DEFISTOA

DeFiSTOA Whitepaper

Whitepaper v0.9

Contents

Introduction

Defistoa is a project that tries to connect various financial assets in a digital environment. It is a DeFi platform and a virtual asset securities platform that supports mutual trading of cryptocurrencies that have already formed the DeFi market and securities or funds represented by real assets. For this connectivity project, our project is also a financial platform based on an autonomous arbitrage network that provides a program to increase asset growth and investment value through a machine learning model in order to innovatively increase the various interest growth programs provided by the existing traditional finance.

In addition, Defistoa stands for decentralized finance. In the established financial system, we pursue distributed finance in which rights are equalized and opportunities are balanced, rather than decentralized out of regulation.
The existing financial market ecosystem was the property of a specific group. In a decentralized financial ecosystem, it must be newly defined and established. The free market economy of a decentralized financial ecosystem is based on the assumption that the future will be built from an artificial and intentional infrastructure to an autonomous and intelligent infrastructure as a financial ecosystem of a society based on high intelligence.

Defistoa is a project formed and ongoing to build a network suitable for the hyper-connected high-intelligent financial infrastructure of the future financial network and to connect the laws and institutional devices of real finance with the protocol of the virtual financial market.

Through Defistoa, anyone can stand at the center of finance, and anyone can enjoy profits in the financial market.

Preface

Summary

Defistoa provides a means of motivation for the participation of financial programs as a issuing market to operate various inter-financial product brokerage programs, and becomes a platform for intermediating various financial services as a distribution market.

Defistoa attempts to build a virtuous cycle ecosystem of digital finance by rebuilding the issuance and distribution market models, which are major models of the financial transaction market, into a suitable digital ecosystem.
In establishing such a system, various interest programs and asset growth programs are provided to motivate the market in the process of digitally converting the existing financial issuance and distribution market models to fit the virtual asset market model. We will build a Finance Buffer Process, provide premiums for participants in the ecosystem of these markets, and digitize the efficient capital product brokerage market in the financial product distribution market based on this.

Defistoa aims to build the framework and protocol of the traditional financial market as a mathematically intelligent, autonomous participation framework, rather than intentional marketization in the digital ecosystem. This could be a type of swap service between cryptocurrency and real money, or between cryptocurrency and real assets.

Finance should be traded simply and conveniently, with the right to participate by anyone. In addition, it must have stability and reliability, which are the prerequisites of financial services, and have sustainability. In addition, it is necessary to manage risk and ensure the stability of assets, to ensure anonymity of capital flows, and to create intuitive identification of data flows and a transparent information chain. The regulation of the network to become a safe financial ecosystem in the issuance and distribution markets of finance lies in the equilibrium of market autonomy and participation.

In terms of limitations, leverage should be used as a means of stabilizing various values for finance, and a token economy should be designed that can build an ecosystem with a sustainable virtuous cycle. Defistoa was developed for this purpose and is constantly being upgraded.

The approach to security technology is also easy and convenient. Since it is an inconvenient act to go through the authentication procedure every time, the UI/UX aspect is also considered so that the authentication procedure is simplified and convenient for the authorized user of the whitelist method. Our security is advancing the security access system based on informal, not formal ASCI access. The transaction of assets is designed to increase convenience, but the withdrawal of assets must be the basis for absolute security and strong control. An unauthorized user blocks access and operates a security model that further strengthens the security of assets and management by measuring the pattern and similarity of access behavior and login access.

There are concerns that the decentralization of money is used for illegal funds and is abused as a means of escape. CBDC emerged to offset this, and measures to prevent such money laundering are emerging in the process of development. Decentralization arises in a society where opportunities are uneven, processes are unfair, and unjust.

The social trading platform that Defistoa intends to implement is to start to improve the problems for this cognitive revolution and relational revolution. It is expected that it will be a window to express where Defistoa's business started and what the business group of Defistoa has thoughts.

The reason why the twisted ecosystem of the current economy and capital was formed is that the system cannot control the many needs of people. The more you try to control it, the more you will try to express your desire in the dark in search of other detours. Defistoa tries to provide a channel for those who want economic desire. It tries to build business inflation through a capital redistribution model of by-products of value obtained in the process.

Outline

01   **Necessity**

The problems of current financial services are clear, but there is no improvement. Rather, it has entered the stage of fixation. Defistoa has been thinking a lot about the decentralized financial services that will come in the future. Based on this, we are trying to prepare for the upcoming market.

Currently, the virtual asset market is not very different from risky gambling venues. It appeared to criticize and improve the limitations of the centralized economic model, but rather, the moral hazard reached a more serious level than the central institution. It is disturbing market participants by distorting absurd and irrational claims. A market has been formed that should be understood only as technical absences in which fundamental analysis is omitted. The market's psychological fandom became the background for the market formation. It resembles a tulip bubble where you can't know when it will fade.

However, the technological value of virtual assets is clearly present. It was amazing that the real market value has been transferred to the digital market and the properties of assets are implemented using blockchain technology.

The main reason the virtual asset market is maintained is that the historical properties of money and virtual assets are similar. Tulips, for example, cannot keep the originals, but Bitcoin can keep the originals digitally forever. Just as gold has immutability because it is not oxidized, Bitcoin's mainnet has implemented immutability through blockchain. It also has the value of scarcity through a digital-based trust process according to the difficulty of POW mining.

We should make sure your virtual assets don't follow the same steps as Tulip Bubbles. Like the Bretton Woods Agreement, which unified 1 ounce of gold to a value of $35 in the past, virtual assets can also be the beginning of decentralized financial services if mutual agreements can be reached through agreements with organizations that can cover the global market.

The topic of virtual assets is definitely Defi. Credit currency has no value in itself, but a market is formed through guarantees and created through the trust process of guarantees. In order to develop into a society that trades credit, the expansion of circulation must be secured. The liquidity expansion of virtual assets is implemented through DeFi. Attempts to link DeFi and credit currency with digital protocols lead to CBCD.

The service Defistoa wants to provide is to increase accessibility. With the advent of the previous Web 2.0, accessibility increased within a short period of time. In proportion to the increase in accessibility, freedom of expression and distortion of information also increased. Through this, the total cost of ownership (TCO) for transparency has decreased, but the TCO for establishing a proof-of-trust process has rather increased.

This reduced the TCO for information acceptance, but increased the TCO for proving information value and strengthening trust. As a result, injustice and unfairness for obtaining necessary information disappeared, but injustice and unfairness for evaluating the reliability of information arose. The consumption of resources was determined by a small number of vested groups, and the system was fixed. The more advanced the social system was, the more the marginalized financial class increased. In order to give them the opportunity to choose the opportunity cost, there is a need to build a financial service platform from the most realistic perspective.

