TONGTONG COIN

White Paper

Tongtongcoin

A Specialized cryptocurrency for Payment and Remittance

Tongtongcoin is a decentralized Blockchain-based cryptocurrency devised to dramatically reduce transaction fees for existing payment systems such as credit cards and cash, bank charges for online remittance services, and to facilitate the processes of payment gateway and remittance.

Blockchain Technology is one of the technology, which brings the biggest potential and creativity on current world. As to be famous by <Value Network>, blockchain is a kind of distributed and consigned network realizing P2P value exchange. Tongtongchain is confident that blockchain is a kind of technology to innovate relationship of production currently, users connect in person by tongtongchain based social agreement, can trust each other, and construct an ecosystem centralized by value to collaborate.

Tongtongchain wil be constructed to be a statible and safe blockchain network by modularized design, which can use smart contract and digital property. We can construct the Sandbox to monitor transferring value and running contract as above in tongtongchain. By Sandbox, we can make sure stability of contract and transferring value safely.

And support Dapp to use for many kinds of business such as small amount payment method, mileage/point replacement, P2P remittance, individual credit info management, file management and etc, and also support protocol for interactive value exchange. And we'll make tongtongchain folk matching with all purposes and extend tongtongchain ecosystem by connection of folked blockchain networks as above.

Tongtongchain is used for smart contract publishing, value exchange of Dapp and network by a kind of coin which called tongtongcoin(TTCOIN).

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- Tongtongcoin not an offer or a solicitation to buy or sell any securities or other financialinstruments. Tokens are not intended for speculation and afford the holder no rights in, or claims to, any of the assets of Tongtongcoin or in any way a share in any profits that Tongtongcoin may achieve.

- Please know that we plan to work hard in seeking to achieve the vision laid out in this paper, but that you cannot rely on any of it coming true. Blockchain, cryptocurrencies and other aspects of our technology and these markets are in their infancy and will be subject to many challenges, competition, regulation and a changing environment. We will try to update our community as things grow and change, but undertake no obligation to do so.

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(b) the Republic of Singapore,
(c) the Hong Kong Special Administrative Region of the People's Republic of China;
(d) the People's Republic of China, and
(e) any other jurisdiction designated by Tongtongcoin from time to time, are prohibited from purchasing Tongtongcoin. Tongtongcoin reserves the right to refuse sale of Tongtongcoin to anyone who is, in the absolute discretion, ineligible to apply to purchase Tongtongcoin.

Tongtongcoin takes the safety of your contributions very seriously.
To prevent any type of money laundering associated with any international criminal organization, we require everyone to go through the identification procedure (KYC) and white list their crypto wallet addresses.

Contents

1. Tongtongchain

Blockchain Technology is developed after Bitcoin development 2008, there're many developers taking part in blockchain developement. As a distributed platform, there's blockchain Etherum, Bitcoin, Lightcoin and etc, they focus on digital currency development. On fast blockchain techonology develpment, there're many technical missions to solve in future.

1. Users' digital property can be lost by security risk of smart contract and attack from hacking.
2. It's hard to connect and collaborate with different kinds of App and blockchain platform.
3. It's hard to connect blckchain and true world, that there's limit to make true world by blockchain such as products authorization tracking.
4. It's more expensive comprared with centralizal technology for appling to true world of technical entry barriers.

Tongtongcoin is a platform with a user-friendly interface for anonymous dispersed management of assets. In tongtongchain, security, safety and extention are first. Tongtongchain introduces latest planning such as virtual machine, smart sandbox, protocol of exchaning value and folk mechanism and etc, construct blockchain network to make users convenient and cheap. Our goal is getting speed of the highest 20,000 TPS by optimization of block interval, block volume, consensus algorithm and etc. Users can interact with TongtongCoin, TongtongMoney, and TongtongMiles, not only via Tontong Wallet but also through stable API interface also.

The Tongtongcoin platform includes the following features:

(1) Use RDPoS consensus algorithm to improve block response and safety, security of network.
(2) Provides a TongTong wallet service that can safely store personal encryption assets.
(3) Support interface for Dapp to apply to all kinds of true environment.
(4) It aims to overcome the limits of transmission and processing speed of the existing blockchain network and realize real-time transmission of cryptocurrency.
(5) This will lower the transaction fee, allowing Tongtongcoin to replace the on/offline payment method.
(6) TongtongMiles benefits users/small business to take advantage of points/mileage sharing ecosystem.
(7) TongtongMoney has sme worth as KRW and it aims is to keep the Tongtongcoin price stable.
(8) Utilizing the real-time transfer function of the Tongtongcoin, it provides the offline payment function connected with the existing POS and automatically links it to the mileage/points.

1.1 Feature of tongtongchain

1.1.1 Stability

Safety of network is essential feature of blockchain platforms.When consider dispersibility and endless expandability of blockchain platforms, potential uncertainty is being exposed. Tongtongchain is based byLVM(Lua Virtual Machine) from a single modular design. For smart contract, as designed LVM, with advantage of fast processing speed and low defectability, operate with independent stucture.

1.1.2 Safety

Though PoW(Proof of Work) is used for security of Bitcoin network,many kinds of strategies are input to miners and stope increasing, and it became a kind of centralized 'Central Server' which is unwanted.Theoritically,it can controll most of Bitcoin transactions if ocuppies 51% of computing power, it needs enormous expenses of high electricy consumption.

Compared with PoW Consensus Algorithm, PoS(Proof of Stake) purposes security of higher standard and wider application. PoS Algorithm brings security of higher standard than PoW when there're sufficient holders.
Tongtongchain Team uses Consensus Algorithm of RDPoS(Result Delegated Proof of Stake), increase response speed compared with DPoS, stability and security of network can be improved.

Addtionally, tongtongchain uses smart Sandbox Mechanism, all of smart contract will be verified and tested to make sure of safety of smart contract before setting on tongtongchain network.

1.1.3 Expandability

For solving noninterchangable problem of block on blockchain, upgrading and folking become effective methods of network development.When folk happens, main chain and many subbranch chains will be created. Compose to make sure to exchange value among chains and share info among subbranch chains, make sure to use on many kinds of applications.

1.1.4 Convenience of Use

Use visual ways such as data customizing, folking of chain, revelation and upgrade of smart contract, transaction monitoring and etc, can develop blockchain applications easilty.Support all kinds of programing language such as Lua, C++, Javaand etc, that developers can join easily.

1.2   Composition of tongtongchain

1.2.1   Smart Contract

Only allow to access data in block network for general smart contract. However, it's possible for interaction between blockchain network and out-network. Though there's complex feature of data structure and business regulation for real business application, Use API interface and data structure prepared before properly, realize abstract idea and general requirement in blockchain network.And, use LVM and approach an approximate value from rule of real life to make possible with suitable compile and action on demand of blockchain.

1.2.2   Consensus Algorithm

Blockchain network does not run without consent.Currently, possible to use extensively as consensus solution there're PoW, PoS, PBFT and DPoS. Tongtongchain chooses DpoS and improved it to be a new mechanism, which called RDPoS (Resulted-Delegated Proof of Stake).

RDPoS inherits all advantages from DPoS. Not only no need to consume overlapping power for getting new block, action result of contract status can be verified by agent node and all nodes by network status. It's impossible to deduct consent of community without insentive, it's also been called token in blockchain world commonly.

Tongtongchain is a kind of public blockchain with own coin which called tongtongcoin.tongtongcoin holders have right to fill and post smart contract, access network service, vote proxy, take part in community event such as creating profit as a proxy.In tongtongcoin community, candidates will be voted by all tongtongcoin holders, the candidate who received the most amount 99 will be upgraded to agent, and get right to confirm transactions by turns.No one can modify verifying turns.

Theoritically, RDPoS can improve performance of network transactions than DPoS. Especially when action for a while or use storage much, not only agent node, but also all nodes take part in verification. RDPoS can reduce complexity of the whole network. And by optimizing consensus mechanism, agent group members can be changed always. It's important to maintain when network is status dispersed.

1.2.3   Accounts

Accounts are designated specially for safe transactions in blockchain network. Accounts can be used by public key, private key and SHA-256 Hash algorithm.

1.2.4   Protocol of value exchange

Though there's limit for single blockchain to support all kinds of applications,it's possible to apply in many kinds of environment for connected blockchain network.For exchanging value among connected blockchains, it needs new consensus algorism. For these value exchange

among blockchains, support service to make quarry and access possible with each other with definition by rules of connection and communication.For value exchange among cross chains,support interface for smart contract and token exchange among chains.

1.2.5   Fee

The standard transaction fee of doing transaction of any asset (Tongtongcoin, Tongtongmoney, or TongtongMiles) is 0.5% of transaction amount and minimum fee is kept constant at 0.1 of respective asset transaction.

1.3   Real-time Instant Remittance

The existing cryptocurrency exchange requires time for verifying transactions. In case of Bitcoin, it takes 10 to 30 minutes for transmission, and the Ethereum takes 10 to 30 seconds for transfer.
Tongtongcoin is constructed in the form of a hybrid blockchain linked to a TongTong Wallet, which converts each virtual currency into Tongtongcoin in real time and allows you to transfer the Tongtongcoin immediately**.**
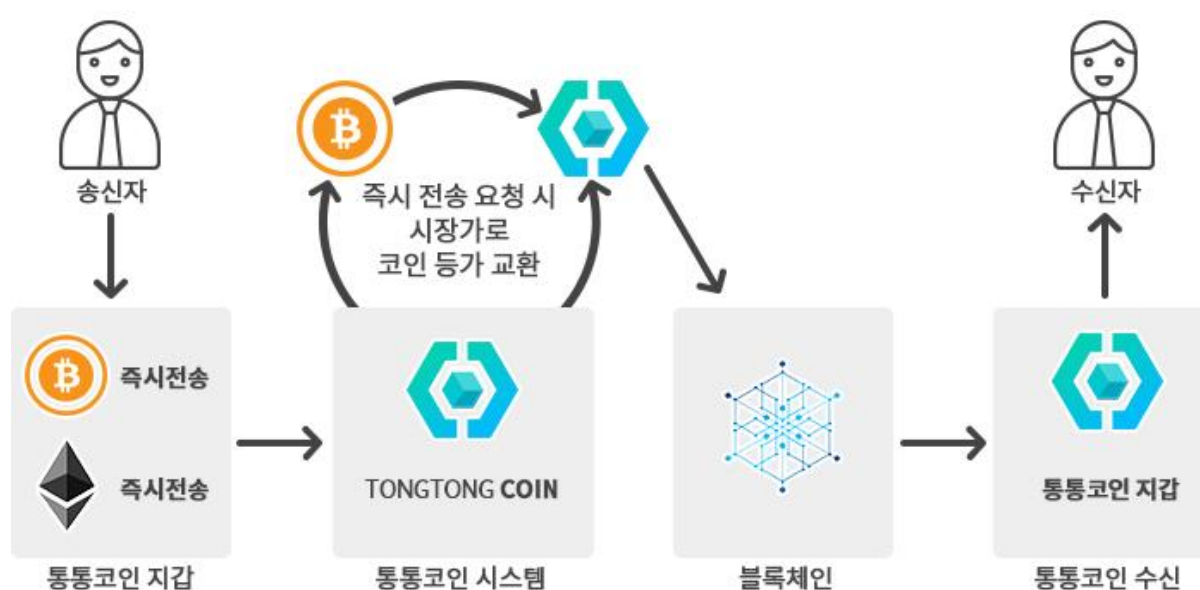
[Figure 1] Real-time transmission of Tongtongcoin

If the sender wishes to transmit other cryptocurrencies such as the Bitcoin, and Ethereum, the Tongtongcoin system will converse the coin into Tongtongcoin according to the current market price and transmit the Tongtongcoin. In case of receiving, you can receive a Tongtongcoin and convert it into another coin if necessary.

