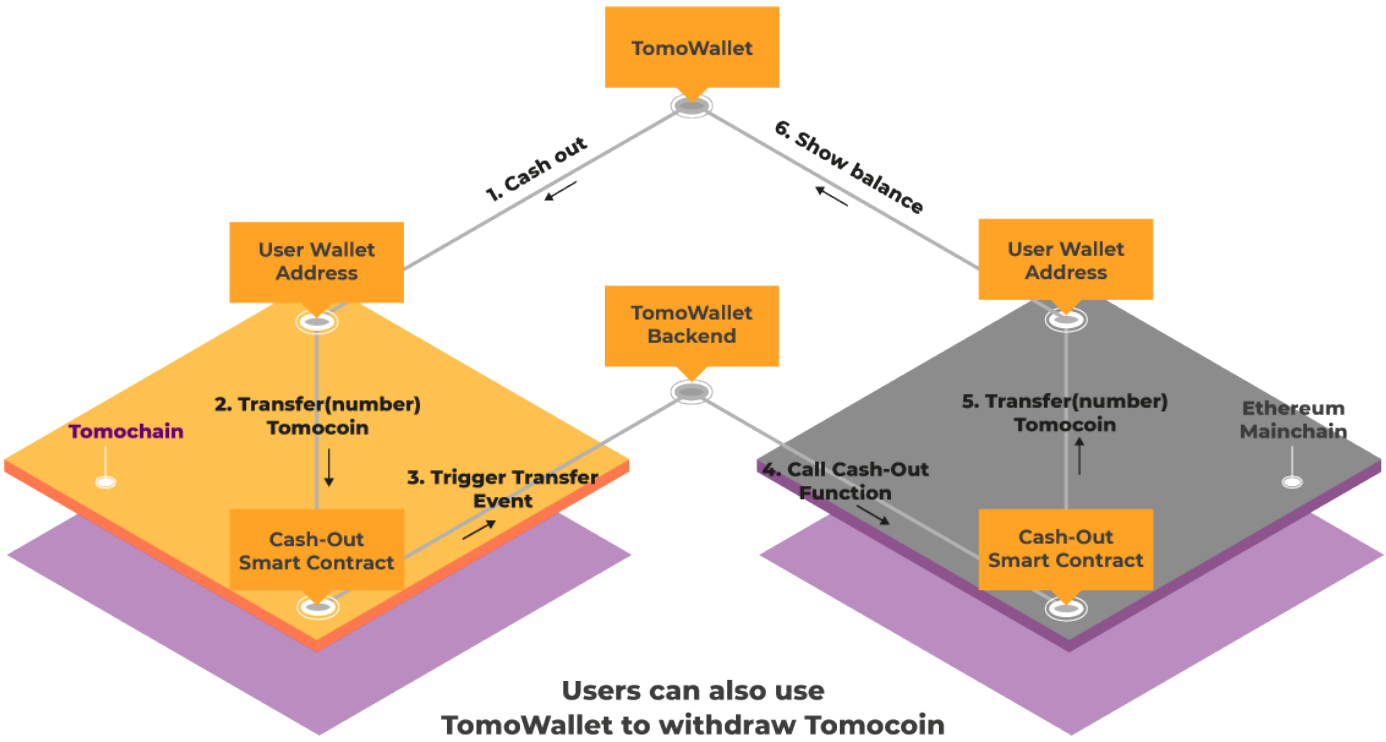
Step 3: TomoWallet BackEnd receives an Event from Ethereum Blockchain

Step 4: TomoWallet Backend calls Cash-In Smart Contract in TomoChain

Step 5: Cash-in Smart Contract transfer TomoCoin to user's wallet in TomoChain

Step 6: TomoCoin appears in TomoWallet and TomoApp

Users can also use TomoWallet to withdraw TomoCoin. This process has six steps as described below:



Step 1: TomoWallet creates a TomoCoin transfer transaction in TomoChain

Step 2: TomoCoin will be transferred from user's wallet to Cash-Out Smart Contract

