Crafting Finance

Introduction

Crafting Finance is a synthetic asset issuance protocol and decentralised contract trading exchange based on the Polkadot contract chain. It uses the token CRF issued by Crafting Finance, Polkadot (DOT), Kusama (KSM), Bitcoin (BTC) and Ethereum (ETH) as collateral, and synthesizes any cryptocurrencies or stocks, bonds, gold and any other off-chain assets through smart contracts and oracles. Users can forge a certain synthetic asset by collateralizing CRF, DOT, KSM, BTC, or ETH, such as U.S. dollars, and automatically have a long position in the asset. Users can also convert minted assets into other assets through the trading platform, so as to realize the purpose of shorting the asset and longing other assets. The assets minted by all the users correspond to the liabilities of the entire system, and the proportion of each user's liabilities has been determined at the time of forging, so that their respective profits can be calculated. Because such a collateral pool model does not require a counterparty, it perfectly solves the problems of liquidity and transaction depth in decentralised exchange(DEX).

Crafting Finance Token: CRF

Max Supply: 100,000,000

The Crafting Finance(CF) token is CRF, with a hard cap of 100 million. Part of it will be issued when the project goes online, and the rest will be generated by liquidity mining.

There are two main functions of holding CRF. The first is to generate synthetic assets through staking CRF as collateral and earn contract trading fees. CRF holders can use CRF as collateral to generate synthetic assets, and according to the number of staked CRFs, the percentage can be calculated. The fees incurred by DEX will be allocated to the fee pool, and proportionally rewarded to users who staked the CRF. The second is that CRF is also the governance token of CF. All the parameters involved in CF, including the increase or decrease of the types of collateral, the adjustment of the collateralization ratio, the types of synthetic assets, etc., can be determined by voting by CRF holders.

The main functional modules of the entire system include: forging synthetic assets(MintR), decentralized exchange (Kingsman), collateral pools, fee pools and oracles.

Forging Synthetic Assets(MintR)

The synthetic assets issued by the entire system are all produced by users staking certain collateral. The initial collateral includes CRF, DOT, KSM, BTC and ETH, and the collateralization ratio depends on the variation of the collateral itself. In the future, the collateral and collateralization ratio can be adjusted through community governance. When users stake collaterals and forge synthetic assets, corresponding debts are generated. When the user wants to unlock the collateral, he must repay the debt, that is, destroy the previously generated synthetic assets.

At present, assets synthesized by direct staking of collateral can be fitted in to four different categories: stablecoins (RaftStable), simple synthetic assets (Raft), custom synthetic assets (UnivRaft), and synthetic bonds (BondRaft).

Stablecoins (RaftStable)
Stablecoins are a very important part of synthetic assets, such as rUSD and rEuro which can be used as denomination currency in the whole system as well as contract trading. Furthermore, stablecoins can also be used as collateral lending. Users can borrow stablecoins such as rUSD and exchange it into real world dollars.

Simple synthetic assets (Raft)
Simple synthetic assets can be cryptocurrencies such as rBTC and rETH, stocks such as rAAPL, gold such as rXAU and any real world assets.

Custom synthetic assets (UnivRaft)
Custom synthetic assets means that users can issue any kind of a financial contract through this system. By this way, we can stimulate any financial derivatives and include the whole world’s assets.

Synthetic bonds (BondRaft)
Synthetic bonds are synthetic assets paying interest issued by the system.

DEX (Kingsman)

It is an exchange that provides conversion of different synthetic assets and contract trading. Due to the design characteristics of CF, this DEX does not require a counterparty, and there is no issue of transaction depth.

Collateral Pool

The collateral pool is the sum of synthetic assets generated by all users. According to the amounts of synthetic assets generated by each user, the debt pool also records the proportion

of each user's debt. Whenever a new synthetic asset is generated, the debt ratio of the system must be recalculated.

Fee Pool

Users trading or converting synthetic assets on the DEX will incur transaction fees. The fee ratio is tentatively set at 0.3%, and these fees all enter the fee pool. The fee is collected in rUSD, and all the fees are distributed to users in proportion to the debt. The system stipulates that only users whose collateral is the CRF can receive rewards, as an incentive for CRF holders. Because the CRF price fluctuates, it is stipulated that only users who meet the collateralization ratio are eligible to receive rewards.

Oracle

Since the price of contract trading needs to be read from outside sources, the oracle is a very critical part of this project. In the initial stage, the system will use the centralized oracles provided by the project team, and in the future, it will introduce more secure decentralized oracles.

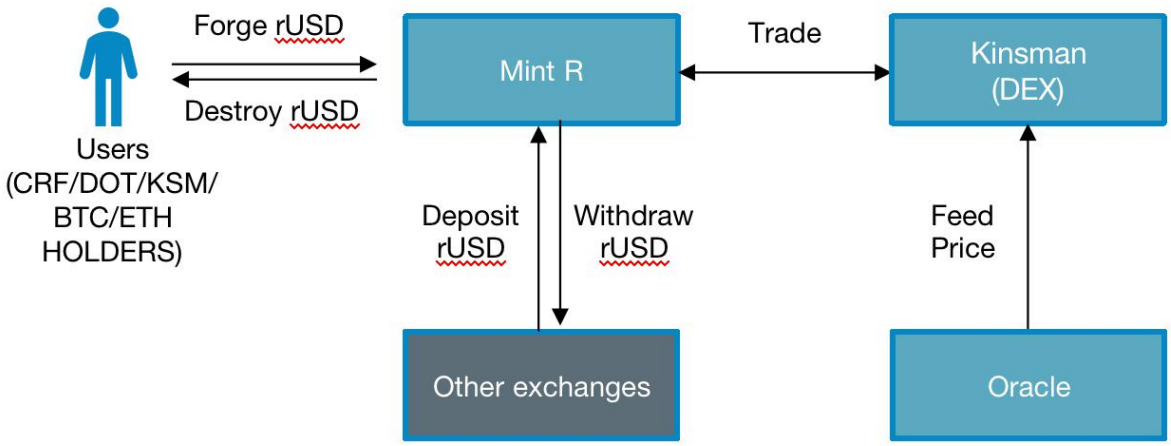
System core products

1. MintR: the minting center for minting and destroying rUSD
MintR supports operations including: minting and destroying rUSD, managing collateralization ratio, checking account balance and MintR historical ledger, unlocking collaterals CRF or DOT, etc.

