White Paper of the Credit Tag Chain

(v2.8)

Global Credit Asset Value Network Based on a Blockchain

www.credittag.io

Abstract

The Credit Tag Chain is designed to be a credit asset value network built on blockchain technology that provides global coverage; it covers the C2C personal credit services as well as the B2C financial institutional credit services. Institutions or individuals within the network (called: ‘users’) can obtain services or provide services by accumulating credit assets, collateralizing or lending.

The network on the Credit Tag Chain comprises a decentralised smart contract that is based on the Credit Tag Chain (Token:CTC), which would help loan customers to obtain access to various loan services as well as assist with personal credit information building; at the same time, the lending behaviour data of loan customers would be recorded on the blockchain, hence allowing more accurate, more convenient and safer checking, tracing and inquiries into the data of loan customers by credit institutions.

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1 Foreword

1.1 Market Size

According to the statistics of the data, as of end-2017, there are more than 10000 credit institutions in operation globally, the number of loan customers has exceeded 1 billion, and the market size of the credit market is more than 3 trillion dollars. The transaction scale of the credit industry for the first half of 2018 is expected to stabilise, the transaction volume may hit a new high in the second half of 2018, and the credit transaction volume for the full year of 2018 would probably make a breakthrough and go beyond 8 trillion dollars, the size of the market is extremely full of potential!

The relevant regulatory policies in Southeast Asia are more relaxed, thus the said region has huge market potential. Among the Southeast Asian countries, the population base of Indonesia is 265 million, being ranked as the fourth most populous country in the world. With a leading national consumer awareness, a shortage of credit lending platforms, the government being open to financial technology and other advantages, Indonesia has attracted many credit lending companies from China. As of end-2017, Indonesia already has 30-50 credit lending companies.

Current State of Global Credit Industry

1.2 Pain Points of the Industry

Absence of Credit Information of Loan Customers

At present, the development time of credit industries in most areas of the world is short, with the policies formed a later point in time, thus the credit rating system is not well-developed. Nearly 4 billion of ordinary people do not have valid credit records, and the absence of personal credit information results in difficulty in meeting the traditional requirements for taking loans.

Limited Coverage of Services Provided by Traditional Financial Institutions

As a majority of loan customers do not have personal credit records, and the credit institutions face great challenges in the area of risk management. In order to promote business development, some of the credit institutions have no choice but to introduce high interest rates to cover high-risk customers in which the regulatory bottom line is being challenged.

Difficult to Solve the Issue of Isolated Information on Lending and Borrowing

At the present stage, the credit data of most of the loan customers is distributed between various credit institutions, and the traditional credit institutions have their own centralised mode of operation. Information cannot be shared effectively, leading to fragmentation of data of the loan customers. Further, the loan information of the loan customers in the various platforms is independent of each other, thus increasing the risks of bad debt and causing increased risks in the operation of credit institutions.

1.3 About the Credit Tag Chain

The Credit Tag Chain is a credit asset value network built on blockchain technology, which provides global coverage. The Credit Tag Chain combines the strengths of the blockchain technology and develops the smart contract of credit guarantee based on the CTC, the fiduciary relationship between the loan customers and the credit institutions is thus improved. By locking a certain amount of CTC via smart contract of credit guarantee, the loan customers obtain loans from the credit institutions, the data on the loan behaviour of the loan customers would be recorded in the block through smart contracts, helping the loan customers in credit information building, hence the credit information can be made available for checking and tracing. The credit information of the loan customers of the credit institutions may be inquired mutually through the blockchain, thus the credibility of the loan customers is increased, and the credit risks are significantly reduced, at the same time, the Credit Tag Chain would enable data inquiry to be more accurate, more convenient and safer through the privacy protection mechanism.

Provide Loan Services that are More Convenient

The Credit Tag Chain is a decentralised service network. By recording the credit agreements between loan customers and credit institutions into smart contracts, the loan relationship between the loan customers and the credit institutions is more intuitive, transparent and it would be difficult to be tampered with.

Provide Services to a More Extensive Range of People

By building a distributed credit information system, all the users with loan needs can improve on the building of their personal credit information, the asymmetric information among the lending institutions would be solved, credit scale expansion is thus realised.

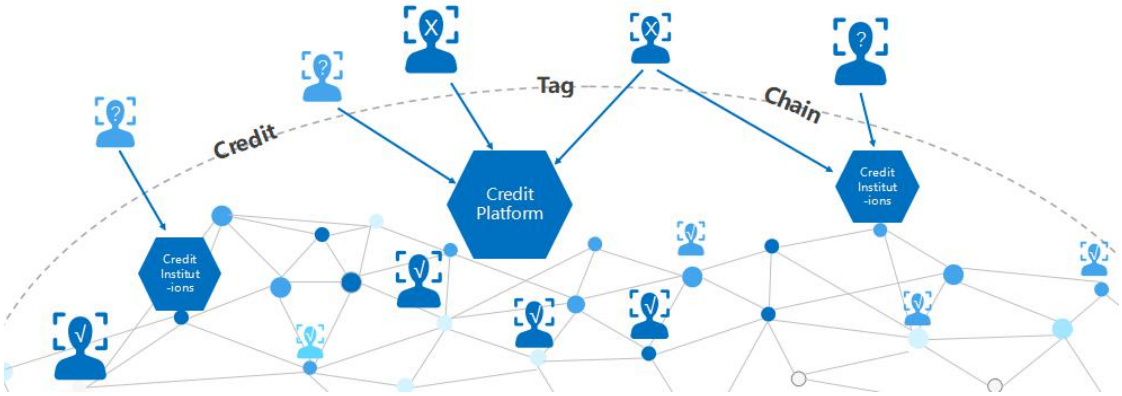
Provide Inclusive Finance Services that are More Accurate

Loan customers may obtain loans through freezing a certain amount in the CTC, the credit institutions may reduce credit risks which in turn, a more extensive range of loan customers would be served, and the loan customers would be provided with loan services which are of a lower interest, inclusive finance is thus actualised.

2 Vision of the Credit Tag Chain

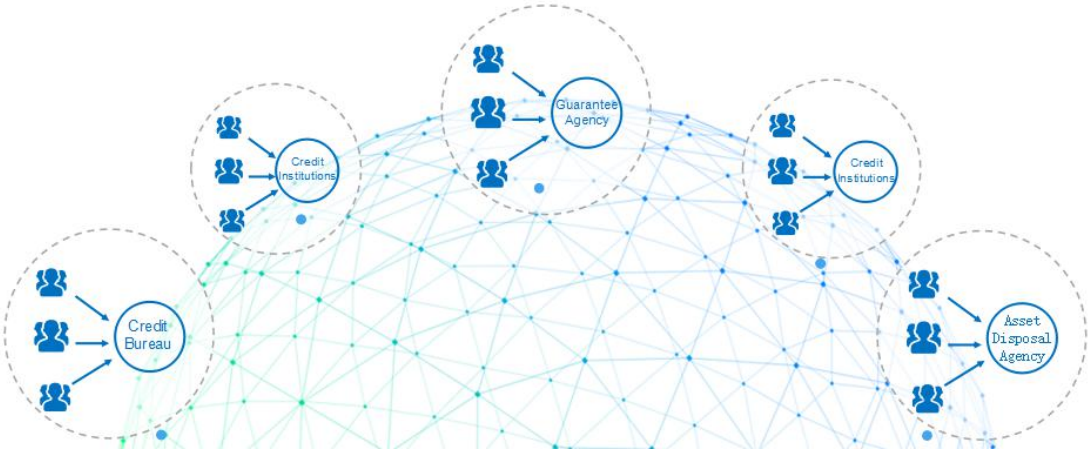
2.1 Phase I: Introduce Smart Management of the Loan Customers

The Credit Tag Chain provides the loan customers with loan services which are more convenient, and a wider range selection of credit institutions.