Step 3: TomoWallet Backend receives an event from TomoChain

Step 4: TomoWallet Backend call Cash-out function in Cash-Out Smart Contract in Ethereum

Step 5: Cash-Out Smart Contract transfers TomoCoin to user's wallet in Ethereum

Step 6: TomoCoin appears in user's Ethereum wallet

TomoChain

TomoWallet and TomoApp use TomoCoin which is issued following ERC-20 standard in the Ethereum blockchain. TomoApp and TomoWallet aim to reach the highest level of performance for Internet consumer applications which requires very low transaction fee and very fast transaction speeds. At the same time, transparency, security and value of TomoCoin are of paramount importance to us. TomoChain is our solution of using a permissioned public blockchain with integrated smart contract functionalities. TomoChain allows for nearly zero fee transaction and and very high transaction speed, at the same time supports public auditability of all financial transaction records. TomoChain will also interact with Ethereum public blockchain via smart contracts allowing for TomoCoin interoperability between Tomo network and Ethereum public blockchain. It is planned that TomoChain will also use TomoCoin as a protocol token to govern and regulate the infrastructure which will create demand for

TomoCoin from other third party utilizing TomoChain. A technical paper on TomoChain, the governance system and its the economics of TomoX will be published when the chain design is completed. The official launch of TomoChain is planned for the third quarter of 2018.

Proof of Authority

In Proof of Authority (PoA), all node validators are chosen based on collaboration between parties. PoA consensus is suitable for an organization who want to build a transparent blockchain supporting external auditability but control who can join the node network (permissioned public blockchain). TomoChain opts to use PoA and build nodes in multiple locations to make sure the database in a highly secure, immutable state. In the future, other organizations wants to utilize this architecture can join to be a partner and and operator of TomoChain.

Kovan is an open-source based on Ethereum codebase and developed by Parity. Kovan is using PoA, however Parity only allows selective partners to join the network. Consequently, Ethereum foundation created Rinkerby Testnet, also using PoA and allowing a wider range of partners to join. Tomo plans to use Ethereum-based, POA consensus to build a customized TomoChain. This is a good choice given the level of maturity in documents, code bases, smart contracts within the Ethereum ecosystem.

4. MARKET ANALYSIS

In the paper "A vision of the Internet of Value", Long Vuong points out there are seven dimensions of a new money technology: transparency / anonymity; efficiency; security / counterfeiting risk; accessibility; decentralization / trust independence; programmability; and acceptability. TomoCoin can become the cryptocurrency of choice for a certain class of end-user if TomoCoin can be the best in its class in a certain dimension, or if TomoCoin can accrue a unique combination of characteristics that appeals to a subset of end-users. Being the native cryptocurrency to the Tomo application, TomoCoin will have unique acceptability characteristics with all the third-party apps within the application accepting the coin. Being the protocol token for the TomoChain infrastructure, TomoCoin will be needed by all the parties utilising TomoChain to build applications or issue and integrate cryptographic tokens into their applications. Research and development is at work on the security and UX of the Tomo wallet; and the efficiency, programmability, and security of TomoChain will further improve the value of TomoCoin in the future. Here, we will analyze and compare TomoCoin with some other cryptocurrencies in the broad crypto-market to illustrate the unique position of TomoCoin.

A | Steem

Steem cryptocurrency and the Steemit web application setup is similar to TomoCoin and the Tomo application in that both platforms' respective crypto-tokens will be used to reward content contributors who produce valuable content for their communities. Steem is the native cryptocurrency of Steemit, like TomoCoin is of the Tomo application. However, there are many other differences. The Tomo application has much better mobile-ready and modern video-sharing features, which makes it highly oriented to mainstream users. The plan is to make the Tomo application one of the best social knowledge-sharing applications. We have a strong local understanding of Asia markets, particularly in Vietnam, India, Indonesia, Korea, and Japan, which will open up the latent demand from mainstream users in the region. Steem's market capitalization is about US$550 million at the time of this writing, based on data from cryptocurrency market tracker Coin Market Cap.

