



LINE Blockchain

Designed
for Everyone

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Please note that you may not be able to recover any monies paid for LINK in the event that the LINE Token Economy fails to materialize or where LTP's business fails.

This Whitepaper is meant to provide more information on the LINE Token Economy and functions of LINK, and does not constitute a prospectus or offer document of any sort.

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Currently, LINK(LN) and the own-issued tokens of dApps through LINE Blockchain Developers are individually operated on different blockchains.

PLEASE READ THE SECTION TITLED "IMPORTANT NOTES" AT THE BACK OF THIS WHITEPAPER VERY CAREFULLY.

LINE and Blockchain

With the launch of its messenger in 2011, LINE quickly grew into a global leader among IT companies. Today, the LINE app is one of the world's most popular messengers, with over 185 million users. But, more than just a chat app, LINE has also evolved into a "smart portal," offering various services to its users, connecting them to the information, services and brands they need, anytime and anywhere. And LINE continues to grow, now bringing its know-how as a smart portal to the world of FinTech, launching innovative new services which could benefit the development of the banking, securities and payment/settlement sectors.

We recognize that the key to LINE's successes and the growth of the LINE ecosystem has been our users – and now we are ready to take that partnership to the next level. By bringing blockchain technology to the LINE platform, we aim to share the value created by the contributions of our users with the participants of the LINE ecosystem.

As a blockchain network based on Interchain, LINE Blockchain Network will be integrated into LINE to serve as a platform for a wide range of LINE services and accelerate the LINE Token Economy. LINK, the general-purpose base coin of the LINE Blockchain Network, will seamlessly make its way into the LINE services that our users around the globe access and use in their everyday lives.

Our users are also essential to how we are developing the LINE Blockchain ecosystem, as we apply the knowledge and insights we gain from interacting with them to ensure our services will continue to grow and improve. After all, the LINE Blockchain ecosystem is not only for blockchain experts, but also for the general public, providing seamless access to all LINK-related services, including safe-keeping, providing convenient access to tokens and conducting secure transactions with LINK.

In short, LINE is building a service-oriented blockchain ecosystem around LINK, where anyone can use LINE's services, conveniently and securely, in a token economy that will grow together with our users.

Problems with the Existing Cryptocurrency Ecosystem

Following the release of the Bitcoin white paper by Satoshi Nakamoto in 2008, countless cryptocurrency projects sprang up and the cryptocurrency market grew exponentially. Even more than a decade later, however, cryptocurrency is still considered only as a means of investment and there is no cryptocurrency that has penetrated into our daily lives. The following analysis explains a number of reasons why the current cryptocurrency ecosystem has ended up where it is today.

Investors Before Users

When crypto assets were booming, they attracted plenty of investors and emerged as a new funding channel for cryptocurrency projects. As a result, investors and developers both focused on securing fast financial gains instead of helping tokens mature and become a new kind of currency for everyday life. Today, the cryptocurrency ecosystem is dominated by investors. The companies and foundations behind cryptocurrency projects offer tokens in a way that ensures investors can maximize their gains, with a focus on raising as much investment as possible.

Under such conditions, project teams are pushed to focus more on generating money-making news for investors rather than developing and maintaining more necessary products. The success of a project is not determined by attracting users or facilitating services; instead, token price and market capitalization have become the measure of success. Because of these issues, the people who most contribute to the ecosystem through their use of tokens and dApps have been marginalized, and consequently tokens have failed to develop significantly as a real-life technology.

Unbalanced Token Economies

Many cryptocurrency projects start selling their tokens even before they are on the network. When doing so, they tend to inflate the scale of the economy with a focus on the price and trading volume by offering excessive bonuses to early miners or investors. This creates a huge imbalance in token distribution, harming the growth of the cryptocurrency's ecosystem. Moreover, as many dApp developers require the use of their own tokens for their services, the demand for platform coins and the economic ecosystem splits, further slowing overall growth. Users need to have both platform coins and dApp tokens to use the ecosystem's services, which many find too inconvenient and so stop using the ecosystem altogether.