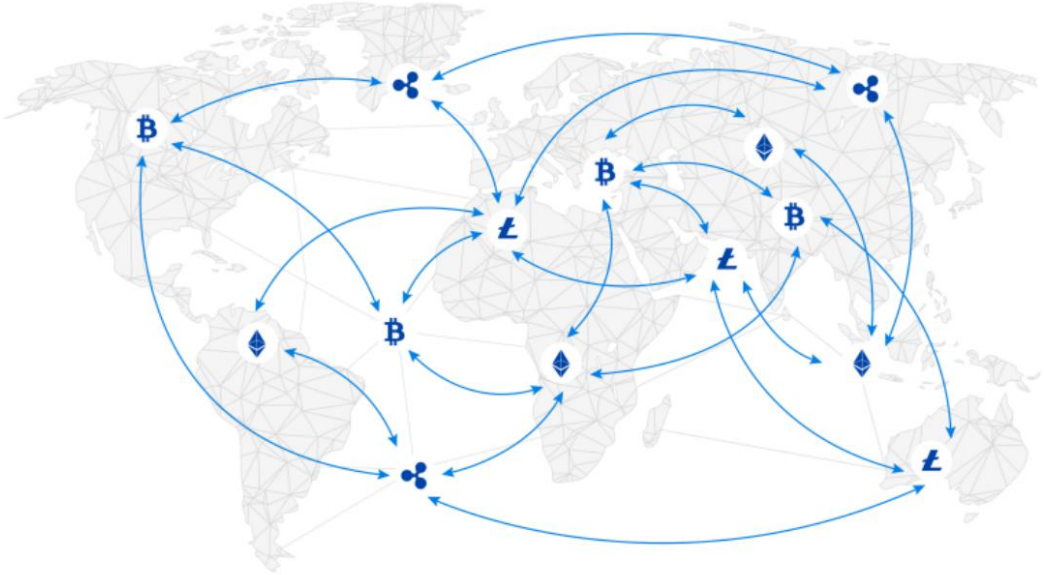
It is difficult for traditional financial institutions to serve a wide range of loan customers. In Phase I of the Credit Tag Chain, the target is to enable CTC to be the carrier and actualise credit management of the loan customers through the mechanism of Freezing, Releasing and Deducting of CTC in smart contracts, thus helping the loan customers to obtain access to loan services conveniently. For instance, as shown in the diagram, the user with a "✓" in the credit network block is a loan customer who already has loan records in the block, or he/she is a loan customer who has his/her CTC frozen and his/her default rate has been significantly reduced as a result, because the credit institutions can check the data of their loan customers on the blockchain, these loan customers can obtain access to credit services more easily; and the user with a "?" in the blockchain is a zero record user of credit outside the blockchain network (i.e. lack of credit data records), the "X" user is a loan customer with higher default risk or that he/she is being blacklisted, the historical loan records of these users are not in the blockchain network, and the users cannot provide the CTC which can be frozen, hence the credit institutions would be very careful when they face such users. For the same reason, credit institutions which are not participants in the Credit Tag Chain are unable to obtain the loan records of the loan customers, they cannot request to freeze the CTC of the users. Then, these credit institutions would have operating risks which are comparatively very high.

2.2 Phase II: Open Up Isolated Information, Allow Data to Circulate Freely



In Phase II of the Credit Tag Chain, the targets to achieve all data from credit institutions are shared, each credit behaviour of loan customers from different credit institutions are recorded on the blockchain. Credit institutions within the Credit Tag Chain, credit bureaus, guarantee agencies, asset disposal agencies, etc. may all engage in mutual inquiry through paying and collecting CTC. With that, the isolated information which is scattered in each institution in the industry would be interconnected and shared, forming a credit data network for the whole industry.

2.3 Phase III: Embrace the Digital World, Realise Lending and Borrowing of Digital Assets Globally



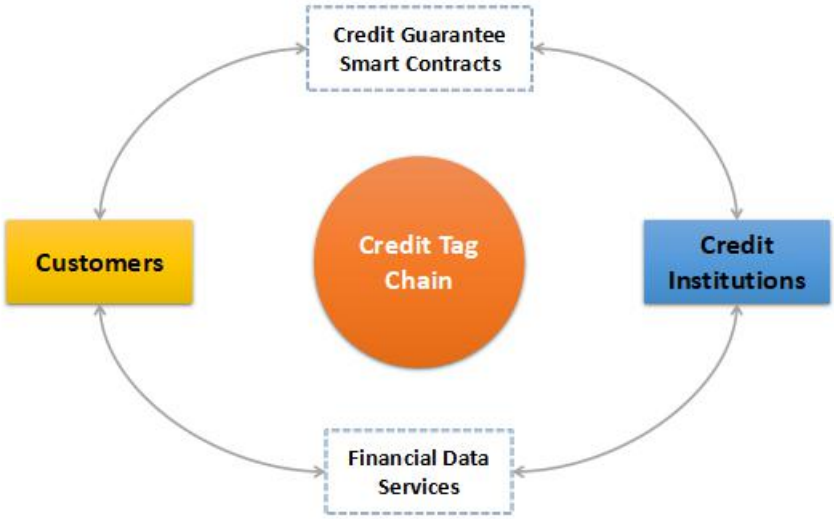
During the initial stage of operation, the Credit Tag Chain would first actualise the service of loaning fiat currency, and borrowers would be required to lock a corresponding amount of CTC in the smart contract of Credit Tag Chain to be eligible to loan various fiat currencies.

In Phase III, the Credit Tag Chain would support the loaning of BTC, ETH, LTC and other digital assets in the hope of actualising the eventual lending, borrowing and circulation of digital assets in the world. For instance: Bob hopes to borrow 3 BTC or the fiat currency of a certain amount in the local place, he simply needs to freeze a corresponding proportion of CTC in the third-party wallet or digital assets of other forms on the Credit Tag Chain, and he would be able to obtain a loan 3 BTC or the fiat currency of a certain amount in the local place. Of course, only after Bob has made the repayment, will the third-party wallet of smart contract then release the CTC which has been frozen previously.

3 System Structure of the Credit Tag Chain

3.1 Design Principle

The Credit Tag Chain has developed a decentralised credit asset value network that is based on CTC, which network covers and is links many third-party credit institutions, the loan customers can be connected with the credit institutions through the Credit Tag Chain, and each institution is a nodal point for bookkeeping. The credit institutions conduct risk evaluation on the users according to the loan data in the block, and the users freeze a certain amount of CTC through smart contracts according to the evaluation results and freezing requirements of the credit institutions to obtain the loans.



