DNFT Protocol

A New Generation of Decentralized Cross-Chain

NFT Asset Protocol

Version 0.2

By DNFT Foundation

1.   Introduction

As we all know, transaction fees are very high in Ethereum-based blockchains or apps, which limits particularly frequent actions. In Polkadot system, for the consideration of redundant data on the chain, there is a very ingenious account system to collect useless accounts.

With the development of blockchain ecology and application, due to the large amount of data generation, usage and dissemination in the reality, and most of us care less of the owner of the data.

Now, it's time to limit/collect junk data on the blockchain. DNFT is developing an independent Substrate-based blockchain, which will help to improve the right confirmation, circulation and privacy protection of data.

DNFT includes five key components: DataNFT, DataStorageWithTax, DataSwap, DAO Governance and AI-Kit. The whole system provides the generation, storage, exchange, sharing, dissemination of data. Through the data ETL and data label annotations, we're creating a data framework between personal data and AI models.

The DNFT protocol integrates the functions of NFT asset creation, NFT asset decentralized transaction/auction, NFT asset maintenance tax, NFT recovery mechanism, and DNFT governance. At the same time, NFT and assets are transferred across the chain by integrating Polkadot cross-chain asset protocol (XCMP).

The algorithm stable token module of DNFT protocol obtains dUSD (DNFT protocol ecological stable token) by pledging dot (Polkadot ecological token). dUSD and DNF (DNFT protocol ecological token) will be used as entrance tokens for NFT, games and other applications of DNFT protocol ecology.

The algorithmic governance module of DNFT protocol governs the ecology of DNFT Protocol through the proposal voting method of DNFT protocol Council members.

DNFT protocol encourages NFT and game projects to join DNFT protocol ecosystem. When the main network is officially launched, a grant incentive plan for NFT and game projects will be online to fund and develop NFT and game projects and enrich DNFT protocol ecosystem.

DNFT Protocol is the 9th Web3.0 Foundation grant project, BSC official grant project, and got prizes in several hackathons.

2.   System Architecture

Figure.1 is the system architecture diagram of DNFT Protocol, it mainly includes Data NFT, DataStorageWithTax, DataSwap, Dao governance and AI toolkit. The whole system provides data generation, storage, exchange, sharing, dissemination and other functions. Through data ETL and data tag annotation, a common data framework between personal data and AI model will be created
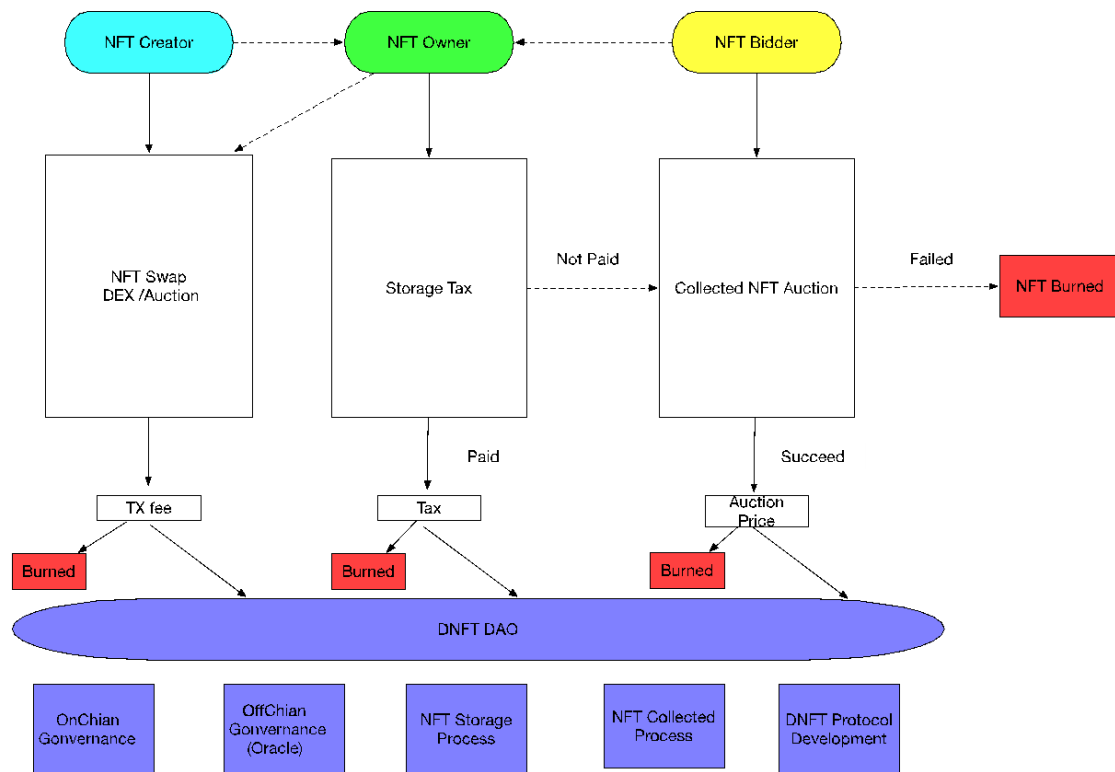
Fig. 1. *Architecture of DNFT Protocol*

2.1 Data NFT

NFT (Non Fungible Token), non-homogenous token, mainly including ERC721 / ERC1155, can solve the problems of offline asset liquidity and anti-counterfeiting. NFT is the best way to describe data information, which can easily confirm the right and value of data. DNFT Protocol will integrate erc721 and erc1155 standards to enrich the structure description of data information.