We believe that it is necessary to raise the simple possibility to a level that can be realized by providing the possibility of a variety of services and transactions that meet the purpose as much as possible. Based on this judgment, Defistoa aims to be the only starting point to lead the market based on virtual finance and real finance.

Necessity

02   Purpose

Defistoa does not believe that all users need to trade digital currency. It is also intended to allow everyone to trade. Defistoa believes that transactions should be made in a more accessible way than the current digital currency trading method. By implementing this, we are trying to achieve the purpose of the transaction desired by the participant.

Finally, Defistoa aims to shorten the gap between vested interests and unequal opportunity costs by providing users with up-to-date financial services that have been leveled up and providing opportunities for capital growth to anyone. It is to provide a way to support and coexist with the financially underprivileged through a platform that can be implemented.

The direction Defistoa is pursuing is defined by the following nine specific goals.

1. Make the most of the network of digital assets.
2. It provides a fundamental network to exchange digital assets for real assets.
3. Increase accessibility and overcome the limitations of participation.
4. To play a role as a middle-man financial network.
5. Make it a virtuous cycle ecosystem through a shared circulation system as much as the opportunities gained.
6. Provide information on participation in trade as much as possible and create a fair trade environment.
7. Provide a social finance environment through the implementation of a shared finance framework.
8. It provides an environment to use and utilize the digital value exchange process easily and conveniently.
9. Establish a future-oriented financial network to provide universal participation and opportunities.

03 **Function and Service**

1. Common quotation transaction through global automatic exchange rate conversion

Price is a very important financial indicator. Price distortion in the existing cryptocurrency trading process can be the biggest risk factor in the market. We are currently expanding the currency through DeFi, and if we do not provide a clear background on the price composition in this process, there is a high possibility that a greater volatility risk will be reflected by the social system. The price center of the existing trading market was the dollar. We traded through the exchange rate market of each country with the dollar as the base. This is an environment that is sufficiently tolerated because the standard of products is specialized in the existing futures contract trading market like CME and BOE, and the monopoly of the trading environment according to the size of the market occupied due to the economies of scale is a situation of systematic vested rights formed through a historical process. However, if approached from the perspective of globalization of cryptocurrency, this may be persuasive in the currency trading market of a single market, but there are limitations in terms of operating a common market. For that reason, we have built a price-based model around the major trading markets of commodities. This means that the unit of value must be made by a positive integer operation, and the number is determined as the unit trading market based on price, rather than dividing the number by price.

| KRW | | | USD | | | CNY | | | JPY | | |
sell	price	buy	sell	price	buy	sell	price	buy	sell	price	buy
122,236	61.00	-0.65%	122,236	0.053870	-0.66%	122,236	0.358773	+0.66%	122,236	5.621313	+0.66%
123,229	60.90	-0.50%	123,229	0.053871	-0.50%	123,229	0.358135	+0.50%	123,229	5.612098	+0.50%
136,433	60.80	-0.33%	136,433	0.053593	-0.33%	136,433	0.357596	+0.33%	136,433	5.602882	+0.33%
831,321	60.70	-0.17%	831,321	0.053605	-0.17%	831,321	0.357008	+0.17%	831,321	5.593667	+0.17%
-0.17%	60.50	8,360,222	-0.17%	0.053428	8,360,222	-0.17%	0.355832	8,360,222	-0.17%	5.575237	8,360,222
-0.13%	60.40	8,933,449	-0.13%	0.053340	8,933,449	-0.13%	0.355244	8,933,449	-0.13%	5.564021	8,933,449
-0.50%	60.30	8,984,452	-0.50%	0.053252	8,984,852	-0.50%	0.354556	8,984,852	-0.50%	5.556406	8,984,852
-0.66%	60.20	9,017,414	-0.66%	0.053163	9,017,414	-0.66%	0.354068	9,017,414	-0.66%	5.547591	9,017,414

When the market becomes the center of a specific price, the market changes according to the size of the market automatically by the Automatic Linked Price Model. This makes it possible to establish a stable value standard structure according to the size of the market transaction by forming market price movements and notifying that the subject of market price formation changes.
The market with high participation in the transaction asking price determines the size of the market, and the size is an important factor in determining the stable price. Based on the participation price standard of the market, it is the basis of the basic transaction standard rather than the symbolic (meaning of a fandom) transaction of cryptocurrency It forms a model price, influences the token transaction price

2. Contracted trading (futures and options) based quote trading system

It is an important factor in the secondary market that must be considered because the market value of cryptocurrency and the risk-rising finance are inherently determined by the innate nature of the inflation model. These factors have been sufficiently verified in the market with various financial models that presented the theoretical background centering on price.

There are various models that have established a theory based on price. There are also theories suggested by the Japanese economist Hasegawa in the early days, and the birth of the Block-Scholes model based on Einstein's Brownian equation of motion laid the basis for most of the existing option pricing models.

Due to defi, inflation financing will eventually be unable to sustain a sustainable rise in the market, so the only means of termination is a sustainable rise in the underlying price. In order to establish a direction for stabilizing the base price and sustaining the multiplier effect of the market value, the traditional financial value calculation modeling is important, which affects the quoted price model as well.

$$c = SN(d_1) - Xe^{-rT}N(d_2)$$
$$p = Xe^{-rT}N(-d_2) - SN(-d_1).$$

$$d_1 = \frac{\ln(S/X) + (r + \sigma^2/2)T}{\sigma\sqrt{T}}$$

$$d_2 = \frac{\ln(S/X) + (r - \sigma^2/2)T}{\sigma\sqrt{T}}$$

•Call option equation c= SN (d1) - X e-rT N (d2)
Put option equation p=Xe-rTN(-d2)-SN(-d1)
•Delta : volatility in the value of an option due to changes in the price of the underlying asset
•Theta : how option price changes as time passes
•Gamma : The volatility of delta due to fluctuations in the price of the underlying asset
•Vega : Volatility in option value due to changes in underlying asset
•Rho: Volatility of option value due to fluctuations in terest rates

It can be used as an important criterion for interpreting the fundamental value of the market through average arithmetic according to the BASIS gap between the base price and the future price and the passage of time.

Since we are unifying cryptocurrency (virtual currency) and cryptographic assets (virtual asset), it is difficult to interpret this. Money is a model of the credit system and assets are a model of rights (securities). Money is the purpose of transactions and assets are the purpose of exchange.

Transaction and exchange can be interpreted in a similar sense in a broad sense, but if you look closely, transaction is buying and selling the exchange value of trust through a social system, and the exchange of assets, like the value of money, is a specific entity that formed a price (There is a difference in buying and selling (including virtual digital codes).

Therefore, assumptions about assets are based on the entity, even if there is a price change for the value at the time of transaction. However, since money is a kind of trustworthy token that can be exchanged within the trust process based on the usefulness of the entity to be exchanged, the means for exchange can be said to be a monetary property.

