

# WHITEPAPER

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**Coin?** A coin generally refers to metal money imprinted by processing a certain amount of metal into a certain shape, but may not have a shape.

**Currency?** A currency is recognized stores of a certain value and can be exchanged for something else equivalent as a medium of exchange.

**Value?** Value is defined and determined by someone's needs, and are evaluated through the networks they have.

## Abstract

The information and communication revolution through the digitalization of information represented by computers, the Internet and the mobile devices has profoundly transformed our lives and our economy.

The blockchain technology started from the thesis, “Bitcoin: A Peer-to-Peer Electronic Cash System” written by Satoshi Nakamoto in 2008. Bitcoin embarked on a new world of digital currency by creating the first block, Genesis block, in January 2009. The birth of this blockchain technology has opened the world of ‘decentralization’ and raised new issues in the existing money system.

However, although that many kinds of blockchain projects including Bitcoin focus on ‘decentralization’, they are yet unable to function as real-world currencies because of low transmission speed, huge power consumption, high volatility, and so on.

The TiBAB project aims to overcome these limitations and to establish a link between blockchain and other technologies, which enable all kind of transactions to take place in the real economy.

In this whitepaper, we are going to explain the real economy that TiBAB wants to create, and we are going to explain the TiBAB blockchain that will bring such a change.

TiBAB will provide a trading platform where sellers and buyers can freely trade with each other with safety, and TiBAB TEAM will be able to create innovative changes in the real economy through the TiBAB platform.

## 1.Introduction

In the TiBAB project, we intend to develop a global integrated payment system. More specifically, by utilizing blockchain technology, this project can realize ‘decentralization’, quick settlement and low transaction fee. And also a lot of people can use TiBAB PAY easily and TiBAB PAY can contribute to the real economy, since TiBAB PAY has low volatility. In addition, we connected TiBAB PAY with TiBAB TOKEN, so TiBAB PAY can link to the existing virtual currency world and also it will enable unlimited expansion in terms of payment.

Previously, Traditionally, only certain people could access data related to payments. However, TiBAB used blockchain technology to build big data. So everyone will be able to do real economic activities through TiBAB's big data, and we expect TiBAB to expand further in the real economy.

### 1.1. Background

#### Overview

The blockchain technology began with the advent of Bitcoin in 2008, and it

opened up the world of ‘decentralization’ and raised new issues in the existing monetary system. Countless blockchain projects are claiming to be ‘crypto currency’. However, since existing blockchain platforms have expensive fees, price volatility, national premium, different prices by exchange, and limitations in computational speed, it cannot function as a currency, and it shows much difficulty in its application in the real economy. The TiBAB project was born with this background.

### Problems of the current payment system

There is an example that anyone who has ever used the same payment method as a card might have experienced once.

From the viewpoint of the purchaser, because events and discount rates vary depending on a particular merchant or a particular card, purchasers are forced to keep various cards such as payment cards or mileage accumulation cards. Thus, purchasers are always at risk of losing their cards and have difficulty managing their cards. If the purchaser only has a specific card such as VISA, MASTER and JCB, the item can only be purchased from a particular store. In addition, the purchaser will be burdened by the commission fee of currency exchange when payment is made abroad, not in the country where the card was issued.

From the retailer's perspective, Suppose a customer pays \$100. When purchaser pays \$100 by credit card, the credit card company takes about \$3 from the retailer for a commission fee. If \$100 is paid through smartphones, a commission fee will increase to about \$8. When the retailer sell \$100 items on the internet shopping mall, the retailer have to pay about 10% commission fee to the internet shopping mall company. In addition, If buyer pay \$100 on

Google or Apple's App Store, the commission fee reaches 30%.

As retailers have to pay high commission fees in the current payment system, the retailer sets the unit price of the item high, thereby depriving purchasers of the opportunity to buy cheap goods.