1.4   Substituting Online Payment Methods

If a user purchases goods or services in an online environment, 2 to 5% of the value of the merchandise will be imposed as a commission, including the credit card issuer's commission and the

PG company. In terms of stores, as the payment cycle of PG company takes about 1~2 weeks, there is a problem of delay in payback.

If you substitute the online payment system with a Tongtongcoin, you can lower the price of goods and services by reducing the commission and enabling a faster transmission compared to the existing payment methods, and the stores can speed up the collection of funds.
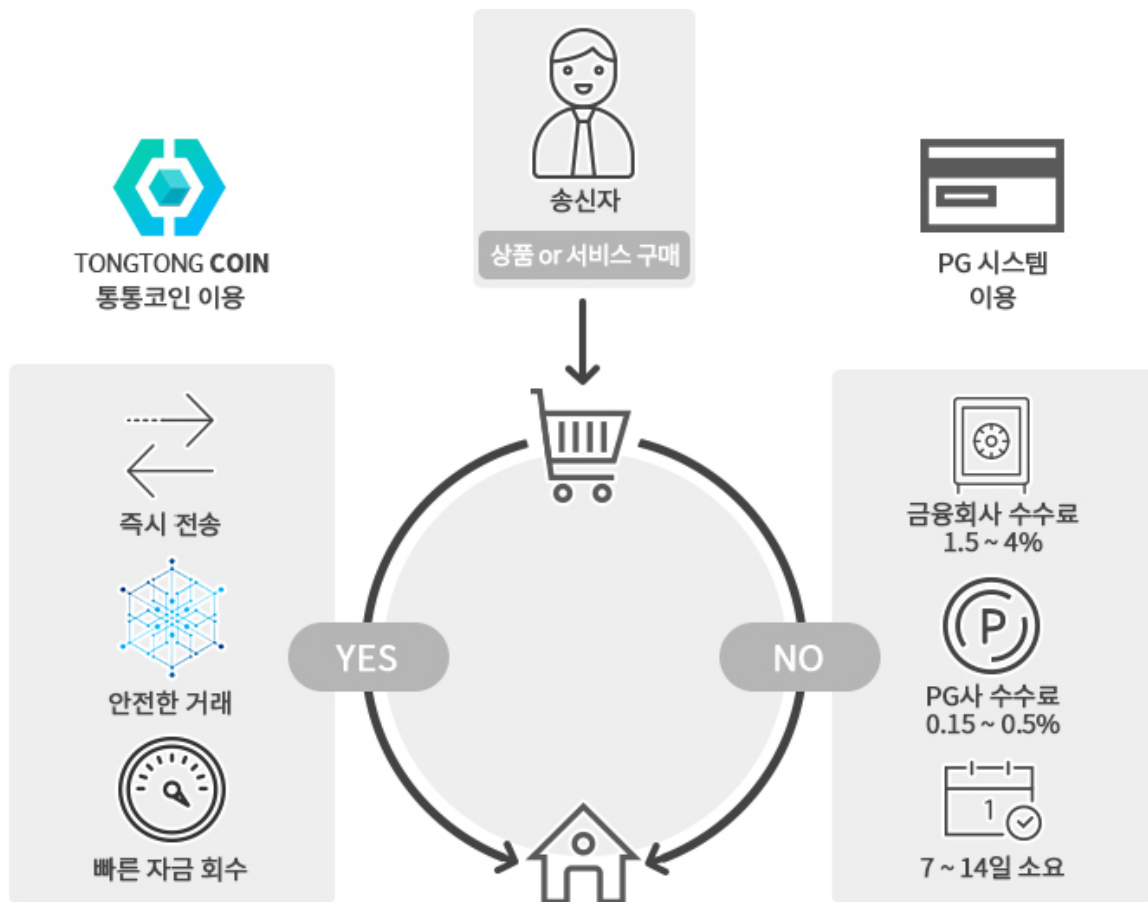
[Figure 2] Tongtongcoin in substitution for online payment services

Tongtongcoin's real-time payment service is similar to the existing PG system, and the Tongtongcoin is sent from the user's wallet to the online store's wallet in real time according to the Tongtongcoin's market price at the time of payment. The store can immediately check the payment history, and check the price and remaining amount of coins according to the market price of the Tongtongcoin.

1.4.1   Transaction Fee

In order for the blockchain to be well-connected with real-world payments, it is essential to guarantee no commission or at least to keep the reasonably low commission.

Tongtongcoin platform will use RDPoS Consensus Mechanism, the transaction fee will reduce. Tongtongcoin uses a platform database which can lower the transaction fees to 1/10 compared to that of the existing payment gateway and remittances systems.

1.5 Replacement of online payment method

We can use tongtongchain to develop Dapp, which can be applied to real life.Not only Dapp, folk tongtongchain to construct own private blockchain, make it and tongtongchain possible to exchange value that support a platform to extend tongtongchain distribution ecosystem.

1.5.1 Case of Dapp

(1) Regional Coin

Develop tokens by Dapp which can be distributed only in a local government, we can distribute it in a region. Regional Coin brings functions to activate local business, there're benefits for small business owners, owners in traditional markets and all consumers, it's possible to operate transparently.

Regional Coin is possbile for not only stores with credit card payment terminal or POS, but also available for smartphones owned by individuals, compose payment system like this to pay easily without additional fee. And reduce fee for franchising of credit card payment system, and lower burden of small local business owners. Regional Coin runs beneficial program with additional tongtongcoin to users, to introduce virtuous circle of regional economy by expand profit of small business owners.

(2) Replacement of online gift card

We can use tongtongchain Dapp to replace online gift cards.The online gift card before can be used without real name, the distribution and using process are opaque. If use tongtongchain's Dapp instead of online gift cards, we can make management invisible from publishing to using,users not only can use them by franchizing, but also can make distribution sure by cryptocurrency exchange, make sure of invisibility and stability from purchase to using of transactions.

1.6   Smartcontract of Tongtong Chain

A blockchain is a decentralised linked data structure that is characterised by its inherent resistance to data modification, but it is deficient in search queries primarily due to its inferior data formatting. A distributed database is also a decentralised data structure which features quick query processing and well-designed data formatting but suffers from data reliability.
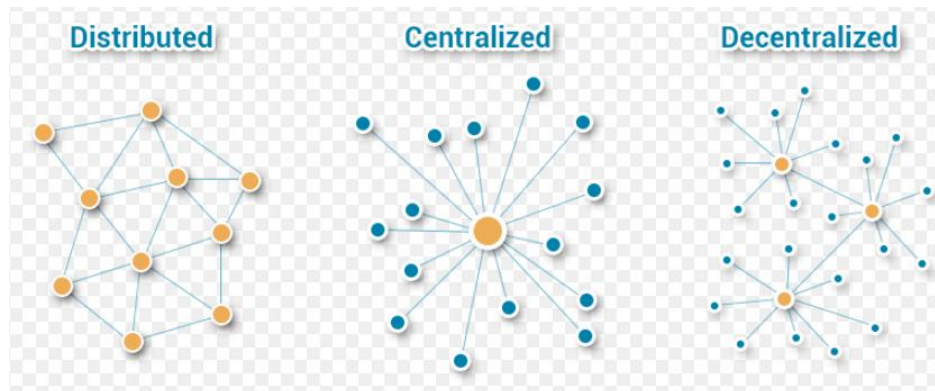
The data structure involves data being recorded in blocks. As each new block or transaction is recorded, it is added to the previous one to form a chain of data records or a blockchain. As a result, a blockchain contains every transaction recorded since the ledger was started.

The technology relies on a consensus algorithm that requires a majority of the nodes on the network to validate any new transactions. This makes any unauthorized modifications or any attempts to tamper with the data extremely difficult.

A blockchain as a database can contain any information, however, blockchains are not really good at storing vast amounts of data due to network limitations and cost, etc.

TTCHAIN as Database for Applications:

Using TTCHAIN as database can be utilized by dividing input data in two categories,

1) public data and

2) private data.

Public data is the one which can be viewed by public and has no secure/sensitive information. On the other hand, private data is sensitive and must be secured.

Currently all blockchains has limitations, because initially blockchain were designed as currency platform but later it is being modified to use as different platform too.

To make optimize use of blockchain as database, we can store public data on traditional database and private data on blockchain and then link blockchain DB with traditional DB.