B | Kin

Kin will be the cryptocurrency of the popular messenger Kik. The idea of Kin is to kick-off a digital ecosystem around the messenger app Kik. We share a similar goal in grounding TomoCoin in the Tomo network. So the key difference between the two is the respective markets where Kik operates – primarily in North America – and Tomo application's main target market, Asia. Furthermore, we are focusing on scalable infrastructure TomoChain solution with TomoCoin as the protocol token which is closely integrate with the Ethereum ecosystem, meanwhile recently Kin plan to move

eventually to Stellar coin's ecosystem. Kin cryptocurrency ICO raised close to 150 million $, and beside the ICO, Kik messenger has raised venture capital of more than US$120 million to date.

C | OmiseGo

Is mainly an e-wallet and payment platform that works across currencies and digital assets. It is based on the OmiseGo blockchain and closely integrated with the Ethereum blockchain. A notable strength of OmiseGo is its ability to work with legacy financial institutions and other partners to allow their wallet to be used in physical locations in Southeast Asia. OmiseGo is based in Thailand and will potentially compete with the Tomo wallet in Southeast Asia. OmiseGo concluded its Initial Coin Offering (ICO) recently, and the current market capitalization is around US$1.4 billion.

5. TOMOCOIN CRYPTOCURRENCY

> *"...Tokens are a breakthrough in open network design that enable: 1) the creation of open, decentralized networks that combine the best architectural properties of open and proprietary networks, and 2) new ways to incentivize open network participants, including users, developers, investors, and service providers. By enabling the development of new open networks, tokens could help reverse the centralization of the internet, thereby keeping it accessible, vibrant and fair, and resulting in greater innovation..."*
>
> *Chris Dixon - investor and researcher at A16Z venture - 6/1/2017.*

A | General characteristic

TomoCoin is a cryptocurrency of fixed supply, consequently it is long-term and non-inflationary. Like other cryptocurrencies such as Bitcoin and Ether, units of TomoCoin are fractionally divisible, fungible and transferable to other TomoCoin holder. TomoCoin will be implemented on the public Ethereum blockchain as an ERC20 token. The ERC20 token interface allows for the deployment of a standard token that is compatible with the existing infrastructure of the Ethereum ecosystem, such as development tools, multi-signature wallets, ICO contract scripts and exchanges. The Ethereum blockchain is currently the industry standard for issuing custom digital assets such as cryptocurrencies and smart contracts because of its Turing-complete language allowing for the writing and deployment of complex

trustless smart contracts such as the issuance contracts of Golem or TenX digital tokens etc. These features and active ecosystem make Ethereum the chosen settlement layer for TomoCoin.

B | Coin economics and emission rate

TomoCoin's price will be determined by the force of market supply and demand. On the fundamental level, demand for TomoCoin will be closely related with the popularity and usage of Tomo application and TomoChain infrastructure. Later on, this demand will also increase with the capability of using TomoCoin for transactions in physical locations and the successes of other third party applications in the TomoApp and the d-app ecosystem around TomoChain. On the supply side, TomoCoin has a fixed supply pre-determined on the issuance day, but only a percentage of the total coin will be released initially to the crowdsale participants. The company and advisor's allocation will only be released gradually based on a vesting schedule over several years. The rest of the coins will be released over a 8 years period to the network contributors via the Reward Engine/ Ecosystem Building program and other developer's partnership program.

The planned allocation of coin is as follows: 50% of coins going to the crowdsale participants; 15% of coins going to the company, advisors and bounties, 35% of coins going to the Reward Engine/ Ecosystem Building program and the emission will last 8

years at around 4,5% per year. After 8 years, the initial coin reserve will run out but the Reward Engine/ Ecosystem Building program could continue from the network's revenues such as advertising or fees from other services and applications. The collective of coin holders could give guidance on the options for the network to move forward at this point. The following chart illustrates the TomoCoin yearly inflation rate toward a fixed supply after 10 years.