The Credit Tag Chain writes the loan agreements between the loan customers and credit institutions into the smart contracts, actualising the registration of all the loan data in the blockchain, the underlying blockchain technology ensures that the data is all true and cannot be tampered with. When the loan customers repay the loans normally or do not repay the loans within the stipulated period, the smart contracts would automatically carry out the terms of the CTC Agreement.

For the credit service Agreement of CTC (“CTC Agreement”) on the Credit Tag Chain, the CTC frozen by the loan customers is safely froze into the smart contract account which is independent and automatically managed by the smart contracts, the merits include:

· The loan data registered in the blockchain cannot be tampered with, thus the risk of fraud between both the credit parties is reduced.

· The management of Credit Point smart contracts is very convenient, the smart contracts are automated in their operations.

· Covers more loan customers, thus realising scale expansion of credit services.

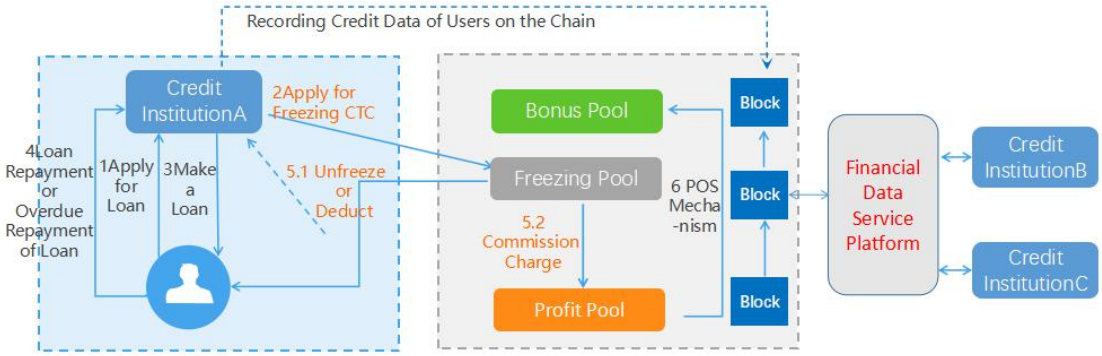
· The loan data of the loan customers can be checked in the blockchain network, thus the basis for the credit institutions making smart decisions is enhanced.

The Credit Tag Chain registers the loan information (based on the CTC Agreement) in the blockchain through smart contracts, and the credit institutions may check the loan status of the loan customers in other institutions via the Credit Tag Chain, the merits of such are as follows:

· Share the loan data with many credit institutions through the Credit Tag Chain and solve the issue of isolated information on lending and borrowing of the credit institutions.

· Smart contracts cannot be tampered with, this prevents the risk of fraud in loans, reduces the risk control costs of credit institutions and adds more to the dimensions of loan related data.

· The transparent smart contracts which are carried out automatically have the terms on loans clearly stated, the ability of the credit institutions to make risk control decisions is enhanced, thus helping the risk control efficiency of the credit institutions to increase.



3.2 Operating Mechanism of the Credit Tag Chain

3.2.1 Pricing Mechanism of Personal Credit

The loan customers would make loan applications to the credit institutions in the Credit Tag Chain (there will be a process for registration, submission of all types of data including ID, email etc.), the credit institutions assess the credit status of the said loan customers via the risk control system and perform risk index grading, and the loan

customers would be required to lock up a certain amount of CTC in order to complete the loan application. The amount of CTC which needed to be locked up would be different for loan customers of different risk indices, then the risk pricing of the loan customers shall be completed.

3.2.2 Freezing Mechanism for Creditworthiness

In order to ensure that the credit institutions are able to control the credit status of the loan customers within the valid scope, the loan customers need to freeze a corresponding portion of their CTC during the process of borrowing funds as a requirement for taking up a loan. Before the loan customers repay the loans, part of their CTC would be in a frozen state, the loan customers cannot draw on or utilise their frozen CTC for any other purposes. After the loan customers have made their repayment on time or have made repayment in advance, the loan customers will repossess the control rights of the frozen CTC. For each network service based on the CTC Agreement, the Credit Tag Chain would collect 0.1% of the CTC as handling fees.

3.2.3 Disciplinary Mechanism of Credit Loans

CTC is a representation of the creditworthiness of the loan customers. During the transaction process of the Credit Tag Chain, the network would play the disciplinary role on the loan customers who do not make repayment within the stipulated period. When the loan customers do not make repayment on time upon the deadline of the loans and overdue repayment of loan occurs, the smart contracts would be carried out automatically, the amount of CTC which has been frozen would be transferred to the credit institutions which have provided the said loans (loan customers would lose ownership of such CTC and be unable to re-acquire these) and the credit default information would be recorded on the blockchain. With that, the loan customers have been punished for their bad behaviour to a certain extent, thus it is an incentive to the loan customers to make repayment on time and accumulate good credit.

3.2.4 Entry Mechanism of Credit Institutions

The Credit Tag Chain has set forth a strict review mechanism for credit institutions that are linked up with the platform, which will ensure the accuracy and validity of the orderly operation and data of the platform. In the early phases, the Credit Tag Chain would link up with premium credit institutions and request the institutions to possess rich experience in credit operations and data of a certain transaction size so as to achieve a win-win situation among the credit industry scenarios and gain mutual benefits through cooperation.

3.2.5 Sharing Mechanism of Loan Information

The Credit Tag Chain has built a whole set of consensus mechanisms that is applicable to the sharing of data between credit institutions. This is to allow the institutions that are linked up to the platform to be able to share loan data thus maximising the value of the services provided by the platform. All the loan data in the network is registered on the blockchain, all the credit institutions can conduct mutual inquiry on the loan data of the loan customers on the Credit Tag Chain through paying CTC to make decisions on offering loans; for the credit institutions, as some loan customers do not have credit information, they may inquire the transaction behaviour of the said loan customers possessed by other credit institutions by checking the ID of the loan customers and obtain the historical loan information of the said loan customers, this is intended to fundamentally solve the issue of isolated information for the lending and borrowing activities of the credit institutions.

3.2.6 Identification Mechanism for False Data

When analysing the data from a credit institution on the platform of the Credit Tag Chain, if the inquiring party (other credit institutions or loan customers) have any objections to the data provided by the providers, it may put an indication on the said data of the said institution on the platform of the Credit Tag Chain which will be registered on the blockchain; If an institution is marked as fraudulent by a number of credit institutions, the party that had inquired about the data will be entitled to adduce proof as to why the information is fraudulent. The complaint will be publicly registered on the chain. If a credit institution receives too many complaints, the agency may be suspended and/or required to exit the network.

3.2.7 Protection Mechanism of Personal Privacy

The data inquiry among the credit institutions would be validated through the ID of the loan customers. The data would be released in the entire chain by adopting desensitised data and using mask-off code to ensure that the personal data of the loan customers is not publicly disclosed and that the privacy of loan customers is being protected.