Money assumes liquidation transactions, and assets should be viewed from the perspective of assuming rights transactions.

Our platform verifies the market value we want to commit. This is because we are not a currency transaction or exchange rate-based arbitrage transaction, but a model for exchanging the exchange value of an asset, and the basis of the value is operated with assumptions defined according to the process and model required by finance.

Termination transactions, arbitrage transactions, short selling, etc. are not a fundamental model of existing finance, but a means to control the risks of the social system. We believe that the controlling means we have in virtual asset trading is the exchange. It is because of the belief that it can suggest how to balance open control and market into a democratic operating model through mathematical modeling and proposals from various open markets.

Function

3. High frequency trading exchange buy system

Currently, the world has a high frequency network system. There are already many high frequency trading platforms. However, there is a limit to the fact that the existing models suitable for the high frequency view of the financial market of the cryptocurrency market have not been sufficiently presented.

The high frequency we speak of refers to the concurrency strategy in the physical network model of how well distributed traffic is distributed and exchanged as much as the responsiveness of communication.

With the recent advent of the RDMA method, structures are being created to unify physical information between different legions, and PoP (intermediate network) exchange technologies are improving so that all systems can be linked through 1Hop on a cloud-based basis.

However, their switching network operation technology should still be based on a traditional network switching system. However, due to the limitations in which the market is formed through semi-passive construction, technical capabilities based on experience are also important.
Defistoa's technical team has long experience with these issues, is designed to demonstrate and operate them, and has already been proven.

(Certification agencies intend to provide verification data through famous overseas network certification agencies. There seems to be no certification agency so far. It seems necessary to present a self-assessment criteria table)
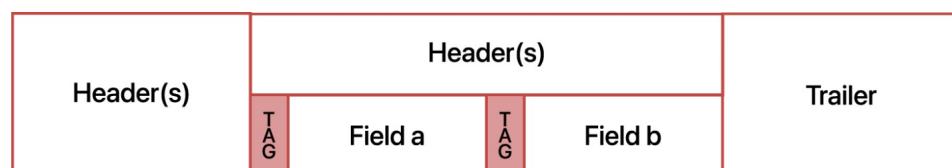
4. Swap function between virtual assets

As a kind of DeFi feature, we define it as Oracle swap. It would be appropriate to understand it as Atomic Swap based on our own smart contract. However, because swap is not through P2P, it is defined as Oracle swap. A hash time lock exists. This is to go through some procedures during the TXID generation procedure. This is mainly applied in the contract creation model of the ERC series, but it is extended to work in other mainnet networks. Although not yet specified, we have the intention of extending this model to a decentralized model by means of an internal process.

In the step of creating a contract, a specific step is included in a separate hash model. You don't go through that step until you've gone through all of the code in the process. However, in order to achieve this completely and safely, it must be premised that the exchange of contracts by mutual consent must be made.

In addition, we believe that these asset-to-asset swaps involve some kind of inter-different token exchange. Therefore, it has a centralized mainnet model to build separate contracts. This mainnet model utilizes the delegated reputation proof model called Finl Chain, and reuses some codes of the Finl Chain's mainnet model to use it as an asset swap model specialized for DeFi exchanges and establishes it as an Oracle swap model.
However, rather than developing around a decentralized financial model, we are developing by proposing a separate MT (Message Type) that we exchange like Swift, and developing it to achieve the purpose of an easy and convenient exchange with the existing traditional financial ecosystem.

The java interface implemented through swift otd (object type definition) will provide a portable binary and source suitable for Oracle swap. However, this is an exchange process between types to develop into an international financial and securities model, and I think it will be a separate and additional type proposal.

5. Autonomous wallet creation and independent transmission function

consensus network as a Delegated Reputation Object and established a natural language-based Mnemonic model to create an irreversible property, which is an important model for the formation of an important identification-based network of the Defistora project.

Also, we prefer application-based rather than web for transactions. Of course, it accepts the various advantages of the web as it is, but it is judged that it is a more realistic defense against DR (request acceptance) for security problems only when native language is used for important transaction processing and interfaces. I feel the need to provide an application-based operating mechanism through more than 10 years of research and demonstration of the ARM firmware, boot loader, kernel and driver technology in the embedded field, and interfaces between frameworks and various architectures. In this process, the question of how much to control human desires was also considered. Building an independent wallet system takes into account the decentralization factor. Personally, I think decentralization has similar properties to social freedom. You seek freedom, but you cannot hurt others. This comprehensively contains the restrictions on mutually prescribed behavior within the legal and social system.

Therefore, "decentralization" is also the reason why institutional control is recognized as one of the measures taken into account that it will not work through normal mechanisms. I don't like cyberpunk. We are individuals that are formed in relationships and seek reasons for existence in society.

Therefore, the perspective of composing an independent wallet system may be implicitly tolerated to create an illegal process, but it was intended to contain the minimum information to sufficiently present traceability. This is to be used as an important record and information at the time of creation and in the process of moving the wallet information. However, for this purpose, special procedures and processes were considered.

This particular procedure should imply locality about the timing of the wallet's creation, and means that time information is very important. In addition, the system created through this process should be highly legible code, and personally, it was intended to be expressed only by numbers.

While there may be ways to expand the range of random numbers by using non-reversible properties of concurrency, I believe that such a process is a major component of the wallet's security perspective, but the model we intend to operate does not have asymmetric keys because it is intended to be interpreted through a particular trading base.

This is to provide a highly readable exchange method in the course of the transaction and to increase the availability of the target's flow traceability by increasing the level of identification. In addition, since virtual currencies use the trust process of transactions through the proven mainnet, it is not considered to be a good utility from a TCO perspective, suggesting that the appropriate address scheme model for distributed financing is presented from a Trading Broker perspective.

6. PC-based Transaction-Only Program (HTS) Available

Through a specialized program on transaction processing, an independent program was opened to create a more sophisticated mechanism for processing transactions. It will be more useful than terminal trading on the web. This is because it is a way to approach the high availability problem of networks that finance has, and it considers evolution as a tool to enhance expertise in this field.

Function

7. Digital trust of virtual assets Interlinked securities transactions

This feature is a similar concept to the recent Defi craze. We build a programming interface model to build trust models suitable for various coin ecosystems and expand into the digital derivative financial market.

The individual's procedure is a simple transfer of Bitcoin or Ethereum to fix the volatility assets, thereby completing the trust act. This behavior is expected to contribute to the expansion of the asset storage and asset transaction to a secondary financial derivative model through the determination of specific criteria. These decisions are not from consignment or custody, but from the point of view of banking. In expanding our business, we set the direction to the service we want to consign, so we define and explain the function.