1) Public data stored on Traditional DB

2) Private data stored on blockchain

Public Data Stored on Traditional DB

Traditional Database (SQL,noSQL, mongoDB, etc)

Application

User

Private Data Stored on Blockchain

Blockchain Database
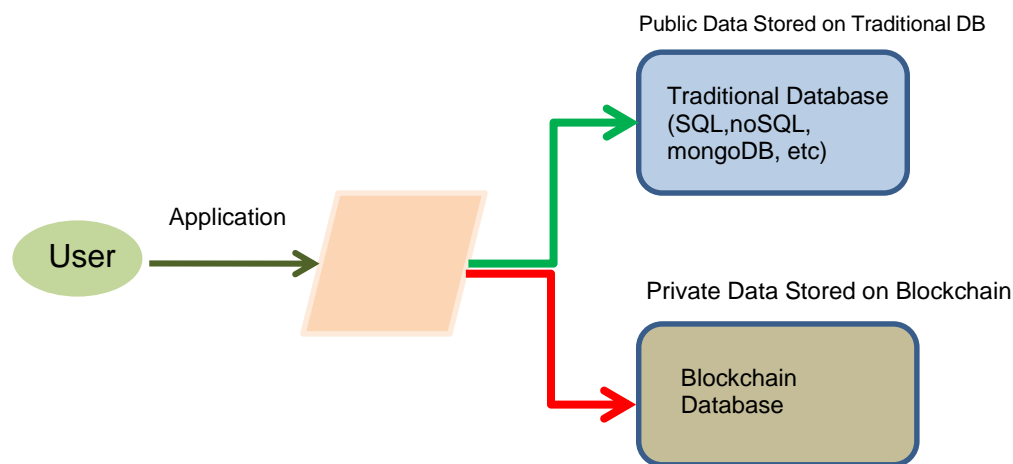
Main reason of saving public data on traditional DB is

1) Blockchain is peer-to-peer and every node needs to be synchronized in order for the platform to be stable. If we will save a lot of data on the blockchain, it will take longer to synchronize

2) TTCHAIN has limitation on returning data from the function call of smart contract. In one call only 2MB of data can be fetched, so if the data is 100MB, we need to do 50 calls and each call takes around 2s, so total 100s needed to get complete data.

3) Traditional DB has better query logic.

4) Traditional DB is easy to scale. In Blockchain, if we want to do any modification, we need to upgrade all the nodes and every user should get the latest version of the blockchain.

5) If we will have public data on the traditional DB, we can easily access and display for user and private data of each user or application will be stored in the blockchain.

Use-Case:

Let's take an example of real-estate case.

Suppose user-A is the owner of one property, we can create this property details as public data and ownership as private data.
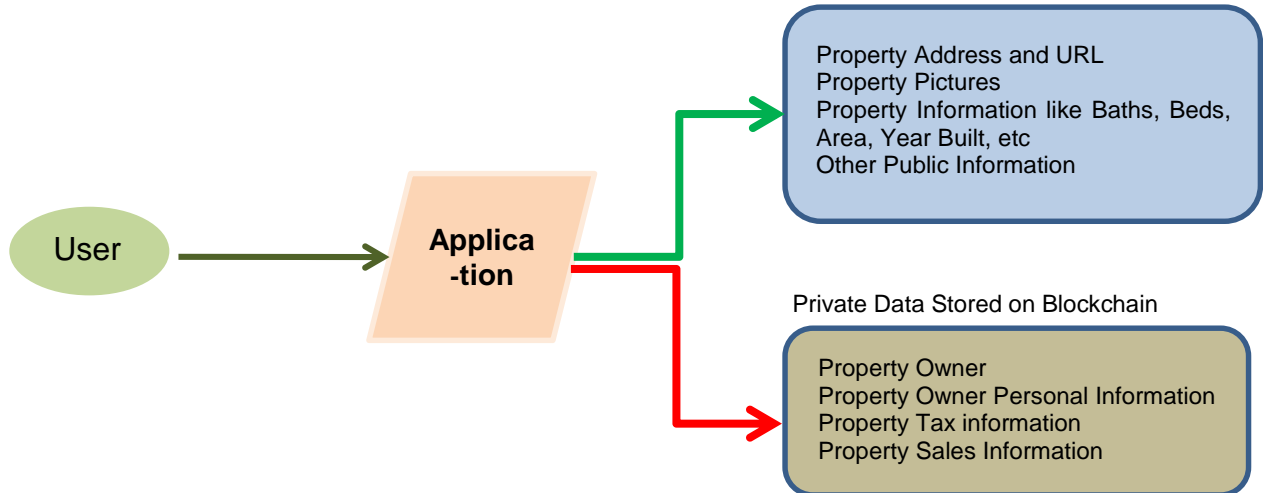
In the above picture, we can see that the public information is stored in the traditional Database, whereas private information is securely saved on the blockchain. The reason of doing this is

1) It takes around 2-3 seconds to get the one call's data

2) Current Blockchain has limitation of 2MB of data on each call. So If there is 100MB of data to be fetched, we need to make 50 calls and for if each call will take 2seconds, it will take 100seconds to get the complete data.

3) Whenever we do any change in the blockchain, all the users need to install new changes and only then they can use, scalability is an issue.

By taking above example, we can design a model for each application like tongtongmessenger, tongtongticket, chiptong, chatong. For each application, we need to categorize public and private data and then save them in either DB or blockchain.

2. Introduction to TongtongCoin,TongtongMoney, and TongtongMiles

Existing on/offline payment methods consist of 1.5 ~ 4.5% merchant fee and 0.15 ~ 0.3% payment agency fee. In addition, there is a remittance fee of 15 ~ 20 USD per every transaction, which varies depending on whether it is an inward or outward remittance.
Due to these fees, a certain amount of cost is charged for each transaction and all profits are attributed to the financial institution. Tongtongcoin can minimize these transaction fees and return the generated profits to users.

Decentralization of assets can also revolutionize the storage and exchange of assets. Markets with decentralized assets have no borders, allowing users around the world to interact with each other freely. Decentralization improves robustness against random errors as well as against the attacks and attempts of collusion by individual participants. Decentralization allows users to fully control their own funds without having to trust third parties. As a result, the storage and exchange of assets are much safer, simpler and more effective. The Tongtongcoin platform enables secure and rapid asset exchange through decentralized P2P asset transaction.

The major goal of Tongtongcoin is to bring together the traditional financial world and Cryptoeconomics through blockchain technology to profoundly lower the commission rates generated in the process of transactions and to establish an ecosystem in which users can exchange assets safely and quickly through decentralized P2P asset transactions.

2.1 Market Analysis

2.1.1 On/Offline Payments

The domestic payment market is dominated by three major players, with a market share of about 80%. In the payment gateway service market, PG exploits approximately 10% of credit card fees as a commission through affiliation with credit card companies.
In addition, the commission rate takes about 2 ~ 5% of commodity prices, which means that the financial companies are defrauding the benefits of the users. Therefore, a solution to benefit both the store and the consumers utilizing the blockchain technology is much needed now. It is important to provide safe and convenient services so that each transaction can be assured of stability and immediacy.

2.1.2 Encryption Asset Storage

The number of encryption asset holders is rapidly increasing. According to a study by Cambridge University in the first quarter of 2017, there were 5.8 million to 1150 million active wallets and 5.8 million to 290 million active users. There still exists more growth potential. There are more than 3.5 billion Internet users and more than 1.2 billion mobile banking service users worldwide. This figure can increase up to 2 billion in early 2020. However, Cryptoeconomics requires more solutions aimed at the mass market to become popular.

2.1.3 Exchange of Encryption Assets

The number of encryption asset exchange is growing much faster than the number of cryptocurrency users. Globally, the number of purchases of encryption assets using currencies has increased several fold, while the volume of cryptocurrency exchange transactions has increased from 100-200 million USD per day on the start of 2017 to 4-70 billion USD per day. According to coinmarketcap.com in October, the capital of encryption assets has increased by more than 10 times since the beginning of 2017, exceeding 150 billion USD.

On the other hand, the encryption asset market is only a small part of the global financial system and is less noticeable than the stock market with total capital exceeding 60 trillion USD or the foreign exchange market with daily trading volume exceeding 5 trillion USD. This is because there is a significant drawback to the present way of exchanging encryption assets and further growth will be limited until a solution is found.

The existing system of exchanging encryption assets involves high transaction fees and inconveniences when using a centralized exchange system. In case of an interpersonal transaction, you cannot verify the integrity of a transaction due to the insecure transaction system and can be exposed to fraud at a high frequency, resulting in the loss of encrypted assets or cash.

2.1.4   Mileage and Points

The existing mileage or point systems are limited in their use and cannot be exchanged with each other. (Even if the points are exchangeable, it requires high conversion fee) In this environment, the users need an integrated service to use the mileage or points in various places. In addition, the accumulated points/mileage corresponds to the liability reserve, so the accumulated mileage will be regarded as accounting liabilities for each store. Therefore, it is necessary to create a system to provide a variety of services to users and allow the stores to resolve the accounting liabilities by immediately converting the mileage into coins.

2.2   TongTong Wallet

The TongTong Wallet operates based on TongTong, the messenger platform of the Tomato Group. TongTong is a highly secure, P2P-based messenger with a user-friendly messenger interface. You can conveniently send and receive Tongtongcoin, TongtongMoney, and TongtongMiles as you would converse with a friend, and use it as a payment method.

In addition, the basic idea in building Tongtongcoin that the interpersonal conversation should only be open to the participants is in consistent with the basic concept of cryptocurrency. Therefore, TongTong can be used as a basic application of the Tongtongcoin wallet to ensure the anonymity of the cryptocurrency transaction, and guarantee stability.

2.2.1 TongTong (P2P messenger platform)

TongTong, an internal messenger platform of the Tomato group, is a P2P-based messenger platform that does not store messages on the server.

The TongTong messenger platform is a P2P (peer-to-peer network) platform that simply relays user conversations without storing them on the server. TongTong messenger uses the method of direct communication between devices, and all user conversation is encrypted/decrypted with

user's private key, so it is impossible to intercept communication section and check contents of talk on the server.

(1) Functions of TongTong

TongTong is a user-friendly messenger platform. You can easily join with a phone number. It allows both 1:1 conversation and group conversation.

- Sign up

You can easily sign up and log in with your mobile phone number. You need to recertify to use it in another device with the same phone number and the data on the old device will be deleted.
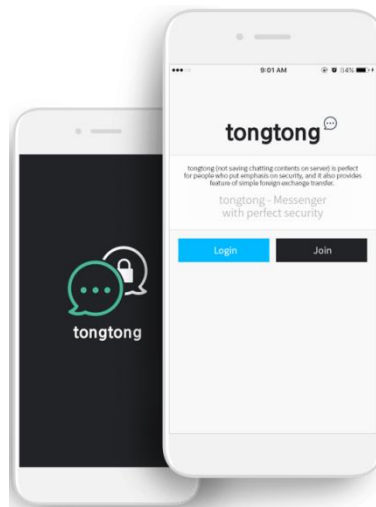
[Figure 3] Joining TongTong

- Conversation

If you want to have a conversation between users, you can select a friend from the friend list to chat. TongTong provides both 1:1 conversation and group conversation. It also has a function to show whether or not you are connected to TongTong on the user profile.
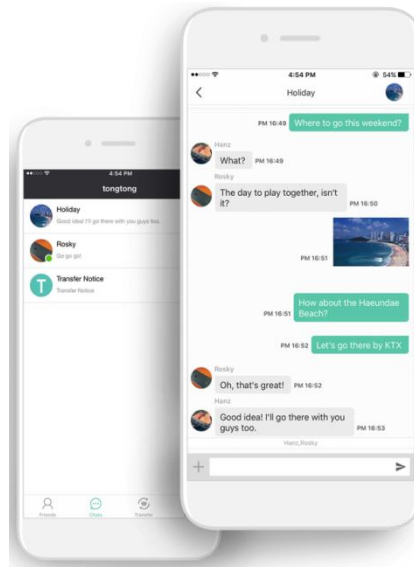
[Figure 4] TongTong Conversation

(2) Main characteristics of TongTong

- Security

TongTong is a P2P messenger perfect for security. The server simply relays the conversations, and the communication between all users is made in an inter-device P2P method.