3.2.8 Protection Mechanism of Data Safety

In order to ensure the safety of the data and prevent data crawling by lawbreakers, the Credit Tag Chain has set up a safety firewall, all the data would undergo asymmetric cryptography for transmission, and the public key of the seller would be used for

encryption, only the secret key of the purchaser is allowed for decryption. In this way, the third parties would not be able to intercept and crack the data during the transmission, hence the privacy of the data of both parties is ensured.

3.3 Loan Procedures for Loan Customers of the Credit Tag Chain

When the loan customers initiate loan requests, they would broadcast the requests through the Credit Tag Chain, the Credit Tag Chain would recommend credit institutions, then the credit institutions would conduct risk evaluation on the said loan customers based on the credit data recorded in the block and assign each customer a credit limit and amount of CTC needed to be frozen for his/her loan. When the loan customers of the Credit Tag Chain and credit institutions have reached an agreement through smart contracts, the smart contracts would be carried out automatically, the specific procedures are as follows:

(1) The loan customers need to register as a member of the platform on the Credit Tag Chain, complete the real-name authentication, credit limit data inquiry and other relevant information as required by the platform. These data will be recorded in the block for the access of the credit institutions in the network.

(2) The credit institutions would conduct risk evaluation on the said loan customers based on the credit related data in the block and assign each individual customer a credit limit and amount of CTC needed to be frozen for his/her loan.

(3) When the loan agreements are reached, the smart contracts would be generated, the loan information would be registered in the block, and the corresponding amount of CTC of the said loan customers would be automatically frozen.

(4) Through the smart contracts, the Credit Tag Chain would put the CTC frozen by the loan customers in trust of the depository wallet of a third-party that is safe.

(5) Upon successful trusteeship, the Credit Tag Chain would inform the credit institutions and the latter would make a loan to the loan customers.

(6) When the loan customers make normal repayment, the Credit Tag Chain would automatically carry out the smart contracts, release the CTC, return the said CTC to the wallet of the loan customers and the information of repayment would be recorded in the block.

If the loan customers do not make repayment within the stipulated period, the credit institutions would record the information on overdue repayment in the block, the Credit

Tag Chain would automatically carry out the smart contracts, deduct the CTC and transfer the said CTC to the wallet of the credit institutions.

3.4 Usage Scenarios of CTC

3.4.1 Modes of Obtaining CTC by Loan Customers

CTC embody the creditworthiness of the loan customers; the credit institutions may use CTC as a form of incentive to encourage the loan customers. Users of the Credit Tag Chain may receive CTC incentives in the following scenarios:

(1) The loan customers have completed the registration and real-name authentication, the loan efficiency may be improved;

(2) The loan customers referring new customers to register, they may give public reviews and obtain more loan customers for the credit institutions;

(3) The loan customers have completed the credit limit procedures, and submitted the information about the operators, e-commerce shopping platforms, social insurance, provident fund, credit card statements etc., the loan applications of the loan customers are accelerated and completed as quickly as possible;

(4) The loan customers have started or completed the repayment of the loans;

(5) Other scenarios: E.g. Signing in, participating in activities etc. may make CTC serve as an incentive tool for the loan customers.

3.4.2 Modes of Obtaining CTC by Credit Institutions

Mode 1: Through the loan data of the loan customers provided in the Credit Tag Chain, after the other credit institutions have inquired the loan data, the credit institutions that provide the data can obtain CTC.

Mode 2: When the loan customers do not make repayment to the credit institutions within the stipulated period, the CTC that are being frozen shall belong to the corresponding credit institutions.

3.5 Suggestions on Freezing Mechanism for CTC

In order to protect the interests of both the lender and the borrower, the Credit Tag Chain has the following suggestions for the freezing mechanism for CTC, each credit institution may formulate rules for freezing and releasing in accordance with its own operating rules, and write them in the smart contract together with the loan agreement, thereby entering the automatic performance of the smart contract:

Freezing Mechanism of CTC

When the loan customers attempt to take up loans, the credit institutions will first conduct risk evaluation on the said loan customers, consider the size of the loan, time of the loan and other comprehensive factors and derive a certain amount of CTC that the loan customers are required to freeze.

(1) Loan customers with poorer credibility

When the risk control system of the credit institution assesses the loan customer with poorer credibility through the personal information submitted by the loan customer, and if there were more instances of overdue repayment in the past, under normal circumstances, the said loan customer would be blacklisted and no loan shall be made to him/her, but if the loan customer is willing to submit CTC for freezing to borrow funds, the credit platform would freeze the CTC through the freeze setting to serve as an requirement for borrowing funds and make the loan. As the number of loans increases and the loan customer makes normal repayment for the loans, the credit platform may gradually reduce the amount of CTC needed to be frozen according to the proportion. During this process, if customers repay on time, the credibility of the loan customer is improved, and it has been reflected in other platforms of the Credit Tag Chain that the said loan customer has good credit status. As a result, the loan customer has developed an awareness towards maintaining good personal credit.

(2) Loan customers with better credibility

When the loan customer is identified as a user with better credibility under the risk control system of the credit institution (the said loan customer has a good performance rate), the credit institution can freeze a little of CTC and shall make a loan at once. It may even give CTC to the loan customer as a form of incentive for good credibility and increase the awareness of the loan customer on personal creditworthiness.

Release Mechanism of CTC

Release upon repayment. When the loan customer has completed the loan through freezing the CTC, and completed the repayment on time, the CTC that have been frozen for the loan shall be released upon repayment.

Deduction Mechanism of CTC

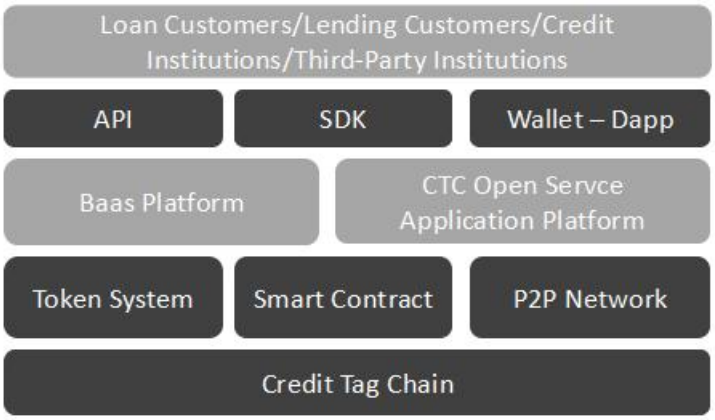
When the loan customer does not make repayment within the stipulated period, the smart contract would automatically deduct all the CTC frozen by the loan customer, these CTC shall belong to the credit institution.

The Credit Tag Chain would collect 0.1% of handling fee for the deduction of CTC.

Note: Credit institutions in the Credit Tag Chain may formulate a customised freezing mechanism in accordance with its own business operating rules.

4 Technical Solutions

Credit Tag Chain focuses on the solution for the existing problems in the block-chain technical systems based on extensive researches on the most well-known block-chain technologies and architectures, reestablishes a new infrastructure and evolves it into a new block-chain system well adapted to the credit loan scenario. On top of the capability of dealing large-scale transactions with high-performance system, Credit Tag Chain has put the highly efficient smart contract system in addition. The system has been undergoing long-time test with heavy duties and turned out to be stable yet with high performance. It has been proven that Credit Tag Chain is one of the block-chain which is at the leading level globally, for its techniques, architecture, performance, security, and expanding capability.