However, since such a bailment is for the purpose of trading, it is not to preserve the original value, but to use the value, so the exchange value for the price difference occurring in the transaction process may increase or decrease.

8. OTC (Over-The-Counter) trading

If there is a model to audit information transparency and various risks, the quality of the OTC market can be improved. All markets try to overcome the limitations of the capital attraction channel, but it is necessary to present a new stepping-stone model for the market area that has been potentially fixed under the governance structure of long-established capital and politicians.

Obviously, there are limitations in every field. We are not claiming to be the best now. I am trying to say that now is the beginning. It was created for the purpose of overcoming the limitation of capital movement and evolving into a new global financial market through a strategy to increase the accessibility of the existing market.

It is no different from the existing OTC market. However, the function of the OTC market that we think requires more detailed information exchange and broker function than that of simply suggesting prices between sellers and buyers, so it is to create a highly efficient market by presenting a suitable model.

Function

9. Smart contract-based virtual fund service
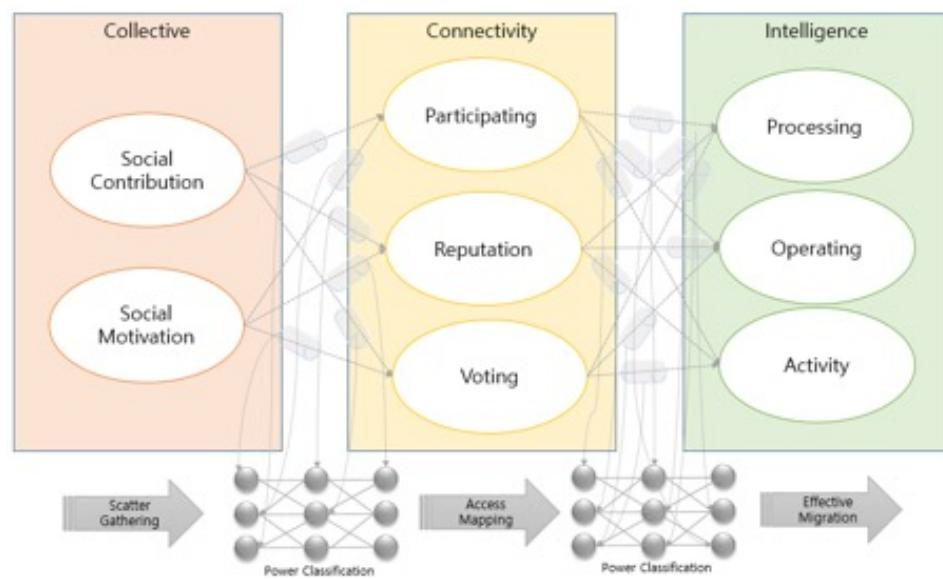
There are various fund programs in the world. However, it is difficult for us to easily access good fund programs. Participation is restricted due to limited information. In addition, it is difficult to find the important capital avenues necessary to access the business. Since these channels are localized, it is difficult to expand internationally free capital. The complexity of the market is high, but the connectivity of global capital markets is not as proportional to the securitization market as in the derivatives market. However, as long as there is already an international transaction environment through GDR, it must be done through AML and KYC suitable for the purpose of investment unless it is intentionally raised or distorted enough.

In our service process, these problems were built on the basis of our own smart contract, and based on this, we tried to create a trust process in the OTC and crowdfunding network environment.

If the current service level is Level 1, it is a level 2 service model, and several major service models are established, and we intend to disclose related information and open the business.

04 Business mechanism

Business procedure

Collective
• There were not many cases of using collective intelligence in finance as a business activity. This is the reason why it is difficult to judge the group as the main decision-making body of social behavior because it is the viewpoint of financial modeling to judge the behavioral reaction or situation of the group intelligence.
• DeFi's financial credibility can be raised if the intelligent model in having a financial intelligence is combined with the basis for judging the quality and content of the market's psychological indicators or participation levels. In this process, if we classify various financial variables with an intelligent network and build an interoperable model with reinforced learning, we can achieve very useful collectivized financial data collection.Connectivity.

Connectivity
• At the stage of connection for reputationalization through participation and voting, an autonomous management entity that connects various financial access variables of the existing group, processes them on the basis of intelligent learning data, and coordinates the stage to be executed with the necessary results You have to build it.
• Variables based on various classifications are made up of tens of thousands of variables, and these variables increase tens of thousands of times according to time value and price, change and flow of variables, etc. In order to form an appropriate decision-making network between the proposed participating group that determines this and the receiving participant group, a model of reputation must be established.
• Reputation finance is not a simple indicator but a combined indicator, helping participants to judge risk management and hedging measures, and is also a strategy for operating a trust process to minimize risks.
• DeFi finance design to provide profits and values obtained through appropriate rewards by voting and participating in these financial intelligence editions. If the common interests of participants are used to complement each other, there is an effect of inducing a stronger inflation ecosystem. It acts as a means of motivation to participate.

Intelligence
 • It is a stage in which the application is applied to the actual operation model through the operation and processing process by various financial variables that judge the results and contents obtained through the level of financial intelligence. This is open finance and closed finance through high frequency transaction-based technology and multi-access network. Stacking, landing, parking, and fixing can be performed according to the two operating models, and hatge and swap financing can be established through DEX.
• If the limited resources of the market are used as a kind of financial buffer, and autonomous market liquidity is supplied and controlled in this process, it will be possible to establish a decentralized financial model through effective collective intelligent finance.
• By designing credit contracts in the credit finance model process and establishing trust finance of this participation-based network, a virtuous cycle of DeFi finance ecosystem will be created.