* Encryption/Decryption Algorithm

: The private key is securely encrypted and stored in the TongTong application.
: All conversations are transmitted and received encrypted with AES256, and it is safe from interception at the communication section because all conversation is encrypted/decrypted in the final terminal.
: In any circumstances, conversations between users are not stored on the server.

- Simplicity

: You can easily join it simply using your mobile phone number.
: Any information, other than the mobile phone number, is required to the users.
: It has a common messenger interface so that it can be easily used.

- Extendability

: TongTong, as a messenger platform, can be extended to various fields.
: In addition to a TongTong Wallet, it is designed as an open architecture that enables connection with small overseas remittances, shopping malls, and payment system, etc.

2.2.2 Features of a TongTong Wallet

TONGTONG **COIN**

The TongTong Wallet operates based on TongTong. With TongTong's simple sign-up process and safe interpersonal conversation, it is possible to create a platform that can be used in everyday life, including cryptocurrency exchange between the users, commodity purchase, and mileage/points exchange, etc.

The TongTong Wallet is intended for users who have already joined the TongTong and will generate a private key at the point of the user's convenience. This private key is encrypted and stored securely on the user's device, and no information is known on the Tongtongcoin platform. However, in order to use it smoothly for remittance and payment of cryptocurrency, non-identified information and coin quantity could be utilized to enable fast transfer.

All services can be provided through the TongTong Wallet, including the on/offline payment of TongtongCoin, TongtongMoney, and TongtongMiles, P2P transmission, and mileage utilization.
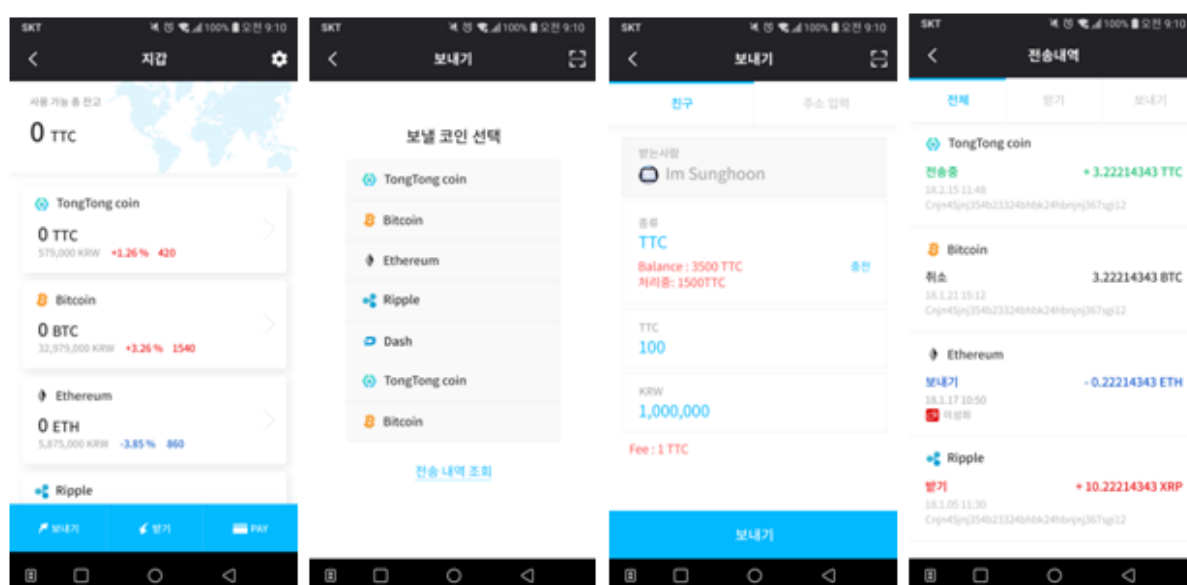
[Figure 5] Example of a TongTong Wallet

(1) Key features of a TongTong Wallet

- Security

A TongTong Wallet creates a user's private key, which is stored on the local device and is not sent to an external server. Users have complete control and protection of their assets.

- Anonymity

A TongTong Wallet does not require you to identify yourself or verify your information. This eliminates the risk of user discrimination and personal data leakage.

- Convenience

The TongTong Wallet is based on its messenger service, TongTong. It is a messenger-based service that is familiar to the user and can be used to send and receive a Tongtongcoin, TongtongMoney, and TongtongMiles by selecting a friend list. It can also be used for shopping mall payment and mileage/points conversion through affiliated partners.

- Diversity

The TongTong Wallet can hold various coins safely such as Bitcoin, Ethereum, Dash, Lightcoin, and QTUM as well as Tongtongcoin, TongtongMoney, and TongtongMiles. We will continue to develop more coins in the future to be stored in the wallet. We also plan to fix the problem of double and triple payment of commissions for coin conversion by adding the coin conversion function in the wallet.

2.2.3 Functions of a TongTong Wallet

All functions in using Tongtongcoins,TongtongMoney, and TongtongMiles are implemented through TongTong Wallets.
The TongTong Wallet is an application based on the TongTong, Tomato group's internal messenger platform, and it is essential for everyday life as it allows conversation with friends, interpersonal remittances, purchase of goods and services, and mileage/points conversion.

(1) Create Account / Create Wallet

TongTong, Tomato group's internal messenger platform, is a P2P based messenger platform that generates an ID based on a user's phone number and does not store the contents of conversations on the server.

Creating a TongTong account is the basic step for using a TongTong Wallet. All accounts are created in conjunction with the user's phone number. To create a TongTong wallet, a private key is encrypted and stored in a secure area within a TongTong program and is not managed within a TongTong messenger server or a Tongtongcoin system.

When a TongTong account is created, a TongTong Wallet is created at the user's option. A private key is generated by inputting the designated word. The entry word of the private key must be kept secure by the user, and the wallet cannot be recovered if lost.

[Figure 6] Joining the TongTong Wallet
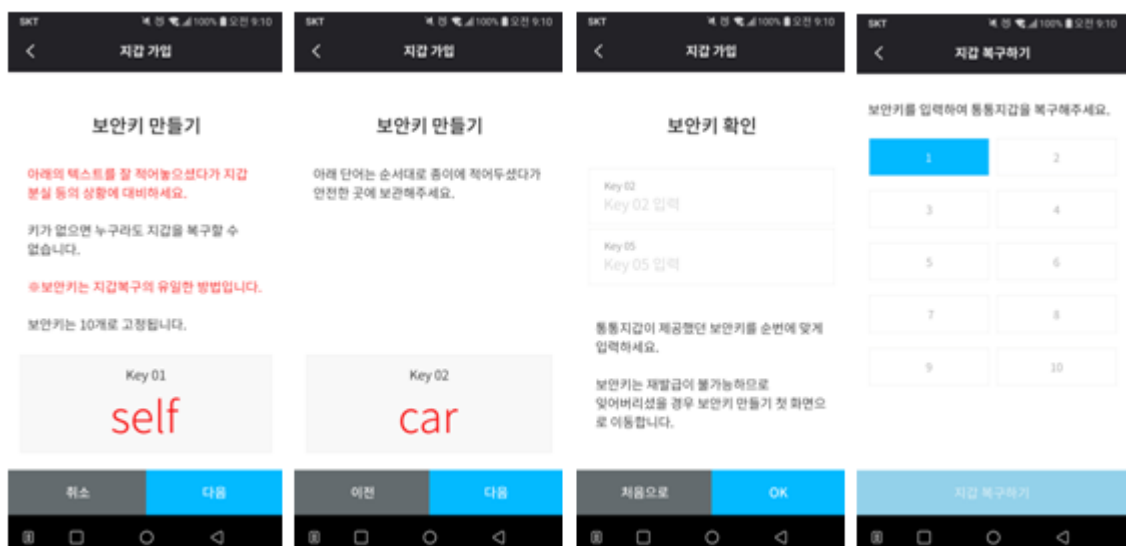
[Figure 7] Example of generating a TongTong Wallet security key

(2)   Real-time transmission and purchase of goods

You can choose friends from the TongTong messenger, and easily transfer Tongtongcoins, TongtongMoney, and TongtongMiles and other cryptocurrencies.

It is easy to use it because it has a user-friendly interface integrated with the messenger (TongTong).
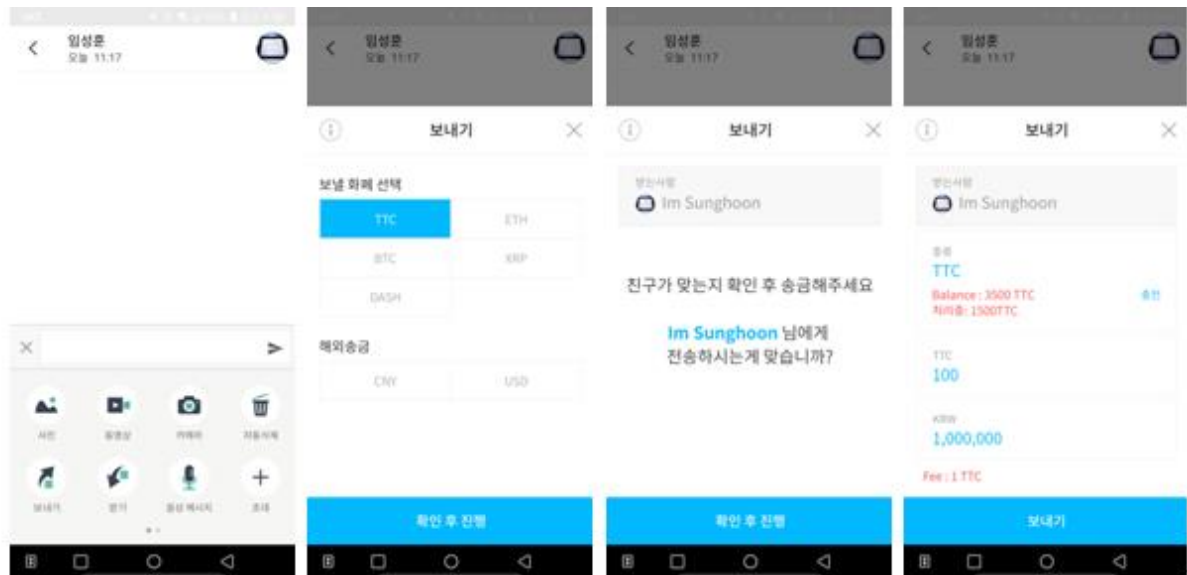
[Figure 8] Example of real-time transmission