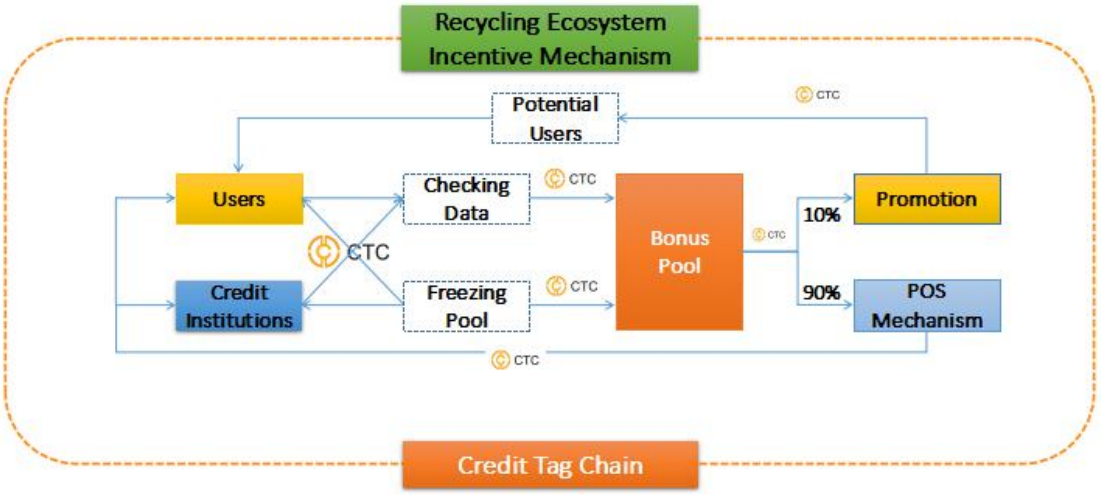
In order to combine the business application needs of the loan customers and the credit institutions, the Credit Tag Chain has adopted a 4-layer framework: 1. The Credit Tag Chain in the Credit Tag Chain provides blockchain underlying essential services. 2. The settlement system and open platform of the Credit Tag Chain provides businesses and compliance services. 3. The API application layer provides link-up services between credit institutions and third-party platforms for each institution. 4. The service layer provides lending and liquidity services for credit institutions and loan customers.

4.1 Technical Features of Credit Tag Chain

Consensus Algorithm (DPOS)

Credit Tag Chain adopts the DPOS consensus mechanism of BTS, which makes the running efficiency and the concept of decentralised matched perfectly. It reduces the waste of computing power and also avoids the computing power attack. This is also the mainstream trend and advanced concept that will lead the development of

blockchain. It has high-performance features, such as, the speed of block generation with DPOS is much faster than the BTC and ETH. Meanwhile the verification of transaction and other aspects also improved considerably. The transaction throughput of Credit Tag Chain is more than 1000TPS. Compared with BTC（7TPS）and ETH（20TPS），it has a qualitative leap and also entered into the industrial-level application.



Account Model

The account model is fits for the major users' habits, abandoning the UTXO model, making it easier for users to understand, as well as reducing the cost of learning and the threshold for users.

Event

When the events of smart contracts are called on the chain, then it will trigger to the program of called back, which will decouple out-of-chain applications and allow for better scalability.

Contract Execution

The CTC smart contract adopts proxy authentication, layered verification, and also makes the results are recorded on the blockchain, which allows ordinary nodes to verify the calling transaction and resulting transaction only. It is not necessary to verify by executing the contract for all nodes, which can improve efficiency significantly.

Simulator

CTC provides execution simulators on both the official chain and the test chain, allowing users to know the accurate calling results before they call the contract officially. In order to avoid the cost wasting, as well as produce unexpected calling results. At the same time, the IDE has a native test chain, which can be created, destroyed, and rebuilt at any time. It does not need to use the public test chain and apply for test crypto-currency.

Off-line Interface

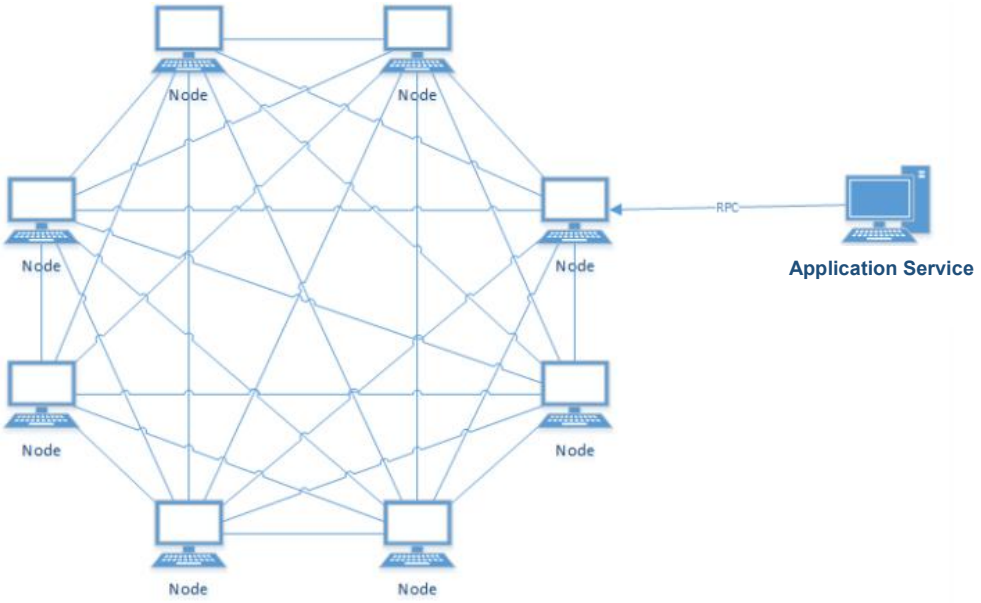
CTC smart contract supports off-line interface, which can provide inquiry function in contract. Users can inquire the relevant information of the contract without executing the contract, which also can keep condition stable.

Block Generation Rate

Block generation rate of CTC is 10 seconds per block, and the block size is adjustable. The maximum size is 10MB. The native transaction rate exceeds 1000TPS.

4.2 Application Integration

The blockchain system has a complete distributed network, plus the smart contract is a Turing-complete distributed system. Data recorded on the chain, which needs to be broadcast via blockchain nodes. The interface between application and the blockchain node usually adopts RPC mode. So the usual way of integration is as follow:



Firstly, application needs to deploy a blockchain node. The node program will join the blockchain network automatically. The application service calls the blockchain node interface through the RPC, which can interact with the blockchain data.

4.3 First Release Version

The first release of Credit Tag Chain includes:

- The underlying blockchain node program
- PC version wallet program (Windows / Mac)
- Blockchain Browser (Query Block Data)
- Mobile wallet

4.4 Application Features of Credit Tag Chain

Credit Tag Chain Ledger

The distributed ledger (**Credit Tag Chain**) of the Credit Tag Chain is a type of shared and interactive database among each nodal point. The said ledger records the transactions of the loan customers, credit institutions, third-party trustee institutions, and it mainly records the transactions occurred between the loan customers and the credit institutions and transactions generated from loan platforms inquiring about the information of the loan customers.

