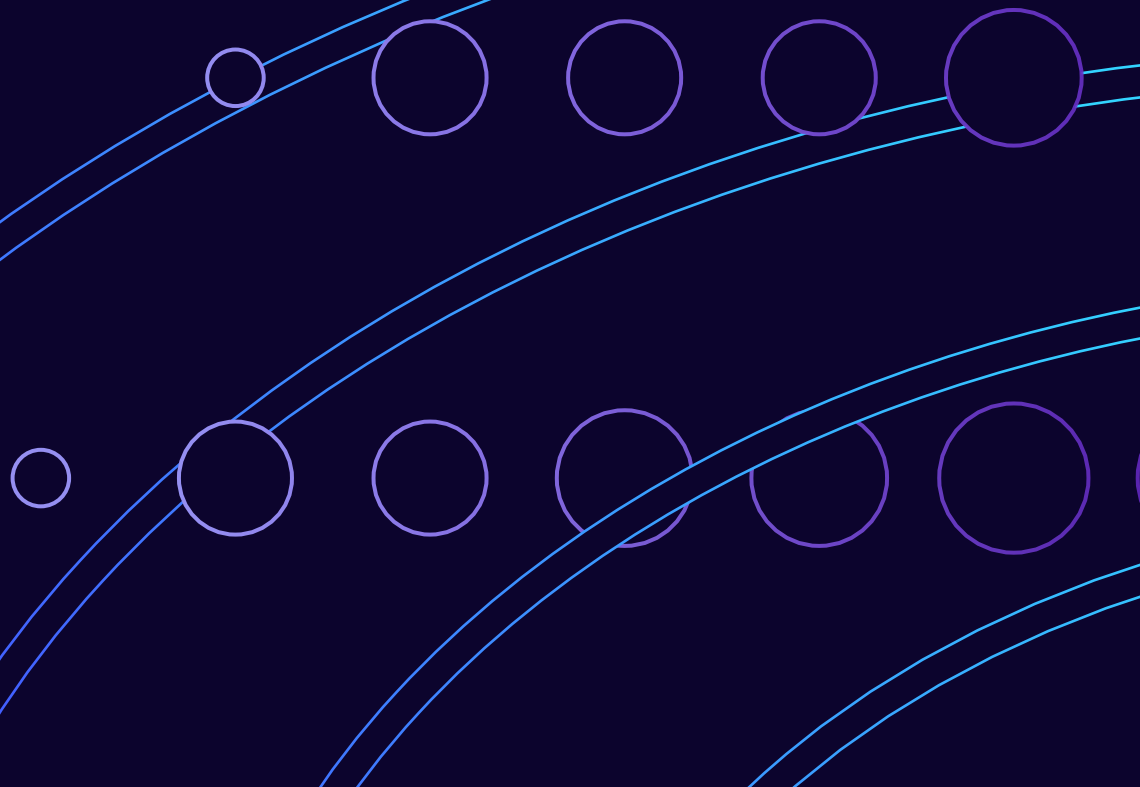




Turn Data into Wealth

WHITEPAPER





Status quo and issues of DeFi

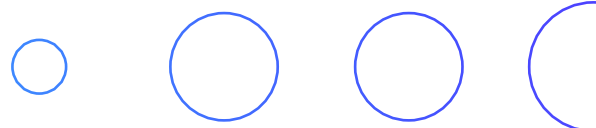
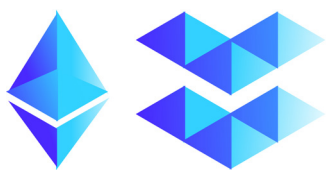
Many protocols in the DeFi world, especially the basic lending protocols, such as Compound, AAVE, and MakerDAO, are based on complete or over-collateralization.

If you study the bank's wealth consensus algorithm, besides collateral, the core concept of its algorithm is "credit". Benjamin Franklin proposed the core principle of the algorithm long ago: ***"Remember that credit is money"***.