Mechanism
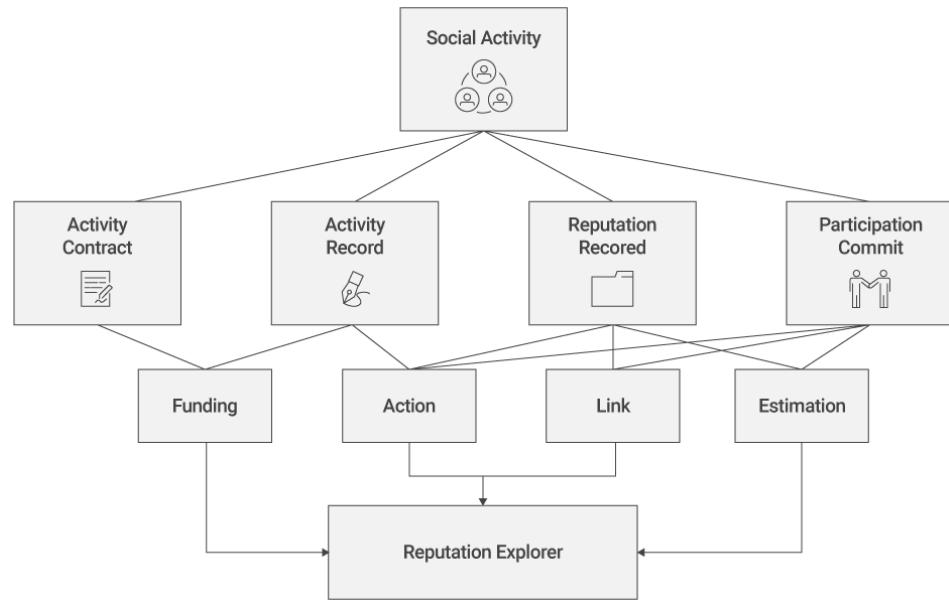
05 Credit technology

1. Credit contract technology

• Collective is a process of collecting social credit. It goes through the process of converting financial activity-based information into a smart contract. Our credit contract is a kind of proposition and verification process. In this process, the level of the credit contract is raised, and this level is not quantified or graded credit. In the future, we will determine the numerical value or grade for this part, but now it is an abstraction of proofs and possibilities.
• The reason why the credit contract is composed of only possibility is that there is not much activity information to prove this in the market yet. This is how we give the wallet for these credit contracts and the activity information of the wallet is expressed as a value spread.

Credit Tech

2. Credit wallet and value spread
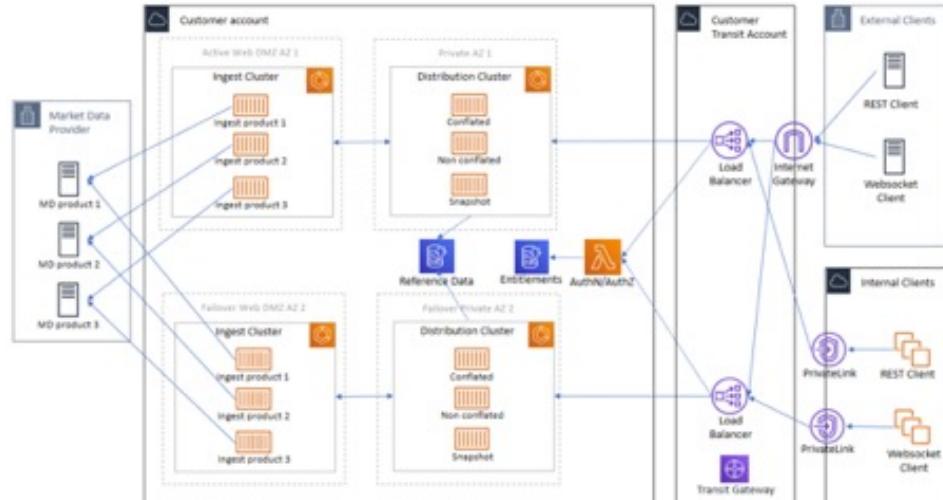
• Credit wallets are value spreads formed through collective intelligence.
• Value spread is the quality of the arbitrage mechanism created by credit wallets.
• Our decentralized arbitrage trading mechanism serves to provide a signaling system for contract swaps, and at this time, the stored tokens are converted into STAs, which are trading tokens to be exchanged newly.
• Exchange securities deposited through the STA network. At this time, the collateral that provides the value of the securities exchange is put into the smart contract, and the purchase is made through a prover or notary in the real world.
• Local collateral funds for the purchase activity at this time establish a fee system for the investment value and exchange value through a notary who has such a fee system.
• At this time, we will help high frequency transactions for such transaction activities and make settlements every 3 trading days for an efficient transaction environment.
• As a forward trading market, specific price value increases are operated according to the price model of the derivative market to improve the direction of the market.
• STA is a model of a collateral virtual asset to exchange local collateral, and to stabilize the margin of this model, it can determine a product entrusted to the price model, provide a premium to the provider that provides this trust model, and create a market for this ecosystem. By sharing fees with donors of trust in need, it helps to quickly and easily cross the barriers of the global financial ecosystem.
• Create a smart contract-type notarized wallet formed as a notary for linkage between credit wallets and local notary platforms, and operate the exchange value of local funds through an artificial intelligence network through a mutual process.
• Such participation enables the autonomous operation of a decentralized social-type financial platform to autonomously establish an information system through collective intelligence and determine the basis of technical activity information as an autonomous operator. It is a distributed financial network model.

Credit Tech

3. Open funds and closed funds as DeFi for the management of credit wallets

• Reputation-oriented Open-end Fund and Closed-end Fund are designed to provide various hedge means for investment value by composing individual distributed products according to the purpose.

• Open-end Fund follows a general staking model, but becomes a model that proves reputation through a network of various participants, and the Close-end Fund becomes a model linked to the DEX platform as a restricted smart contract.

• If necessary, we intend to construct a smart script to construct a fund model with a lambda approach using the modeled reference structure of AWS.

06   Interface Tehnology
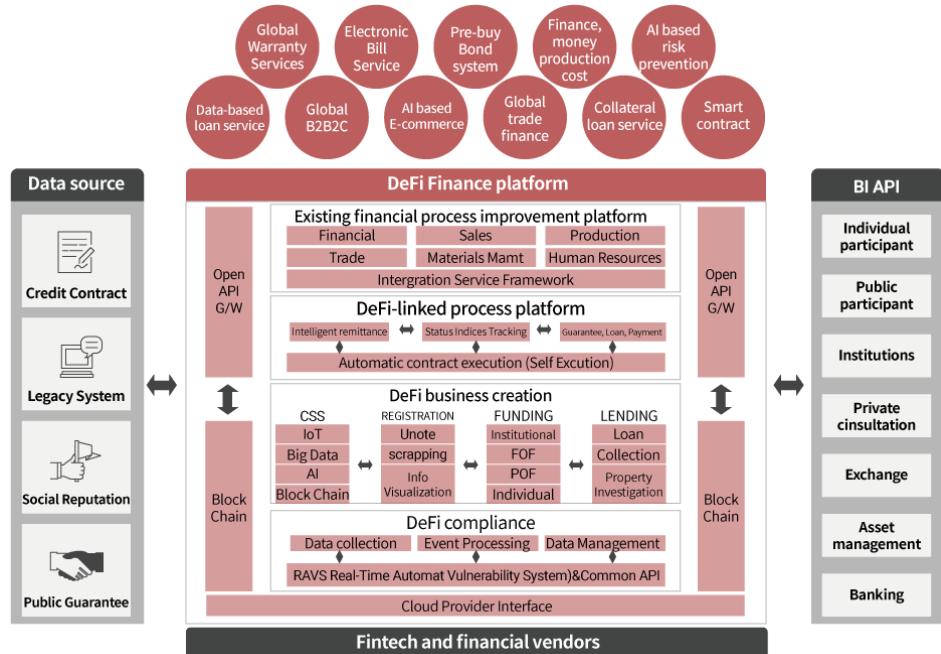
Reference structure diagram through a platform that distributes market data

• Define key components for autonomous financial service providers for workloads running on the DeFI network and market analytics for insights and alternative data such as real-time and historical market data, consumer movements, for example, and various data sets. It is provided in a data-centered configuration and reflected in the design base.
• DeFi data architecture allows the following characteristics to be shared.
    • Define strict requirements for user qualifications and data redistribution (smart contract constraints), and make sure to present a hatching model to ensure that it is designed.
    • It has low latency requirements that depend on how market data is used (eg, transaction decision versus post-trade analysis), and it should be possible to explore real-time information on what varies from seconds to less than a few milliseconds.
    • Connects to a network based on trusted DeFi contracts for market data providers and exchanges, and makes it possible to build an objective process with an intuitive interface.