The participants in the Credit Tag Chain restrict and discuss the update on the records in the ledger according to the consensus mechanism. In the distributed ledger, every

record has a sole timestamp and a sole code signing attached to it, this makes all the historical transaction records in the ledger to be traceable and searchable in the network.

Timestamp Server

Based on PK1 (Public Key Basic Facility), Credit Tag Chain provides accurate and credible timestamp services for the transactions that have taken place. It uses accurate time source, safety mechanism that is of high intensity and high standards to affirm the existence of a certain time of the system processing data and the relative time box order of the said operation. It provides essential services for the non-repudiation of time in the information system. It is a setup which can express a set of complete and verifiable data which has existed before a certain time and solely identify a certain moment of time. It uses data generated from digital signature technology, the objects of signing include information on original documents, signature parameters, time of signing and other information. They are applied to contract signing, financial accounts and electronic loan quotations.

However, this uniqueness poses a problem of only one transaction is allowed for one account in the same block. Credit Tag Chain has added an interface at the side of the concatenated code container and solved the problem of uniqueness of the Committer during the verification and endorsement segments. With that, chain code developers are able to make transactions flexible.

Credit Tag Chain Signature

Credit Tag Chain Signature uses asymmetric key cryptographic technology and digital summarisation technology. Credit Tag Chain Signature generates a string of digits which cannot be forged by others, this can only happen when there is information of the sender, at the same time, this string of digits is also a valid proof of the authenticity of the information sent by the sender. The sender of the data uses one Credit Tag Chain Signature encryption and generates the message digest from the message text, then it uses its own private key to encrypt the message. The encrypted message will be sent to the recipient together with the digital signature of the message. The recipient firstly uses the Credit Tag Chain Signature encryption same as the sender to calculate the message digest in the original message that it has received, then it uses the public key of the sender to decrypt the signature that is attached to the message, if

both message digests are the same, the recipient will be able to confirm that the said digital signature is from the sender, it can be used to confirm the completeness of the information as well.

Bookkeeping Procedures for Transactions:

Step 1: Owner A uses his private key to issue a digital signature for the previous transaction and to the next Owner B, and he attaches this signature at the end of CTC to prepare the transaction slip.

Step 2: A broadcasts the transaction slip to the entire network after which CTC will be issued to B, the transaction information for each nodal point will be included in a block.

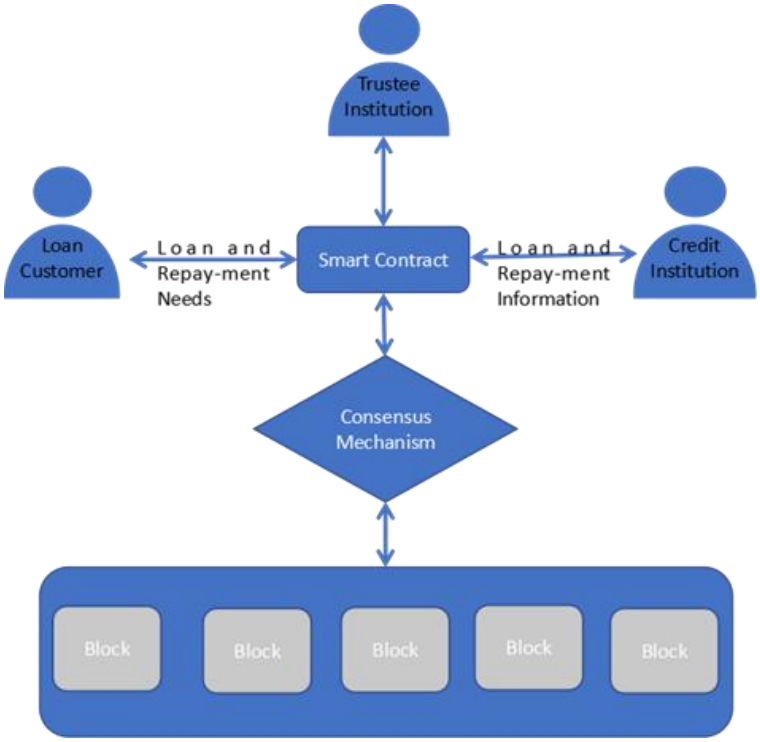
Step 3: Each nodal point obtains the right to create a new block through the consensus mechanism.

Step 4: When one nodal point obtains this right, he will broadcast all the timestamped transactions recorded in the said block to the entire network and other nodal points in the entire network will do the accounting.

Step 5: After other nodal points in the entire network have verified the accuracy of the bookkeeping of the said block and checked that there are no errors, they will compete for the next block. In this way, a block with legal bookkeeping is formed.

Smart Contracts of the Credit Tag Chain

The smart contracts of the Credit Tag Chain consist of conditions agreed upon by loan relationships (including ID of the borrower, amount of CTC frozen, credit agreement, period of loan, status of loan and repayment, signatures of many parties etc.), they are initially deployed on the API of the corresponding contracts and prepared to be called for the corresponding matters. The loan conditions agreed upon are generated as smart contracts by way of asymmetric encryption, the said smart contracts are called and written into the corresponding block through the consensus mechanism and with the characteristics of the blockchain technology, the storage, reading and implementation processes are guaranteed to be transparent, traceable and cannot be tampered with.



Wallet Application – Credit Tag Chain Dapp

Credit Tag Chain Dapp is a mobile wallet application for credit management that is developed for all users. The application can conduct basic management of the CTC held which includes checking of the amount of CTC possessed, amount of CTC frozen, the records of using the CTC etc., and it can check for the loan records and credit information etc. At the same time, in order to make it more convenient for the daily use of the loan customers, the resources will also be integrated and linked up with each credit institution, the loan customers can process the loan transactions directly on Dapp, and the credit institutions can also gain promotion and diversion by linking up with the application.

5 Usage and Distribution of CTC (Non-Public Sales Plan)

5.1 Usage of CTC

The native digital cryptographically-secured utility token of the Credit Tag Chain (CTC) is a major component of the ecosystem on the Credit Tag Chain, and is designed to be used solely on the platform.

CTC is a non-refundable functional utility token which will be used as the unit of exchange between participants on the Credit Tag Chain. The goal of introducing CTC is to provide a convenient and secure mode of payment and settlement between participants who interact within the ecosystem on the Credit Tag Chain. CTC does not in any way represent any shareholding, participation, right, title, or interest in the Foundation, its affiliates, or any other company, enterprise or undertaking, nor will CTC entitle token holders to any promise of fees, dividends, revenue, profits or investment returns, and are not intended to constitute securities in Singapore or any relevant jurisdiction. CTC may only be utilised on the Credit Tag Chain, and ownership of CTC carries no rights, express or implied, other than the right to use CTC as a means to enable usage of and interaction with the Credit Tag Chain.

CTC would also provide the economic incentive / disincentive which would encourage positive credit behaviour from participants on the Credit Tag Chain. Users of the Credit Tag Chain and/or holders of CTC which did not actively participate (e.g. assist with block validation under the DPOS system) will not receive any CTC incentives.

