



LOTS

lotscoin.io White Paper

Lending cryptos at ease and creating global value

v 1.0

January 27, 2018

Copyright @YC FOUNDATION LTD.

1. Abstract	2
2. Background	3
2.1 The Global Digital Assets Market	3
2.2 The Lending Market of Digital Assets	5
2.2.1 Market Demand	5
3. The LOTS Project	7
3.1 Mission and Vision	7
3.2 Problems Solved by LOTS	7
3.2.1 Solving the Lack of Trust Problem for OTC Lending Transactions	7
3.2.2 Solving the Inefficiency Problem for OTC Digital Asset Lending	8
3.3 Applications	10
3.3.1 Crypto-currency Secured Lending	11
3.3.2 Crypto-currency Unsecured Lending	11
3.3.3 Digital Asset Lending	12
4. LOTS Technologies and Products	14
4.1 Technology System and Structure	14
4.2 Secured Lending of ERC20 tokens	16
4.3 Using AI to Help Build the Credit Rating System	17
4.4 Cross-chain Smart Contracts and a Completely Decentralized Platform	19
4.5 Products DEMO	20
4.6 Multi-language Support	23
4.7 All-client Platform-wide Support	23
5. Our Strengths	24
5.1 LOTS Strengths	24
5.2 Competitor Analysis	24
6. Roadmap	26
7. Economics of LOTS and Token Arrangement	27
7.1 Value of LOTS for the Users	27
7.2 The Value of the LOTS Coin for the Platform	27
7.3 Buy-back Mechanism for LOTS	27
7.4 Token Arrangement for LOTS	28
7.5 Unlocking Schedule for LOTS Held by the Team	28
7.6 Use of Proceeds	28
8. Risk Warning and Disclaimer	29

1. Abstract

LOTS is the most professional and easy-to-use digital asset lending platform in the world. On the LOTS platform, users from around the world can lend digital assets and collect income; or create more value by borrowing digital assets for reinvestment and other purposes by way of a secured/unsecured loan.

LOTS effectively addresses issues such as lack of credit, inefficiency and limited liquidity in lending market. In the future digital world, after realizing the tokenization of various types of ownership and usufruct in the real world, more value will be created through global integration on the LOTS platform.

LOTS will facilitate loans on various digital assets based on cross-chain technology to create a decentralized global credit system, while the LOTS token will become a universal value measure for evaluating digital assets.

Schedule (In 2018)

January	February	March	2nd Quarter	3rd Quarter
Release of white paper	Complete financing and ICO; Platform release	Enter no less than 3 exchanges	Roll out global operation	Product Iteration

Offering plan:

The offering size of LOTS Coin (hereinafter “LOTS”) is 1 billion coins, and the distribution is as follows:

Pre-sale	Foundation	Community rewards	Eco-system construction	Team
40%	10%	10%	30%	10%

Financing plan:

Pre-sale of LOTS account for 40% of total offering, i.e. 400 million coins.

Institutional investment will not be locked; Rewards will be locked and released in 3 months

Team holding will be locked: 3 years of locking-up period, no more than 10% unlock each quarter.

Exchange rate: 1ETH = 13300 LOTS, or 0.035 BTC = 5000 LOTS

2. Background

Human society is evolving from industrial society to information society. Through the Industrial Revolution, people have made tremendous improvements to existing physical spaces and are building digital relationships within a virtual space, including those between people and people, and people and things. In this virtual society, a new digital financial system is being established.

The blockchain came into being from evolution in the information society. Based on the blockchain technology, digital currencies, a set of computer programs, are generated, enabling the exchange of codes, characterized by borderless point-to-point exchange without geographical limitation.

2.1 The Global Digital Assets Market

The Bitcoin network developed by Satoshi Nakamoto, took shape in 2009, followed by digital currencies, as an important part of digital assets. Subsequently, the cryptocurrencies with their own technical characteristics gradually made themselves known and have experienced explosive growth recently. According to relevant data, as of January 20, 2018, there are over 1,400 kinds of digital currencies around the globe, with the total market value exceeding \$500 billion and the daily turnover exceeding \$50 billion.



Total market value of cryptocurrencies, Jan 21, 2017 – Jan 20, 2018, data source: coinmarketcap.com

The birth of the Ethereum token standard (ERC20) standard in 2015 provided the standard for registering and transferring assets and contracts of all kinds, greatly facilitating the issuance and circulation of digital assets and promoting the prosperity of the initial coin offerings (a financing means for crypto-currency, hereinafter referred to as “ICO”) market. In essence, crypto-currency is an incentive mechanism in the blockchain consensus algorithms, but it has become an investment/financing tool under the market force. Instead of setting up traditional companies, many entrepreneurs now use a distributed business model to innovate and finance by issuing tokens which are backed by mathematical algorithms.

With the application of blockchain technology across different industries, more and more assets in the real world will be connected with the digital assets in the digital world, that is, the real assets will manifest in and be measured by crypto-currency. For traditional assets that cannot be divided or cannot be easily transferred or traded, borrowing and lending transactions on the chain will become an important way to realize asset appreciation. In the near future, 30% of the world's real assets will be presented in digital form in the digital world.

2.2 The Lending Market of Digital Assets

2.2.1 Market Demand

The rise of the digital asset market, especially the crypto-currency and ICO market boom, has directly triggered the demand for digital asset lending. For example:

1. Users who hold EOS can use EOS as collateral to borrow ETH, instead of selling EOS to acquire ETH (giving up value-added income of EOS).
2. Users who hold a large amount of BTC may want to achieve a steady income through lending.
3. Market makers can avoid running risk by borrowing BTC.

2.2.2 Digital Assets Lending Platforms

In the flourishing digital asset market, the development of crypto-currency lending platforms has been relatively slow. To date, there is no widely used crypto-currency lending platform, while digital asset lending platforms are yet to be developed. The main reason for such underdevelopment is the lack of good platform development strategies and operational strategies, including:

1. Subjection to the supervision of governments when it comes to the fiat money
2. Emphasis too much on centralization or complete decentralization in the early stages of development
3. Lack of experience in operating lending products

Involvement of fiat money vs. Non-involvement of fiat money

Digital asset lending platforms can be divided into two categories based on their connection with the fiat money. The first kind involves the fiat money, that is, the provision of fiat money loans (e.g. SALT), or crypto-currency loans backed by fiat money; the other kind does not involve fiat money and only provides digital assets loans, which is also the focus of the LOTS platform.

Changes in government attitudes and regulatory policies of the financial system will have a greater impact on lending platforms involving the fiat money. More stringent compliance requirements will affect the development pace and popularity of the platforms and increase the operating costs.

The digital asset lending market without involvement of the fiat money will have enormous room for growth and is still a blue ocean at this juncture, making it easier and faster for this area to move forward.

Centralization vs. Complete Decentralization

Centralized crypto-currency lending platforms are similar to centralized exchanges. As asset safety, reputation of platform and transaction transparency are the areas of most concern to users, such centralization fails to be consistent with the de-trust spirit advocated by blockchain technology.