Interface Tech

07 Platform Technology

Reference structure diagram with platform distributed market data

1. DEFI STOA Platform

• In order to build DeFi as an autonomous market model, an autonomous and intelligent operating model and a participation model suitable for decentralized financial networking based on reputation trust must be combined. For this, it is important to classify social data grouped from existing data sources.

• Intelligent and optimal processing information can be provided through the reinforced learning base of AI for the classification system of data, and the set of APIs provided through this model can be modeled in connection with various real-life financial services.

• Decentralized finance is also an immoral network designed to make it difficult to clarify who is responsible. Therefore, the Hedge model of the DeFi model itself must exist, and it must be optional for designing the reputation of the wallet contract.

• Funding is divided into open and closed types, and it can be configured as a simple interest payment model through the use of a DEX structure and a stable stacking model. Through this model, a stable financial asset and currency distribution model for the liquidity system is formed, and a business ecosystem is built through the effect of inducing market inflation.

• With the combination of the DeFi linking process platform and the basic financial process improvement platform, DEFI STOA will be able to operate various DeFi product scalability by combining it with DeFi compliance.

• Through this, it is possible to establish various platform-linked finance such as global guarantee linkage, electronic money money, bond system, lending and guarantee for financial operating funds, intelligent risk prevention, data-driven lending, AI commerce, and trade finance.

2. Establishing a reference service structure for banking on the existing platform to link with the DeFi platform

A. Microservices-based architecture: Foundation for platform banking

For most banks, successful adoption of platform banking standards will require substantial reengineering of current core banking application architecture and infrastructure. It will also call for an enterprise-wide transition toward microservices-bades architecture, which is a critical enabler that allows efficient and accelerated integration whit third parties, which can become the chif competitive diffrentiator in the platform banking ecosystem.

The current core banking architecture of a bank will have a significant bearing on the approach and level of technology transformation. required to support either of the platform banking business models. While banks with legacy core banking architectures, monolithic applications with multiple point-to-point integrations and batch processing, can transform in a phased manner, while minimizing risk, through a deliberate approach with near-term and long-term objectives. Whereaas banks with modern cores, typically with service-oriented and mature API-based architectures, can transform through a big-bank approach owing to their mature IT organizations.

Figures 3A and 3B illustrate a microservices-based cinceptual architecture, along with the three key components, namely 1. API Gateway, 2. Service mesh, and 3. Microservices-based core, that banks need to deploy to be able to build and sustain an ecosystem of platform banking that will enable banks to integrate and provide access to third parties whit open sandards, data security, and scalability.
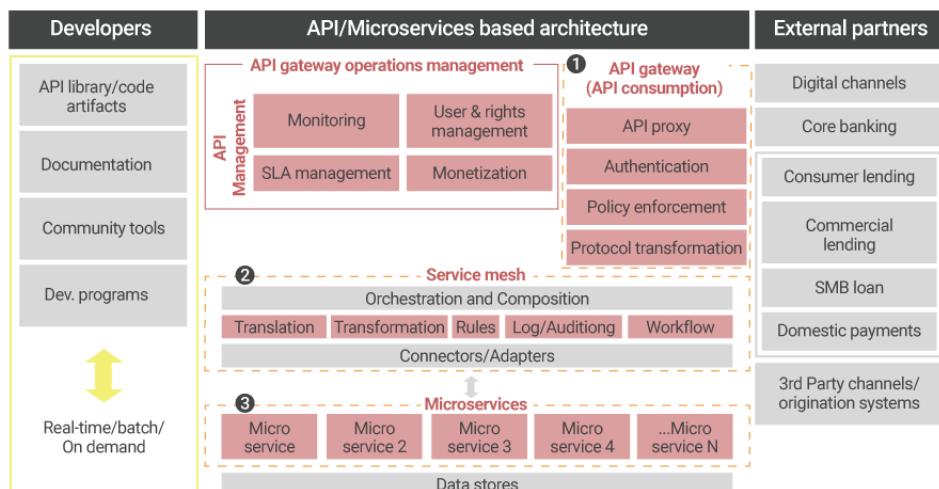
Microservices-based architecture

In microservices-based architecture, or MSA, applications are built as a suite of services, each running its own processes and communications. Each service can be built, updated, and managed independently, making microservices-based applications easier to maintain and enhance.
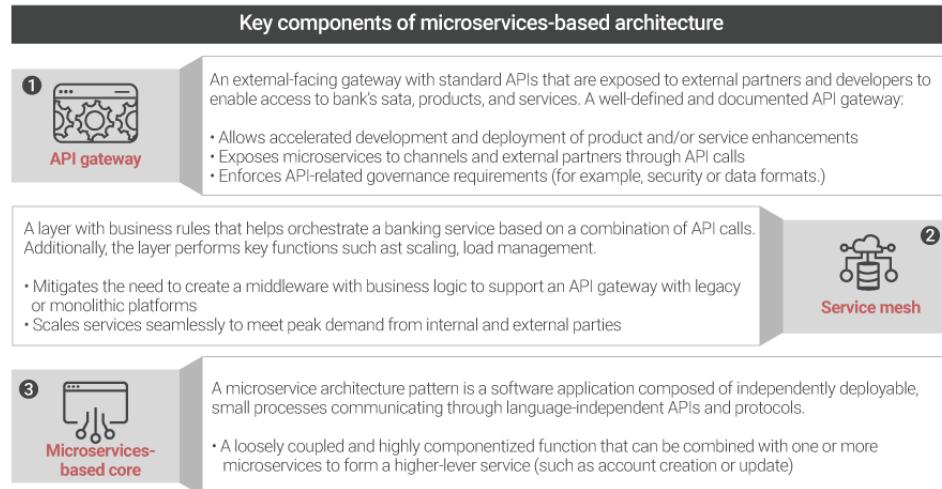
Microservices have become mature, stable, and scalable over the past three to five years. In other industries, notably ridesharing and streaming media services, leading players have replaced monolithic application architectures with MSA.