5.2 Distribution of CTC

The ticker for the token is CTC. The Distributor of CTC shall be an affiliate of the Foundation. The Distributor shall issue a total of 1 billion CTC. 200 million CTC will be allocated for the private sale.

If during the sale process that the unit price of ETH fluctuates more than ±15%, the Distributor has the right (but not the obligation) to re-calculate the selling price according to the average value of the unit price of ETH for the said month.

The distribution of CTC shall be as follows:

1. ICO (Private placement): 20%.

2. Foundation: 35%, for building the ecosystem of the Credit Tag Chain and supporting the development and operation of the projects of the Credit TagChain.

3. Credit Tag Team: 15%.

4. Market: 20%, used as operating expenses. To be used for increasing the level of activity of the loan customers.

5. Cooperation partner(s): 10%.

In particular, you understand and accept that CTC:

(1) Is non-refundable and cannot be exchanged for cash (or its equivalent value in any other virtual currency) or any payment obligation by the Foundation or any affiliate;

(2) Does not represent or confer on the token holder any right of any form with respect to the Foundation (or any of its affiliates) or its revenues or assets, including without limitation any right to receive future dividends, revenue, shares, ownership right or stake, share or security, any voting, distribution, redemption, liquidation, proprietary (including all forms of intellectual property), or other financial or legal rights or equivalent rights, or intellectual property rights or any other form of participation in or relating to the Credit Tag Chain, the Foundation, the Distributor and/or their service providers;

(3) Is not intended to represent any rights under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss;

(4) Is not intended to be a representation of money (including electronic money), security, commodity, bond, debt instrument or any other kind of financial instrument or investment;

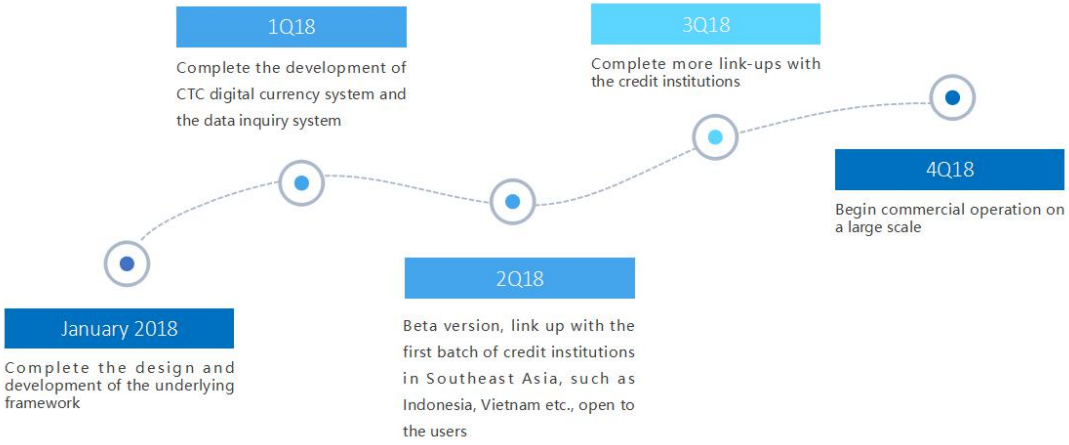
(5) Is not a loan to the Foundation or any of its affiliates, is not intended to represent a debt owed by the Foundation or any of its affiliates, and there is no expectation of profit; and

(6) Does not provide the token holder with any ownership or other interest in the Foundation or any of its affiliates.

The contributions in the token sale will be held by the Distributor (or its affiliate) after the token sale, and contributors will have no economic or legal right over or beneficial interest in these contributions or the assets of that entity after the token sale.

To the extent a secondary market or exchange for trading CTC does develop, it would be run and operated wholly independently of the Foundation, the Distributor, the sale of CTC and the Credit Tag Chain. Neither the Foundation nor the Distributor will create such secondary markets nor will either entity act as an exchange for CTC.

6 Development Planning



January 2018

- Release the white paper on business
- Corporate structure

  Employ legal consultants

  Apply for the registration of the company and the license of the company
- Activate the product development plan

  Complete the prototype design of the products

  Complete the design of the underlying framework
- Marketing campaigns

  Launch of the project website

  Activate the community and new media operation plans aimed at the loan customers

  Engage with the credit institutions in Southeast Asia

First Quarter of 2018:

- Progress of Product Development

  Complete the development of CTC digital asset system

  Complete the development of the data inquiry system
- Engage in business cooperation talks with some of the credit institutions

Second Quarter of 2018:

- Progress of Product Development

Complete the research and development of the beta version of the products

Link up with the first batch of credit institutions and conduct tests

- Select community users to experience the products
- Carry forward the media reports relating to the project and increase exposure

Third Quarter of 2018:

- Progress of Product Development

  Launch the official 1.0 version

  Link up with more credit institutions
- Activate the product promotion plans

  Activate the registration activity of new users

  Activate the activity of inviting friends
- Embark on the media promotion for the official launch of the products

Fourth Quarter of 2018:

- Product maintenance; development of new functions
- Large-scale market promotion
- Realise commercial operation on a large scale

7 Introduction of the Team and Advisors

7.1 Founding Team of Credit Tag Chain

Hao Lin (Austrilian)

Co-Founder/CEO

- 2015-2017 Vta coatings PTY ltd
- 2014-2015 Armani Exchange
- 2013 RMIT University

Nigel Lim (Singaporeans)

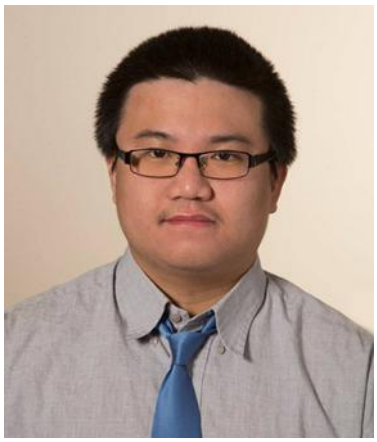
Co-Founder/CTO

- 2006-2017 Senior R&D Engineer, Keysight Technologies Singapore PTE LTD
- 2003- 2005 Assistant R&D Engineer, CE Resource PTE LTD
- 2001-2002 PC-Lab Assistant, Singapore Polytechnic
- 2008-2011 Master of Engineering in Electrical Engineering, National University of SG
- 2003-2006 Bachelor of Engineering in Electrical Engineering, National University of SG

Shally J (Indonesian)

Co-Founder/COO

- Graduated from Binus University
- Formerly worked in PT Bank UOB Indonesia and Info Gading Group
- Releases trade magazines and provides training services for banks



Felix Suroso (Indonesian)

Co-Founder/Indonesian R&D Project Leader

- 2014-2017 Digital Realty, IT Support
- 2013-2014 Deltek, IT Support
- 2016 PermaPair SocksTM ,Lead Web Developer
- 2014 CWU Move Project, Project Manager
- 2013 Central Washington University (CWU), Bachelor of Science (Honors) in Information Technology and Administrative Management

7.2 Advisors of Credit Tag Chain

Fred Zhang

Strategy Advisor

He was a co-founder of 360 Financial Group and a partner of QC Capital, a financial industry fund of the State Ministry of Finance. He has successful entrepreneurial practices and rich investment experience. He also worked for ACCENTURE, an internationally renowned consulting company, and engaged in multi-year strategies consultation.