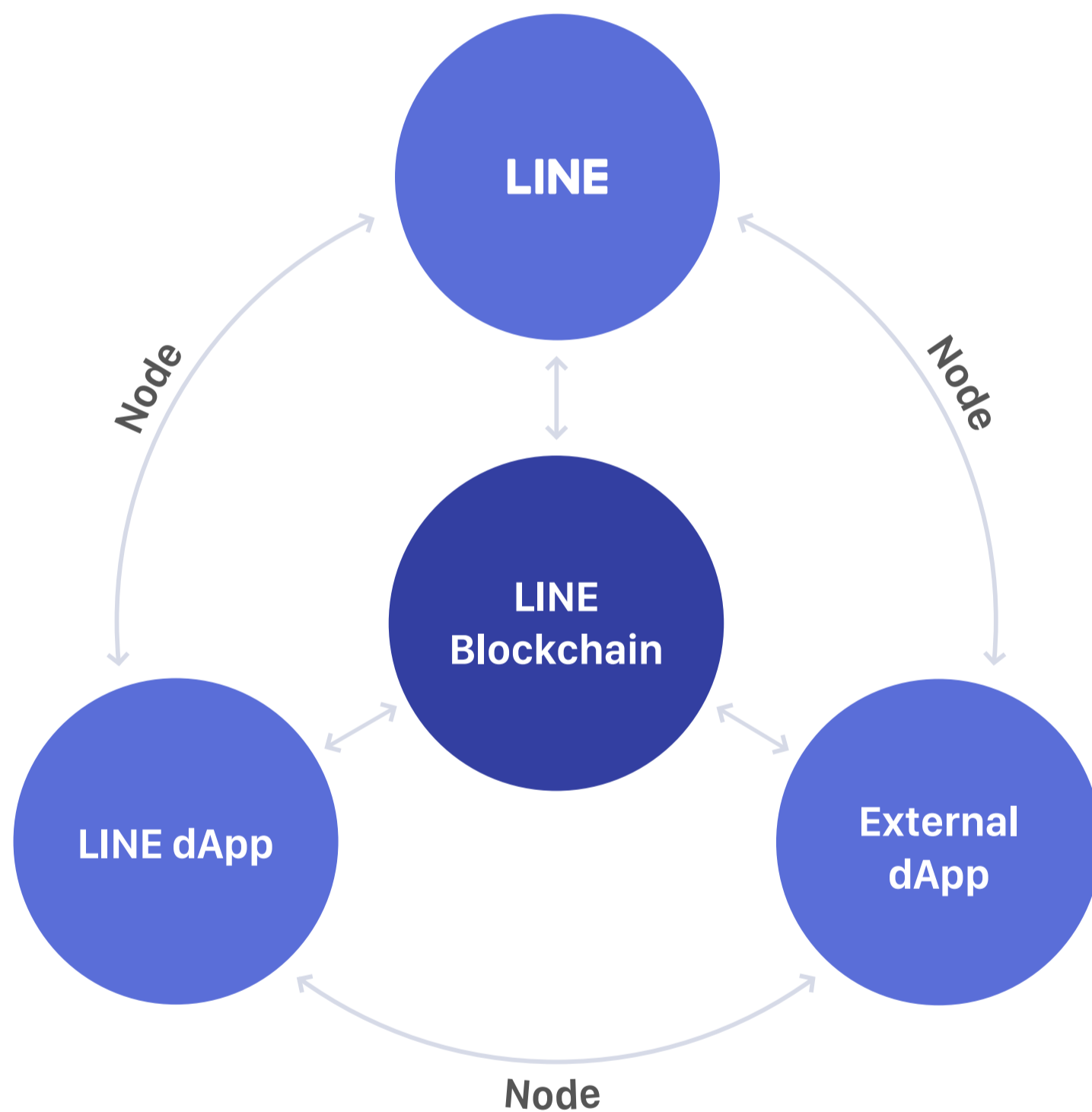
User Experience (UX) Problems

Security is inherent to cryptocurrency as cryptocurrencies are technology literally built upon cryptography. However, along with security comes a related negative: user experience (UX) problems. That's because the safety and security of cryptocurrency also requires users to manage their own digital wallets – in fact, most people find even creating a digital wallet to be so frustrating that they give up before they start using it. When the cryptocurrency industry was just beginning, it was mostly the domain of cypherpunks, so such technological barriers were not an issue; most users already were experts on cryptography, programming or computers in general. But more recently, as interest in cryptocurrencies has grown, the complexity of the technology is standing in the way of its wider adoption. And cryptocurrency wallets are not the only UX-related problem – dApps have also fallen short. Although many dApps have been launched, offering a wide range of services using blockchains, they have mostly focused on technology-issues and overlooked service quality. Even when users do make the effort to create a digital wallet and try out dApps, they often stop after a short time because of the shortcomings compared to easier-to-use, more established services.

LINE Token Economy

LINE Blockchain Ecosystem Principles

The LINE Blockchain project was launched to create a blockchain platform and token economy that regular people around the world would actually like and use in their daily lives. But to achieve mainstream acceptance, we need to overcome those three abovementioned issues: investor-centered ecosystems, unbalanced token economies, and UX problems. That's why LINE Blockchain has defined the following three principles to resolve these issues and build a blockchain-based ecosystem that is accessible for all.



Rewarding Contributors

Rewarding those who participate and create value within the LINE Blockchain ecosystem



Balanced Economic Model

Using LINK to create a balanced and interconnected ecosystem



Designed for Everyone

Creating an ecosystem that is easy-to-use for everyone, regardless of their expertise

01) Rewarding Contributors

Service providers used to be at the center of the internet industry. Then the emergence of online advertising led to the rise of free services, causing the tech landscape to change radically for users. And now, with blockchain technology and crypto assets, once again a new ecosystem is being ushered in – this time, on top of free services, contributors can be directly rewarded for their actions. LINK will not be sold to the general public through an initial coin offering like other cryptocurrencies. Instead, the LINE Blockchain ecosystem aims to share growth between users and the ecosystem as a whole by rewarding contributors based on how their actions create value in the LINE Blockchain ecosystem.

