



# LINKA

WHITEPAPER



LINKA PTE. LTD.

Blockchain-based

# **Value Gateway Platform**



WHITEPAPER

Last Updated: February, 2020

LINKA PTE. LTD.

# Table of Contents

<b>1. ABSTRACT .....</b>	<b>3</b>
<b>2. BACKGROUND, MISSION &amp; VISION .....</b>	<b>4</b>
<b>3. LINKA VALUE GATEWAY PLATFORM.....</b>	<b>7</b>
3.1. REWARD & VALUE SWAP SERVICE .....	8
3.2. BLOCKCHAIN PG SERVICE .....	9
3.3. LINKA MARKET .....	10
3.4. LINKA WALLET .....	11
<b>4. LINKA BLOCKCHAIN .....</b>	<b>12</b>
4.1. CONFIGURATIONS OF THE LINKA BLOCKCHAIN SYSTEM LAYERS .....	12
4.2. LINKA SERVICE PLATFORM ARCHITECTURE.....	13
4.3. LINKA MAIN-NET .....	15
<b>5. BUSINESS MODEL.....</b>	<b>16</b>
<b>6. TOKEN ECONOMY .....</b>	<b>17</b>
<b>7. LINKA TOKEN ALLOCATION .....</b>	<b>18</b>
<b>8. LINKA TEAM .....</b>	<b>19</b>
<b>9. ROADMAP.....</b>	<b>20</b>
<b>10. RISKS &amp; LEGAL DISCLAIMER.....</b>	<b>22</b>

# 1. Abstract

The blockchain is steadily evolving as an innovative and disruptive technology. Along with the existing big financial institutions such as JP Morgan Chase, social media giants such as Telegram, Facebook, and LINE either have introduced blockchain and their own cryptocurrencies, or are planning on introducing such, which is a positive signal, raising hopes for their expansion in the future.

However, from a realistic perspective, cryptocurrency is still mainly regarded as an investment vehicle, and blockchain based decentralized applications (DApp) are only used with a small number of supporters and have not been popularized yet. So far, the majority of blockchain projects have focused on improving the usability of cryptocurrencies. However, they have not achieved the convenience of the mainstream credit cards and the payment system based on the legal tenders, and the ecosystem have failed to spread.

Here, we want to change the frame of approach for the usability and acceptance of cryptocurrency. If the current projects have targeted cryptocurrency holders that are less than 10 percent, LINKA will make blockchain services available to more than 90% of the public who have no knowledge and experience in blockchain and cryptocurrencies so they can use blockchain services with current familiar payment methods, and through this approach, they will naturally be able to acquire and familiarize with cryptocurrencies so that cryptocurrencies can be used in everyday life as if they were using a credit card.

LINKA intends to realize this with the Value Gateway (VG) platform. The difference between the VG and the existing payment companies and payment gateways (PG) is that the VG provides borderless inter-usability through exchanging values between the traditional payment methods and the decentralized method of cryptocurrencies. Furthermore, the VG plays a role as a platform to facilitate the circulation process of value, such as acquisition, exchange, use and reward of cryptocurrencies, and to create and distribute new value. The LINKA VG is a value link platform that makes it easy for anyone to use cryptocurrencies and blockchain services in their daily lives without knowledge of cryptocurrency.

We believe that everything in the world has value when it is in its own place. In other words, if something has no value, it means that it hasn't found its place and that is because it's not the fact that they are not worthy means that they have not found their place, which is not being circulated seamlessly. With the development of the blockchain technology, we can now make anything a digital asset and distribute it on a trusted network with smart contracts. In order for certain things to be distributed, they must be interconnected without a barrier. It should be possible to connect them without restrictions between the centralized world and the decentralized world, and among different decentralization networks.

LINKA strives to solve that interconnection problem first. The value of such connection is not even predictable. The achievement is entirely the responsibility of the participants. A companion in the journey where all things in the world are constantly finding their value! LINKA will be the simplest and most convenient way to extend each other to the world of unlimited value.

LINK All with linkable Value Gateway!

## **2. Background, Mission & Vision**

### **2.1. Background of the LINKA Project**

LINKA was originally launched to address the problems of the centralized traditional payment industry. Credit cards have replaced cash in spite of its short history and are a success story, spreading throughout the world. Behind it, however, credit cards operate on a variety of risks and high-cost structures such as a large amount of system cost, the vulnerability issues of security, transparency and reliability, high processing fees and complex settlement. We are confident that we can solve these problems with blockchain technology.

On the other hand, in the crypto space, there is the problem that not so many merchants accept cryptocurrencies and it is impossible to use them with small amount. Using blockchain-based decentralization applications (DApp) requires complex procedures for acquiring and using the associated cryptocurrency and this acts as a huge barrier to the majority of people who do not have the knowledge and experience in cryptocurrencies.

We have constantly researched to solve two problems: solving the problems of the existing payment industry and expanding the everyday use of cryptocurrencies. As a result, we have realized that a change of perspective is needed to solve the problems of each of the different systems: the centralized system and the decentralized system. The reason the cryptocurrency industry has been failing in its objective of everyday use of cryptocurrencies although it has been targeting such objective is because of its approach to the self-centered ecosystem expansion. So, although this is an obvious outcome, marketing and services targeting only a handful of cryptocurrency holders are bound to fail. From this outcome, we have come to focus on the fact that the payment methods and experience of most people must be applied to blockchain services as they are.

Our conclusion is that we need to provide inter-usability, which means that credit cards can be used in decentralization-based services, and conversely, cryptocurrencies can easily be used on existing systems like credit cards.