Without a credit system, DeFi will be limited to over collateralized lending and trading business, which leads to the system inefficiency and inability of innovation, but also puts the DeFi participants sometimes in an unfair position, for example, manipulated price liquidation.

On the other side, on-chain data has a natural strength in creating users credits: immutable and with verifiable personal data ownership. However, in the current decentralized finance (DeFi) space, on-chain data is not completely used anywhere. Therefore, it is a very urgent task to upgrade decentralized finance.

The credit oracle CreDA, an indispensable innovation, will start a new era of credit-based DeFi on Ethereum Layer 2.





From centralized to decentralized credit

Centralized finance normally requires institutions to artificially guarantee the relationship between credit and loans.

However, the core of CreDA's decentralized credit finance is to directly mint credit based on on-chain data into NFT assets, which enables decentralized credit rating and loan algorithms to run automatically.





Minting on-chain credit into NFTs

CreDA uses credits based on on-chain data to mint NFTs and opens up more imagination in the field of DeFi. CreDA will add more assets and accelerate the flow of assets in the blockchain world.

Credit NFT (cNFT) is generated on at least one Elastos DID address, which contains the user's asset status and transaction records in various protocols. In fact, the information within the DID address can be regarded as an individual's assets and liabilities, consumption habits, sources of income, coin storage-time in a wallet, etc. In this way, credit can be obtained for DID users.

The data aggregated under one Elastos DID can only be used to mint one cNFT, while a cNFT can correspond to multiple Wallets addresses. The data under one DID address can be transferred to another new address through digital signatures, which is a tamper-proof process. Therefore, users who have multiple on-chain wallets can use their private keys to aggregate and combine all their on-chain data into one Elastos DID to analyze their credit score. Minting different levels of cNFT requires users to collateralize the corresponding CreDA token.

When a cNFT aggregates enough data, it can be used in a variety of scenarios. Users can obtain loans within the credit limit endorsed by cNFT. cNFT is comparable to the FICO score of the credit system in the US or the Ant Points of Alipay in China.

When the credit in an Elastos DID is minted into cNFT, on-chain credit develops an asset-attribute. The asset-attribute of cNFT is reflected in the asset mining (the CreDA token is rewarded according to credit rating and storage time) in the CreDA system. This rewarded CreDA will be released slowly and in linear fashion. If users want to accelerate this process, cNFT holders need to inject funds into the CreDA fund pool. The CreDA pool will assist cNFT owners to obtain loans without providing any collateral from DeFi protocols such as FilDA.

Once cNFT owners breach contracts or are liquidated in other DeFi protocols, their cNFTs will be auctioned. Then, both the income and the CreDA tokens that such cNFTs have not yet fully released will be used to compensate for the loss of the CreDA pool.





Use scenario: non collateralized borrowing

Non-collateralized borrowing is a unique feature on the CreDA platform. After owning a cNFT, users are eligible to obtain a loan without any collateral: users can collateralize the assets of the CreDA fund pool to borrow on other DeFi protocols.

The Credit Risk Algorithm (CRA) interest rate is based on the interest rate in the lending market. CRA is named as the risk-free interest rate in the crypto world. If a user wants to obtain an unsecured loan, the user needs to collateralize the cNFT (the credit limit can be subdivided and respectively collateralized in different asset pools). Then, the interest rate of each loan becomes the risk-free interest rate plus the risk premium interest rate based on the specific risk.

Example: Suppose that the risk-free interest rate is an annual interest rate of 8% (APY), and the risk premium interest rate is 12% APY. The total interest rate for the unsecured borrowing will be 20% (12% + 8%). High interest rates are an important support feature for CreDA to build a strong fund pool. Then, both the income and the CreDA tokens that such cNFTs have not yet fully released will be used to compensate for the loss of the CreDA pool.





Credit insurance mechanism

Financial risk is a crucial factor. In the case of non-collateralized borrowing and other scenarios where cNFT is used, how can CreDA guarantee the interests of asset owners and reduce their risk?

CreDA introduces a credit insurance mechanism that adopts mutual insurance to enable users to quickly obtain on-chain data credit, and mint their own cNFT while ensuring that the CreDA fund pool maintains sufficient asset sources.