02) Balanced Economic Model

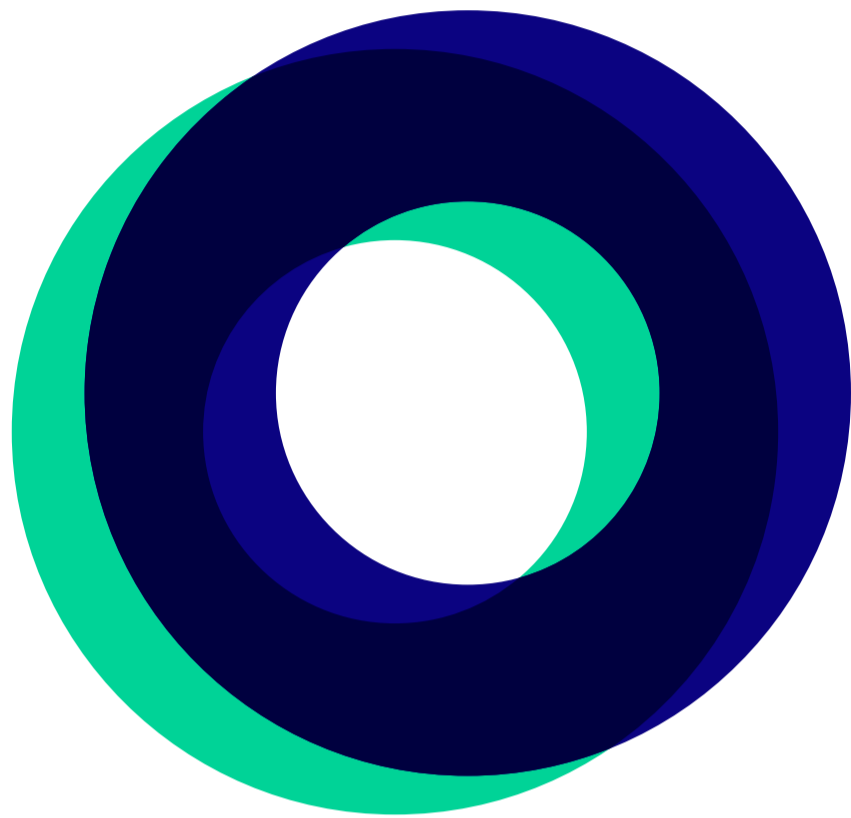
LINK will serve as the main currency for our dApps as well as the platform within the ecosystem, creating economies of scale through the integration of both economic systems. Since the tokens will not be sold via an initial coin offering, there is less danger of LINK suffering from any destabilizing inflation before actual demand builds naturally in the ecosystem. Growth in the LINE Blockchain ecosystem will come from the contributions of the participants. As the ecosystem and user demand grow, supply will expand correspondingly to match that growing demand, ensuring the entire economy remains balanced.

03) Designed for Everyone

With LINE's long and successful track record in UX design, operating a service that millions of people around the world use as part of their daily lives, we are able to bring a rich and practical know-how to the LINE Blockchain UX. We are also planning to provide dApp developers with an outstanding technology-based platform and toolkit so that they can freely implement their ideas. As with all LINE does, the LINE Blockchain UX is all about putting users first, creating a seamless and accessible service that works equally well for the tech-savvy and beginners.

LINK

LINK is the general-purpose base coin for the LINE Blockchain ecosystem, and it represents the connection and cooperation between participants as well as the synergy created by them. The ticker symbol for LINK is “LN”, and its logo image is as follows:



LINE Blockchain dApp Ecosystem

DApps are the key to circulating and promoting the use of LINK in the LINE Blockchain ecosystem, and their growth is a critical driver for the ecosystem in general. The LINE Blockchain ecosystem utilizes the following system to attract more dApp projects and nourish the overall ecosystem.

01) Reward dApps

The Reward dApps are an association of dApps responsible for developing the LINE Blockchain ecosystem by introducing functions within the service that use LINK, as well as allocating the LINK required for user rewards from the LINK Secretariat. Reward dApps facilitate the LINE token economy by offering LINK to ecosystem participants as a reward and create the market for LINK. Reward dApps can be either developed in-house by LINE or by third-parties and selected through a screening procedure. The LINK Secretariat is responsible for the overall selection of Reward dApps during the initial period of the ecosystem.

02) General dApps

General dApps refers to non-Reward dApps that participate voluntarily in the LINE Blockchain ecosystem, offering LINE Blockchain-based services. In the LINE Blockchain ecosystem, individual developers will be able to develop LINE Blockchain-based dApps easily using LINE Blockchain Developers, a development toolkit that allow developers to adopt blockchain features and develop dApps. In addition, we are planning to help dApp developers to register their dApps on the LINE Blockchain dApp store to advertise and attract LINE Blockchain ecosystem participants from around the world.

03) Support Programs for dApps

To further expand the LINE Blockchain dApp ecosystem, the LINK Secretariat plans to offer a wide range of support programs. It will select promising dApp developers that demonstrate great potential to contribute to the LINE Blockchain platform and promote the use of LINK, providing them with comprehensive support for their deeper integration into the ecosystem. Support programs will include financial aid, technical support for the use of LINE Blockchain Developers, and consultations regarding the token economy.

LINK Distribution: Contribution Mining

Numerous projects have distributed large quantities of tokens to a small number of investors for the purpose of financing. The scale of token investments and sales achievements have also been used to assess project outcomes. However, the LINE Blockchain Network does not distribute LINK for financing; rather, the Reward dApps distribute LINK to their most active users as compensation for activities that contribute to the ecosystem. This approach to distribution creates three types of differentiated value.

01) Avoidance of the Excessive Token Network Effect

The value of the financing procured by a project through token sales has no relation to the actual network value. This is because, when it comes to the network value at the time of financing, the future value to be created by the token project is considered to be little more than collateral, and has little relation to the value generated by the actual network and its level of activity. Therefore, distributing tokens on a large scale via financing is essentially setting up an ecosystem with immense liabilities.

In the early stages of a market, when measuring the value of a blockchain network is even more difficult, this kind of risk must be endured not by the initial institutional investors, but rather by the majority of subsequent investors and actual users.