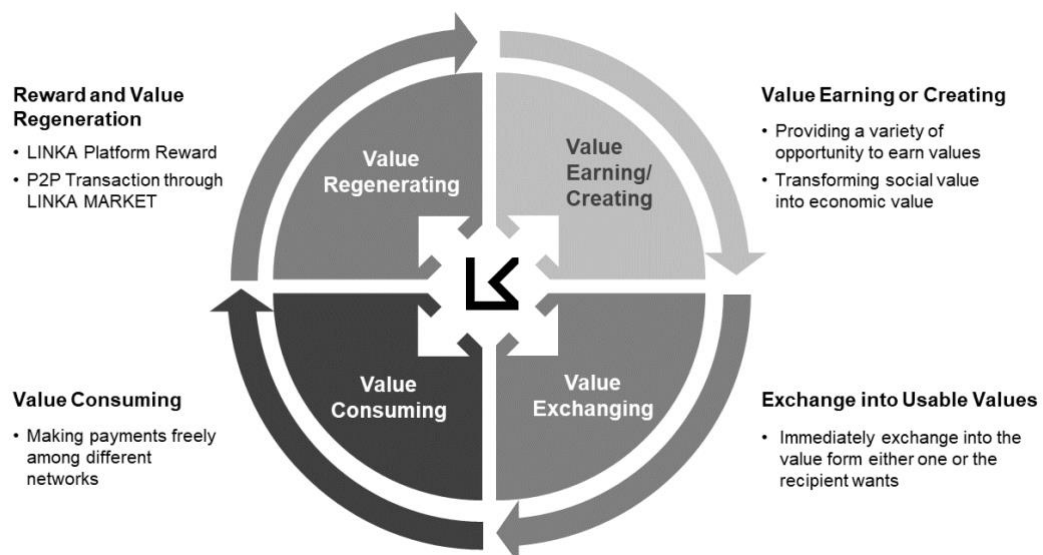
## 2.2. Mission & Vision



We have a vision of making it easy for anyone to interchange cryptocurrencies and credit cards in their daily lives without the boundaries between the real world and crypto space. This is based on blockchain technology and means expanding the world of cryptocurrency while embracing the existing payment systems.

The expansion of the world of cryptocurrency that we intend is an extension of the entire value circle that leads to "value earning and creating", "value exchanging", "value consuming" and "reward and value regenerating" and a virtuous circle structure in which value is expanded and reproduced.

【Value Circle and Role of LINKA VG】



Providing such structure of virtuous cycle of value is LINKA's "value link platform, the Value Gateway," and through this, we strive to achieve our mission of "LINK fairly All the Values Humankind Create."

LINKA is different from other projects that simply allow you to pay with cryptocurrencies, change existing systems into cost-effective systems, or convert opaque transactions transparently. Fundamentally, LINKA aims to innovate the economic system.

Through the Value Gateway, we seek social innovation that returns the initiative of value circulation to participants, minimizes social costs, and fairly rewards all participants.

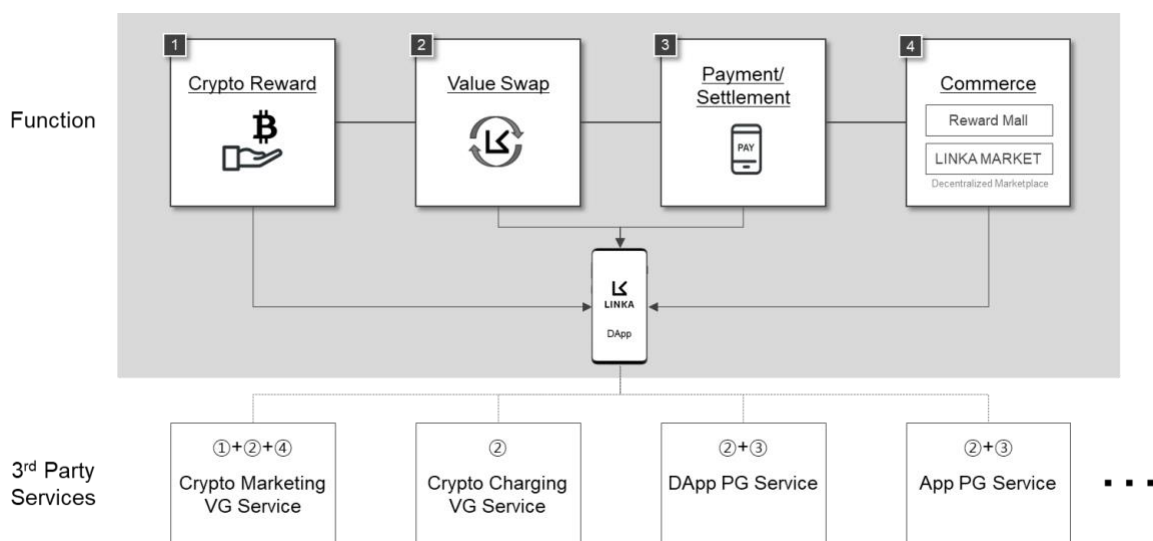
### 3. LINKA Value Gateway Platform

The LINKA Value Gateway(VG) platform consists of four components (functions or solutions) corresponding to each area of value circle. The crypto marketing solution, which serves as a channel for earning value; the value exchanging solution, which converts various values we have into ready-to-use values to suit their purposes; the payment and settlement solution, which allows the converted value to be used in purchasing services or goods, and the LINKA MARKET, a decentralized marketplace for value regeneration.

LINKA itself is a value ecosystem in which these four components work together as an organically integrated platform to create value-added regeneration.

On the other hand, each component can be serviced as a separate service or selective combinations depending on the needs of clients and the market situation.