### Problems of existing retailer's marketing

Competition among retailers, regardless of size or industry, is getting fierce. The survival competition among retailers varies greatly depending on the store's customer management and marketing capabilities.

Enterprise-type retailers can build and maintain their own CRM (Customer Relationship Management) system. However, small and medium-sized retailers do not have the resources to do the same.

Depending on the vendor's marketing content, the effect of the sale varies significantly. Sales stores are holding events such as discounts and gifts on their own, but most of them end up with a one-time event due to the high cost burden of retailers, poor performance and poor management. So while retailers continue to attract customers by publishing the mileage point and coupons, customers are becoming uncomfortable with fragmentation of the mileage point. For example, the mileage point received from Lotte can only be used by Lotte franchisees and cannot be used by other franchisees.

## 1.2 Requirements for Blockchain Pay System

The following requirements are essentially necessary in order for payment systems combined with blockchain technology to be used in public.

## Free Usage

Retailers and purchasers should be able to use the platform for free, without paying any fees. Free access to payments services makes payment services popular faster, and sellers can generate efficient revenue. In conclusion, buyers will be able to purchase goods more cheaply.

## Support for Many Users

In order to compete with various existing payment services, a blockchain technology capable of accepting payments from a large number of users around the world is needed.

## Low Latency

In the process of payment, the seller cannot rely on the payment system if it takes about 5 minutes to 1 hour or more to transfer, like existing blockchain. Therefore, the blockchain be able to process a transaction in a few milliseconds to seconds without delay.

## Escrow

For most products (or digital rights), the blockchain system needs to hold the amount buyer paid while the product is being delivered to the buyer. After confirming that the buyer has received the product, the seller is given the amount buyer paid, working as the Escrow platform.

This can be applied differently depending on the situation. For example, in the case of purchasing a chewing gum or a cup of coffee, you can go straight without an escrow, and if you buy a car or a house, it will take a few days to trade a car or a house. Seller and purchaser will establish their own transaction period and use ESCROW.



## FDS (Fraud Detection System)

The transaction pattern of the user is analyzed and stored through the data analysis system in the blockchain. Big data is built through the user's purchasing patterns and stops the purchase or payment if there is a purchase or settlement that deviates from the user's pattern. By re-authenticating the user's wallet, the system prevents abnormal use of the account, such as payment by someone other than the owner.

## 2. TiBAB

TiBAB is a global content service platform with unlimited scalability, and also TiBAB provides real-time payment and transaction interface for free.

TiBAB uses the blockchain technology to build an integrated payment system centered on sellers and consumers, which could not be provided by the existing payment system.

In other words, TiBAB enables mutually reliable transactions by building an ideal payment platform that has all the necessary requirements for a payment system such as security, reliability, and transparency.

TiBAB is not a single service but a global payment service platform. TiBAB provides SDK and API, because TiBAB pursues diverse services developed by developers to be created by using the TiBAB payment platform.

To do so, TiBAB will issue TiBAB PAY (TIP) to guarantee payment of the monetary value of the payment system, and TiBAB TOKEN (TIT) will be

issued to establish a seller- and consumer-oriented economic ecosystem. All participants in the TiBAB platform will have an infinite number of opportunities to earn economic rewards.

The characteristics of the TiBAB project are as follows.

## 2.1 Security

TiBAB was designed primarily to enable only the parties themselves to protect their own payment data that is in progress or completed. In addition, only the user can set the access authority freely and record it in the block chain. In this way, it is possible to prevent the leakage of the settlement data and eliminate the possibility that third parties can participate.

## 2.2 Reliability

TiBAB stores payment data in a distributed data store called blockchain. This continues to create and maintain backup data as more people participate in TiBAB. And data integrity is verified and guaranteed by recording the hash value of the data in the block chain. In this way, even the party having the management authority cannot modify or delete the data freely, thereby making it possible to secure the integrity and reliability of the payment data stored in the TiBAB.