6. TOKEN SALE AND DISTRIBUTION

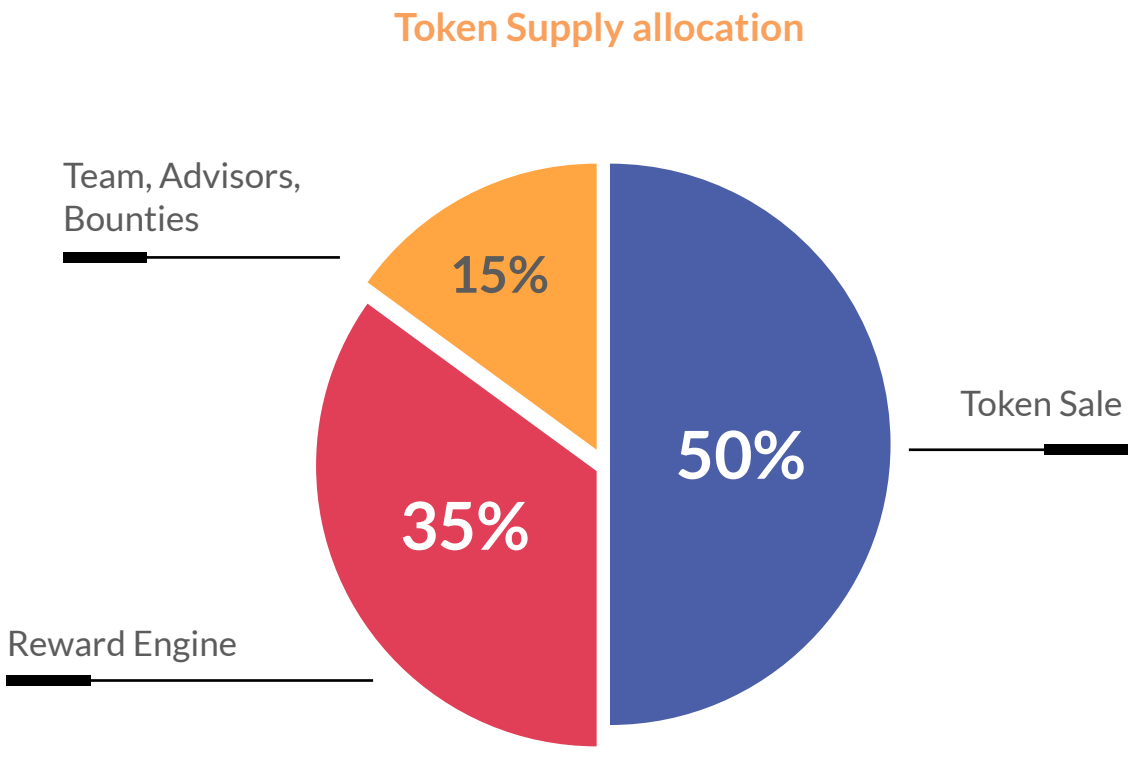
TomoCoin supply is fixed at 100 million tokens. The allocation is as follows: 50 million is going to the token sale event; 35 million is going to Reward Engine/ Ecosystem Building program and will be distributed to users and developers based on relative contributions to the network over an 8 year period; 15 million is going to the software company which allocates thecoin to team members, advisors and bounties over a vesting schedule in a 4 years-period. TomoCoin is important in several dimensions to the Tomo network, firstly, TomoCoin will be used as a source of funding to complete the development of TomoChain, TomoApp and TomoWallet; secondly, TomoCoin being used in the Reward Engine/ Ecosystem Building program as an incentive mechanism to build Tomo network community; thirdly, TomoCoin being used as a long term decentralized governance instrument of Tomo network , that means we will build tools to gather opinions from coin holders to decide the future direction of the Tomo network including TomoChain infrastructure, TomoWallet and Tomo application; fourthly, TomoCoin being used as the native payment method within Tomo application and other third-party services.