【Structure of the LINKA Value Gateway platform】





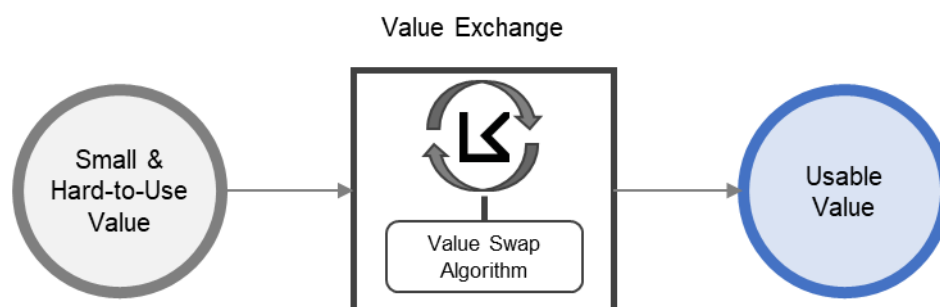
### 3.1. Reward & Value Swap Service

The LINKA VG provides the opportunity for the majority of people who do not have the knowledge and experience in cryptocurrencies to easily obtain them free. New blockchain projects and small and medium-sized exchanges have a need to enhance their brand awareness and promote utilization, but they find it difficult to reach to general customers. LINKA has partnered with large platforms to match the needs of blockchain businesses with general customers and provide them with cryptocurrencies as a reward.

The LINKA reward program is different from other cryptocurrency reward programs in two respects. First, it is effective in expanding customer base because the marketing target is people who do not have cryptocurrency experience. Second, it comes with a value conversion service. A 'usability warranted reward' that converts into a value that is immediately usable through value exchange eliminates the resistance to cryptocurrencies and makes them familiar to everyone.

The exchange rewards based on transaction or airdrops are just unfamiliar to ordinary customers. Even for cryptocurrency-experienced people, it is hard to use them.

Value exchange solutions that make useless values (not only cryptocurrencies but also points, etc. regardless of their value type) valuable are provided in a variety of differentiated services.

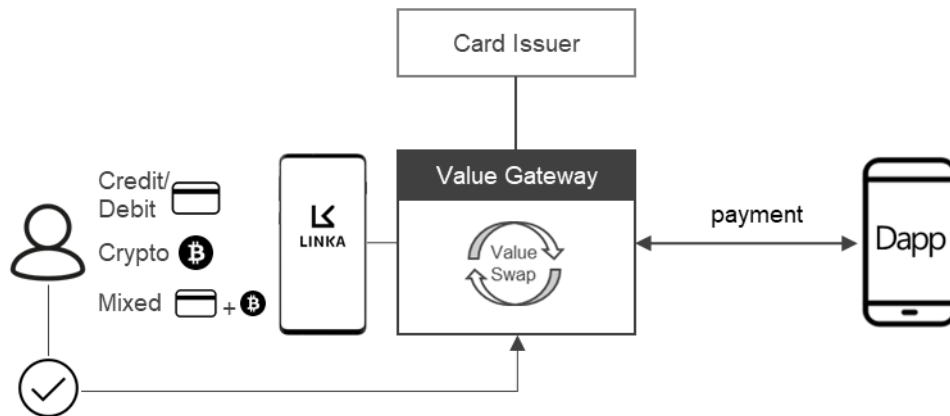


### 3.2. Blockchain PG Service

Blockchain PG (LINKA Pay) service is an example of the VG's value exchange and payment solutions applied to decentralized application (DApp) payments. This service provides payment through traditional payment methods such as credit cards and combined payment with cryptocurrencies, without the complex token purchase and payment procedures required to use a DApp. By eliminating the restrictions and accessibility of payment methods, which were the obstacle to the popularization of DApps, anyone can easily use DApp without any knowledge of cryptocurrencies, thereby promoting the expansion of the DApp ecosystem.

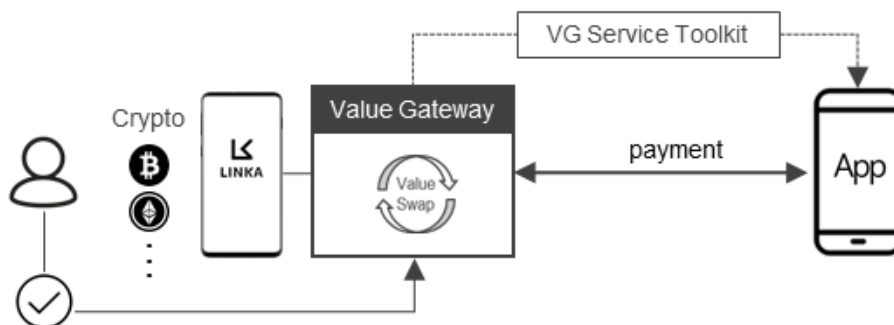
In addition, DApp developers (companies) can save time and cost for developing payment solution by simply connecting the Blockchain PG service, which will enable more diverse DApps to be released to the market soon.

【DApp Payment】



On the other hand, when the LINKA VG toolkit is introduced into an existing App, the operator can be paid with cryptocurrencies. Cryptocurrency acceptance will increase rapidly because any means of payment can be received through the SDK and API without changing the existing system.

【App Payment】



### 3.3. LINKA MARKET

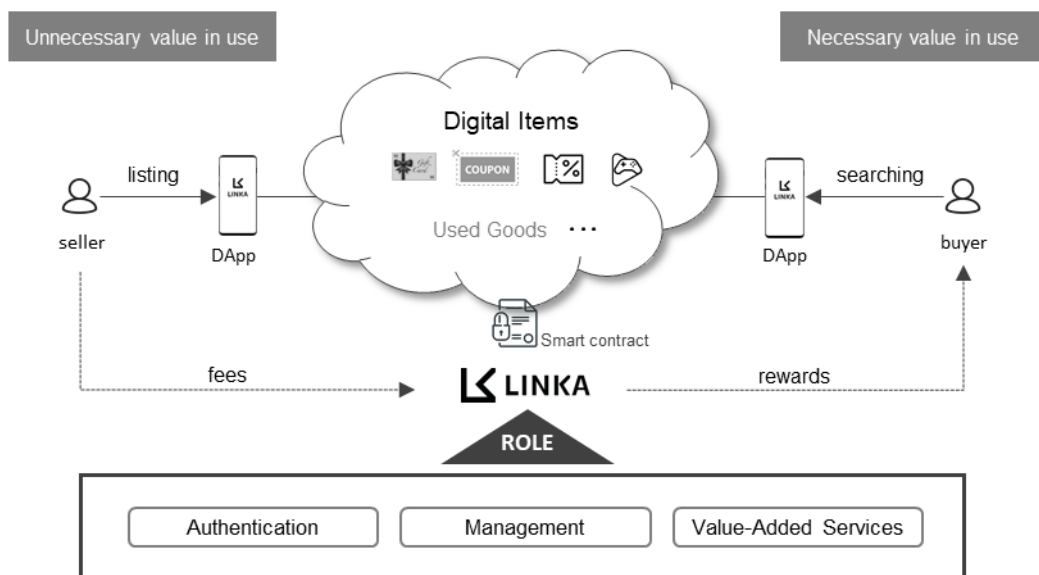
The LINKA MARKET is a decentralized marketplace where various digital items can be distributed. It makes it possible for anyone to directly trade unnecessary gift certificates, vouchers, coupons, game items, etc. with those who need them.