Comparing to more centralized lending platforms, decentralized lending based on the blockchain have significant advantages:

1. De-trust: Lending terms are bound to be enforced and their effectiveness does not depend on mutual trust – neither the borrower nor the lender can unilaterally alter, suspend or reverse the contract so that unilateral default inevitably has its consequences.
2. Equality and openness: Anyone in the world can participate and there is no qualification restriction.
3. Marketization: Users may publish their own needs in the market. The borrower and the lender may agree upon the terms of the loan and other terms such as interest on their own.
4. Transparency: Loan information is recorded on the blockchain ledger, open and transparent.

Admittedly, complete point-to-point decentralized lending is highly revolutionary. However, due to factors such as the premature cross-chain technology, the yet-to-be-established decentralized credit system, unformed user habits, and lack of references for pricing of asset loans, advocating the "decentralization" at the very early stage and neglecting the current needs of the users will constrain the use of such loans, thus limiting the development of the platform itself.

Product Development and Operation

The lack of experience in the development and operation of lending products is the biggest problem faced by crypto-currency lending platforms on the market nowadays. It could be found that the projects developed rapidly in a single geographical area with limited global influence. For overseas projects, the Asian market is not well developed because of the slow speed, poor product experience (single language, unfriendly interface, failure to provide market references, etc.), and poor service quality; for domestic projects, there is also the same lack of experience in their overseas operations.

As the front line of financial innovation, digital asset lending platforms also need to establish global presence while exploring the Asian market in depth. While drawing on and promoting the merits of FinTech products, the teams should pursue the most user-friendly designs to provide the best experience for participants in blockchain asset lending.

3. The LOTS Project

LOTS refers to Land of Tokens. Token is the mapping of people or things of the real world in the digital world, and bridges people and things, and things and things in the digital world. LOTS can also be interpreted as Lending of Things. The LOTS platform is the most professional platform for digital asset lending. In the digital world, token could be transferred at ease, where more value could be created through the rapid circulation. In addition, LOTS means "segments" or "bits" in Chinese, and it will become the unit of measurement of the value of assets in the digital world.

The logo of the platform was inspired by the spinning top – in the digital world, the acceleration digital assets' circulation and transfer is just like the spinning top.

3.1 Mission and Vision

The mission of LOTS is to establish the world's most professional platform for digital asset lending, easy lending of assets and channeling of global value. The LOTS platform will, based on the cross-chain technology to achieve various types of decentralized loans of digital assets and to establish a decentralized global credit system; and the LOTS coin will become the common measure of the value of all types of digital assets.

3.2 Problems Solved by LOTS

LOTS effectively addresses issues such as lack of credit, inefficiency and limited liquidity in the digital asset lending market.

In the digital world, a sophisticated market for digital asset lending should have the following essential elements: rich underlying assets, easy-to-use tools, effective self-governance mechanisms and interaction with global liquidity. However, there are three critical issues that need to be addressed in the current over-the counter (OTC) lending market and the online crypto-currency lending products offered by a few exchanges:

1. How to effectively control the credit risk of the transaction body under while supporting multiple underlying assets
2. How to improve the overall operational efficiency of the digital asset lending market
3. How to improve the overall liquidity of digital assets

3.2.1 Solving the Lack of Trust Problem for OTC Lending Transactions

Because of the absence of a trust mechanism, there are currently a limited number of participants involved in OTC lending of digital currencies. Meanwhile, the customization of peer-to-peer OTC lending products is limited because the current regulatory system is not yet mature and is subject to geographical restrictions – if the counterparty defaults, the situation cannot be dealt with effectively. Therefore, the lender and the borrower tend to choose common digital currency and simple terms (such as shorter maturity), which limits personalized borrowing.

Solutions provided by LOTS include:

1. **Smart Contracts:** The OTC one-on-one paper contract signing mode is replaced by a smart contract signing mode on the blockchain, using the technical features of smart contracts including programmability and auto-execution to reduce the credit risk of default.
2. **Distributed Consensus:** Based on the blockchain consensus algorithms and under the precondition of ensuring the security and efficiency of the lending transactions, the contractual information and transaction data on the chain is immutable and cannot be tampered with.
3. **Credit records:** Based on features of the blockchain such as data traceability, non-tampering and whole-network openness and transparency, transaction performance and defaults as well as credit rating information provided by the LOTS platform are recorded through the blockchain to establish life-long credit profile of the users of the platform and to provide credit data support accordingly.

3.2.2 Solving the Inefficiency Problem for OTC Digital Asset Lending

Currently, the OTC digital asset lending transactions are not yet mature. The general process is as follows:



During this process, OTC inquiries/quotations take a long time and it is easy to miss the best trading timing, and there is a risk of mistakes in the manual calculation of the interest.

Part of the online exchange lending process is:



Problems in this process include: long period for review by the platform, transaction elements set by the platform, no inquiries/quotations mode, all of which have seriously hampered the crypto-currency and digital assets lending efficiency.

For the inefficiency problem, solutions by LOTS are provided as follows:

1. Creation and signing of smart contracts: The hierarchical design of smart contracts including three tiers, i.e. the parties' agreement, the contract template and the contract provide the most direct customization interface for contract elements for the platform users, avoiding invalid workload such as duplicate creation and signing and improving the efficiency of contract creation and signing.
2. Transparent inquiries and quotations: Based on the trading data of the whole network, reference prices will be provided to both lenders and borrowers so as to optimize the one-on-one inquiry/quotation mode of OTC loans to further enhance the efficiency of the transaction matching process and generate transparent and traceable record on the block.
3. Automatic transaction settlement: Technical features of smart contracts such as programmability and automatic execution could be leveraged to solve the low efficiency problem in traditional OTC manual handling.
4. Data supervision: Technical features of the block chain such as data transparency and support for real-time viewing could be leveraged to improve the quality and efficiency of data statistics.

3.2.3 Improving the Overall Liquidity of Digital Assets

The lack of liquidity of digital assets will significantly and directly limit the size of the market. Main reasons for the lack of liquidity are:

1. Affected by the policy factors, global investors are unable to participate freely, limiting the overall liquidity;
2. In the process of tokenization of real-world assets into the digital world, the overall categories of digital assets are limited;
3. Digital assets have not yet reached a steady state in their prices, thus failing to form a fair price in the transaction with other digital assets, reducing the efficiency of pricing and affecting the speed of financing.

Targeting at the above problems, solutions to the limited liquidity provided by LOTS are as follows:

1. Loan transaction intermediary: The LOTS platform acts as an semi intermediary for digital asset financing. Using digital currencies as the trading medium, the LOTS platform can open up the global market by breaking the restrictions on the asset types

and geographical locations, whereas the global liquidity will in turn empower the platform to a great extent.

2. Incremental digital asset creation: The LOTS platform serves as a distributed digital asset lending platform that allows users the freedom to choose new types of underlying digital assets and devise their own transaction terms. According to the needs of users, the platform will introduce popular digital assets which have completed tokenization and innovative transaction structures (for example, digital currencies that can be freely split, which means the corresponding rights can be split and circulated). In this way, an incremental market can be created beyond the current crypto-currency lending market, attracting new institutions and new entrants, thus bringing incremental liquidity.
3. Measure of value: LOTS will be the unit of measure for the value of crypto-currency assets. In a globally marketized network, LOTS will serve as an intermediary for borrowing and lending transactions. The prices of digital assets will gradually become fair and stable, and LOTS will become an important unit of measure for the value of the collateral digital assets, the lending/borrowing digital assets, and even any form of digital assets.