## 2.3 Transparency

TiBAB records the use of blockchain data in the blockchain as well according to the authority set by the payment party. This allows the payment data to be transparently managed. When, where and for what purpose (for example, marketing) are recorded when anyone uses the data.

## 2.4 Interoperability

TIBAB is a global content service platform with unlimited scalability and plans to provide APIs and SDKs as a base. The payment system provided by the platform and payment data stored in the TiBAB block chain can be freely connected with applications and services and used by various applications and services. This allows TIBAB, based on the high degree of freedom and scalability associated with payment, to provide more convenient and more advanced services than the current payment system,

## 2.5 Accessibility

TIBAB stores all data related to payment in a decentralized blockchain so that users can conveniently access the data anytime, anywhere with internet connection. In addition, all data sold or purchased by the user is stored in the block chain, so payment data will be provided without reliance on any payment agency (e.g., credit card company). In other words, it reduces reliance on specific payment agencies and gives users greater access to payments.

## 3. TIBAB Architecture

### 3.1 Consensus Algorithm(SPOS)

Cryptographic currencies such as Bitcoin, which uses only PoW-type agreed protocols, need to purchase more mining equipment to gain control over the block chain and at the same time increase mining revenues. This causes various problems such as electric power loss and environmental pollution.

Accordingly, the TiBAB project combined a Proof of Stake (POS) algorithm with an economic system that enables sellers and buyers to obtain complementary compensation. TiBAB project calls it the 'Selective Proof of

Stake (SPOS). The SPOS algorithm will go beyond the limits of the existing block chain. So TiBAB use SPOS algorithm.

The SPOS algorithm works as follows: Seller registered on TiBAB platform may perform POS using TiBAB PAY. In other words, the TiBAB TOKEN is compensated to the registered seller according to the amount of TiBAB PAY in the seller's online wallet, retention time and amount of payment.

As the seller proceeds with the payment, the initial block of his transaction is created within the SPOS algorithm. And the initial blocks made by other vendors and other blocks will be integrated to create the final block and conduct verification. Therefore, the TiBAB block chain based on the SPOS algorithm does not need to have a dispute to create the next block.

Accordingly, it can be considered that the transaction is completed with 99.9% certainty after approximately one to three seconds from the time when the settlement is started. If there is a fork, the agreement automatically switches to the longest chain.

## 3.2 Platform Structure

The TiBAB platform has three layers of structure: CORE, PAY Service, and Application.

### TiBAB Core

The TiBAB Core layer is TiBAB's payment data network. The TiBAB Core layer takes advantage of the latest encryption technology and stores encrypted data in a blockchain network.

Payment data generated in the PAY Service or the Application Layer cannot be viewed without the consent of the user because payment data is encrypted and passed to the Core at the PAY Service layer. Since developers or sellers can access the Core layer only through the Pay Service layer, they can prevent unauthorized intrusion into the blockchain network. In addition, TIBAB Core provides a system to easily back up and restore stored data, so that it can be safely stored without data loss.

### [TIBAB Pay Service](#)

TIBAB Pay Service connects TIBAB core and TIBAB application in TIBAB platform and also encrypts and decrypts data. It is also a layer that processes the API and the SDK that enable the use of the TIBAB platform. The Pay Service layer provides all core functions for managing payment data stored in the block chain, such as payment progress and classification of payment data.

### [TIBAB Application](#)

The TiBAB Application includes all TiBAB programs such as making payments through the platform or marketing using payment data. It also includes all types of applications that use the TiBAB platform in environments such as apps, mobile, web, and offline. The Application layer can access TIBAB blockchain data through the Pay Service layer. This application development can be easily done with the API and SDK provided by PAY Service.

## [3.3 Account](#)

On the TiBAB platform, accounts are divided into developers, end users and sellers, depending on the purpose of using the platform. These accounts operate essentially the same way. However, each account has limited

functionality and privileges available.