Unlike traditional marketplaces, it would be attractive that anyone can easily register without complex subscription and product registration procedures, that payment and settlement are automatically made, and that it can be used at a low cost.

LINKA's unique smart contract and authentication technology validates the validity and forgery of items and removes almost all possible fraudulent risks.

There is the possibility that the LINKA MARKET may not be fully decentralized at the beginning of launch. However, although this is just a matter of time, it will be developed into a decentralized O2O commerce platform of a full-process on-chain transaction.

#### 【Decentralized marketplace, LINKA MARKET】



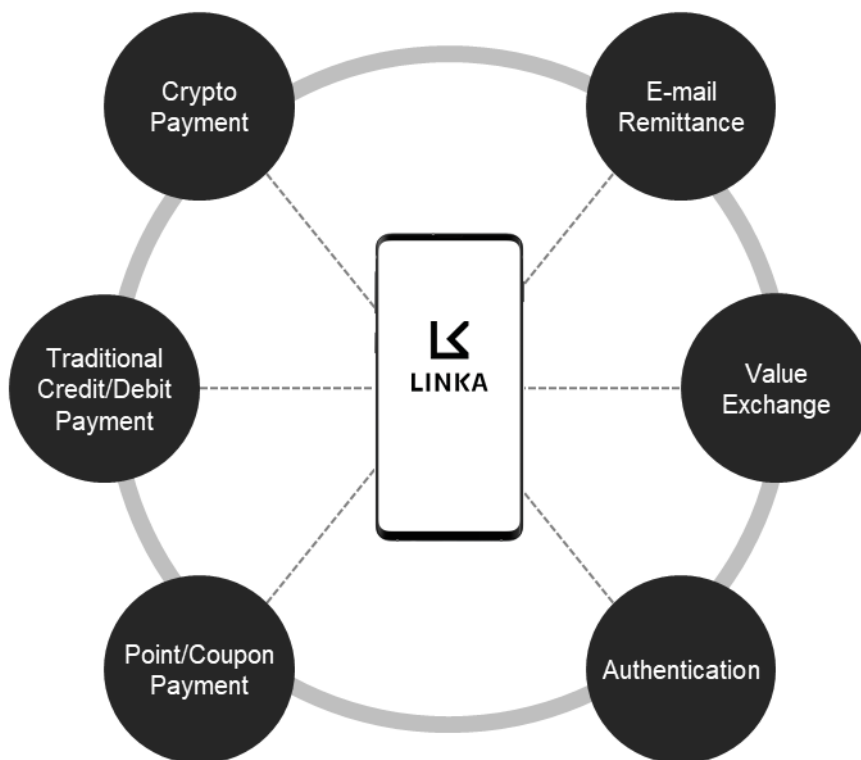
### 3.4. LINKA Wallet

The LINKA Wallet is a multifunctional wallet that can manage multiple cryptocurrency wallets and can easily make a remittance to recipient's e-mail address. Multifunctional means being able to use various services based on the LINKA VG, and LINKA members can use a cryptocurrency exchange service and on & offline payment services. During shopping, combined payments among credit card, cryptocurrencies and points are available, and a variety of offline contactless payment methods using QR codes, audio-QR, and NFC are provided through LINKA's secure solution.

When a digital item purchased from the LINKA MARKET is used offline, the LINKA Wallet is used for the authentication of authorization and ownership. The authentication-related services are expected to expand into larger markets in the future.

Meanwhile, in the medium term, LINKA Wallet members will be able to use credit and loan services with their cryptocurrencies as collaterals without the hassle of going to the exchanges to cash in.

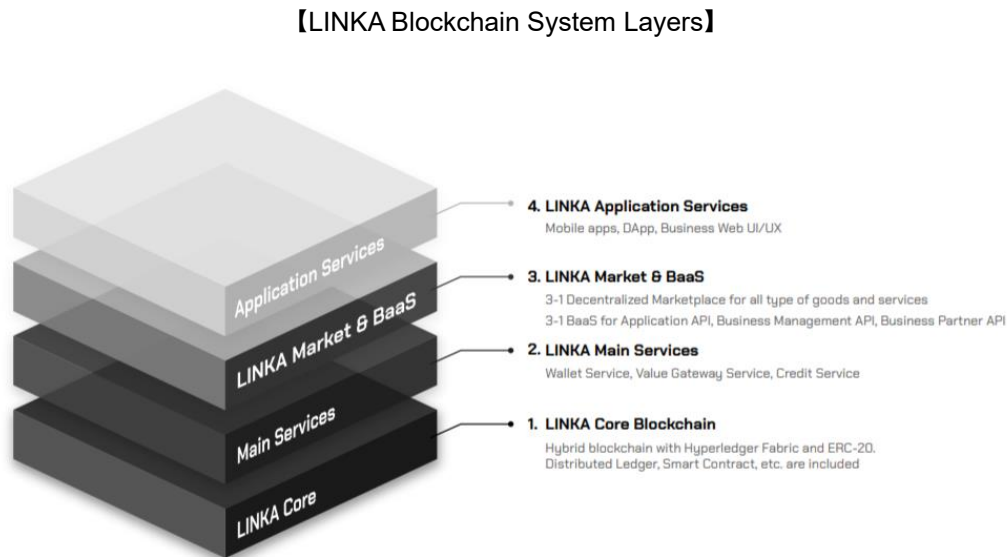
【Main features of the LINKA Wallet】



## 4. LINKA Blockchain

### 4.1. Configurations of the LINKA blockchain system layers

The LINKA blockchain system is consisted of 4 layers.