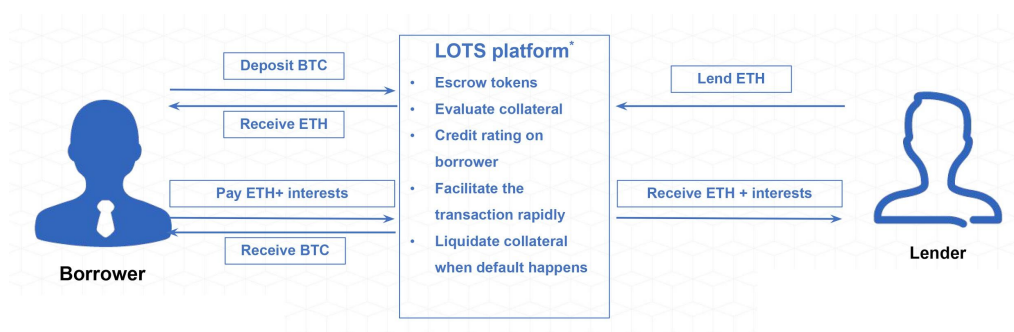
3.3 Applications

The project will have various kinds of application scenarios, including: crypto-currency secured lending, crypto-currency unsecured lending, and digital asset lending.

In addition, the LOTS platform will also launch derivative applications such as package lending services and insurance services, etc. The LOTS platform will continue to introduce and improve the derivative applications of the platform to provide better service support.

3.3.1 Crypto-currency Secured Lending

In this scenario, the borrower will use its crypto-currency A holding as collateral and borrows crypto-currency B from the lender. At the agreed maturity date, the borrower will return crypto-currency B, pay the corresponding interest, and retrieve the crypto-currency (A) collateral. (Please refer to the example below)



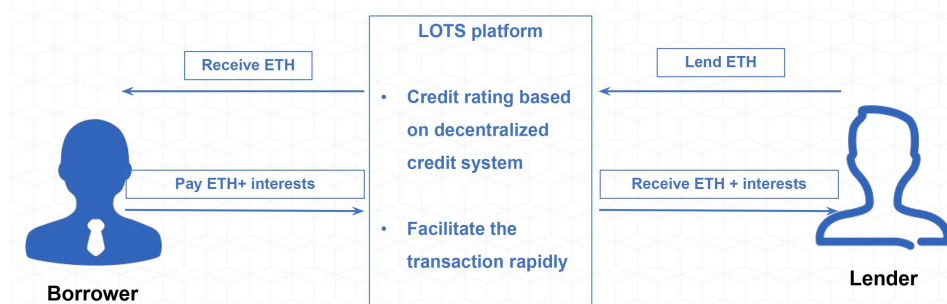
Notes:

* In lending transactions, discounts will be provided for payment of service charge in LOTS coin.

* Before the cross-chain technology matures, cross-chain transactions on the LOTS platform will ensure the security of the collaterals with the help of third-party custodian and insurance. The LOTS platform will record the performance of both lenders and borrowers and the mutual evaluation results, and keep the credit records on the blockchain.

3.3.2 Crypto-currency Unsecured Lending

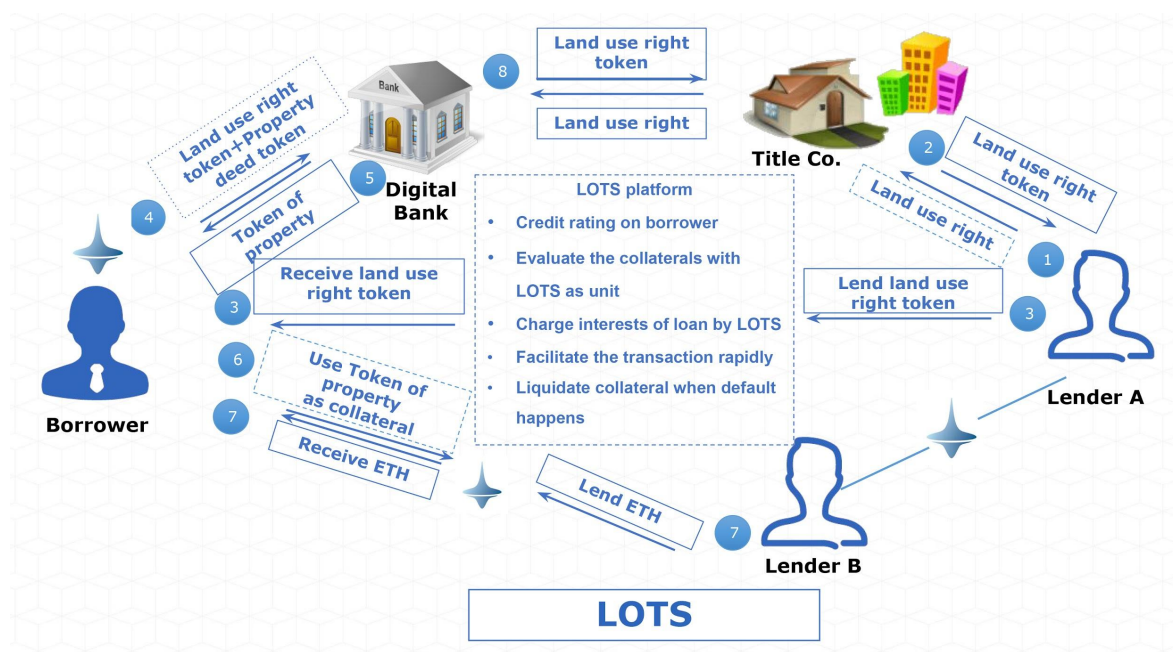
In this scenario, the borrower does not need to provide other digital currencies as a collateral and can obtain the lender's crypto-currency directly with its credit rating on the LOTS platform. Upon reaching the agreed maturity, the borrower must return the agreed amount of crypto-currency (including both principal and interest). In the event of a default, the borrower will be downgraded in its credit rating and suffer other agreed losses.



Notes: In lending transactions, discounts will be provided for payment of service charge in LOTS coin.

3.3.3 Digital Asset Lending

In the digitized world, the ownership and usufruct of all kinds of things in the real world are tokenized. In this scenario, the LOTS platform will play a greater role in connecting the holders of all types of digital assets to facilitate the circulation of digital assets and create value.



Notes:

- * In lending transactions, discounts will be provided for payment of service charge in LOTS coin.
- * The LOTS platform will record the performance of both lenders and borrowers and the mutual evaluation results and keep the credit records on the blockchain.

In this scenario (following the different steps):

- ①-② The tokenization of land use rights: lender A who owns the land use rights, hands over the substantive land use rights to the Title Company (upper right in the flowchart), and the Title Company gives the corresponding land use right tokens to lender A.
- ③ Land use right tokens lending: Lender A lends this part of the digital asset to the borrower (left in the flowchart) through the LOTS platform (in essence, it lends the right to use the land it owns for a certain period of time); after acquiring the token (in essence, the right to use the land within a certain period of time), the borrower (usually a property developer in real life) carries out property construction;
- ④-⑤ Tokenization of the property under construction: In order to collect the funds in advance during the construction, the borrower can escrow the property deed token of the property under construction and the land use right token to Digital Bank (in real life, similar to banks; upper left of the flowchart), which gives the “token of property” to the borrower; the

borrower thus obtains the crypto-currency of the property under construction (such crypto-currency represents, in substance, the property right of the property under construction);

⑥-⑦ Lending of other digital assets: after obtaining the above crypto-currency and pledging it as collateral on LOTS, the borrower obtains the crypto-currency it needs (such as ETH) from Lender B (bottom right of the flowchart) for investment or other purposes.