Haobo Ma

Advisor

- Founder of ælf
- Founder/ CEO of Hoopox
- Blockchain expert, early adopter of digital assets, Ex-CTO of GemPay, AllCoin.
- He is also a member of Blockchain Experts' Commission of Chinese Institute of Electronics.

8 Cooperating Institutions

9 Risks

You acknowledge and agree that there are numerous risks associated with purchasing CTC, holding CTC, and using CTC for participation in the Credit Tag Chain.

9.1 Risks in Losing the CTC Due to the Loss of the Wallet

After the CTC purchased by the loan customer have been distributed, they would be transferred to the digital wallet of the loan customer. If the loan customer loses the wallet, it would lead to the loss of CTC. Please take good care of your digital wallet.

9.2 Risks in Relation to the Technical Agreement

The CTC are developed in view of the relevant agreement of the blockchain. Hence, any malfunction, unexpected functional problem or attack that occurs in the said agreement may cause the CTC or the Credit Tag Chain application to stop working or lose their functions unknowingly.

9.3 Uncertain Regulations and Enforcement Actions

The regulatory status of CTC and distributed ledger technology is unclear or unsettled in many jurisdictions. The regulation of virtual currencies has become a primary target of regulation in all major countries in the world. It is impossible to predict how, when or whether regulatory agencies may apply existing regulations or create new regulations with respect to such technology and its applications, including CTC and/or the Credit Tag Chain. Regulatory actions could negatively impact CTC and/or the Credit Tag Chain in various ways. The Foundation (or its affiliates) may cease operations in a jurisdiction in the event that regulatory actions, or changes to law or regulation, make it illegal to operate in such jurisdiction, or commercially undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction. After consulting with a wide range of legal advisors and continuous analysis of the development and legal structure of virtual currencies, the Foundation will apply a cautious approach towards the sale of CTC. Therefore, for the token sale, the Foundation may constantly adjust the sale strategy in order to avoid relevant legal risks as much as possible. For the token sale the Foundation is working with Tzedek Law LLC, a boutique corporate law firm in Singapore with a good reputation in the blockchain space.

9.4 Risks in Relevant Applications or that the Product Falls Short of the Expectations of the Credit Tag Chain or the Purchasers

The Credit Tag Chain is in the midst of the development phase. Before it is officially released, there may be greater changes going on. Any expectation or imagination of the functions or forms (including the behaviour of the participants) of the Credit Tag Chain or CTC held by the Credit Tag Chain itself or the purchasers may fall short of the expectations, any mistake in the analysis or changes in underlying design may lead to such circumstances to occur.

There is the risk that the development of the Credit Tag Chain will not be executed or implemented as planned, for a variety of reasons, including without limitation the event of a decline in the prices of any digital asset, virtual currency or CTC, unforeseen technical difficulties, and shortage of development funds for activities.

9.5 Inadequate disclosure of information

As at the date hereof, the Credit Tag Chain is still under development and its design concepts, consensus mechanisms, algorithms, codes, and other technical details and parameters may be constantly and frequently updated and changed. Although this white paper contains the most current information relating to the Credit Tag Chain, it is not absolutely complete and may still be adjusted and updated by the team from time to time. The team has no ability and obligation to keep holders of CTC informed of every detail (including development progress and expected milestones) regarding the project to develop the Credit Tag Chain, hence insufficient information disclosure is inevitable and reasonable.

9.6 Security weakness

There is a possibility that hackers or other organisations or countries would attempt to interrupt the Credit Tag Chain application or functions of the CTC by any means, including service attacks, Sybil attack, smurfing, malicious software attacks or consistency attacks etc. Further, the future of cryptography and security innovations are highly unpredictable and advances in cryptography, or technical advances (including without limitation development of quantum computing), could present unknown risks to CTC and/or the Credit Tag Chain by rendering ineffective the cryptographic consensus mechanism that underpins that blockchain protocol.

9.7 Risks of Uninsured Losses

Unlike the bank accounts or accounts of other financial institutions, the CTC stored in the Ethereum network are usually not insured. For any loss under any circumstances, no public organisation or individual would underwrite your losses.

9.8 Other Risks and Response Mechanism

Compliance/Operational Risks

Compliance/Operational Risks refer to the risks of the business cannot continue as a result of the local laws and regulations being violated during the process of the Credit Tag Chain starting the business. The ways adopted by the operations team to prevent the compliance/operational risks are:

The operations team and the foundation adopt the distributed mode of operation to eliminate the single point of failure.

Employ professional lawyers in the place where the business is launched and design the business of the Credit Tag Chain under the legal framework.

The team only focuses on building the platform on the Credit Tag Chain. The project operation does not involve the transactions of CTC and fiat currencies, but it does not intervene in the business of third-party exchanges that deal with the transactions of CTC against fiat currencies.

Market Risks

Market risks refer to the Credit Tag Chain not being accepted by the market, or there are insufficient users using the platform, the business development comes to a standstill and there is insufficient profit to support the business. The ways adopted by the operations team to prevent the market risks are:

Make use of the experience and resources of the founding team accumulated in the Internet financial market, and rapidly convert the initial users of the Credit Tag Chain based on the pain points of the market demands of the pledged loans on digital assets.

The operations team of the Credit Tag Chain would take part in the industry meetings on a regular basis to share the concept of the Credit Tag Chain with the industry and draw lessons from the experience of operating similar products to optimise and improve the Credit Tag Chain.

Technical Risks

Technical risks refer to the major problems occurred in the underlying technology, causing the Credit Tag Chain to be unable to realise the expected functions, and that the critical data has been tampered with or is lost. The ways adopted by the operations team to prevent the technical risks are:

Based on the mature/open source/safe blockchain technology, develop the system of the Credit Tag Chain using the framework that has been adopted by many users and proven to run steadily for a long time.

The foundation would regularly allocate funds to support the building of the community on the Credit Tag Chain and engage in deep collaboration with other blockchain communities to ensure that the technical risks of the project are within control.

Capital Risks

Capital risks refer to major losses occurred in the project funds, for instance: the funds are being stolen, capital losses, the reserve fund depreciates significantly etc. The ways adopted by the operations team to prevent the capital risks are:

The pledged digital assets adopt the 2/3 multiple signatures mechanism, the platform shall be responsible for supervising and the 3 parties shall be in joint control, this can effectively reduce the risk of the funds being stolen and misappropriated without permission.

The Credit Tag team has rich experience in risk control. Losses would only be possible when severe price fluctuations (a sharp decline of 33.33%) are seen in the digital assets market in the short term.

Other risks

In addition to the aforementioned risks, there are other risks (as more particularly set out in the Terms and Conditions) associated with your purchase, holding and use of CTC, including those that the Foundation cannot anticipate. Such risks may further materialise as unanticipated variations or combinations of the aforementioned risks. You should conduct full due diligence on the Foundation, its affiliates and the team, as well as understand the overall framework and vision for the Credit Tag Chain prior to purchasing CTC.