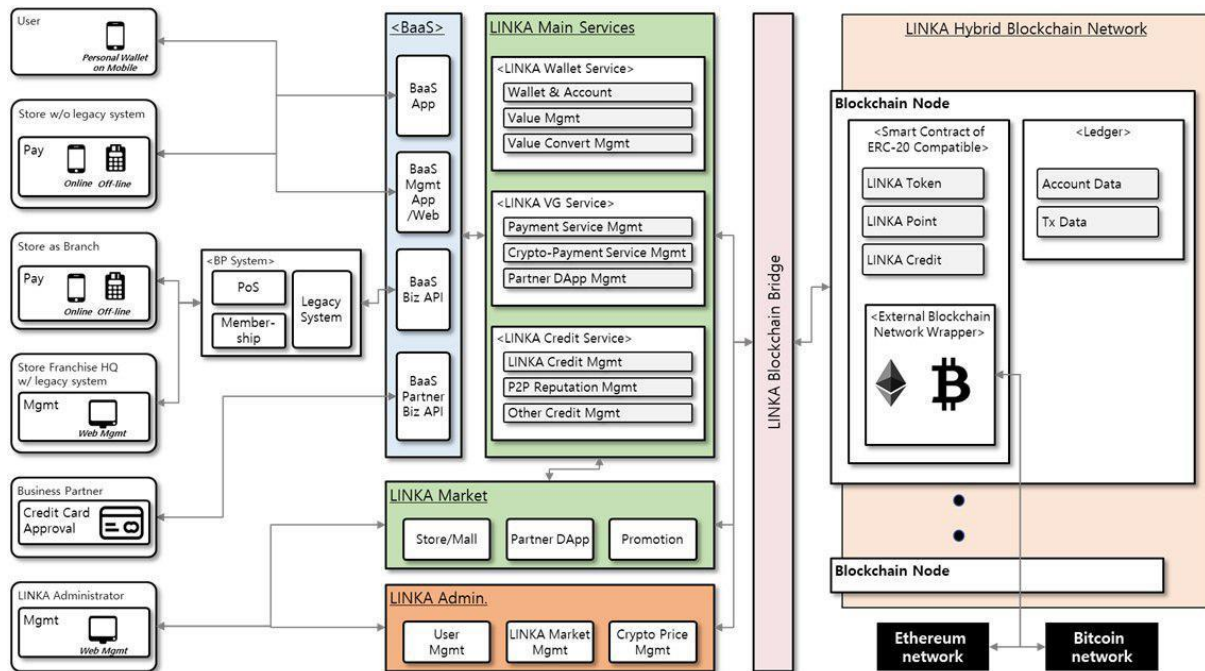
The LINKA core blockchain includes the main components of the blockchain, distributed ledger, smart contract and management & operation platform. It uses "LINKA PoA", the most effective consensus algorithm for securely handling large volume of transactions.

The LINKA core blockchain layer is a consortium blockchain shared by multiple participants. It is developed on the basis of the Hyperledger fabric, supports the ERC-20 standard, and is a hybrid blockchain type linked to Bitcoin and Ethereum.

## 4.2. LINKA Service Platform Architecture

The LINKA platform architecture including the blockchain main-net is shown below;

【LINKA Platform Architecture】



The LINKA hybrid blockchain network is a collection of private blockchain nodes and consists of three or more consortium blockchains of different business entities. Based on this, a main service module and BaaS (Backend as a Service) open to the consortium participants are provided. The LINKA Market is operated separately. Each consortium participants (BP: business partners and customers) get to participate through dedicated apps and software.

The LINKA hybrid blockchain network corresponds to the LINKA core blockchain layer, and is consisted of a distributed ledger that records LINKA tokens, points, etc., and a blockchain platform capable of executing smart contracts.

The LINKA main service is the server area of blockchain BaaS and is an area to build a server service supporting scalable high performance. It is implemented as a service server by applying various backend technologies such as blockchain, RDB, NoSQL and memory cache. The main service includes the wallet service that manages account & asset information, the VG(Value Gateway) that manages asset exchange and so on.

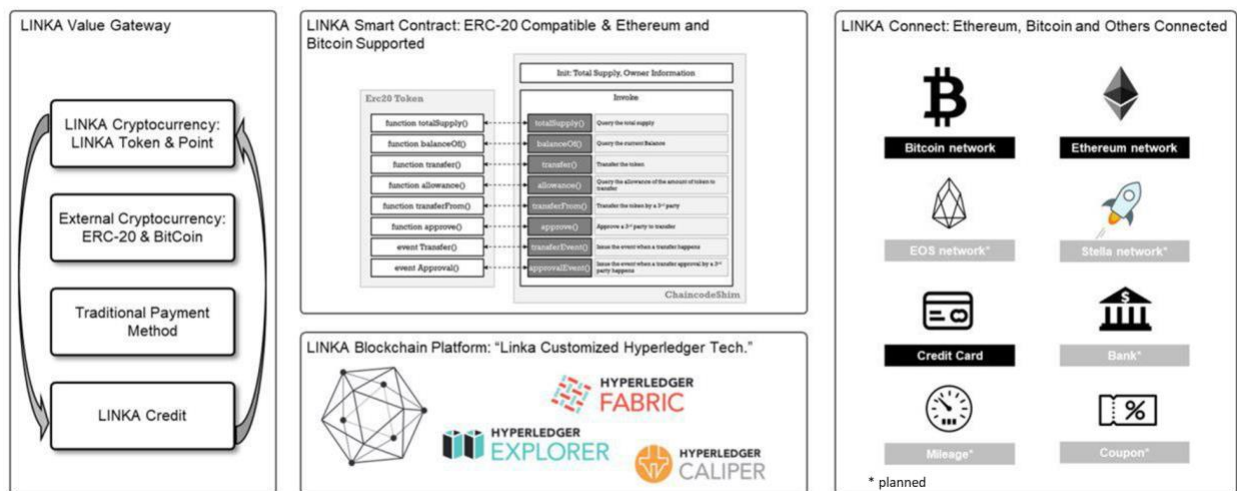
The LINKA market is a decentralized marketplace that provides crypto/Non-crypto goods and services and not only LINKA tokens but also traditional payment methods can be accepted. The LINKA market includes the Process Digitization which makes it easy to implement contract and sales processes to enable a variety of promotions.