It provides a function to purchase items with Tongtongcoins and TongtongMiles at the shopping malls that have been installed in the TongTong messenger. You can purchase goods or services with Tongtongcoins and TongtongMiles and other payment methods. You can easily register and sell products in the TongTong messenger using the store API, and you can view the details of the settlement on the manager's page. Providing an API type interface enables it to be extended to other services in the future.
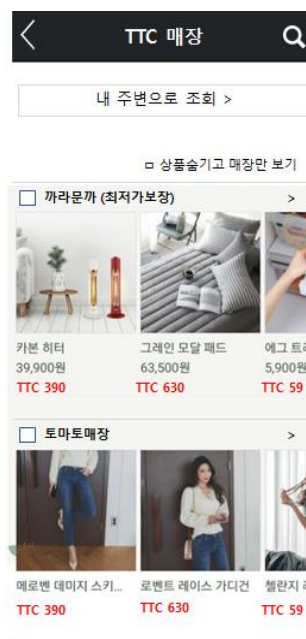
[Figure 9] Example of real-time payment

(3) Mileage/Points Conversion

It provides a user interface that allows you to systematically manage your mileage/points of affiliated companies by converting them into Tongtongcoins. It is a platform that can create a

win-win situation both for users and affiliates by overcoming the limit of existing mileage/points system.

[Figure 10] Example of Mileage/Points Conversion

(4)   Secure Interpersonal Exchange of Cryptocurrency

It provides a user interface to send a Tongtongcoin securely between individuals. With the existing method of cryptocurrency exchange, you may be exposed to fraud and suffer economic damage even if the transaction is based on mutual trust. In order to prevent such damage, TongTong provides safe transaction service for secure transactions.

2.3   Production and Consumption Platform for Online Contents

Tongtongcoin can be a medium for producing and consuming online content between the producers and consumers of online contents.

The existing online content platform

- The existing content producers can gain revenue by posting advertise on their blogs,
- gain social reputation by posting content on the online platform,
- receive cash points from the consumers, in case of platforms like Afreeca TV, but the commission rate for currency exchange is up to 40%.
-

In such an environment, the Tongtongcoin enables the establishment of an ecosystem through the utilization of blockchain smart contract technology. It makes it possible to overcome the limits of the existing websites of online content and create profit from the production of content itself, not from the simple advertising revenue, by transparently providing the profits of the producers of the online content, and distributing the profits to the online websites where producers can operate.

2.3.1   Profit Sharing between Content Producer and Online Platform

Tongtongcoin establishes a scoring system by integrating reputation, views, and comments of the content and pays Tongtongcoin to the content producer based on this scoring system. By

transparent algorithm, some of the online content companies advertising revenue are paid to the content producers.

2.3.2 Profit Sharing by Content Consumer's Direct Payment

By using Tongtongcoin, content consumers can pay Tongtongcoin to the producers directly. In this case, the profit sharing between online content platform company and the content producer is 30:70.

2.3.3 Providing Online Content Platform Company API

We provide service by Web API form to make online content platform company uses Tongtongcoin.

By providing all the API of evaluation, compensation, payment, and settlement of the c ontents, online content platform companies can easily introduce Tongtongcoin and service it.

2.3.4 First Application Plan

By using Tomato Group's affiliated firm NewsTomato's "News social media platform" NewsCafe and "Personal news curation application" NewsTong, we provide rewards to the content producer. When the content producers post the articles in NewsCafe or NewsTong, Tongtongcoin is paid based on the integrating views, comments, and the reputation of the article.

Putting direct payment function by using Tongtongcoin, content consumers can also pay direct manuscript payment to the content producers, thereby becoming reorganized personal media system.

[Figure 11] NewsCafe/NewsTong Example

2.3.5 Secondary Market Expansion Plan

By using Tongtongcoin API, we will expand Tongtongcoin ecosystem by co-operating with online content platform companies such as DCinside, AfreecaTV, Playtong, Ilbe, etc.

Platform providers can easily apply Tongtongcoin to their companies system by using API, and can also retain high-quality contents by distributing profit transparently. We expect that as Tongtongcoin ecosystem expands, decentralized mass media and the individual-centered content market will vitalize and contribute to the market.

2.4 Usage in Online Games

Money in the online game can be divided into several categories; "Items that can ease the gameplay", "Items that can decorate characters or give fun elements," and "Game money that in making the economic activity in the gameplay" etc. Assets in the gameplay can only be acquired by player's gameplay or purchase by real money. However, when the game is gone by the players not playing the game anymore or game's short life cycle, the assets in the game by players accumulated is worthless.

In this kind of gameplay conditions, we can substitute game money purchase to Tongtongcoin to unified management and use in various usages of these in-game assets.

2.4.1 User Perspective Distinction

Users can purchase in-game assets by using Tongtongcoin or obtain Tongtongcoin in the in-game rewards. Users can trade possessed Tongtongcoin safety, and it can be used in various usages. This will increase the engagement of the game and double the enjoyment of playing the game. Also, the existing game item trade can be exposed to the fraud, but item trade between individuals can be vitalized by using safe P2P trade platform.

2.4.2 Game company Perspective Distinction

Game companies have to pay high marketing costs in addition to game development costs. It is a structure that game distributor takes more profits than the game company. Tongtongcoin will establish the system that rewards the users instantly without any marketing broker needed by bringing game companies marketing costs to the Tongtongcoin ecosystem. This can benefit both users and the game company.

Rewards in the gameplay increase the game's fun elements and user's engagement. When we bring this kind of reward system into the Tongtongcoin ecosystem, we can establish integrated reward system inside the Tongtongcoin ecosystem. Also, this system reduces high fee of the PG; therefore both game company and the users can benefit.

2.4.3 Online Game Ecosystem Expansion Plan

Firstly, we are going to cooperate with online janggi, online go companies and adopt Tongtongcoin payment system to real-time pro's match. And then expand to additional item purchase.

Secondly, we are going to establish reward system using Tongtongcoin API and expand the ecosystem of the casual games which simply have an advertisement-dependent business model.

Thirdly, we are going to cooperate with a large game company and change game money to Tongtongcoin. Thereby establishing the ecosystem that can benefit both users and game companies.

2.5 P2P Marketplace Platform

Tongtongcoin P2P marketplace platform is decentralized interpersonal cryptocurrency t   rading platform and work based on Tongtongcoin wallet.

By using Tongtongcoin P2P marketplace platform, Tongtongcoin wallet user can safely t ransfer Tongtongcoin to other users.

We introduced smart-contract based safe trade to ensure safe Tongtongcoin transfer, t   hereby ensure integrity and safeness of the trade.
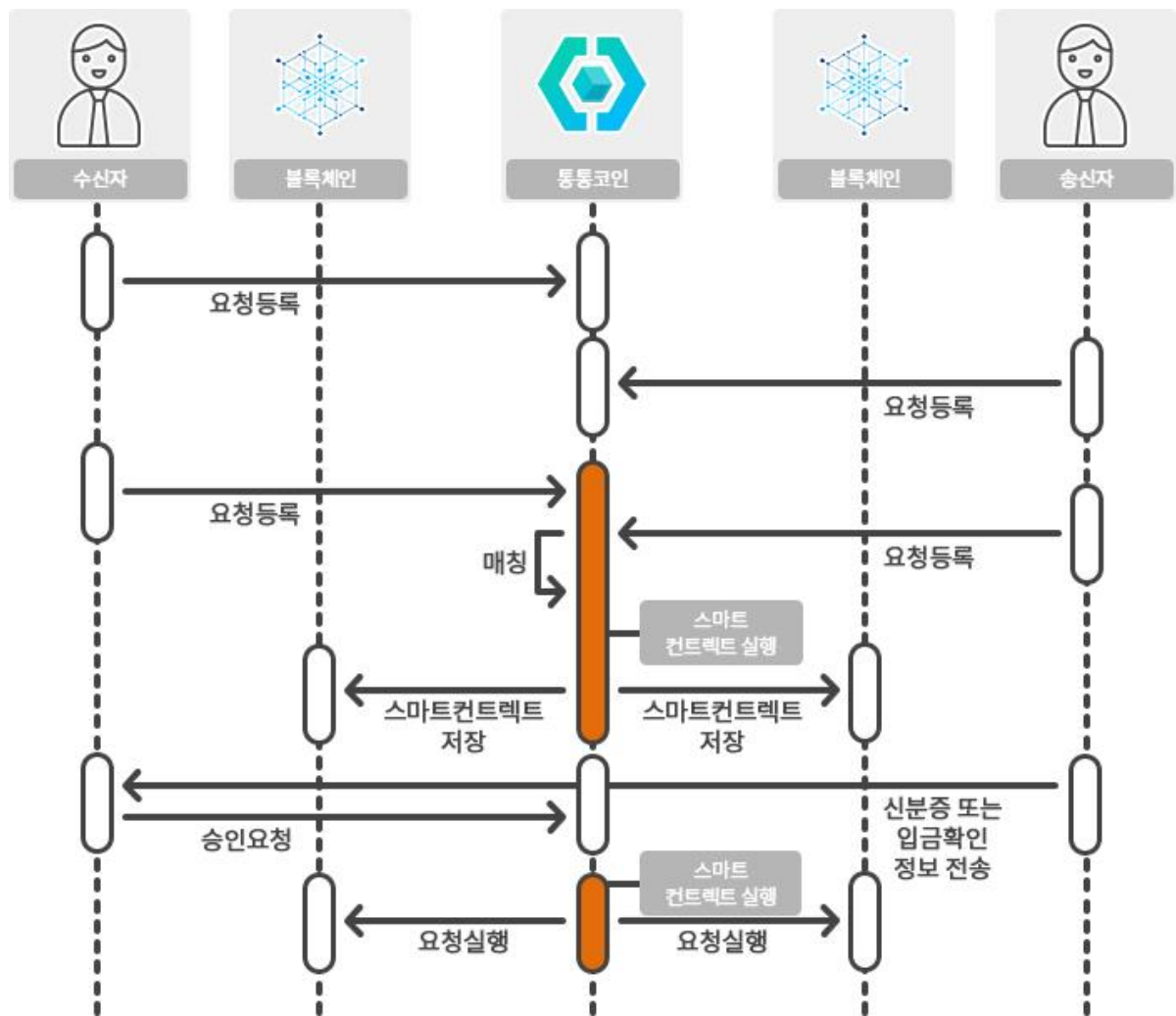
[Figure 12] Tongtongcoin P2P Transfer

For Tongtongcoin P2P treatment, both sender and receiver have to register request to Hybrid Platform using Tongtongcoin wallet.