When deployed properly, MSA can be an ideal platform, as it allows banks to build and scale and integrate seamlessly with partners for platform banking.

Microservices-based architecture (representative)

Key components of microservices-based architecture

Key components of microservices-based architecture

① API gateway — An external-facing gateway with standard APIs that are exposed to external partners and developers to enable access to bank's sata, products, and services. A well-defined and documented API gateway:

- Allows accelerated development and deployment of product and/or service enhancements
- Exposes microservices to channels and external partners through API calls
- Enforces API-related governance requirements (for example, security or data formats.)

② Service mesh — A layer with business rules that helps orchestrate a banking service based on a combination of API calls. Additionally, the layer performs key functions such ast scaling, load management.

- Mitigates the need to create a middleware with business logic to support an API gateway with legacy or monolithic platforms
- Scales services seamlessly to meet peak demand from internal and external parties

③ Microservices-based core — A microservice architecture pattern is a software application composed of independently deployable, small processes communicating through language-independent APIs and protocols.

- A loosely coupled and highly componentized function that can be combined with one or more microservices to form a higher-lever service (such as account creation or update)

B. Near-term: Deploy and integrate service mesh

• In the near-term, banks with legacy core banking application architecture should prioritize building a service mesh to abstract underlying legacy platforms.A legacy core is not a limitation to support platform banking because a service mesh that can interact with legacy core through adaptors allows banks to move towards microservicesbased architecture. Service mesh, as the name implies, is a set of services, along with product configuration and orchestration logic, will interface with core platforms and expose a set of APIs to both internal and external parties for accelerated integration. For example, service mesh would receive a service call, such as underwriting decision, and will make the necessary internal services, based on product configuration, such as "get credit score" and "get underwriting options"—these would be relayed back to internal or external parties. A service mesh can minimize the number of endpoint integrations within the bank while providing a standard, well-defined, and documented interface to external platforms. In a way, service mesh acts as a gateway for external parties to connect and enables the "platform" feature of platform banking. As shown in figure 5, a combination of APIs and service mesh will help wrap a unified integration layer on traditional banking cores. The time to market for new products and services is still constrained by the underlying monolithic cores with longer development and deployment cycles. Banks may still face challenges scaling this architecture, as the entire core platform resides on infrastructure that doesn't scale in real time. In the near term, banks can start offering their leading products and services on their own, and third-party marketplaces can stitch up partnerships with niche players in new markets to offer their products and services.

Near-term conceptual architecture
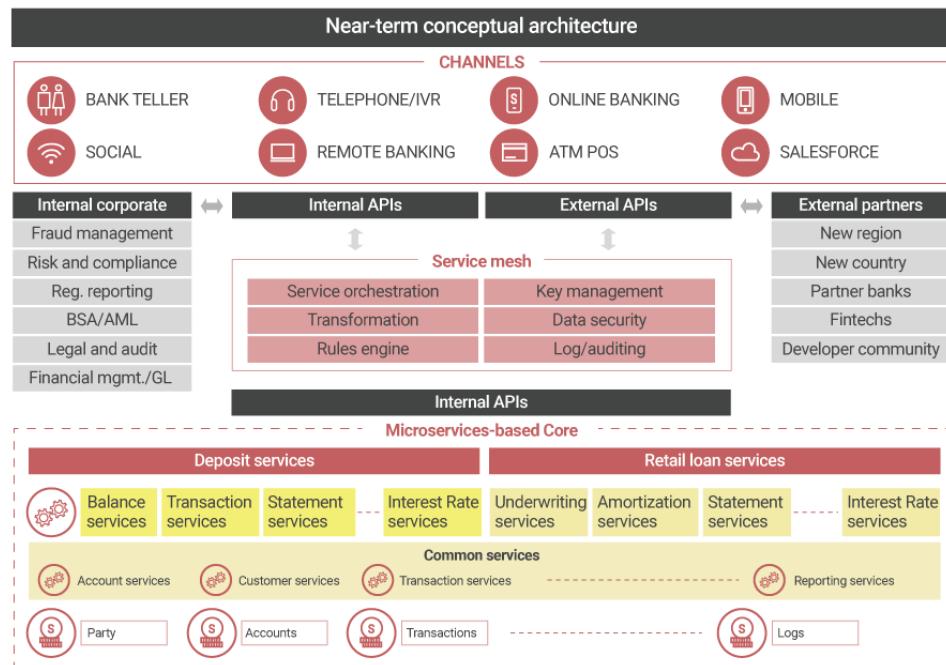
Near-term conceptual architecture

C. Long-term: Microservices-based core
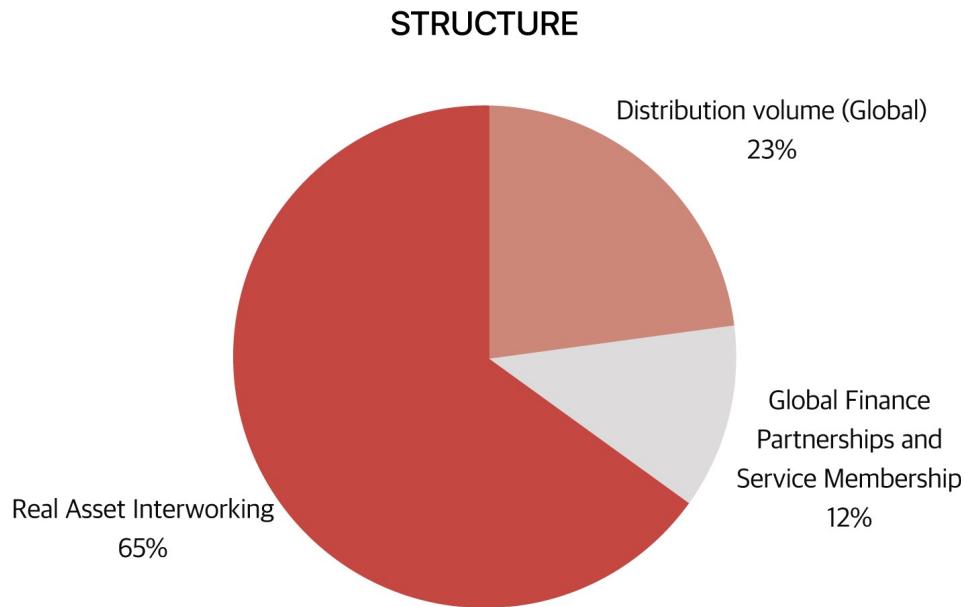
• In the long-term, banks should move to a next-generation microservices-based core platform in coordination with service mesh. Banks with an ambition to build industry-leading marketplace should build a microservices-based platform that can offer and scale banking services as individual stacks categorized by product domains. Figure 6 depicts a representative microservices-based core architecture that can support a true platform banking–based ecosystem. In this architecture, the core is a combination of services organized by product domains, such as deposits, retail loans, and commercial loans. In such an architecture, services can be broadly categorized into two types: product-specific services and common services. Product-specific services are those that are unique and tailored to support a specific product; as an example, underwriting services might vary and require unique services to support retail loans against commercial loans, as the underlying risk, terms, and offers might vary across loan portfolios. Common services are crossproduct and can be product-agnostic. As an example, account services would include basic services such as creating an account, updating an account, and getting account details. These services are fundamental to typical core banking platforms and wouldn't vary significantly across different products; only the underlying data would vary to meet a specific product's needs. The goal of a microservices-based architecture is to help banks stitch together services from different parties to offer a unique service to customers. For example, a marketplace owner can combine industry-leading onboarding services from a fintech with inhouse underwriting capabilities and book the receivables to a thirdparty bank—a customer availing a loan from the marketplace would be shielded from the handshakes occurring among various parties in the back end. Such a proposition can be executed effectively only with a microservices-based architecture—banks can attempt to offer similar products with near-term architecture—but they will be severely constrained due to architectural limits.