The LINKA BaaS is a backend service provided to participants who want to provide the LINKA service to end users or provide their own services using the LINKA platform. It includes a BaaS App which provides API to link with LINKA Wallet and LINKA Mobile PoS (Point-of-Sales), BaaS Management App/Web which supports the merchant management, BaaS API which connects to legacy systems of business partners, and BaaS Partner Biz API which provides the VG service.

### 4.3. LINKA Main-Net

As described above, the LINKA core blockchain is a hybrid blockchain and adopts the ERC-20 protocol widely used in Ethereum. We have implemented the functions of the public blockchain linked to the networks such as Ethereum and Bitcoin based on the Hyperledger fabric, a private blockchain with high performance, high scalability and high security.

【LINKA Main-Net Components Diagram】



LINKA VG is a module that provides key functions to exchange values such as cryptocurrencies and various traditional payment methods with LINKA token, the key currencies of the LINKA blockchain network, and LINKA point.

The LINKA Connect is a module which connects external value like Bitcoin, Ethereum, other cryptocurrencies, banks, credit cards, mileages, coupons, and other points and LINKA.

LINKA Smart Contract is a smart contract that converts the external value introduced through the LINKA Connect to the ERC-20 protocol so that it can be used in VG. It is sometimes configured to process multiple processes or time-consuming processes sequentially, and is implemented as a smart contract on the blockchain which can ensure the process transparency and integrity and privacy.

The LINKA Blockchain Platform is a blockchain platform that ensures high performance, high scalability, and high fault-tolerance for services such as LINKA Smart Contract, VG and Connect reliably. With LINKA team's tuning know-how accumulated over the years, we have developed the LINKA Blockchain Platform with utilizing and customizing various Hyperledger project platforms, including Hyperledger fabric, Hyperledger explorer, and Hyperledger caliper.



## **5. Business Model**

LINKA's business model consists of marketing fees, value exchange service fees, Blockchain PG service fees and LINKA Market-related fees.

The fee for each service will be the lowest level in the relevant field, so we will ensure that the benefit of the platform will be felt by making the LINKA VG platform available without burden.

Most of these revenues will be returned to the participants as rewards, which will contribute to strengthening the VG platform and expanding the ecosystem.

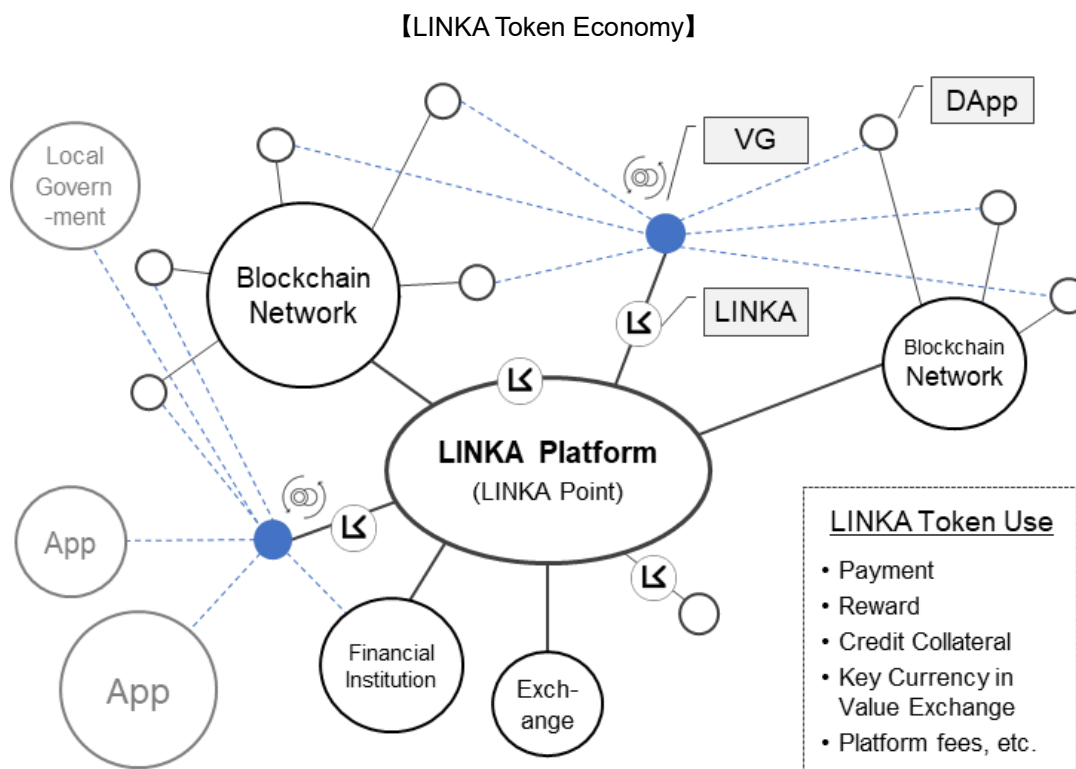
As the ecosystem expands, we will take advantage of big data we gain from the platform business to accelerate the credit-related businesses that offer additional value. In the long run, we believe they will be the key source of revenues.