After sender and receiver are matched, Tongtongcoin Hybrid Platform saves both users' request information to Blockchain. After deposit confirmation or identity confirmation of both users are made, and the receiver accepts the confirmation, Smart Contract System of Tongtongcoin Hybrid Platform execute the request.

If   the need for interpersonal encryption assets relocation increases henceforth, safe assets relocation in decentralized interpersonal trade will become a hot topic. In this situation, Tongtongcoin P2P marketplace platform will become excellent substitution of existing marketplace.

2.6 Substitution of Mileage/Point

We provide API that can exchange affiliated firm's mileage or point to Tongtongcoin.

Affiliated firms can exchange to Tongtongcoin as much as the firm's possessing Tongtongcoin amount based on the conversion rate between mileage/point and Tongtongcoin. If the amount is insufficient, the firm can buy Tongtongcoin in the marketplace at market price, or buy 3 months average price using ETH from management firm TongTongchain.

When mileage or point exchanged to Tongtongcoin, Tongtongcoin will transfer to the user's wallet, and mileage or point will expire.

2.6.1   Airline Mileage Substitution

Airline mileage can be used airline itself or can be used by mileage affiliated firms. There is a restriction such as usage place and usage limits when users use their mileage beside airplane usage. For the mileage saved since 2008 has expired the period of 10 years, so there can be the monetary loss of the unused mileage. Also, mileage is the debt of the airline, so when mileage occurs, this can contribute to the airline's business environment improvement.

Therefore Tongtongcoin team will affiliate with global aviation alliance; Star Alliance/Skyteam can substitute airline mileage to Tongtongcoin thereby establishing Tongtongcoin ecosystem that will benefit all users.

2.6.2   Point Service Substitution

For the firm managing point system, the points are earned for the own company and used only for own company's assets. The usage of these earned points is unbecoming except regular customer, and it is unable to exchange for real money. Thus, the Tongtongcoin team will substitute point to Tongtongcoin, establishing Tongtongcoin ecosystem by making issued Tongtongcoin used in everywhere. By this, users can use Tongtongcoin in various places, and the affiliated firms can establish a place for the customer's marketing.

First, we will complete establishing Tongtongcoin ecosystem as an integrated point system and will expand the usage by affiliating with point firms like OKCashBag, etc.

2.7   Offline Payment

Tongtongcoin can offer offline instant purchase by connecting with POS (Point of Sale) which is self-produced by Tongtongcoin's management firm TongTongchain affiliated firm Tomatao Pay.

Once the user scans QR code by using Tongtongcoin wallet, the real-time purchase will occur by connecting with TomataoPay POS. At this moment, we guarantee fast and safe transfer by using Tongtongcoin platform's Hybrid blockchain technology to prevent from Tongtongcoin transfer waiting time to prolong.
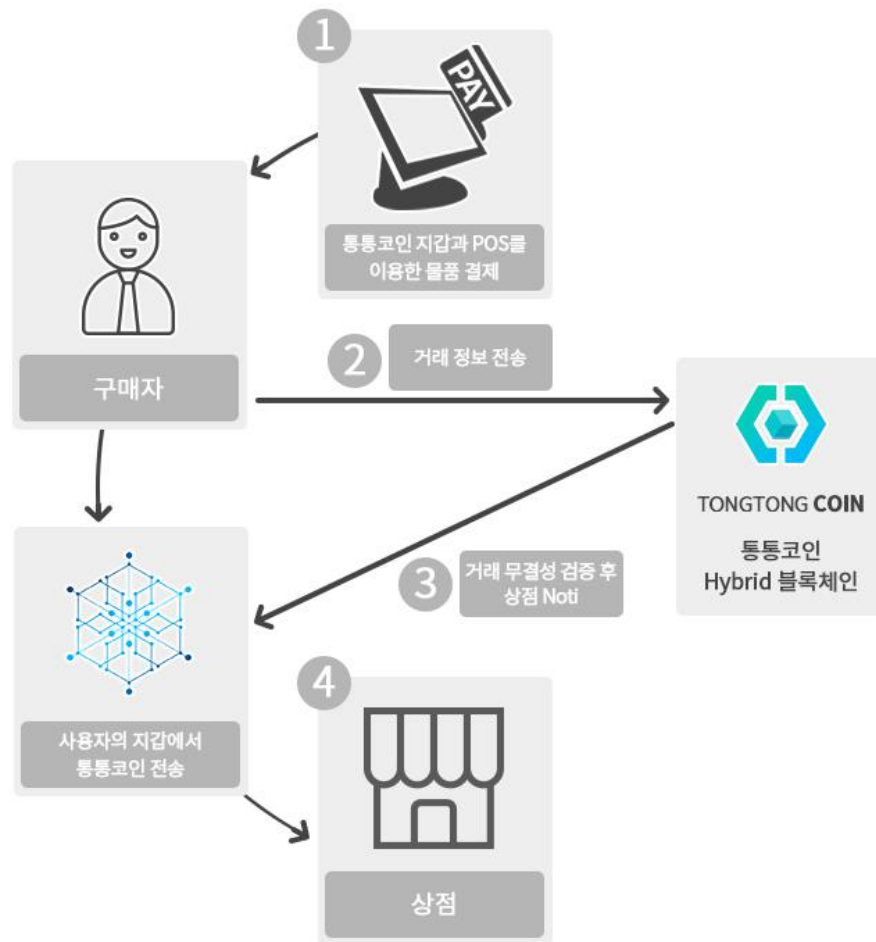
[Figure 13] Tongtongcoin Offline Payment

2.8 Definition of TTMI

A Tongtong Mile(TTMI) is a token issued based on the mainnet of the Tomato chain.

TTMI is accumulated in Tongtong Wallet as a mileage when user purchase products or use service from Tomgtong mall(An application of Shopping mall) or Stocktong(An applicaiton about stock), which are applicaitons of Tomato group. At this time, the accumulated TTMI can be used when purchasing products at the TTMI mall. It will expand the area where users use TTMI.

2.9 Definition of TTM

Tongtong Money(TTM) is a token issued using the mainner of Tomato Chain like TTMI. However, TTM is the same as the value of Won, which is the Korean legal currency. Therecore, there is a differene from TTMI in that TTM is a stable coin that does not fluctuate in market prices.

Users can charge the TTM from the Tongtong Wallet to the KRW deposit. Also, they can send mony between Tongtong users.

3 Tongtongcoin Issuing

When issuing Tongtongcoin, 1 Tongtongcoin worth 100 won(0.01 USD), 10,000,000,000 Tongtongcoin was issued. Tongtongcoin can be purchased only by BTC, ETH,BNB. Distribution results and plans are as follows.
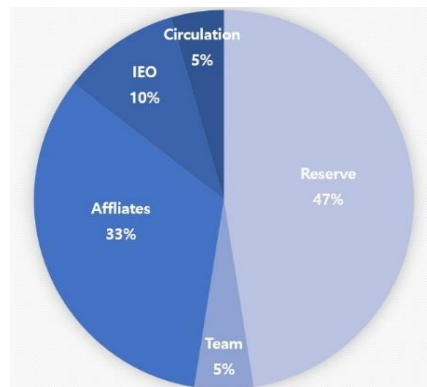
[Figure 14] Result of Tongtongcoin Distribution and Plan

35% of the fund collected selling Tongtongcoin will be used for Tongtongcoin product development, and a huge proportion of the fund will be used for marketing and affiliated firm recruitment as expanded Tongtongcoin ecosystem is important.

In order to control the inflation and circulation of the TongtongCoin, 90% of the Tongtongcoins were burned on 28th, April 2021. This will benefit the holders and improves the stability of the Tongtongcoin.
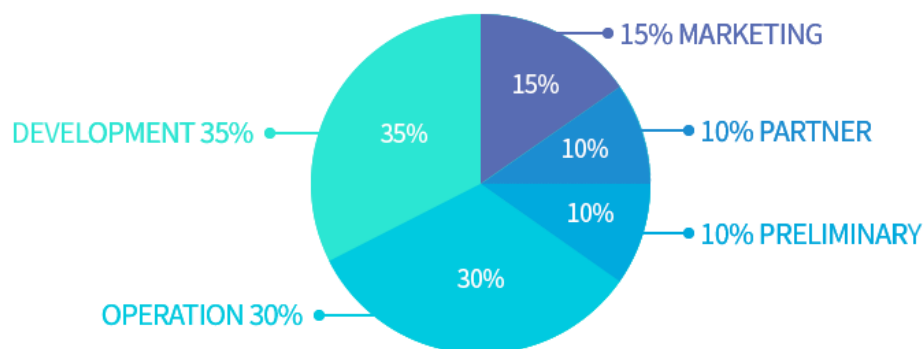
[Figure 15] Fund Usage Plan

3.1 Sale

- Private Sale
: From May 1, 2018, to May31, 2018, for one month.
: Bonus 15% of purchasing amount, minimum 500,000 coins per person (firm).

- Pre-Sale
: From June1, 2018, to June30, 2018, for one month.
: Bonus 10% of purchasing amount, minimum 50,000 coins per person (firm)
:users who participated in the Tongtongcoin's advertisement marketing during Pre-sale period 10,000,000 Tongtongcoin as Marketing costs.

Total amount of Tongtongcoin for Private Sale and Pre-Sale is 500,000,000.

- Public Sale
: From July 1, 2018, to July31, 2018, for one month.
: Bonus 5% of purchasing amount, minimum 5,000 coins per person(firm).

3.2 Participating Firms

Participating firms refers to all the firms that do marketing using Tongtongcoin, exchanged mileage/point to Tongtongcoin, providing online/offline payment service using Tongtongcoin.