2. Kingsman: a decentralized exchange for trading synthetic assets
Unlimited liquidity: no order book, no need to worry about liquidity or slippage.
Point-to-Point contract transactions: seamless transactions between various synthetic assets.
Distributed collateral pool: trading assets are supported by a distributed encrypted collateral pool, which can resist censorship.

System workflow

The life cycle of synthetic assets can be divided into three stages: forging - trading - destruction. The flowchart is shown below.



1. Forging

The user stakes CRF or DOT in MintR to mint the system's default stablecoin rUSD. The collateralization ratio of CRF is 800% (tentative), and the collateralization ratio of DOT is 500% (tentative), that is, $800 of CRF or $500 of DOT can mint $100 of rUSD. The user's collateralization ratio should be as high as possible than this prescribed ratio, that is, when the price of the collateral drops, the collateralization ratio may be insufficient. At this time, the user should replenish the collateral or return (destroy) a part of rUSD. The system stipulates that users who are greater than or equal to the specified collateralization ratio will receive rewards from the trading fees in the fee pool as an incentive.

2. Trading

rUSD is a synthetic asset and the functional currency of the entire system, that is, all debts are converted into rUSD. At the same time, rUSD is also a stablecoin, and its value in the system is always defined as $1. rUSD can be converted into other synthetic assets in Kingsman, e.g. cryptocurrencies such as rBTC, rETH, and rDOT, foreign exchange such as the euro, yen, renminbi, and even gold and various stocks. It supports both long and short. All these assets are systematically synthesized, not real assets, and their conversion rate is determined by the external real price provided by the oracle. This conversion process does not require a counterparty, and users can always convert all their rUSD into any synthetic assets supported by the system.

When performing synthetic asset conversion (ie, transaction) in Kingsman, users need to pay a 0.3% (tentative) handling fee, which enters the system fee pool. The fee pool distributes rewards to users who meet the specified collateralization ratio in the entire system every two weeks (tentatively), and the reward ratio is determined by the debt ratio. For new users, they need to hold debts for more than a certain number of days or accumulatively use them for more than a certain number of days (to be determined) to be eligible for the fee pool rewards.

The prices or conversion exchange rates of all synthetic assets in this system are provided by the oracle machine reading external exchange data, and future planning can introduce decentralized oracles.

3. Destruction
When a user who stakes CRF or DOT wants to exit the system or reduce debt and unlock the staked CRF or DOT, the debt must be repaid first. For example, if a user mints $100 of rUSD through staking CRF, he needs to destroy $100 of rUSD to unlock the locked CRF.

It should be noted that the respective debt ratios of all users in the system are determined by the minted rUSD, and have nothing to do with the price of other synthetic assets after the conversion. The debt ratio will only change when users mint or destroy rUSD. The sum of all user debts is the collateral pool, because changes in asset prices will cause changes in debt. Through a constant debt ratio, each user's profit can be calculated.

Future Plan

There is still a lot of space for growth in the future, including:

At present, the type of synthetic assets of the project is determined by the project team or community governance. In the future, it is planned to upgrade so that different investors can independently sign any type of contract on this system.

At present, the stablecoin rUSD or other synthetic assets produced by the project are limited to the system. When there are standardized tokens similar to Ethereum ERC-20 on the Polkadot in the future, all synthetic assets of this project can be circulated outside the system in the form of standardized tokens, and even enter other exchanges. Among them, rUSD can become an important stable currency in the Polkadot ecology.

Objectives

Realize a decentralized virtual asset issuance platform and decentralised contract trading exchange, which can not only replace the perpetual/futures contract functions of major centralized exchanges in the long term, but can even realize the issuance of any type of assets on the protocol, and play an important role in the traditional financial market.

Benefits

Centralized contract exchanges have exposed more and more issues, and the entire industry needs a solution for decentralized contract exchanges. The decentralized contract trading program of this project not only has the characteristics of general DEX, such as openness and

transparency, anti-censorship, and does not require KYC, but also because there is no counterparty, it perfectly solves the problems of general DEX in transaction depth and liquidity. . Therefore, we believe that the prospect of CF is very broad and it is a real DEX solution.

Roadmap

1. 2021 Q2

(1) Determine the type of the first batch of synthetic assets.
(2) Determine the data source of synthetic assets, establish a whitelist mechanism, and realize data collection.
(3) Complete the oracle function.
(4) Realize the functions of staking DOT and CRF, forging synthetic assets, including rUSD, rBTC, rETH, rAAPL, rXAU, etc.

2. 2021 Q3

(1) Realize the collateral pool function: When a user newly generates or destroys rUSD, the debt ratio is re-determined, and the user's profit is calculated based on the change in asset prices.
(2) Realize the function of fee pool: transaction fees are included in the fee pool to complete the benefit distribution of CRF users.
(3) Realization of decentralized contract exchange v1.0 version:
1) Realize the trading function on the Web end, allowing users to freely trade various synthetic assets.
2) It is convenient for users to stake CRF or DOT to mint rUSD and destroy rUSD.
3) Allow users to view the debt ratio, total system debt, balance of personal synthetic assets, rewards income, etc.