The LINE Blockchain Network issues LINK on the basis of how many active wallets exist in the network and how much of the key currency (LINK) is distributed and used (payment & staking). With this structure – where a token is distributed according to the actual network activity level and growth, without artificial value inflation – the network's value increases along with the growth of the ecosystem.

02) Formation of Network Value

The value of a blockchain network is essentially contingent upon how many people trust and use the network. Just the value of an internet-based service is often based on the number of its users, so too are the number of wallet addresses the basis of value for blockchain networks. In fact, we call this new reality “the internet of value.” In addition, to facilitate the mainstream acceptance of crypto assets, we must go beyond the blockchain platform’s current focus on utility (network fees), and instead emphasize integrating with all types of regular services.

Instead of adding to the expense of development through token sales, the LINE Blockchain Network secures global users for the network by allocating LINK to Reward dApps' members and setting up LINK’s internal service functions. Global users acquire LINK from the diverse dApps of the Reward dApps even as they experience those dApps. This means that the LINE Blockchain Network rapidly distributes wallets worldwide, and that LN can be rapidly adopted not only by existing crypto asset investors but by regular users as well.

03) Fair Distribution of Wealth

The distribution of tokens is a problem of how to initially distribute the wealth and authority created in the new internet environment that is blockchain. The vast majority of people around the world are still not accustomed to acquiring tokens by participating in the sale of tokens or blockchain creation, and have no experience with this kind of process. Although there have been attempts to sell tokens in the fairest manner possible to a large number of investors, for most regular users around the globe the essential problem still has not been solved.

In the LINE Blockchain network, a variety of people around the world, even those without initial capital, can acquire the value and authority of the LINE Blockchain Network through their contribution activities (labor) on the internet. Thus, anyone can acquire and use LINK with the service that they enjoy using, which means that a wide range of people around the globe have the opportunity to receive LINK fairly, without regard for nationality, assets or time zone.*

LUCAS (LINK User Contribution Assessment System)

LUCAS is a system that assesses the contribution level of participants in the ecosystem to determine the amount of rewards they should receive. The current version of LUCAS calculates the contribution of Reward dApps with the elements including Monthly Active Users (number of Active Wallets) and transactions per dApp (Transaction Amount), etc. The contribution formula will be developed over time, updates exemplified as recognizing the staking* amounts. It then determines the contributors' LINK allocations by revising that amount according to the volume of LINE Blockchain ecosystem activity and the contribution levels of each dApp in the ecosystem. Currently, there is a limit on the amount of allocation that one dApp can acquire a one-month period. LUCAS ensures an appropriate currency supply is maintained for the network's actual value, without overexpansion, enabling the healthy growth of the LINE Blockchain ecosystem.

* Users that are from countries sanctioned by the United States or from countries considered as high risk and monitored by the Financial Action Task Force, or from countries where the offering of LINK is illegal, will not be able to participate in the LINE Blockchain network

*Staking: The act of locking down the LINK held in a wallet. LINK undergoing staking cannot be transferred to another wallet. In addition, after a user chooses to unstake LINK, a certain period is required before it can be transferred. (Feature in planning stage)