⑧ Land use right recovery tokens: the Digital Bank that own the land use right tokens may exchange land use rights with the Title Company. After the Title Company reclaims the land use right token, the land use right will be handed over to the Digital Bank.

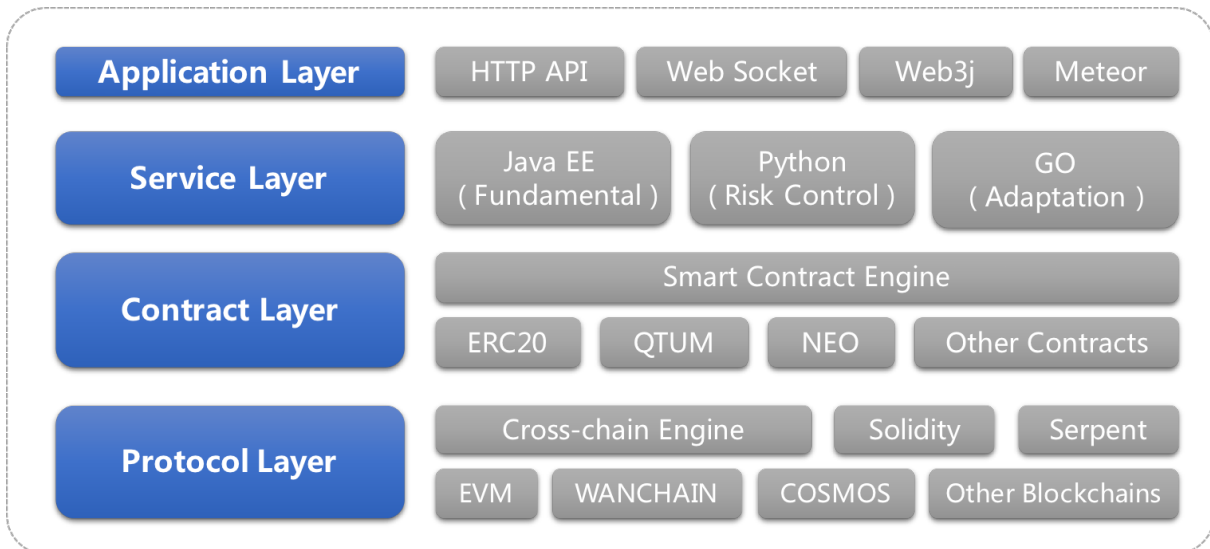
Property rights registries and traditional banks, which are familiar in the current real world, will help tokenization of land use rights and tokenization of property rights in the digital world interchangeably. In the above scenario, the transfer of the land use right tokens from the property rights center to lender A and the eventual recovery from the bank may take only a few months, or even days, which significantly reduces the time needed in the physical world due to property rights transfer, asset assessment, property construction and sales, and the review and approval by related authorities. The LOTS platform will help users achieve the circulation of digital assets.

In the meantime, in this scenario, LOTS is used to measure the value of the land use right tokens and the property-under-construction tokens. Because these tokens correspond to the land and property in the physical world respectively and the quantities are constant, the interest on the borrowed assets is based on the value of the tokens measured by LOTS and is paid in LOTS coin.

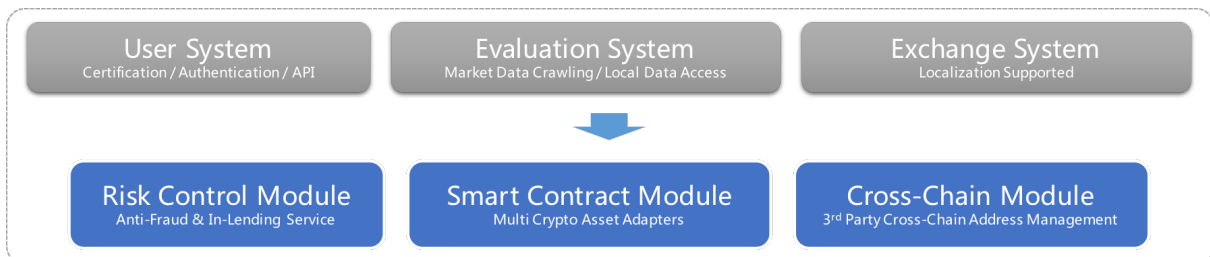
4. LOTS Technologies and Products

4.1 Technology System and Structure

Technology System:



System Structure:



For example, when ERC20 contract are invoked, lending contracts on the LOTS platform are recorded on the public ETH chain, and we will use and extend Web3J (a JAVA-based ETH smart contracts invocation open source library) to complete the interaction of the platform with the public ETH chain block. Smart contracts are developed by Solidity language and are deployed on the public ETH chain through the blockchain engine of LOTS.

The following codes shows how the application layer of LOTS connects with ETH smart contracts through Web3J extensions :

```
// Connect to bridging engine
Web3j web3j = Web3j.build(new HttpService());
Credentials credentials = WalletUtils.loadCredentials(userPassword, userWalletOTA);
// Connect to the public ETH chain by default
TransactionManager transactionManager = new RawTransactionManager(
```

```
web3j, credentials, ChainId.MAIN_NET);

// Invoke decentralization service and generate smart contract
DefaultLoanSmartContract contract = DefaultLoanSmartContract.deploy(
    web3j, credentials, GAS_PRICE, GAS_LIMIT,
    lotsUserId, lotsLoanRequestModel ).send();

// Query contract status
Type statusResult = contract.currStatus.send();

// (Optional) The lender initiates payment to the contract
// In secured lending contracts, the system will also invoke corresponding
// measures to send the crypto-currency collateral to the contract
Admin web3jAdmin = Admin.build(new HttpService());
PersonalUnlockAccount personalUnlockAccount =
web3jAdmin.personalUnlockAccount(userWalletAddr, userPassword)
    .sendAsync().get();
if (personalUnlockAccount.accountUnlocked()) {
    // Send the crypto-currency in need (ETH) of a corresponding quantity to
    // the contract address
    TransactionReceipt transactionReceipt = Transfer.sendFunds(
        web3jAdmin, credentials, contractAddr,
        BigDecimal.valueOf(contract.tokenAmount), Convert.Unit.ETHER) .send();
}

// (Optional) Before the loan is made, the users may take actions to cancel
// the contract
Type result = contract.cancel("DUMMY REASON").send();

// The system executes the contract and finishes operation.
// When the secured loan contract expires, the crypto-currency collateral
// will be returned.
TransactionReceipt transactionReceipt = contract.requestFinish().send();
```