Near-term conceptual architecture

Near-term conceptual architecture

CHANNELS

BANK TELLER	TELEPHONE/IVR	ONLINE BANKING	MOBILE
SOCIAL	REMOTE BANKING	ATM POS	SALESFORCE

Internal corporate	Internal APIs	External APIs	External partners
Fraud management			New region
Risk and compliance			New country
Reg. reporting			Partner banks
BSA/AML			Fintechs
Legal and audit			Developer community
Financial mgmt./GL			

Service mesh

Service orchestration	Key management
Transformation	Data security
Rules engine	Log/auditing

Internal APIs

Microservices-based Core

Deposit services				Retail loan services			
Balance services	Transaction services	Statement services	Interest Rate services	Underwriting services	Amortization services	Statement services	Interest Rate services

Common services

Account services   Customer services   Transaction services   Reporting services

Party   Accounts   Transactions   Logs

Platform Tech

08   Token structure and utilization

STRUCTURE

Distribution volume (Global)
23%

Global Finance
Partnerships and
Service Membership
12%

Real Asset Interworking
65%

•Real asset linkage (SWAP) and virtual asset management: Value assets such as bonds/funds/leads and futures/spots are related to swap shares based on index-type funds, baskets, and CMA settings, and are operated in conjunction with STA coin assets.
•Global Financial Partnership and Membership Share: A kind of deposit and partnership for inter-coin transactions linked to the DeFi Exchange, and shares for exchange between coins.
•Circulation volume (global distribution): Initial market establishment for trading coins in the market through partial lock policy and liquidity volume for circulation trading

Note) The initial publication was 5.2 billion, and 2 billion were incinerated in the listing process.
Further incineration is planned in the process of controlling Yuseong-dong in the market.

ERC20 Contract Address : 0x06874F973Dc3c96dc22A10eF0D0609F877f335EA

09 R&BD Group

Main Site

STOA

Main R&D

Hackers Holdings

Business Membership

Kobea Group

IM Exchange

Live Holdings

10   Founder

Roy Kim

11

Roadmap

Sep 2020

Established a corporation in Estonia (Office head: Roy)

Oct 2020

STA coin private sales

Nov 2020

STA Coin Pre Sales

Feb 2021

Defi platform interlocked to Bitsota & IM exhcnage

Feb 2021

Established an Australian corporation (Office head: Aron)

Mar 2021

Singapore corporation established (Office head: Roy)

Apr-May 2021

STA Coin listing, IEO Plan & Public Sales

May 2021

Established a corporation in India (Office head: Sunil)

Jul-Aug 2021

Defi STOA wallet service open

Aug-Sep 2021

Defi STOA asset management service open

Nov 2021

Beta open for trading linked to Korean securities

Dec 2021

Open beta of Indian securities linked trading

Mar 2022

Singapore Securities linked trading beta Open

May 2022

STA Bucks system exchange link SDK open

Aug 2022

US and Singapore stock trading beta open

Sep 2022

Promotion of establishment of non-face-to-face specialized brokerage brokerage

Oct 2022

UK/German stock trading open

Nov 2022

Vietnam securities trading open

Dec 2022

Uzbekistan and Indonesia stock trading open

Dec 2022

Global futures trading beta open

Jan 2023

Unlisted OTC market open

Mar 2023

DeFi dedicated mainnet open

12 Legal Notice

This white paper was written for the purpose of providing overall content, roadmap and specific information about STA coins and projects. This white paper is not intended to induce investments or contracts, or to offer to purchase stocks, shares, securities, debts, loans or the like. In addition, due to frequent changes in related policies, laws and regulations, technology, economics and other factors, the information provided in this white paper may be inaccurate, unreliable or not final, and may be changed several times. This white paper contains information related to future business and financial performance, and developments considered to be forward-looking information. The information can be distinguished by words such as'prediction','expectation','prediction','intention','plan','judgment','pursuit','forecast','planning','purpose', etc. There is. Therefore, this white paper is provided for reference only, and the policy and technical content will be continuously updated, such as revisions and changes.

We are not responsible for the accuracy and legitimacy of the information provided in this white paper. If you wish to purchase, we clearly inform you that you should not rely solely on the information in this white paper. This white paper encourages buyers to analyze and research information on their own before investing. Therefore, we are not responsible for any damages arising from investments or compensation for damages related thereto. Participating in the issuance of STA Coins does not include any future profit or loss.

Anti-Money Laundering Act (AML)

DefiStoa is equipped with an internal anti-money laundering monitoring system to create a transparent transaction environment. If the source of the funds is unclear or if money laundering is suspected, the transaction itself may be suspended, such as the related account and the purchase or sale of the account. We are operating and responding to threats to the DeFi platform by monitoring real-time customer types, cash transactions, and distributed transactions.

Know Your Customer Policy

We are introducing a risk management data-based system to identify individuals and companies that are being monitored for risk of financial crime and unfair acquisition in advance.

When an unspecified individual joins the STA coin-related site as a member, the member information is carefully grasped through the Customer Verification System (CDD). The customer verification system is based on name and resident number, and in case of high money laundering risk, it goes through a strict process such as confirming the actual owner information such as address and contact information, and in case of high-risk customers, confirming the purpose of financial transactions and the source of transaction funds . If security concerns are involved in crime or terrorism, the customer may immediately stop the registration process.

Combating the Financing of Terrorism (CFT)

You must agree that you will not participate in any procurement, exchange or support activities to raise terrorist funds through STA Coin. Buyer should be aware that STA Coin cannot be sold, exchanged or disposed of for terrorist financing purposes.