Year 2018, Participating Firms

· For the initial contract, additional5%bonus of purchasing amount.
· Had authorities to acquire 20% of the accumulated coins of participated firms in 2018 at the issued price.
· Total amount of coins available for purchase in TongTongchain was up to 500,000,000, and sale by order of arrival

Participated firms after 2019

· In initial contract, additional 5%bonus of calculated coins of average market price for last 3 months in 2018.
· Option to buy 20% of the total purchase price for the average price of last 3 months of 2018 was offered.
· The total amount of coins available for purchase in TongTongchain was up to 1,000,000,000, and sale by order of arrival.
·
  Purchase of Tongtongcoin after the initial contract could be made in TongTongchain or a market for the market price.
  Participated firms had to attend in Tongtongcoin platform network by Master Node.

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3.3   Users

Users can buy Tongtongcoin at a market price in our cryptocurrency marketplace Cointong during July 2018.

3.3.1   Offer of Tongtongcoin

·   Being a OneID member will reward 5% of tongtongcoin of the total payment amount.

3.3.2   Offer of Tongtongmiles

. Sign up as a member of OneID and Payment of Tongtongmiles to the recommender.
. TongtongMiles payment to regular visitor of Tomato Group's application
. When using Tomato Group service, certain number of miles will be rewarded based on each service.

3.4   Tomato Group Employees

 For Tomato group employees, there will be 250,000,000 coin option will be offered for 2 years.

Employees can exert coin option for the Issued price in the year of 2018, and 5% discounted price for last 3 months average price in the year of 2019.

3.5   Our People Business Sponsorship

 Tomato Group will sponsor a certain amount of Tongtongcoin to our people business for our nation's permanent peace and our people business including South-North Koreans and overseas Koreans.

4 Tongtongcoin Market

4.1   Inner Company's participation-The first phase

4.1.1 Tongtong

Tongtong is an application of Tomato group, which has messenger and multifunctional wallet function. Tongtong users' personal information is encrypted and stored in a block. Through this, Tongtong has high security system.

First of all, through Tongtong you can communicate with not only acquaintances but also various stakeholders such as secondhand article transaction buyers/sellers or stock experts. In addition, multifunctional wallets enable efficient asset management by allowing both cryptocurrency/NFT storage, and card registration. Also, in addition to Tongtong coin, Tongtong money and Tongtong mile based on Tongtongchain, users can freely add cryptocurruncies such as Bitcoin and Etherium.

Meanwhile, in case of NFT, it contributes to the establishment of a digital asset ecosystem by enabling transactions and sales within Tongtong.

4.1.2   StockTong

Tomato Group is possessing StockTong, the leading company of domestic MTS market. StockTong is a top stock trading application in Korea, up to 8 million users combining Android and iOS. Also, it has 300,000 load amount and 1.2 million people visit this application.

StockTong application made a partnership with leading stock firms, making available real-time share trading as well as cooperated with Korea's sizable cryptocurrency exchange Coinone/Bithumb, making it possible to real-time market price check and trading.

Trading cryptocurrency with StockTong, users will be paid 0.05% of the transaction money to Tongtong Miles.
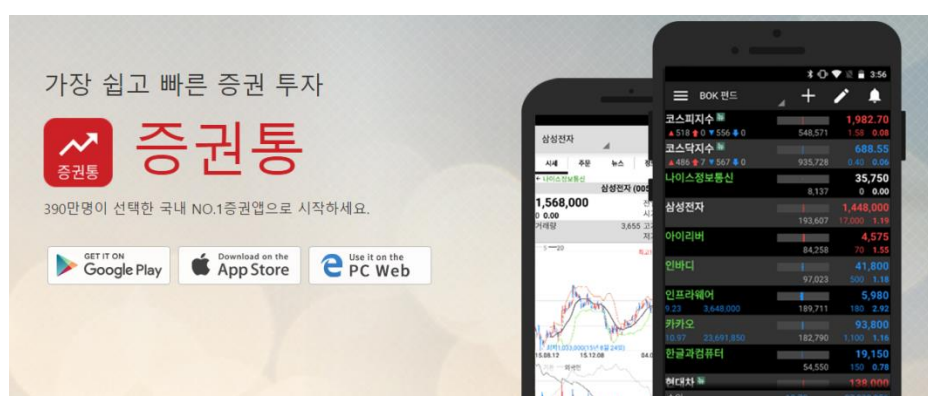

[Figure 16] StockTong(trading application)

4.1.3   Tongtong Mall

TongtongMall is an online shopping mall in Tomato Group.We analyze customers' tendency to get customers'needs, and sell all kinds of products by good price.

Currently, we sell about 1000 kinds of products, but we are continuously expanding participating companies and products.

We will establish a payment system that can purchase using Tongtongcoin an TongtongMiles in TongtongMall. Real-time price value of Tongtongcoin fetched from Cointong will be used for payment of the purchased item. Certain amount of Tongtongmiles will be paid as reward for writing after purchase review of the item. Price conversion to Tongtongcoin will be done based on real-time market value of Tongtong at the time of purchase.
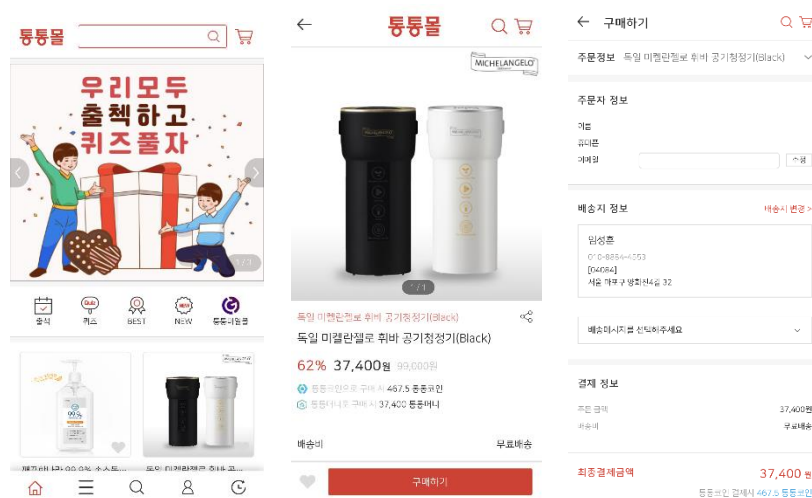
[Figure 18] TongtongMall Example

4.1.4 NewsCafe

The NewsCafe is NewsTomato's "News Social Media Platform," an affiliate of the Tomato Group. It is a platform developed with the motto that all users can be producers and consumers of the articles.

  When a NewsCafe user posts an article, he will be paid a certain number of TongtongMiles depending on the article's preference, the number of comments, and the consumers' intention to consume.

[Figure 19] NewsCafe

4.1.5   Searchtong

  Searchtong is a reasearch service of Newstong, a subsidiary of Tomato Group.

  After identifying gender and age tendencies for the mainissues, including the presidential election, the database is combined with blockchain technology to ensure anonymity of survey participants. Newstong Research uses Smart Contract techonology to set up programming code and automatically execute contracts based on conditions to process data. It increases transparency, speed, and granularity, as well as ensures the reliability of results of reasearch.

   In addition, Searchtong provides rewards to users who responded to the rerch. It will contribute to the establishment of Tongtong coin ecosystem by inducing users to survey and using rewards at Tongtong mall or Tongtongmile mall.

4.1.6   Tongtong Market

  Tongtong Market is a location-based secondhand trading platform of Tomato Pay, which is a subsidiary of Tomato Group.

  Tongtong Market encourages customers to trade secondhand through an event of bidding. Where anyone can bid for a new product from 100Won if they post one used item. Through this, Tongtong Market tries to differentiate itself from the secondhand trading platform market. An event of bidding is held everyday on weekdays, and products for event also change everyday. As such, users can practice emptiness and earn daily necessities at cheap price. Also, Tongtongmarket introduces a secure payment service to enhance the convenience of payment.

Also, Tongtong Market is going to provide used luxury goods trading service. At this time, Tongtong Market would like to prevent fake goods fraud that consumers are concerned about by applying blockchain technology to distinguish between genuine and fake goods. Through this, Tongtong Market aims to lead a healthy used luxury trading culture.

[Figure 20] (L) Tongtong Market (R) An event of bidding

4.1.7   Tongtongmile Mall

Tongtongmile Mall is a shopping mall in Tongtong Mall of Tomato Pay, which is a subsidiary of Tomato Group. Users can only pay for the Tongtongmile mall in TTMI.

Users can use TTMI, which is accumulated by purchasing products from Tomato Group or using services, or participating in events to purchase products from Tongtongmile Mall.

[Figure 21] Tongtongmile Mall

4.1.8 Housetong

Housetong is the real estate trading platform of Artomato, which is a subsidiary of Tomtato Group.

Housetong identifies false or duplicate sales by blockchainizing information of real estate sales. Housetong applied Smart Contract technology to automatically fliter out false or duplicate sales. It improves stability and reliablity, which are the core of the transaction of real estate.

In addition, Housetong would like to promote user convenience by providing writing real estate documnets by licensed real estate agents service and counseling service.

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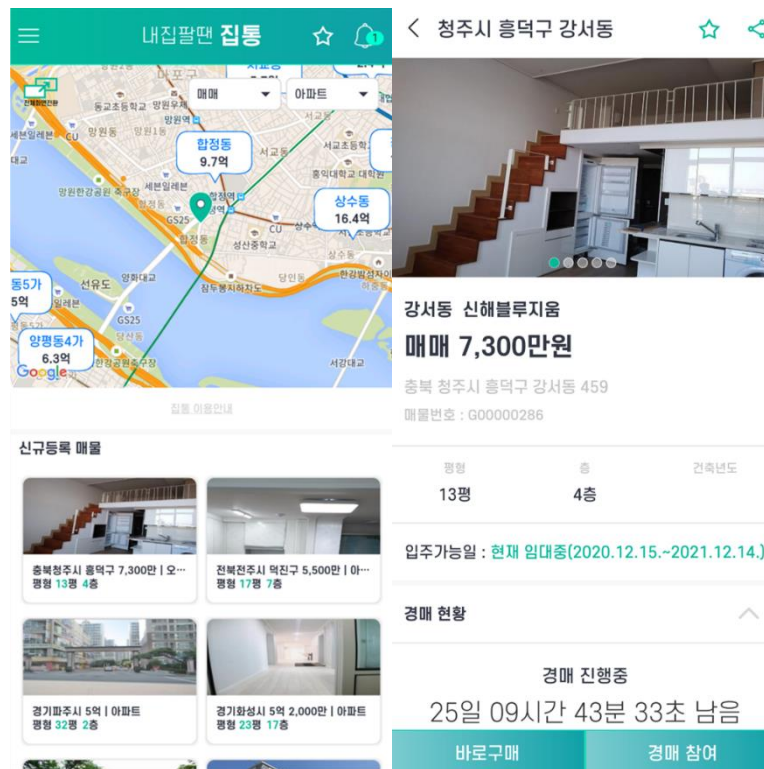
[Figure 22] (L)Housetong (R)Imformation of real estate sales

4.1.9 Tickettong

Tickettong is a ticket-buying platform for Tomato Classic, which is a subsidary of Tomato Group.