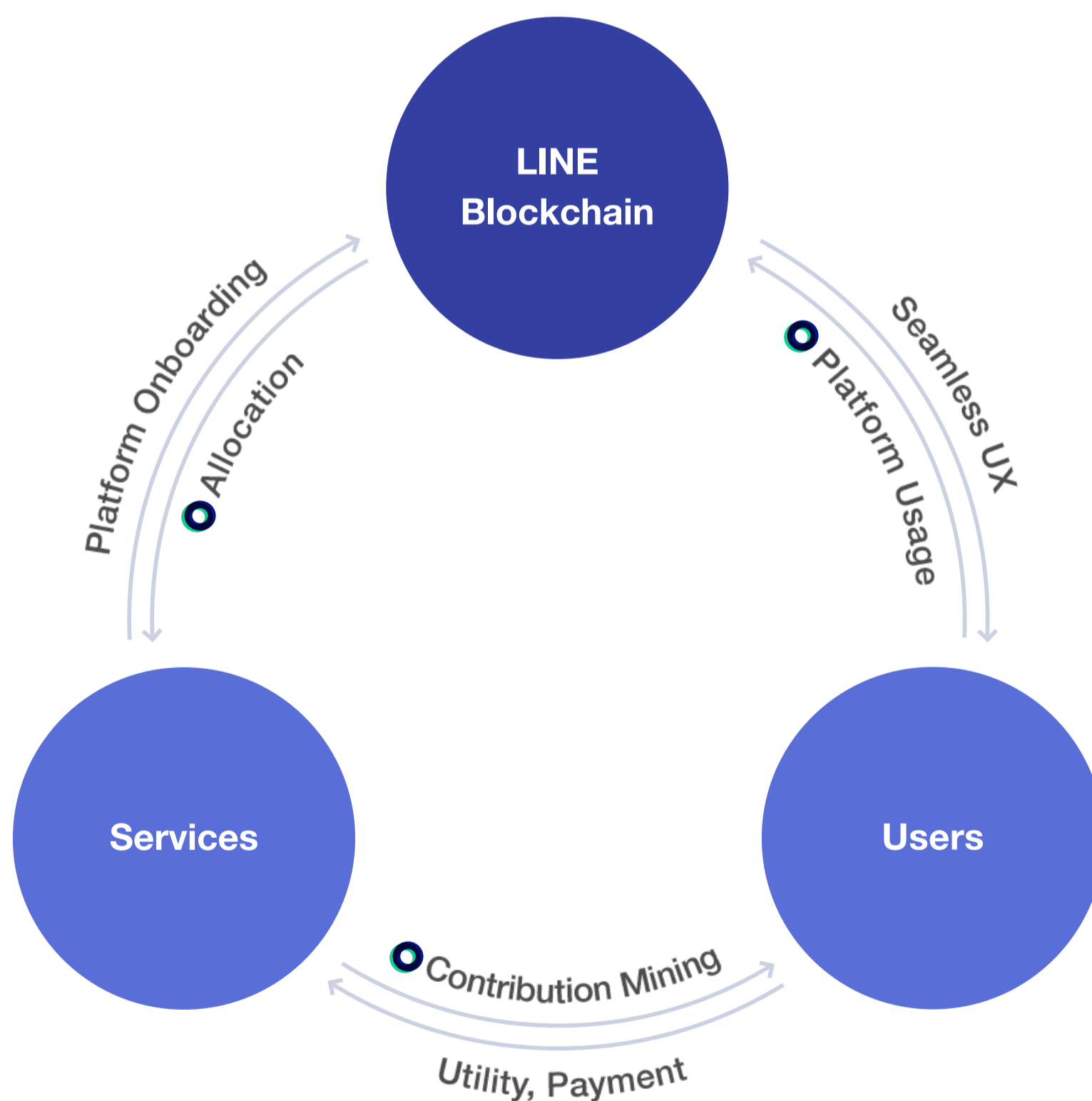
Distribution of User Reward

LINK allocated to the Reward dApps is only used for user rewards, and is paid to users according to the policy of each dApp. In order to prevent fraudulent acts that may arise in the process of reward distribution, Reward dApps must comply with the reward distribution guidelines set forth by the LINK Secretariat. Included in those distribution guidelines are requirements for disclosing reward distribution standards and the maximum rewards allowed per user.

LINK Acquisition and Use

You can earn LINK by making contributions to the ecosystem through a variety of methods. Within the cryptoasset exchanges that have listed LINK, you may use LINK to pay commissions and also get a variety of benefits. The application of LINK will be widened, including payment of usage fee on LINE Blockchain Platform.

Map of the LINE Token Economy



The LINE Token Economy is comprised of a service level and a platform level:

01) Service Level

Users who employ Reward dApps receive rewards based on their contributions according to the reward policy of each dApp. LINE Blockchain users will be able to acquire LINK and use them in a variety of ways, such as paying for content, engaging in e-commerce or transfers, trading game items or exchanging with other cryptocurrencies. LINK holders can benefit in many ways, such as exercising influence or authority within the service or receiving benefits, etc.



Content

Payment for music, videos, webtoons, and fiction



Commerce

Payment for products/ services, discount benefits, and payback



Social

In-app payment systems and wire transfers between individuals



Gaming

In-game trading and character improvements



Exchange

Payment of commissions, fee discounts, and digital token trading

02) Platform Level

LINE Blockchain platform operators can charge fees for platform usage, including generating transactions (for example, transmitting coins or data on the blockchain network through such activities as transfers, reward payments or the uploading of smart contracts). LINE Blockchain platform fees are paid by each dApp or user according to the dApp's policy.

Plans for Distribution

User Rewards

User rewards will be issued based on user-contribution activities to Reward dApps. The rate of user reward issuance will be determined by the growth of the LINE Blockchain ecosystem's internal value, based on the LUCAS (LINK User Contribution Assessment System). The eventual opening of LINE Blockchain Network node participation will allow for user rewards to be paid as node operational compensation as well.

Reserves

Reserves are allocated for ecosystem expansion, and will be used by the LINK Secretariat for, including, but not limited to, LINE Blockchain ecosystem operational expenses (including, without limitation, R&D and infrastructure expenses), dApp acceleration, marketing the LINE Blockchain Network, etc. Reserves will only be issued after public announcements are made in advance through official communications channels.

The maximum issuance of LINK is capped at 100 million for three years since the initial issuance (September 2018) and is to increase by 5% annually thereafter. Out of the maximum issuance limit, the actual circulation amount will be determined according to the network value of LINE Blockchain and the subject of decision will be LTP. Even when there is a sudden growth in the network's value due to growth in active wallets and transaction volume, an "ecosystem factor" has been set up within LUCAS so that the stability of the LINK distribution is ensured. Conversely, should there not be any significant growth in network value, the issuance rate of LINK slows down. The LINK issuance limit is allotted at a ratio of 8-to-2 for the purposes of user rewards and reserves, respectively. The total LINK issuance limit is 1 billion while the LINE Blockchain ecosystem is maintained, with a maximum issuance limit of 800 million LINK for user rewards and 200 million LINK for reserves.

Technology

The LINE Blockchain ecosystem is built on LINE Blockchain Network, a blockchain-based network we developed in-house, and the growth of that ecosystem depends on the evolution of that LINE Blockchain infrastructure. Because our goal is to make the LINE Blockchain ecosystem a part of people's everyday lives, we plan to advance our technology in the following areas:

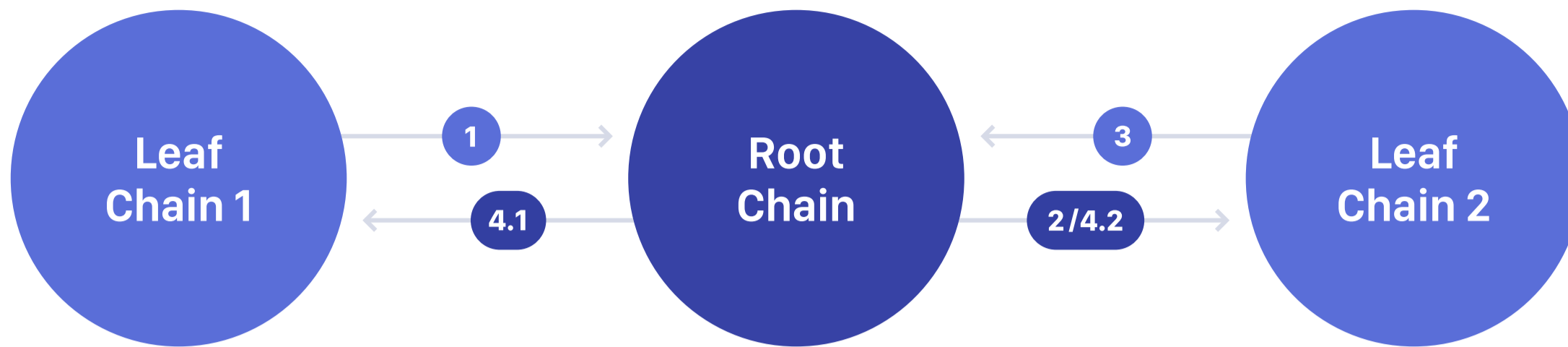
Scalability

Whether it is Bitcoin or any other cryptocurrency, scalability has become the most widely discussed blockchain challenge, as the volume of transactions has increased beyond the processing capacity for existing blockchain networks. It is critical for blockchain-based networks to securely record data, but their data processing speeds are slower than the traditional network structures used for existing IT services. Consequently, dApp developers often face many constraints during the development phase and end up designing their services to avoid the scalability problem. This, in turn, leads to significant issues with usability. However, LINE Blockchain Network will solve the scalability problem through its LINEAR Network, an Interchain-based solution.

LINEAR Network

01) Overview

LINEAR Network is comprised of multiple leafchains and one rootchain that connects the leafchains under the rootchain. Each leafchain operates individually, so the dApps on the LINE Blockchain can adopt each different leafchain. Rootchain is used for transferring values such as crypto assets or tokens between leafchains. Rootchain can also prevent duplicated payment, manage trading status and transaction info to ensure proper trading between different leafchains. This structure allows each leafchain not to be affected by the Network Resources, and run stable transactions independently.



- | | |
|--|---------------------------------|
| 1 Request transfer | 4.1 Issue receipt for deduction |
| 2 Check if leafchain is ready for transfer | 4.2 Issue receipt for addition |
| 3 Reply with its status | |

Let's go through each step to see how a coin is transferred on the LINEAR Network.

- **Step 0** User A on leafchain 1 sends a request to transfer coins to UserB on leafchain 2.
- **Step 1** Leafchain 1 checks if the transfer request is valid. If it checks out, leafchain 1 sends the transfer request data to the rootchain.
- **Step 2** The rootchain checks if the transfer request is valid. If it checks out, the rootchain sends a request to leafchain 2 to see if it is available to receive a transfer.
- **Step 3** Leafchain 2 checks if the requested transfer is valid. If it checks out, leafchain 2 sends a reply that it is ready to receive the transfer.
- **Step 4** Leafchain 1 and leafchain 2 issue a receipt to deduct and add the transfer amount respectively. Each chain controls to ensure there is no redundant deduction or increase.
- **Step 4.1** The rootchain issues a receipt for deducting the transfer amount to leafchain 1.
- **Step 4.2** The rootchain issues a receipt for adding the transfer amount to leafchain 2.

There are a couple of differences between LINEAR Network and existing Interchain approaches.

- The rootchain focuses on reconciling the transfer amount between leafchains.

This allows much higher efficiency compared to other protocols where the rootchain serves as a general-purpose blockchain network.

02) Strengths

- Maximum TPS (transactions per second) is scalable:

On the LINEAR Network, the maximum TPS can be increased with additional leafchains. If the total number of transactions significantly increases over the platform, it is relatively easy to increase maximum TPS by adding leafchains. This means that the cost for network resources should not increase much even if a number of sizable dApps participate and grow within the ecosystem.

- Sharding:

When each dApp is assigned to single leafchain, the total TPS available for each dApp increases, and it also guarantees that the TPS available for one app will not be affected by the amount of usage on another app. Take the case of CryptoKitties, which opened the possibility of Ethereum-based games, but also revealed the limitations of scalability on a blockchain network when its popularity rendered other dApps on Ethereum unusable. On the LINEAR Network, however, a dApp will only affect the capacity of its leafchain. Even if it approaches the maximum TPS, dApps in other leafchains will be able to continue processing transactions as usual.

- Flexible leafchains:

There is one requirement made on each leafchain to participate in the LINE Blockchain ecosystem – they must use the same communication protocol as the rootchain. This allows flexibility for leafchains to be customized and optimized for their dApps.

Usability

As existing blockchain ecosystems tend to be more developer-centric and technology-driven, users of blockchain-based services often find the user experience to be quite poor and inconvenient. In fact, even developers complain about how difficult it is to find the relevant documentation and tools they need. But using the LINE Blockchain Developers, we aim to build a platform that both users and dApp developers can enjoy.