The following codes is a demonstration of a basic smart lending contract used by LOTS:

```
pragma solidity ^0.4.11;
import "StdToken.sol";
import "ERC20Token.sol";

//State enumeration of the LOAN :
enum LoanState{
    /// Initialized, waiting for approval or collateral
    Init,
    /// Cancellation by the borrower
    Canceled,
    /// Approval or collateral sending completed, waiting for payment
    by the lender
```



```
        Ready,
        /// Completion of payment by the lender and taking effect of the
contract
        Running,
        /// Overdue but within the period of grace
        Overdued,
        /// Completion of contract execution
        Finished
    }

    ///Essential parameters in the basic smart contract about the loan
    LoanState public currState = LoanState.Init;

    /// Borrower wallet address
    address public borrowerAddr = 0x0;
    /// Smart contract address
    address public contractAddr = 0x0;
    /// Borrowed token, ETH by default
    string public tokenName = "ETH";
    /// Quantity of the loan
    uint public tokenAmt = 0;
    /// Quantity of interest
    uint public premium = 0;
    /// Loan period (days)
    uint public dueDay = 0;
    /// Commencement time of the loan
    uint256 public startAt = 0;
    /// Maturity of the loan
    uint256 public dueAt = 0;
    /// Completion time of the contract
    uint256 public finishAt = 0;
```

4.2 Secured Lending of ERC20 tokens

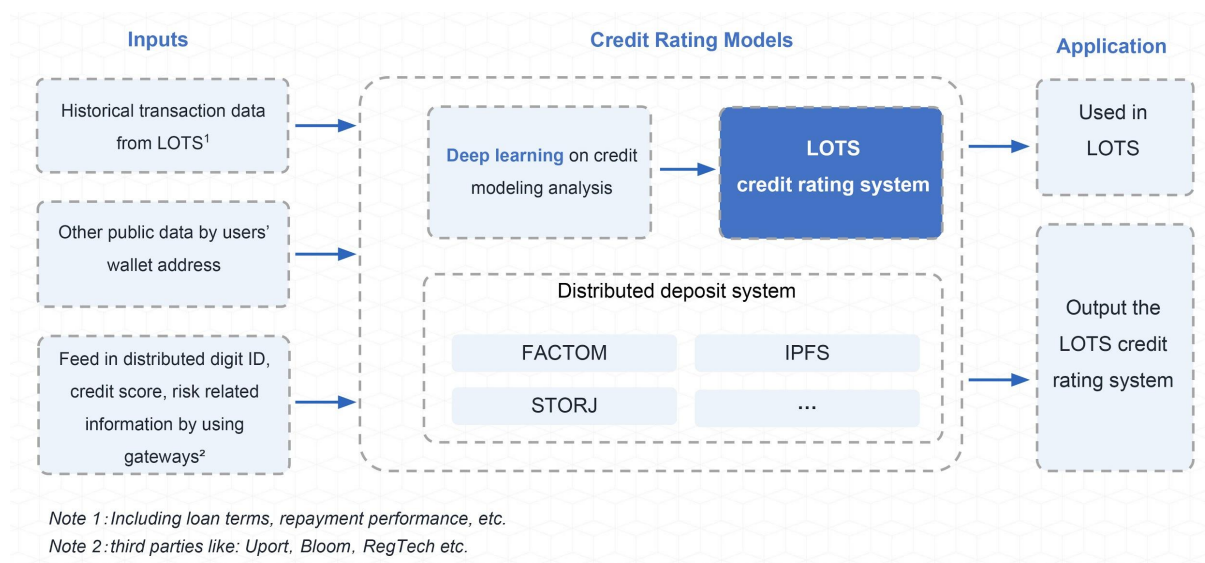
The following codes is a demonstration of the secured lending service based on ERC20 smart contracts:

```
// Extends from basic loan contracts
contract PownLoanContract is DefaultLoanContract {
    /// Essential parameters of a ERC20 secured loan contract
    /// Number of the collateral token
    uint public pawnTokenAmt = 0;
    /// Name of the collateral token, LOTS by default
    string public pawnTokenName = "LOTS";
    /// Check whether the borrower has sent the collateral token to the smart contract
    address
    function checkPownTokens() onlyInState(LoanState.Init){
        ERC20Token token = ERC20Token(contractAddr);
        uint tokenBalance = token.balanceOf(this);
        if(tokenBalance >= pawnTokenAmt){
            currState = LoanState.Ready;
```

```
    }  
  }  
  // When the contract is being performed, the borrower can repay the loan in  
  advance and claim the collateral token back  
  function requestNormalRefund() payable onlyInState(LoanState.Running){  
    if(now >= (start + (dueDay + MAX_OVD_DAY) * 1 days)){  
      throw;  
    }  
    // Pay the ETH principal and interest to the lender  
    if(msg.value < safeAdd(tokenAmt ,premium )){  
      throw;  
    }  
    if(!lender.call.gas(GAS_LIMIT).value(msg.value())){  
      throw;  
    }  
    // unfreeze the collateral token  
    ERC20Token token = ERC20Token(contractAddr);  
    uint tokenBalance = token.balanceOf(this);  
    token.transfer(borrower,tokenBalance);  
    // Mark the contract status as finished  
    currentState = LoanState.Finished;  
    finishAt = now;  
  }  
  // If the loan is overdue or the risk control rules are triggered, this method can  
  also be invoked by the upper layers of blockchain engine  
  function requestFinished() onlyInState (LoanState.Running){  
    if(now < (start + (dueDay + MAX_OVD_DAY) * 1 days)){  
      throw;  
    }  
    // Unfreeze the collateral token  
    ERC20Token token = ERC20Token(contractAddr);  
    uint tokenBalance = token.balanceOf(this);  
    token.transfer(lender,tokenBalance);  
    // Mark the contract status as finished  
    currentState = LoanState.Finished;  
    finishAt = now;  
  }  
}
```

4.3 Using AI to Help Build the Credit Rating System

The LOTS team work closely with leading cross-chain technical teams such as WANCHAIN and COSMOS to enable cross-chain lending transactions with a single wallet address. With the help of advanced AI technologies, we will rate the credit risk of this address in a comprehensive way based on the historical transaction data of the cross-chain wallet on the LOTS platform, its public transactions in the public chain and other distributed digital identity, etc.



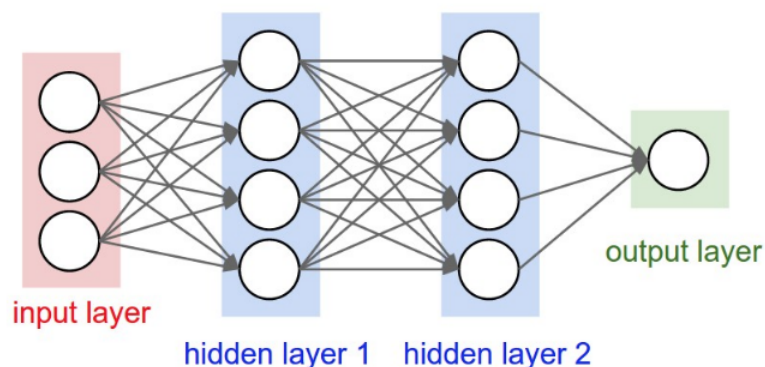
Different from the credit rating system of centralized platforms, the input factors of LOTS come from the public market information and the data based on distributed applications. According to the AI research results, the platform gives different weights to each factor and generate the credit rating of borrowers for lenders' reference. At the same time, other platforms can use the result of this rating system to get more information about the user.