TYPE	Developer	User	Merchant
Use of own transaction details	Allowed	Allowed	Allowed
Use of others transaction details	Not allowed	Not allowed	Not allowed
Favorite store/customer registration	Not allowed	Allowed	Allowed
Use general payment data by country /region	Allowed if authorized	Not allowed	Allowed if authorized
Customer Preferences	Not allowed	Can be set public or private	Allowed if they are public
Compenstation TOKEN when making payments	Allowed	Allowed	Allowed
Applying SPOS	Not allowed	Not allowed	Allowed
Reputation System	Not allowed	Allowed	Allowed

For developers and sellers, separate registration procedures should be taken to use the data from the TiBAB platform. This is to enable the use of TiBAB's SPOS and to store and manage how payment data was used in the block chain.

In order to make the stores and payment data stored within the TiBAB

platform valuable big data, the seller must register the store's location and selling products with the TiBAB platform. Seller(s) registered with TiBAB shall also be certified using hybrid authentication method. Hybrid authentication method refers to combining the existing centralized authentication method such as checking the business registration and peer-to-peer authentication method.

In the case of general settlement data, it only indicates when, where, and which settlement has been carried out, and important information of the general user is not revealed.

## 4. Token System

TIBAB issues TIBAB PAY (TIP) that matches 1:1 with real money. In addition, TIBAB issues TIBAB TOKEN (TIP), which acts as a measure of sellers and platform participation (ecosystem reputation) along with TIBAB PAY (TIP) and rewards of the payment ecosystem. The details are as follows.

### 4.1 TIBAB PAY

TIBAB PAY (TIP) is a one-to-one matching cryptocurrency with real money that can be traded by the user, certified by the TIBAB Foundation (or bank) as a deposit.

Currently, it is difficult to apply crypto-currency to the real economy due to low transmission speed, enormous power consumption and high volatility. However, TIBAB Foundation or bank guarantee the value of TIBAB PAY as a deposit, so it can be applied to the real economy.

TiBAB PAY (TIP) on the TiBAB platform is used as a major medium for all economic activities and all purchasing and selling services connected to the TiBAB platform payment system are available.

## 4.2 TIBAB TOKEN

TIBAB TOKEN (TIT) can be traded through exchanges like TIBAB PAY (TIP), and can be used to pay for all service charges and merchandise purchases connected to TIBAB platform payment system according to real time quotes. TIBAB TOKEN (TIT) can be used jointly in any payment space using the TIBAB platform.

Procedure for obtaining TOKEN (TIT) is as follows. When a seller registered on the TiBAB platform maintains a blockchain network using the POS and PC in use in the store, TIBAB TOKEN (TIT) can be acquired as a reward based on the amount of TIBAB PAY(TIP) in the wallet, the online retention time, and the amount of payment activation. TIBAB TOKEN(TIT) can be provided in the form of a reward according to the percentage (%) set by the seller to a buyer who is engaged in consumption activities. When using payment data from TiBAB platform as marketing or campaign, payment can be made through TIBAB TOKEN (TIT).

Users of TIBAB platform will manage their payment data through TIBAB, and the activities they share will gather together to make the TIBAB platform more powerful and more valuable.

## 5. Example of Use

### 5.1 Personal Consumer Reports



Consumers using the TIBAB platform can consolidate information from billing data scattered across multiple providers and payment agencies, including in-store and online stores. Such integrated payment data can be used when one wants to repurchase an item or find out one's spending propensity.

The payment data of consumers are encrypted and stored permanently in the blockchain network, so consumers can easily check consumer's consumption pattern or where consumers bought at what store. Consumers can easily identify how the products they purchase or want to purchase are organized and what strengths and weaknesses they have. In addition, you can compare how your own consumption pattern has with the past payment data, how it differs from other people through statistics by region and age. This will allow for better consumer management.

## 5.2 Seller's Reports

Sellers using the TIBAB platform can check the tendency and consumption patterns of customers who make purchases at their stores, and the accumulated sales data are permanently stored in the block chain network, It will be easy to identify when and how sales were conducted and how they were responded.