LINE Blockchain Developers (to be launched)

01) Overview

The LINE Blockchain Developers is a toolkit for dApp developers designed to support the seamless interaction of dApps with the LINE Blockchain Network, offering a suite of utilities to help with the development and maintenance of smart contracts, wallet manager and block explorer. Taking advantage of LINE's security technology, the LINE Blockchain Developers also aims to build a high level of security for dApps and LINE Blockchain. Additionally, it helps to minimize the work required for the development and operation of dApps. This allows dApp developers to focus more on improving the user experience, rather than hunting for solutions to technological problems, which means higher service quality.

02) Good for Users

Using the LINE Blockchain Developers, dApps in the LINE Blockchain ecosystem aims to offer the same level of user experience as traditional web/app services – so much so that users will not realize that those dApp services are running on a blockchain network. In addition, the LINE Blockchain Developers manages user's wallet by matching each user's wallet to their LINE account so users do not need to manage their private key by themselves when using LINE Blockchain Developers-based dApps.

03) Good for Developers

Developers who wish to test or operate a LINE Blockchain-based dApp can easily get a taste of the LINE Blockchain ecosystem through the LINE Blockchain Developers. On top of the LINE Blockchain Developers, we also provide a series of well-organized documents on a wide range of topics related to LINE Blockchain-based dApp development, ensuring a better developer experience compared to existing blockchain-based platforms.

We're also planning to roll out many other opportunities for developers so they can unfold their talents on the LINE Blockchain. In addition, the LINE Blockchain provides a smart contract system where parts of the smart contract can be updated or revised. DApp developers can utilize this system to more easily manage smart contracts, widely considered one of the greatest difficulties faced by developers. Furthermore, a standardized interface for a variety of tokens such as non-fungible tokens (NFT) will be provided to improve convenience for developers.

04) Good for the Token Economy

DApp developers can implement the token economy conveniently with the features offered in the LINE Blockchain Developers. They can also manage the token economy efficiently using the LINE Blockchain Developers' web-based analytical tools, which offer a centralized method of monitoring various indicators, including transaction trends and token distribution status. In addition, developers can receive expert advice regarding their dApp token architecture and reward policy so that they can design and build a balanced token economy.

Roadmap

Moving toward an Open Network

In order for the LINE Blockchain ecosystem to grow as an independent blockchain network that aims to build up trust, a diverse array of agents must be allowed to participate freely. However, there are still technical limitations preventing large-scale, convenient usage and security issues regarding the governance structure of blockchain networks have not been completely resolved. That is why LINE, in building the initial LINE Blockchain ecosystem, is focusing on how users around the world understand and experience blockchain and crypto assets. As it develops, the LINE Blockchain will gradually open up, to enable a wider range of members to participate in the network according to the conditions of the ecosystem's growth, technological advancements, and sociocultural changes.

Ecosystem Expansion Strategy

The LINE Blockchain ecosystem will be implemented in the three phases as explained below. Throughout all three phases, it will continue to grow and expand, as it ultimately develops into a self-sufficient economic system.

- Phase1: LINE Network

Laying the foundation for the LINE Blockchain ecosystem through LINE's services

- Start linking with LINE's services
- Distribute LINK through in-house dApps
- Release LINE Blockchain Wallet

- Phase2: Alliance Network

Building the LINE Blockchain dApp Alliance with selected dApp developers, implementing features as a general-purpose platform

- Release the LINE Blockchain Developers (Open API), allowing third-party dApps to join the Alliance
- Release the LINEAR Network, implementing transfers between blockchains
- Expand the demand mechanism for LINK within the platform

- Phase3: Open Network

Expanding the ecosystem by diversifying participation channels

- Enhance the network and expand the demand mechanism for LINK
- Offer opportunities for various entities to participate in the ecosystem on top of dApps

LINE Blockchain Milestones

2018

April	Established unblock corporation to develop LINE Token Economy
June	Established unchain corporation to develop the LINE Blockchain platform
July	Launched the LINE Blockchain beta network
August	Created Genesis Block
September	Released LINE Blockchain Released the first 2 dApps Released LINE Blockchain Explorer (previously LINK SCAN)
October	Listed LINK on BITBOX (LINE's Singapore-based digital token exchange, currently renamed as BITFRONT)
December	Released LINEAR Network Released the third dApp

2019

April	Updated LINE Blockchain Explorer to v1.1
September	Launched BITMAX (LINE's crypto assets exchange for the Japanese market)

2020

February	Launched BITFRONT (previously BITBOX)
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Update History

LINK White paper

v1.0 released on September 4, 2018

v1.1 released on September 13, 2018

v1.2 released on October 1, 2018

v1.3 released on November 21, 2018

v2.0 released on August 12, 2019

LINE Blockchain White paper (Renamed)

v2.1 last revised on August 6, 2020

Important Notes

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- c. you agree and acknowledge that LINK shall not be construed, interpreted, classified or treated as enabling, or according any opportunity to, recipients or purchasers to participate in, or receive profits, income, or other payments or returns arising from or in connection with LINE or LINK, or to receive sums paid out of such profits, income, or other payments or returns;