AI application in decentralized credit rating:

1. In addition to using the traditional GARCH model, we also use mainstream machine learning models such as Decision Trees, Random Forests and SVM to improve the accuracy of forecasting when evaluating the fluctuations and value of the cryptocurrency collateral.
2. For historical data analysis on the wallet address (the borrower), combined with public data outside LOTS, we also use big data machine learning methods to predict the transaction behavior of the wallet address.
3. Cross-chain Anti-fraud. LOTS is compatible with a variety of digital assets and conduct real-time integrated computing on the network-wide transaction risk indicators for cross-chain anti-fraud through collecting characteristics of loan

addresses on different public chains, establishing in-depth mining mechanism and using deep learning algorithms such as the neural networks algorithm.

With regard to AI anti-fraud, the LOTS platform uses deep neural networks algorithm to improve its forecast accuracy. The figure below is a basic explanation of the neural networks algorithm. By using neural networks algorithm, anti-fraud forecast can be completed even with few fraud tags.



4.4 Cross-chain Smart Contracts and a Completely Decentralized Platform

Currently there is no mature or widely used cross-chain transaction technology solutions. Different from other general secured digital asset loans platforms which tend to use multiple-signature wallet co-management, LOTS keeps a close eye on leading cross-chain projects and makes adaptations accordingly and takes the lead in applying the cross-chain technology in the field of digital asset lending in order to truly achieve cross-chain smart contracts on a variety of digital assets,:

1) WANCHAIN

LOTS completed the interaction between the platform and the WANCHAIN blocks by extending the Web3J project.

Since WANCHAIN has already interworked with ETH and BTC networks by locking the address of the public chain, smart contracts were also developed based on the Solidity language while providing strong encryption cross-chain capabilities. The introduction of in-deep collaboration with the WANCHAIN project enables faster and simpler cross-chain lending solutions on LOTS.

The following codes is a demonstration of the interaction between the application layers of LOTS and the WANCHAIN smart contract:

```
// WanChainWeb3j was derived from Web3j to achieve the adaptation with
the WANCHAIN network
Web3j web3j = WanChainWeb3j.build(new HttpService());
```

```
Credentials credentials = WanChainWalletUtils.loadCredentials(userPassword, userWalletOTA);  
// Connect to the WANCHAIN public chain  
TransactionManager transactionManager = new RawTransactionManager(  
    web3j, credentials, ChainId.WANCHAIN_MAIN_NET);  
  
// The invocation of decentralization service, generation of smart  
contracts and execution of the contracts are almost the same as that on  
the ETH chain  
DefaultLoanSmartContract contract = DefaultLoanSmartContract.deploy(  
    web3j, credentials, GAS_PRICE, GAS_LIMIT,  
    lotsUserId, lotsLoanRequestModel ).send();
```

2) COSMOS HUB

COSMOS is a blockchain network specialised in helping cross-chain asset transfers. The network is mainly composed of two parts, Cosmos Hub and several Zones. Based on the Byzantine-fault-tolerance (BFT) consensus algorithm of Tendermint Core, Cosmos is well suited for extending the public blockchain under the Proof of Stake.

Cosmos Hub is a multi-asset proof-of-stake cryptocurrency network that enables network changes and updates through a simple management mechanism. In particular, the interworking between the COSMOS Hub and ERC 20 is ushering in exciting developments since the Ether Square Expansion Agreement was announced in the September 2017 in the Ethernet Working Group report.

Cosmos currently offers a GO-based SDK, and LOTS team is stepping up its efforts to provide more international support for cross-chain solutions.

4.5 Products DEMO

The LOTS platform started with decentralized lending products based on smart contracts to realize secured lending of ERC20 tokens. Meanwhile, third-party custody and insurance are used to provide secured lending of cross-chain crypto-currencies.

Lenders

Lenders can easily find the suitable investment targets on the LOTS platform.

Manual Investing Auto Investing Decentralized Investing								
Browse loans								
	ETH	NEO	QTUM					
Amount	Premium(% of Amount)	Installment Period (days)	Num of installments	Collateral Ticker	Collateral Amount	Credit Rating	Listing Time	
3.5230	10%	10	1	OMG	300	A	00:09:34	Invest
13.0000	20%	30	2	SNT	62,000	B	00:43:03	Invest
21.6940	3%	2	1	REP	450	A	01:00:05	Invest
55.0000	5%	1	1	KNC	20,000	B	00:15:13	Invest

The above screenshot is the demo page for choosing investment targets based on ERC20 smart contracts by the lenders.

Manual Investing Auto Investing Decentralized Investing								
Browse loans by currency type								
LOTS	BTC	ETH	QTUM	others				
Amount	Premium(% of Amount)	Installment Period (days)	Num of installments	Collateral Ticker	Collateral Amount	Credit Rating	Listing Time	
1.2000	10.00%	20	1	EOS	2,000	B	00:23:34	Invest
0.5251	53.00%	30	2	QTUM	2,300	B	01:03:57	Invest
5.6421	3.00%	5	1	ETC	3,000	A	00:03:35	Invest
10.0000	8.00%	10	1	XRP	1,500,000	C	00:11:33	Invest
<div>Loan Profile</div> <div>Internal Rate of return : 292.00%Expected last Payment date: 2018/01/05</div> <div>Collateral Profile</div> <div>Volatility Level (XRP/BTC) : HighVolatility Level (XRP/USD) : High</div> <div>Collateral rate: 72%Expected Collateral rate by end of term* : 82%</div> <div>Borrower profile</div> <div>LOTS credit rating: AEarliest credit usage date : 2017/12/25</div> <div>Total number of loans: 3Total number of BTC loans: 2</div> <div>Total number of delinquency: 0Total number of BTC delinquency: 0</div> <div>Month since last delinquency: 0</div> <div>Average loan amount in USD: 80,013Average loan amount in BTC: 9.2348</div>								

The above screenshot is the demo page for choosing investment targets by the lenders on LOTS. The platform will give reasonable recommendations based on the fluctuations of the

collateral and the lenders' risk ratings to ensure that the lender can make the most appropriate investment choices with full knowledge of the risks.

Borrowers

LOTS also provides convenient borrowing services. Users can pledge their crypto-holdings as collateral and choose the most suitable borrowing solution on the platform to complete the transaction rapidly.

The screenshot shows the 'Decentralized Borrowing' section of the LOTS platform. It features a header with 'LOTS Borrowing' and 'Decentralized Borrowing'. Below the header, there's a section titled 'Get funded on a cool chain'. The main content area is divided into three steps: 'STEP 1 - Complete your loan request', 'STEP 2 - Send Collateral token', and 'STEP 3 - Get funded'. Step 1 is currently active and contains a form with the following fields:

- Ticker name: ETH (dropdown)
- Amount: 14.3200 (input)
- Number of installment: 1 (input)
- Installment period (in days): 10 (input)
- Premium to pay (%): 10% (input)
- Collateral Ticker name: OMG (dropdown)
- Collateral Amount: 120.0000 (input)

A blue button labeled 'Save and Get my loan on chain' is positioned below the form fields.

The above screenshot is about the steps for the borrowers to take to apply for loans based on ERC20 smart contracts.