## 6. Token Economy

The LINKA Token (symbol: LINKA), which is the foundation of the LINKA ecosystem, is an ERC20 compatible token used for payment, rewards, platform fees, and collateral asset for credit on the VG platform, and the supply is limited to 2 billion. On the other hand, the LINKA Point is a payment method used within the LINKA platform with equivalent value of legal currencies. LINKA Tokens and LINKA Points will connect the inside and outside of the LINKA platform, facilitating continuous value circulation and ecosystem expansion.

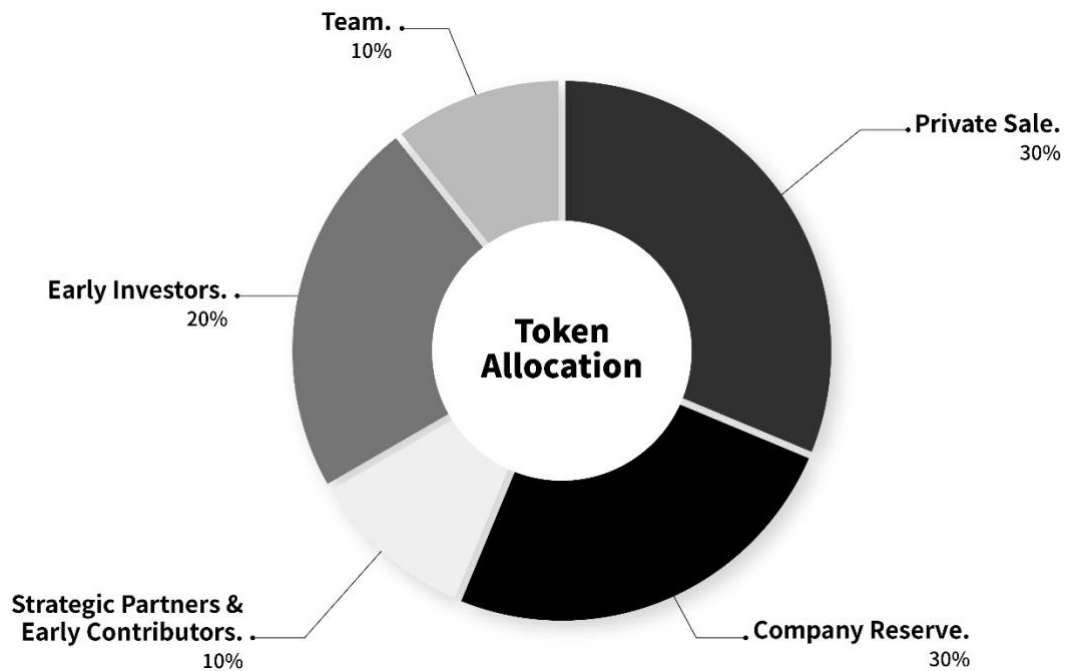
As VG services connect and stimulate various service platforms and networks, the demand for and trade in LINKA tokens, which serve as the key currency of value exchange, is expected to surge. In addition, demand for rewards for the use of the VG platform such as payment, and future demand for LINKA Token-backed credit will also act as a factor to increase the value of the LINKA token.

As such, the value of the LINKA Token will continue to rise upwards to the right in the LINKA Token economy, so the benefits to the initial participants or investors of the LINKA platform are expected to be very high. LINKA will create a world in which all participants will share fair value together by continuously rewarding all participating parties for the appreciated value of the LINKA tokens, eliminating all costs, and providing additional revenue.



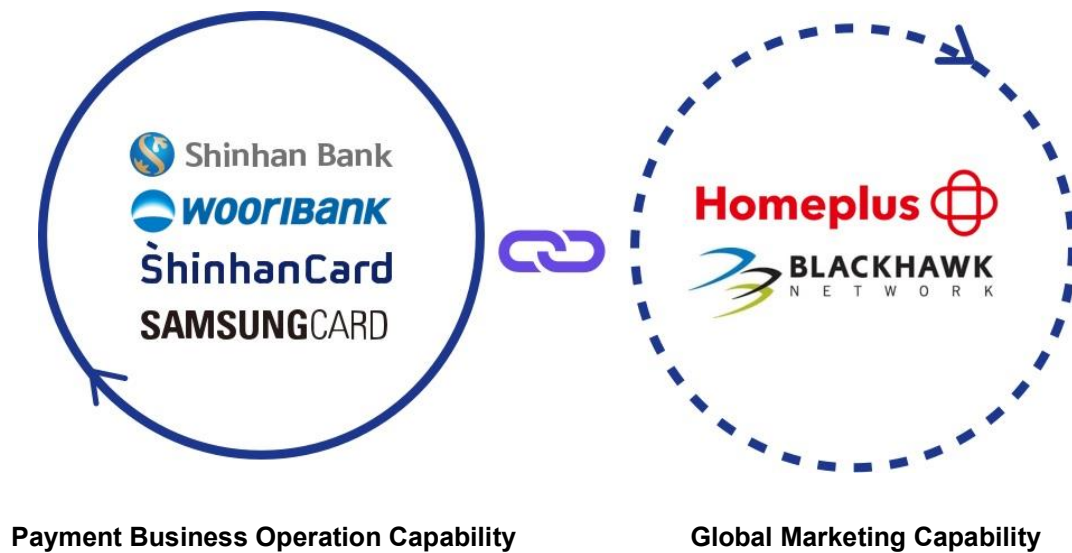
## 7. LINKA Token Allocation

We will allocate 30% of LINKA Token for a private sale, 30% as funds reserved for rewards, 20% to early investors, 10% to strategic partners and early contributors, and the remaining 10% to the LINKA Team.