- d. you agree and acknowledge that no regulatory authority has examined or approved of the information set out in this Whitepaper, no action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction and the publication, distribution or dissemination of this Whitepaper to you does not imply that the applicable laws, regulatory requirements or rules have been complied with;
- e. you agree and acknowledge that this Whitepaper, the undertaking and/or the completion of listing of LINK, or future trading of LINK on digital token exchanges, including the BITFRONT and BITMAX exchange, shall not be construed, interpreted or deemed by you as an indication of the merits of LINE, LINK, or the digital token exchanges;
- f. the distribution or dissemination of this Whitepaper, any part thereof or any copy thereof, or acceptance of the same by you, is not prohibited or restricted by the applicable laws, regulations or rules in your jurisdiction, and where any restrictions in relation to possession are applicable, you have observed and complied with all such restrictions at your own expense and without liability to LINE;
- g. you are fully aware of and understand that you are not eligible to purchase any LINK if you are a person from any restricted locations as set forth in the Terms of Service (or equivalent document) of the digital token exchanges where LINK is listed;
- h. you have a basic degree of understanding of the operation, functionality, usage, storage, transmission mechanisms and other material characteristics of digital tokens, blockchain- based software systems, blockchain technology and smart contract technology;
- i. you are fully aware and understand that in the case where you wish to purchase any LINK, there are risks associated with digital token exchanges and their business and operations;
- j. you agree and acknowledge that LINE will not be liable for any indirect, special, incidental, consequential or other losses of any kind, in tort, contract or otherwise (including but not limited to loss of revenue, income or profits, and loss of use or data), arising out of or in connection with any acceptance of or reliance on this Whitepaper or any part thereof by you, including in relation to:

- i. any failure by LINE to deliver or realise all or any part of the LINK features described in this Whitepaper;
 - ii. any failure by LINE to list LINK on digital token exchanges including BITFRONT and BITMAX;
 - iii. your use or inability to use at any time the services or the products of the LINE Blockchain Chain platform or LINK;
 - iv. any security risk or security breach or security threat or security attack or any theft or loss of data including but not limited to hacker attacks and losses of passwords or private keys;
 - v. your failure to properly secure any private key to a wallet containing digital tokens; and
- k. all of the above representations and warranties are true, complete, accurate and not misleading from the time of your access to and/or acceptance of possession of this Whitepaper or such part thereof (as the case may be).

Nothing contained in this Whitepaper is or may be relied upon as a promise, representation or undertaking as to the future performance or policies of LINE.

Further, LINE disclaims any responsibility to update any forward-looking statements or publicly announce any revisions to those forward-looking statements to reflect future developments, events or circumstances, even if new information becomes available or other events occur in the future.

Please note that this Whitepaper is also only a work in progress and the information in this Whitepaper is current only as of the date on the cover hereof. LINE reserves the right to update the Whitepaper from time to time.

No advice

No information in this Whitepaper should be considered to be business, legal, financial or tax advice regarding LINE or LINK. You should consult your own legal, financial, tax or other professional adviser regarding LINE and their businesses and operations, and LINK. You should be aware that you may be required to bear the financial risk of any purchase of LINK for an indefinite period of time.

Restrictions on distribution and dissemination

The distribution or dissemination of this Whitepaper or any part thereof may be prohibited or restricted by the laws, regulatory requirements and rules of any jurisdiction. In the case where any restriction applies, you are to inform yourself about, and to observe, any restrictions which are applicable to your possession of this Whitepaper or such part thereof (as the case may be) at your own expense and without liability to LINE. Persons who have been provided access to this Whitepaper or to whom a copy of this Whitepaper has been distributed or disseminated or who otherwise have the Whitepaper in their possession shall not circulate it to any other persons, reproduce or otherwise distribute this Whitepaper or any information contained herein for any purpose whatsoever nor permit or cause the same to occur.

Risks and uncertainties

Prospective purchasers of LINK should carefully consider and evaluate all risks and uncertainties associated with LINE, and its businesses and operations, and all information set out in this Whitepaper and the T&Cs, prior to any purchase of LINK.

You should not transact in LINK if you are not familiar with virtual currencies of this nature. Transacting in virtual currencies may not be suitable for you if you are not familiar with the technology in which LINK services will be provided.

You should be aware that the value of LINK may fluctuate greatly. You should buy LINK only if you are prepared to accept the risk of losing all the money you put into LINK.

As previously indicated, participating dApps will receive allocations of LINK from LTP that are to be distributed to dApp users. Subject to dApp's respective distribution policies, dApps may from time to time, either directly or indirectly, make large distributions of LINK to users, which could have the effect of increasing the overall supply of LINK that is traded on relevant trading platforms. It is possible that such distributions could have a negative impact on the market price of LINK, particularly if a large number of recipients of LINK engage in sales of LINK on relevant trading platforms in a short period of time. Please note that a specific way of each dApp's distributions of LN may vary depending upon each dApp's jurisdiction or country of registration to fully comply with applicable regulations.

LINK Issuance Costs

LINE will, in any event, incur no costs in regard to any issuance or distribution of LINK.

THERE IS NO GUARANTEE THAT THE FUNCTIONALITIES OF LINK, OR THAT THE LINE TOKEN ECONOMY INFRASTRUCTURE, WILL BE DELIVERED OR REALISED. IF ANY OF SUCH RISKS AND UNCERTAINTIES DEVELOPS INTO ACTUAL EVENTS, THE BUSINESS, FINANCIAL CONDITION, RESULTS OF OPERATIONS AND PROSPECTS OF LTP COULD BE MATERIALLY AND ADVERSELY AFFECTED. IN SUCH CASES, YOU MAY LOSE ALL OR PART OF THE VALUE OF LINK. IN THE EVENT THAT YOU HAVE PURCHASED LINK, YOUR PURCHASE CANNOT BE REFUNDED OR EXCHANGED.

IF YOU ARE IN ANY DOUBT AS TO THE ACTION YOU SHOULD TAKE, YOU SHOULD CONSULT YOUR LEGAL, FINANCIAL, TAX OR OTHER PROFESSIONAL ADVISOR(S).