In addition, Since the marketing that sellers conduct by giving TiBAB TOKEN (TIT) to their customers is stored by the TiBAB platform integration data, Sellers can learn which marketing has increased the number of customers and which marketing has increased sales by day, month and year. It will be possible to identify them in various ways.

As a result, sellers can have more customers, and sellers are able to manage

various kinds of sales to increase their sales.

### 5.3 Social Networking Service

The TIBAB platform can create a community for consumers, including stores and reviews of items. By sharing information that is similar to or different from their own consumption patterns, consumers can be of great help to others. Sellers can organize a network of sellers, which can help them to sell as well as increase sales by sharing information such as responses and details of specific consumers.

### 5.4 Payment Data Market

The TIBAB platform provides a payment data market that consumers and sellers can connect directly to. Currently, certain large groups, such as some large portals and payment agencies, have monopolized the distribution of payment information and take advantage of it. TIBAB provides a service that allows these payment data to be returned to market participants participating in the settlement.

The payment data market is now known to have a size that can not be calculated. The demand for such payment data is expected to continue to increase as the market economy continues, and the payment data market will continue to grow. The TIBAB platform is a blockchain based payment system that enables high-quality data to be stored and be easily accessible to the marketplace, and the huge financial gains that some existing groups monopolized can be returned to market participants in settlement.

## 6. RoadMap

[www.tibab.io](http://www.tibab.io) check at web site

## 7. Conclusion

TIBAB is based on guaranteed and proven concepts and shows progress in payment system using the blockchain technology.

TIBAB provides APIs and SDKs so that they can be used in various services. This will contribute to the real economy of the world by building big data based on the payment data recorded in the block chain and sharing data held only by specific payment agencies and portals.

"The TIBAB project will accelerate decentralization, which will provide unlimited opportunities for all participants, by redistributing the value of consolidated payment data, improving customer accessibility and usability, and increasing the quality of service at retailers."

## 8. Legal and Compliance

This work has been produced for reference purposes only to give you information about the TIBAB project.

TiBAB is not legally entitled to security because it does not give benefits or rights to a particular individual or group. It has no performance or specific value other than the community provided by TiBAB. TiBAB should not be used or purchased for speculative or investment purposes. People using TiBAB should read the TiBAB white paper carefully. And understand all the risks, costs and benefits associated with purchasing ESS.

People using TiBAB should have a good understanding of virtual currencies,

blockchain systems and services. And be fully aware of the risks associated with cloud-selling and the mechanisms associated with virtual currencies.

TiBAB is not responsible for user loss, situations in which the user cannot access the TiBAB due to the user's careless behavior, and for personal or hacker attacks to obtain the TiBAB.

Using TiBAB involves a variety of risks. In particular, there is the risk that community services may not be able to launch, and that blockchain development may not be possible.

Therefore, before using TiBAB, all users should know the perspective of cloud sales in advance, and all users should consider the risks, costs and benefits of using TiBAB, and if necessary all users should get appropriate advice. It is recommended not to obtain TiBAB if these related risks or the various risks stated in the user's terms and conditions are not acceptable or understandable. This White Paper was not made for investment. The White Paper does not contain information or recommendations for investment or information on investment decisions.

South Korea, China, Vietnam and Russia have no ICO-related regulations. Therefore, anyone who participates in ICO cannot be guaranteed financial safety. If a legal problem arises, all responsibility rests with the user himself.

To sum up, this work is for informational purposes only and is not intended to be a guide for investment in the TiBAB platform. In addition, since this work is provided at the time of writing, we can not guarantee that the contents of the work will be accurate until the future.

If you decide to use this white paper in your decision-making activities, your results will be based on your own judgment, regardless of whether it results in profit or loss.

Please note that the TIBAB project team will not be held liable for any loss of money incurred by using this work.

## 9. References

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