We have a long-term commitment to complete the product, engineering and marketing roadmap for the Tomo network including Tomo application, TomoChain and TomoWallet. Consequently, figuring out the resources needed to get the works done effectively, we estimate to spend at least one and half million $ per year over 4 year

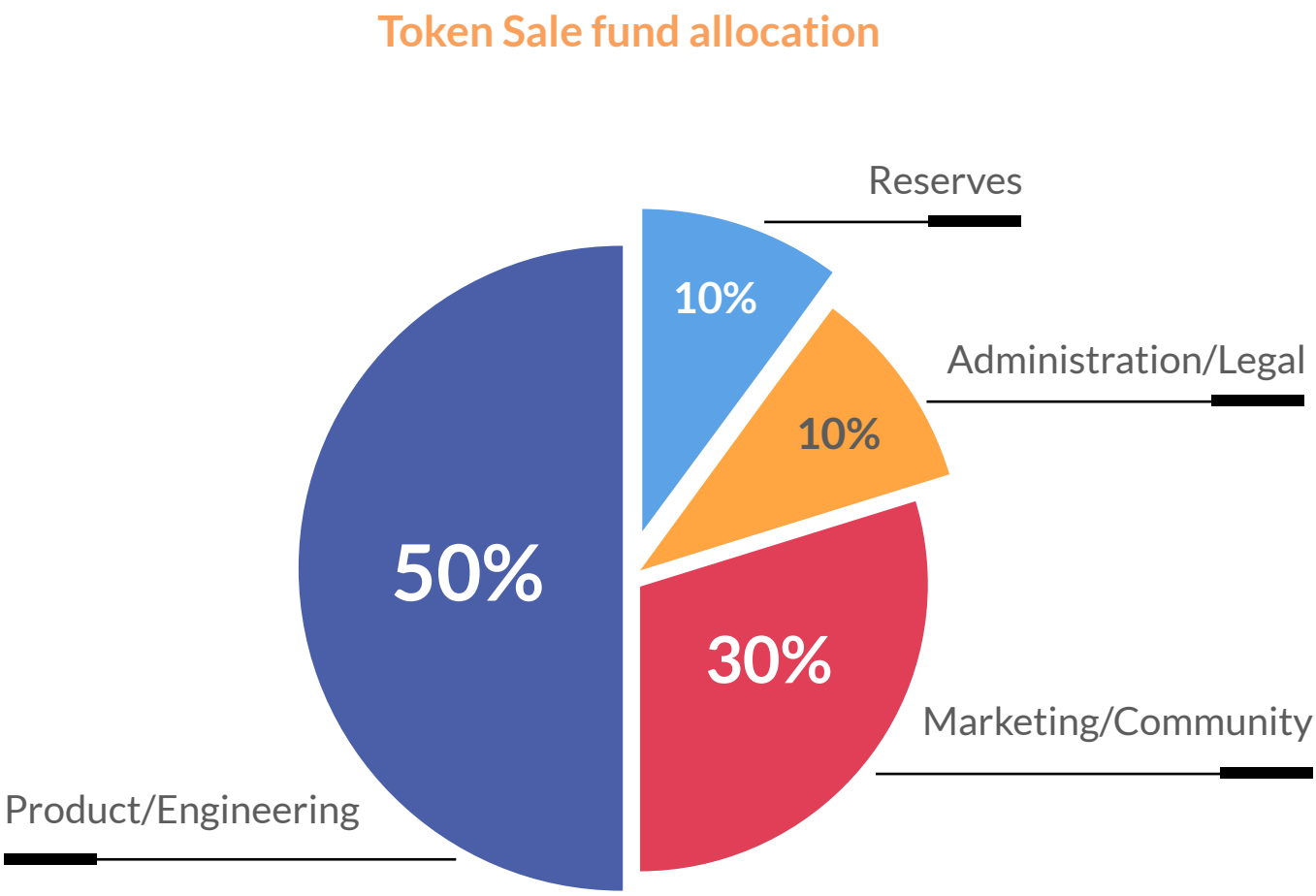
period before the network can start to have other stream of revenues. To be on the safe side, the company ideally needs eight million $ to plan for 4 years ahead. The maximum hard cap is 8.5 million $. The token sale structure is following:

- A maximum of 7.5 million USD worth of token will be sold to qualified private - presale contributors
- A minimum of 1 million USD worth of token will be sold to public contributors in a later date

The actual conversion price to TomoCoin from other cryptocurrency contributions will be calculated based on the market prices of other cryptocurrency at the end of the whitelisting period. The coins not sold out after the public sale will be kept by the company and locked for a one-year period. The coins reserved for the team members will go through a 4-year vesting schedule.