## 8. LINKA TEAM

The LINKA team is consisted of financial and marketing experts who have been directly involved in the business development and credit card business at Shinhan Bank, Woori Bank, Shinhan Card, Samsung Card and BC Card and Homeplus, Blackhawk Network and have the capacity to successfully carry out the projects planned by LINKA.



## **9. ROADMAP**

LINKA has a plan to implement Value Gateway in stages according to the roadmap below.

### **1) 2019: Building business infrastructure**

- VG Platform development
  - : Crypto Reward, Value Swap, Payment & Settlement
- Research for the long-term development of the platform
  - : The alpha version of the Main-Net development, off-chain processing method, sidechain usage, etc.
- VG service development and launching
  - : LINKA Wallet Upgrade
  - : Blockchain PG service
- Development Cross Border Marketing solution/service
- Large scale partnerships with domestic and overseas (distribution, games, blockchain platform, etc.)

### **2) 2020: Business fundamental expansion**

- VG platform upgrade
  - : Expanding Inter-Usability and cryptocurrencies support
  - : Developer support including SDK, BaaS, etc.
  - : LINKA Market launching
- Expanding large scale partnerships with domestic and overseas
- Alliances with major blockchain platforms and exchanges
- Expanding VG service usage
- Expanding global marketing service to merchants and upgrading solution service

### **3) 2021: LINKA Value Gateway realization**

- Building a LINKA Alliance Network to provide reliable inter-usability
- Completing a virtuous cycle of value creation, conversion, use and regeneration
- Continuous expansion of the LINKA token ecosystem

## **4) Completed**

### **2018**

- May 2018: LINKA PTE.LTD., LINKA KOREA established
- September 2018: LINKA Wallet v1.0 launching

### **2019**

- July 2019: Listed on Bitsonic Exchange
- August 2019: Blockchain PG service launching
- August 2019: WEMADE TREE Alliance
- September 2019: Bithumb Global Exchange
- September 2019: Participated in the Busan Free Blockchain Regulatory Free Zone - Busan Bank, blockchain-based local currency consulting
- October 2019: LINKA Wallet listing on Samsung Blockchain Wallet
- November.2019: Launched Cross-Border Coupon & Voucher Service with SAMSUNG Pay Vietnam and SHINSEGAE DUTY FREE
- December.2019: continuous expansion of Cross-Border Coupon & Voucher Service in partnership with WOORI BANK VIETNAM
- December.2019: Joint development and launch of WEMADE TREE and WEMIX WALLET (game platform)
-

## **10. RISKS & LEGAL DISCLAIMER**

The information provided in this proposal (or white paper, hereinafter, "white paper") applies solely to those who have received it for the purpose of evaluating LINKA and LINKA tokens (hereinafter, "potential buyers").

The LINKA team (collectively, LINKA Pte. Ltd. and LINKA Korea Co., Ltd, their shareholders, employees, and affiliates) has prepared this white paper to provide potential buyers holding a strong interest and affections for the LINKA platform with the specific information on the platform and the team. Thus, this white paper was written for reference purposes only, to provide specific information. Therefore, this white paper is not intended to recommend an investment for the LINKA team or platform, and it has nothing to do with it. Furthermore, the LINKA team does not warrant that any content of the white paper, including conclusions, is accurate as of any point in time in the future, as this white paper is written "at the time of its preparation".

The LINKA team makes no representations or warranties of any kind with respect to this white paper, and assumes no liability for them. For example, the LINKA does not warrant that (i) the white paper is based on legitimate rights and does not infringe on the rights of third parties, (ii) the white paper is commercially valuable or useful, (iii) the white paper is suitable for achieving specific purposes of the potential buyer, and iv) whether there is no error in the content of the white paper. Naturally, the scope of indemnity is not limited to the above examples.

If a potential purchaser uses this white paper (including, without limitation, making reference to this white paper or any other manners in which this white paper was based) in his or her decision-making activities, any and all consequences shall be entirely caused by and imputable to the potential buyers. That is, it should be noted that the use of this white paper does not impose any indemnification, compensation or other liability on the LINKA team even if the potential buyer suffers a loss, damage, debt or other damage arises.

### **10.1. ANTI MONEY LAUNDERING ACT (AML)**

The buyer must agree not to engage in any form of money laundering, illegal currency trading and other restricted activities through LINKA tokens and other related derivatives (if any). Each participant should be aware that LINKA tokens and other related derivatives may not be sold, exchanged, or disposed of directly or indirectly for the purposes of money laundering.

### **10.2. COUNTERING THE FINANCING OF TERRORISM (CFT)**

The buyer must agree not to participate in financing, exchange and support activities for the purposes of terror financing through LINKA tokens and other related derivatives, if any. The buyer shall also be aware that LINKA tokens and other related derivatives may not be sold, exchanged or disposed of for the terrorist financing purposes.

### **10.3. MATTERS OF IMPORTANCE**

Due to frequent changes in related policies, laws and regulations, technical, economic and other factors,

the information provided in this white paper may not be accurate, may not be reliable or final, and may change several times. This white paper is provided for reference purposes only. The LINKA team is not responsible for the accuracy and legitimacy of the information provided. Those desiring to participate should not rely solely on the information provided in this white paper. The LINKA team encourages participants to conduct their own investigations prior to sponsorship.

Essentially, this white paper is a business proposal or business promotional document, and in no event is it legally binding. The information in this document is intended for references only, and the token purchasers must pay extra attention on their own.

#### **10.4. LANGUAGE**

This white paper supports multiple languages. In the event of a dispute, the LINKA team will resolve the issue based on the English version. For a more accurate interpretation of this white paper, we recommend that you check the English version.





**linka.io**

**Join our Community!**

Telegram : <https://t.me/linkaofficial>

Medium : <https://medium.com/linka-pteltd>