This screenshot shows the 'Decentralized Borrowing' section of the LOTS platform, similar to the previous one but with a credit rating displayed. The header shows 'LOTS Borrowing' and 'Decentralized Borrowing'. Below the header, there's a section titled 'Borrow any Currency with fast funding supported by LOTS'. The main content area is divided into three steps: 'STEP 1 - Complete your loan request', 'STEP 2 - Send Collateral token', and 'STEP 3 - Get funded'. Step 1 is currently active and contains a form with the following fields:

- A blue button labeled 'My LOTS credit ratings: C' is displayed above the form fields.
- Ticker name: BTC (dropdown)
- Amount: 1.3200 (input)
- Number of installment: 1 (input)
- Installment period (in days): 10 (input)
- A message: 'The suggested premium you need to pay is 10% based on your current LOTS rating. Your loan will be funded soon with higher premium.'
- Premium to pay (%): 10% (input)
- A message: 'The suggested collateral amount will pop up automatically based on the collateral you choose. Your loan will be funded soon with more collateral.'
- Collateral Ticker name: ETH (dropdown)
- Collateral Amount: 22.0000 (input)

A blue button labeled 'Save' is positioned below the form fields.

The above screenshot is an interface demo when the borrower initiates cross-chain loans. LOTS will automatically recommend reasonable loan interest rates and the required collateral rates based on the users' credit ratings to help the borrowers complete the transaction quickly.

4.6 Multi-language Support

Digital assets are widely recognized around the world and crypto-holders use different languages. However, the current digital asset lending platforms seldom support multiple languages, ignoring the needs of a large number of users.

The first released version of LOTS will support both Chinese and English and will be available in other languages later including Japanese and Korean.

4.7 All-client Platform-wide Support

LOTS will provide a variety of clients, including Web browser client, Android client and iOS client.

5. Our Strengths

5.1 LOTS Strengths

The LOTS platform has the following strengths:

1. **Leading the crypto-currency lending:** The crypto-currency market is much heated, but the transactions center on ICO investments and secondary market trading, leaving huge opportunities in the lending market. LOTS is leading the way in the emerging crypto-currency lending market.
2. **Securing the transaction:** Safety and stability of the system is of vital importance for lending platforms. The LOTS platform improves the safety of the system in a bottom-up way to ensure the asset safety of its users. The P2P matching services provided by LOTS and its operation based on the smart contracts help safeguard the asset safety of both borrowers and lenders to circulate digital assets freely.
3. **A global credit rating system:** Based on AI analysis of lending transactions by the account address, LOTS takes the lead in realizing unsecured lending and building the most professional decentralized credit rating system globally.
4. **Reforming the lending system:** Achieve a fair rate of interest worldwide; lending transactions are no longer monopolized by traditional financial institutions. The use of blockchain technology to keep tamper-resistant loan transaction records will help establish an all-transparent financial system.
5. **Support from great partners in the ecosystem:** The team has rich resources and many partners, and is supported by a number of miners, investment funds and public chain ecological system builders, who will help improve the liquidity of the platform.
6. **Global community operation:** LOTS offers a wide range of products and provides multi-currency, multi-language and all-client support.
7. **A clear profit model:** Revenue and profit of LOTS mainly come from users' service charges when they are rendered the platform services (including initiating transactions and realizing transactions). Meanwhile, the platform accepts tips from users and will obtain other income through various cooperation and outputting credit rating information, etc.

5.2 Competitor Analysis

We conducted competitor analysis according to the existing projects on the market, and concluded that LOTS take advantages in many aspects, including but not limited to the kinds of digital asset, popularity of targeting users, variety of application scenarios, the usage of smart contract, and the effectiveness of credit rating system. (see the below chart)

ETHLEND: Decentralized peer-to-peer lending based on Ethereum Network, only support lending against ERC 20 based tokens as collaterals. There is no clear roadmap for credit rating system, and no loan loss provision is set up.

SURETLY: Social networking lending built on top of securing a loan repayment by vouching monetary contributions from a large number of people. They don't use blockchain technology essentially.

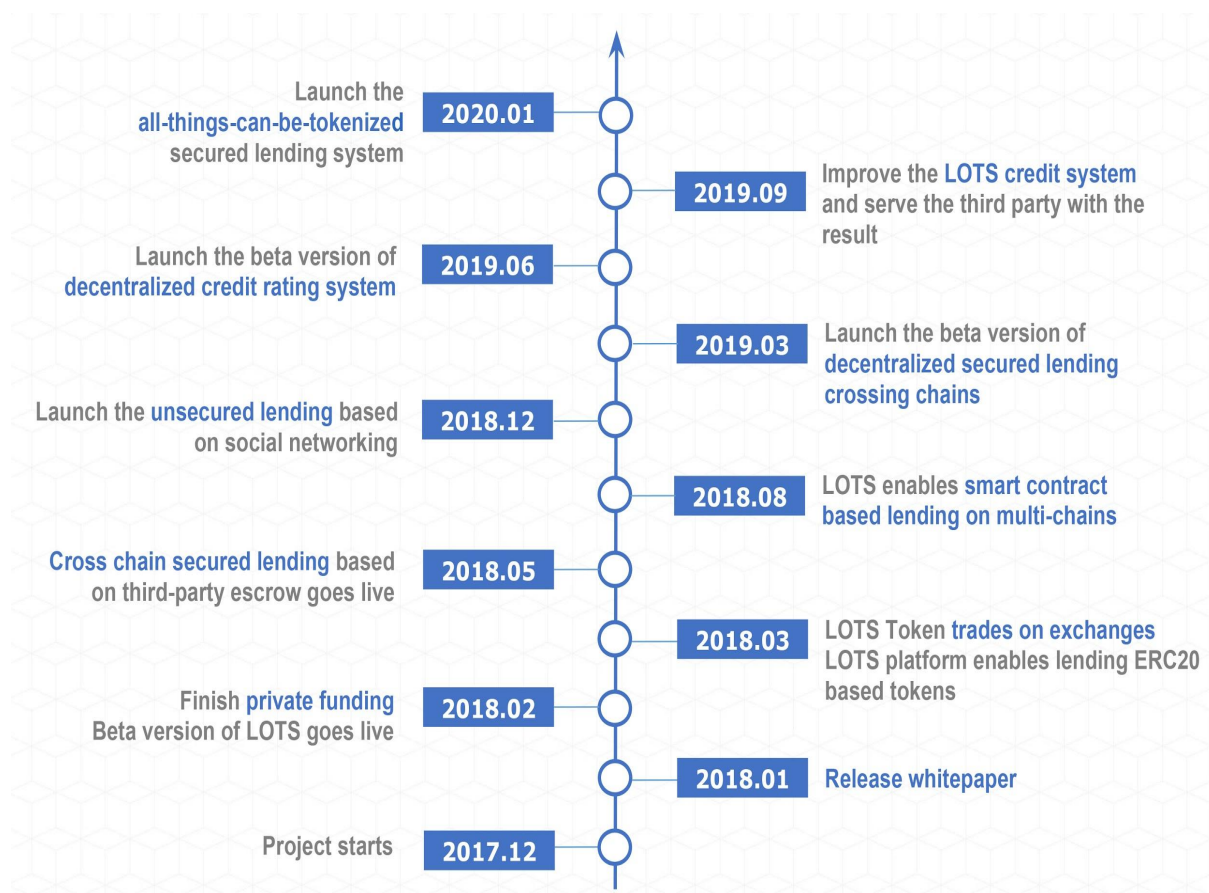
LENDOIT: Peer-to-Peer lending based on ethereum network, leveraging the third party ID verification tools. Credit scoring system is merely based on ethereum address. Set up loan loss provision.