The estimate allocation of the proceeds from the token sale is in the following diagram:



7. LEGAL AND COMPLIANCE

TomoCoin issuance is administered by **TomoChain** Pte. Ltd. Reg No. 201716924E; a Singaporean corporate. We are following the best practice on Token issuance such as whitelisting and KYC/ AML. We are working with reputable third party partners in legal and financial compliance to make the token issuance process safe and efficient for all involved stakeholders.

There are risks in the purchase and use of TomoCoins, which we have outlined in Annexure 1 of the Terms of Sale. Please click here to read the risks.

8. COMPANY AND ADVISORS

TomoChain Pte. Ltd. is a key stakeholder in making the softwares in Tomo network available via its headquarter in Singapore and its engineering, product and operation team of 12 members in Hanoi/ Vietnam. Key members of the project are:

Long Vương "UtopianFuture", Project Leader, Linkedin, CEO of TomoChain and founder of Tomo app, co-founder and the former project lead of very successful NEM blockchain (New Economy Movement). PhD candidate in economics. Linkedin

Son Nguyen

Chief Technology Officer, Director of Engineering of Tomo app. Son is an experienced and accomplished technical leader, founder of the Blockchain Developer group with more than 800 active developers. Master degree in Engineering. Linkedin.

Tung Hoang

Front-end Engineering Manager, Co-founder of Tomo app. Product manager, frontend engineer, open-source contributor. Tung is a versatile engineer who get almost everything done in the fastest time possible. Linkedin.

Minh Chu

Blockchain and Product Leader, Chief Cloud Architect of VCCloud - one of the biggest "AWS like" local cloud service in South East Asia. Minh has a deep technology research

expertise and is a security expert. Linkedin .

Chance Du

Advisor, General partner at Coefficient Venture, Investors in Protocol Lab and Atrium LTS, Mentor in Alchemist Accelerator. LinkedIn.

Androklis Polymenis

also known as “kLee”: Advisor, Co-founder of CryptXO Investment/Trading group, a cryptocurrency veteran involved with Bitcoin and cryptocurrency since 2011. A well-known angel investor and philanthropist in his home country Greece and in Europe. LinkedIn.

Shekhar Bhusannavar

Advisor, General manager at Meed Fintech and Biz development director at Timo bank, Shekhar is originally from India and have more than 30 years of experiences in biz development, partnership, marketing and financial technology. LinkedIn.

Chelsea Lam

Advisor, LinkedIn, Co-founder of Munchee application, an ex-Googler and worked at Vmware on sales and partnership. Blockchain and Marketing enthusiast. LinkedIn.

Ho Le

Advisor, more than 10 years of experiences in Finance, Investment and Management

at the highest level. Director of Investment Banking at HCM securities. LinkedIn.

Min Kim

Advisor, Founder of Blocultural Studios and Head of BD at The Bee Token. Previously Chief of Staff of Civic, previously worked with Tim Draper on PR and marketing on blockchain initiatives. LinkedIn.

Roger Lim

Advisor, Director of the Qlink Foundation. Advisor for Bluzelle, SelfKey, The Key, Coinfi, Fortuna Capital, Jet8. An experienced blockchain investor, and a successful entrepreneur who founded and grew WebVision, a cloud hosting company. LinkedIn.

Antoine C. Najjarin

Advisor, Head of strategy and operations at Devery.io, a product verification platform. A lawyer with experience working with the Australian state government, and also studied under the tutelage of renowned smart contracts security expert in the resolution of the DAO hack, Bok Khoo. LinkedIn.

Hoang Nguyen

Advisor, VP of engineering at WeTrust.io, a decentralized platform for financial products. Currently leading the engineering team at WeTrust advised by renowned blockchain scientists such as Prof. Emin Gun Sirer, Head of engineering at BitGo, Benedict Chan and Ethereum founder, Vitalik Buterin. LinkedIn.

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