A database of ticket buyer and purchase history combines blockhain technology. Specifically, Smart Contract technology prevents ticket falsification and forgery to build a sound ticket purchasing culture.

4.1.10 Tongtong Sign

Tongtong Sign is the face recognition system for self-certification of Tomato Chain, which is a subsidiary of Tomato Group.

According to the dailization of non-face-to face and non-contact technology establishted due to Covid19, Tongtong Sing provides services that allow users to use office doors to pay through face recognition by using blockchain technology.

Furthermore, unlike ohter biometric systems that generally require expensive equipment when used in a company, Tongtong Sign can be used free charge in conjungction with Tongtong Application. Therefore, Tongtong Sign guarantees convenience at the user's perspective and economic feasibility at the company's point of view.

4.1.11 Mastong

Mastong is a restaurant platform of TomatoPay, which is a subsidiary of Tomato Group. Users can get recommendations for restaurants, search for restaurants, make reservervations or order menu and even pay for them.

Mastong stores database of restaurants in blocks through blockchain technology. It help customers efficiently search for nearby restaurants based on location. In addition, the main trend of Post Covid19 is health as the concept of Mastong. Therefore, Mastong also provide customized services hat recommend healthy restaurants based on the health-related hashtag keword set by users when they sign up.

Also, user can make a reservation, order, or pay for restaurants, so they can make a reservation in advance without having to wait. Payment can be made through Tongtong Coin.

It allows restaurants to provide predictable customer entertainment and it replaces kiosks, so there is no additional cost. In addition, users can reduce waiting time and in some cases, they can even designate seats when they make reservation.

4.1.12. Tomato Group Affiliate Company

The Tomato Group offers a wide range of services to customers from Etomato, Tomato Investment Advisors, TomatoTV, and Rtomato. We are planning to establish the system to use Tongtongcoin and TongtongMiles to pay for online purchases of Tomato Group. We will integrate the points of all the sites in Tomato Group and turn them into Tongtongcoins.

When a customer makes a payment with a Tongtongcoin, the amount of payment is reflected in the market price of the Tongtongcoin in connection with the Cointong, 3% of the total payment amount is paid as a Tongtongcoin, and an additional discount of 3% is applied..

Real-time price of TongtongCoin will be fetched from Cointong while customer will do payment via TongtongCoin and 5% of TongtongCoin of total transaction amount will be paid as reward.

When Etomato users pay for specialist lectures, Etomato offers a certain proportion of tickets to Tongtongcoin points. At this time, the payment and the discounted coins are priced according to the market price, so users should be cautious about the prices.

[Figure 23] Etomato Homepage

4.1.13 Chatong

Chatong is a community platform for sharing information about vehicle. Basically users can freely post posts related to the vehicle. In this process, secondhand transactions between users can be made and vehicles can be repaired through affiliated constructors.

When trading used cars through Chatong, information such as prices of used cars or ownership is stored in the blockchain. This information is exposed when the user searches for the vehicle number. Through this, Chatong gains transparency and reliability. It also seeks to differentiate itself from other used car trading platforms.

In addition, users who use affiliated constructors for vehicle repair can post actual reviews. It facilitates not only get information about vehicle, but also exchange information related to repair constructors. At this time, when users register their vehicle or post a review, they will receive a certain amount of Tongtong coin which is available in other applications within Tomato Group.

4.1.14 Sotong

Sotong is a platform that enables consultation and communication with experts in various field such as real estate, law and stock. It aims to user convenience by facilitating communication with experts in areas that are generally difficult for public.

Experts apply for registration in Sotong, and Tomato group registers experts through thorough verification to ensure reliability. Users can reserve experts easily by using Sotong application. Basically, consultations are made through video chat. Users who want more direct interaction can enter the Sotong section in Metatong to promote meeting with experts through their avatars in the virtual world. It allows various users in the virtual world to form communities in the fields they need, focusing on the Metaverse trend.

Users can freely share opinions and answer questions with experts through their avatar that reflects users' persona. In this process, "Metamiles" are provided based on Play to Earn(P2E) model, such as attendance points and participating events. It can be cashed or exchanged for Tongtongmiles from 10,000 Metamiles, which can be used as buying NFT. This combines the metaverse industry with the Tongtong chain ecosystem by incorporating Tongtong coins into the virtual world.

## 4.2 Collaboration with External Participating Companies
- The next phase

Firstly, we will make the purchase of contents and products of various affiliates in the tomato group by Tongtongcoins. Secondly, we expand the ecosystem of Tongtongcoin by expanding to external participating companies.

Participating company refers to a company that allows customers to pay for their contents and products using a Tongtongcoin, participating in the Tongtongcoin's ecosystem regardless of whether already possessing mileage/point and wants to change the payment environment that is dependent on existing large financial companies and PG companies, and to establish decentralized and secure trading system.

4.2.1 Definition of External Participating Company

(1) Participating Company
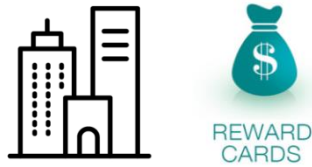
Participating company refers to a company that converted mileage/points into Tongtongcoins. Participating companies must convert their mileage/points into Tongtongcoins and have a system that allows them to pay for the goods or services of participating companies with Tongtongcoins.

TongTongchain provides services in the form of APIs so that participating companies can easily switch between the Tongtongcoins payment system and mileage/points conversion. Participating companies have the option to receive Tongtongcoins firstly, which will vary depending on when participating companies participate. For more information on options, you can check out chapter 4, "Tongtongcoin sell."

Participating companies must participate in Tongtongcoin by Master Node.

(2) Partnership Companies

Tongtongcoin is available for online/offline payments. A company that uses TomatoPay's POS system is called an affiliate. It is a company that uses Tongtongcoin for offline payment. If the company contribute to the expansion of the Tongtongcoin ecosystem by integrating Tongtongcoin with the payment system of the affiliate company or by introducing the mileage/point system using the Tongtongcoin, you will be converted into a participating company and exert the rights of the participating company.

4.2.2 Ecosystem Expansion Plan through External Participating Company

(1) Airlines or global aviation alliance

As mentioned above, airline mileage has low cashability and restrictions on usage. Hence, the Tongtongcoin team will convert airline mileage into a Tongtongcoin, which will establish an ecosystem that benefits both users and affiliates. Airline will be provided an API that allows to easily convert mileage into Tongtongcoin, and provide services in connection with payments and other functions for use at any time by an affiliate in Tongtongcoin ecosystem.

(2) Online Game Developer

Online game developers spend more on marketing than development cost. If a game developer operates in a Tongtongcoin ecosystem, they can integrate and manage the game money of various games, and introduce common reward elements in the game to double the fun of the game and therefore increase the immersion of the game. Firstly, we will apply the service to the game which pro's match can be contents itself, such as online Janggi/Go first hand, and expand it to various game environments, and we will grow Tongtongcoin as a substitute for game money market.

(3) Online Shopping Mall

In order to expand the Tongtongcoin ecosystem, a stable usage is required. We will continue to expand our ecosystem through affiliation with a variety of online shopping malls/social media companies, as well as TongtongMall, a shopping mall with 5 million customers. In addition, we will develop a Tongtongcoin settlement service through PG in connection with the PG system of TomatoPay, our affiliate company, so that it will be possible to easily introduce Tongtongcoin settlement to any shopping mall that already has a PG system.

(4) Offline Affiliates

We are planning to expand offline payments for offline stores.
Firstly, we will apply offline payment methods to our franchisees using TomatoPay POS. Secondly, we will recruit additional franchisees.

When paying offline, the Tongtongcoin will be sent immediately to the wallet of the offline affiliates, and the checkout process such as coin settlement can be confirmed at the POS.

At the POS, we will display the remaining balance in connected with the current Tongtongcoin market price, and we'll make it possible to immediate encash in connection of transaction system in future so that it can be used conveniently at offline franchises.

5 Roadmap

Main features listed in this paper will be available after about 2 years of development.

There will be four updates for the product development, and we will focus on Tongtongcoin ecosystem expansion such as mileage/point exchange, payment substitution, and game money substitution cooperated with shops.

- 1st update achievement: Tongtongcoin issuing, wallet
- 2nd update achievement: market entry by linking our systems
- 3rd update achievement: mileage/point exchange, payment development
- 4thupdate achievement: Tongtong messenger switching to blockchain messenger development.

2018.1Q
- · TTCOIN White Paper Completion
- · Development of TTCOIN and establishment of brand sites

2Q
- · TTCOIN Private & Pre Sale
- · Developing TongTongwallet and upgrading TongTongwallet within the TongTong APP
- · Cointong Service Launched

3Q
- · TTCOIN Public Sale - ICO completion
- · General Marketing Affiliation (on/off payment, mileage, content purchase)
- · Issuance of TongtongMoney

4Q
- · Launched TongtongCoin Payment Service

2019. 1Q
- · Launched TongtongPod Service

2Q
- · Launched TongtongOffice Service

3Q
- · Tomato Group's OneID supported reward service inaugural.

4Q
- . Tomato Group TongtongCoin and TongtongMiles reward service inaugural.

2020. 1Q
- · Issuance of TongtongMiles
- · Interfacing Tomato Group's application, Tontong Securities, News Tomato, etomato with blockchain and development of payment application for internal groups.

2Q
- · TongtongChain 2.0 Development Started

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- Expansion of Tongtongwallet Service

3Q
- TongtongChain 2.0 development completed.

4Q
. Integration of several services like Tongtong Securities, Etomato, TongtongMall, TongtongMarket to blockchain for blockchain based secure payment system.

2021. 1Q
- Pilot project for checking feasibility of Offline payment in stores.

2Q
- Partnership with Airport and International airlines
- Offline store payment System Inauguration.

6 Partner

Our Powerful Partners, Among them, we try to make Tongtongcoin payment ecosystem.

6.1 Global Partner

6.2 Local Partner