This mechanism may also grant the participants with better credit greater privilege when a liquidation condition is met. Such participants may have a grace period to keep the margin level or they may even be given a more favourable liquidation term.

This credit system will enable massive innovation in the DeFi space.





Features of cNFT:

Scalability

If CreDA's cNFT retains enough interfaces to make it easily accessible by other protocols, cNFT can be adopted in various liquidity scenarios in DeFi applications.

When a certain protocol is using a specific cNFT with a user's permission, it will write status information (such as an unsecured loan) into the cNFT, which actually informs other protocols that the user's credit limit has been tapped, and how much available credit limit is left. If other protocols want to use this cNFT, they need to reassess the risks associated with its remaining credit limit.

Features of cNFT:

Credit network (cNetwork)

After users mint their own cNFTs, they can further expand their own credit network (cNetwork).

The function of a cNetwork is to record the credit relationship between users without direct revenue management. With the expansion of a user's cNetwork, CreDA can offer additional credit scores based on the analysis of on-chain data. The more users a cNetwork reaches, the higher the utilization rate of the user's credit limit, and the greater his or her opportunity to benefit from participating in credit insurance.

Features of cNFT:

Upgradability

In order to reward long-term members in the CreDA ecosystem, cNFT also has a feature of being upgradable.

Users can band together additional CreDA tokens to upgrade their own cNFTs. The higher the level of cNFT, the higher its credit weight in cNETWORK, and the greater the profitability it offers a user in the process of data mining. When the CreDA ecosystem is linked to an external ecosystem, users with high-level cNFTs will also be favored by the cooperation ecosystem.

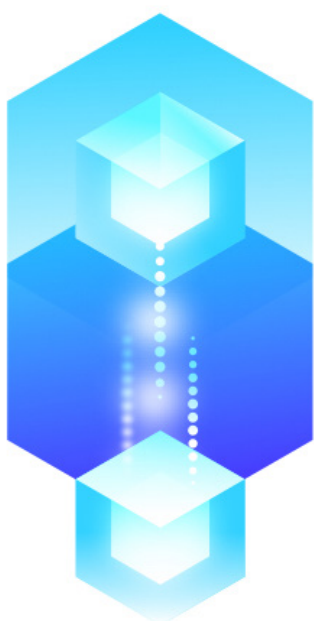


CreDA Pool

The CreDA pool will be open to those who fully understand the CreDA credit system and are willing to bear the relevant risks in order to obtain higher interest rates.

In addition to obtaining an above average return among lending market participants, these users will also receive CreDA tokens as rewards. Ordinary cNFT owners can also speed up the production of CreDA tokens in the system by injecting funds into the CreDA pool.

In the future, the CreDA pool will have the function of intelligent adaptability that includes intelligent cross-chain architecture, automatic profit generation, and intelligent navigation between different platforms, such as COMPOUND, AAVE, FiDA, and so on, in order to meet various lending and borrowing needs. In this way, CreDA provides users with the highest return on assets and the lowest interest rate, which is the main attraction to increase the source of income for the CreDA system.



cNFT trading market

Apart from the standard NFT trading market, in order to ensure the trading value of cNFT, one single Elastos DID can only create or engage with one unique cNFT.

Therefore, cNFT transactions will have a market demand for redemption, and additional functions will be designed – especially for redemption.



Long-tail assets lending market

CreDA will also cooperate with DeFi protocols which support various, long-tail assets (altcoins) to continue to expand its diversity of wealth sources and asset types.

Integrate trusted computing and off-chain data into cNFT

CreDA's trusted computing technology and credit rating system will be developed by former-Tencent engineers in related fields.

The goal is to utilize trusted computing to authorize the ownership of off-chain personal data in everyday life scenarios – such as the user data of Union Pay – and bring off-chain data on-chain while protecting user privacy. Trusted computing technology will become an organic component of cNFT. Once this goal is achieved, CreDA will become a bridge linking CeFi and DeFi.





Find out more at

creda.app

Let's Connect.