SALT: Provide FIAT lending against crypto-currency as collaterals to SALT members, only eligible investors or institutional investors can be SALT investors. The smart contract only applies to processing token collaterals. The targeting borrowers are token holders who want FIATs without selling tokens.

LOTS: We build a fully decentralized digital asset lending platform based on multi-chains smart contracts. Currently provide partially decentralized peer-to-peer lending leveraging the third party escrow and insurance service to meet intermediate market needs. Establish a more transparent credit rating system, utilizing the crypto wallet address data, partnering with distributed third party service, leveraging the power of artificial intelligence like neural network algorithm.

	LOTS	ETHLEND	SURETLY	LENDOIT	SALT
Variety of crypto assets	***	**	***	**	***
Usage of smart contract	***	**	*	**	*
Effectiveness of credit rating system	***	*	**	**	***
Level of decentralization	**	***	*	***	*
Loan loss provision	—	—	—	***	—
Popularity of targeting users	***	**	***	**	*
Variety of application scenarios	***	**	**	**	*

6. Roadmap



7. Economics of LOTS and Token Arrangement

The crypto-currency launched by the LOTS platform is called the LOTS Coin, which is referred to as "LOTS". The total amount of LOTS coins will be 1 billion. The LOTS currency is based on the ERC 20 standard issued by Ethereum. LOTS currency is a Utility Token.

7.1 Value of LOTS for the Users

For users, the value of the LOTS coin is as follows:

1. Used for transaction service charges. For users participating in lendings on the LOTS platform, no matter what kind of digital assets is to be borrowed, the LOTS coin could be used in settling the service charges and discounts will be enjoyed accordingly.
2. LOTS makes occasional airdrops to encourage users to use the LOTS platform and reward new users' referral during its operation.
3. Event pass for the events held by LOTS or its cooperation partners. The platform will organize events from time to time for certain types of digital assets (e.g. using crypto-currency for B&B, first-class air tickets, beauty salon), where users holding LOTS can participate and enjoy discounts.
4. Unit of measurement for the value of digital asset collateral. To allow users to better evaluate the value of digital assets, the LOTS platform will give evaluations on the other digital assets in LOTS based on special algorithms. In the future tokenized world, LOTS coins will become the common measure of value for all types of assets.

In addition, LOTS-holding users may enjoy returns on the digital assets as the LOTS platform gains market recognition and the value of the value of LOTS coins continues to grow.

7.2 The Value of the LOTS Coin for the Platform

For the LOTS platform, LOTS coin is the most important tool for the platform to motivate users and is a exchange resource for the LOTS platform to cooperate with other platforms. LOTS held by the team are also sources of funding for long-term operations. LOTS accepts rewards in LOTS coin from the users to whom the digital asset lending platform brings additional value. And the platform accepts rewards from the partners, advertisers and sponsors on the platform.

7.3 Buy-back Mechanism for LOTS

The LOTS team will reward active users with LOTS tokens equivalent to 20% of the platform's earning every six months after the platform goes live. The platform will prioritize the use LOTS tokens earned in its operation. If there are not enough tokens available, LOTS will repurchase the coins from the market. The LOTS team will publish its profitability

quarterly and make reward on schedule. Users can find more details on the blockchain explorer.

7.4 Token Arrangement for LOTS

40% of the funding is expected to be raised in the presale stage, representing a total of 400 million LOTS coins of around \$30 million. 2800 BTC (0.035 BTC = 5000 LOTS) or equivalent ETH (1 ETH = 13,300 LOTS) are expected to be raised.

Extra rewards in pre-sale (3-month lock-up):

- \$1 million: 5% rewards
- The part between \$1 to 3 million: 8% rewards
- The part exceeding \$3 million: 10% rewards

Total issuance of LOTS will be 1 billion, and the arrangements is as follows:

Pre-sale	Foundation	Community rewards	Ecosystem construction	Team
40%	10%	10%	30%	10%

7.5 Unlocking Schedule for LOTS Held by the Team

LOTS team promised to lock up their holdings for 36 months: the first unlocking will be 6 months after the completion of the fund-raising, and no more than 10% could be unlocked each quarter thereafter.

7.6 Use of Proceeds

The funds raised will be mainly used for platform construction, staff recruitment, market development and maintenance, legal expenses and so on. The proceeds will be used as follows:

- 30% for platform construction
- 20% for worldwide staff recruitment
- 20% for market expansion and maintenance
- 20% for legal expenses and government relationship maintenance
- 10% as reserve

8. Risk Warning and Disclaimer

This statement does not cover securities tendering, the operation risk of LOTS or the risks associated with LOTS. It does not cover any regulated product subject to judicial regulation. This document is a conceptual document on the project. The white paper, released by LOTS, provides an overview of the LOTS platform's mission, vision, operating model, technological structure and development plans. LOTS does not guarantee that there are no errors or inaccuracies in this white paper and that the products, system architecture, or mode of operation described in the white paper may be modified or updated without prior notice.

This white paper only provides an introduction to the public and does not constitute any opinion about investing in LOTS. Any similar offer to buy or sell the coins will be made under a credible term and subject to applicable securities laws and other relevant laws, and the above information or analysis do not constitute investment decisions or specific recommendations. This document does not constitute any investment advice in the form of securities, investment intent or investment instigation. This document does not constitute and shall not be understood as an offer for any buying or selling actions, or any offer to buy or sell securities of any kind, nor is any formal contract or promise.

The LOTS team set up a foundation (YC FOUNDATION LTD.). The Foundation made it clear that related users with intent have a clear understanding of the risks of LOTS, and investors who participate in the investment understand and accept the risk of the project and is willing to personally take all corresponding results or consequences. The Foundation assumes no responsibility for any loss resulting in any individual or entity. The LOTS platform is not open for everyone. The participants may need to complete a series of steps, including providing information and documentation that identifies them. Except for the YC Foundation Ltd., the use of any other company or organization's name and trademark does not mean that any party is in connection with the other or have obtained related approval and is for illustrative purposes only.

The LOTS coin is the crypto-token used by the LOTS platform. LOTS is not an investment product. There is no guarantee that LOTS will have value added, and LOTS may also fall in its value. The LOTS currency is a Utility Token and is not a proof of ownership or control. Holding LOTS does not represent ownership of the LOTS platform or LOTS applications. LOTS Coin does not grant anyone the right to participate, control or make decisions about the LOTS platform or the LOTS applications.

The Foundation expressly disclaims any liability for direct or indirect losses that may arise from the use of the LOTS platform or participating in the LOTS community, including: any investment risks that may arise from the user's participation in the LOTS Community Referral Program; any errors, omissions or inaccuracies generated by the individual's understanding; any losses caused by personal trading of all kinds of blockchain assets and any actions resulted therefrom.