2.2 DataStorageWithTax

Unlike one time charge when storing, storage tax will be continuously charged when holding NFT assets. When NFT holders have not charged tax in time, NFT will be collected and to be auctioned. Anyone who wins the auction will continue to pay the tax.

2.3 DataSwap

A decentralized exchange that provides NFT of different synthetic assets and data. Exchanges include decentralized transactions based on automated market makers (AMM) and auctions based on British, Dutch and Hamburger taxes.

2.4 DAO Governance

When NFT under unpaid tax is into the collection pool, the DAO will be responsible for the auction, the auction price will be used to DAO Governance, and NFT with the failed auction will be burned.

2.5 AI-Kit

Through the data ETL and data label annotations, we're creating a data framework between personal data and AI models. We will create an AI-friendly mechanism for NFT generation.
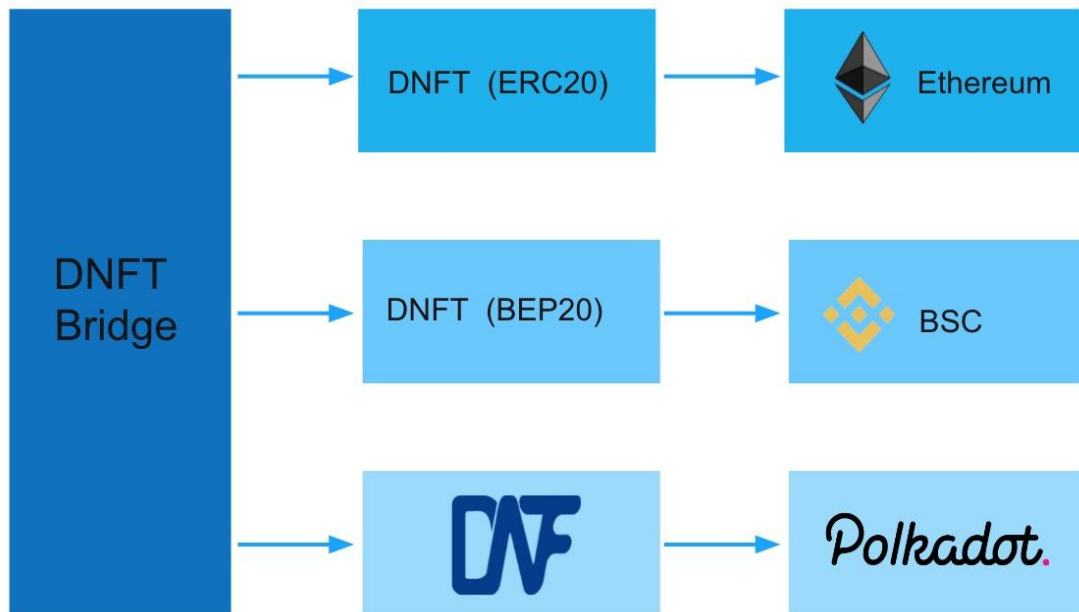
3. DNFT Protocol Cross-Chain Mechanism

Fig. 2. DNFT Protocol Cross-Chain Bridge

DNF, as the original token of DNFT Protocol, will exist at the same time as DNF (ERC20) and DNF (main net currency), and will be exchanged through the DNFT bridge provided by the government. Initially, it will be cast in the form of DNF (ERC20). When the main network of DNFT Protocol is officially started, the main network currency DNF will be generated. DNFT Protocol will build a DNFT bridge to exchange between DNF (ERC20) and DNF (main network). In this way, the underlying token layer supports a heterogeneous cross-chain mechanism, that is, DNFT Protocol ecological users can seamlessly carry out Polkadot and Ethereum ecological exchange.

At the same time, as a blockchain network based on the underlying development of subject, DNFT Protocol uses cross-chain message (XCMP) can share the security of Polkadot network by implementing the cross-chain protocol between isomorphic projects. At the same time, without other trust assumptions, messages such as message queuing mechanism, message availability, message input and output can be transferred between parallel chains. In this way, DNFT Protocol will support isomorphic and heterogeneous cross-chain protocols.

4.   DNFT Protocol Economic Model

As the original token of DNFT Protocol, DNF will be cast when the main network is started and stored in the DNF reserve pool. As rewards, DNF will be distributed to DNFT Protocol foundation, seed round investors, IPO (first parallel chain auction contract) and other network activity participants. The rest will be reserved for ecosystem development and future sale.

DNF will issue a total of 100 million tokens. In particular, DNF will have two forms of tokens, the main network DNF and ERC20-DNF, which will be launched with ERC20-DNF. After the main network goes online, DNFT bridge will be developed, and the main network DNF and ERC20-DNF will be 1:1 freely convertible,

1) 20% will be reserved for the DNFT Protocol team, and the team share will be locked in advance, and 10% will be released every quarter after the main network of DNFT goes online, totally 10 quarters will be released

2) 5% will be reserved for early community ecosystem construction (including testing network tasks, community construction activities, etc.)

3) 10% will be reserved for the ecosystem grant plan. After the main DNFT network goes online, the NFT and game ecological construction incentive grant plan will be opened simultaneously to encourage the projects to join the DNFT Protocol ecology. The incentive proposal will be voted by the DNFT Protocol Council

4) 35% will be reserved for DNFT main network development and construction (including allocated to slot auction voting participants, early LP and block packaging collectors, etc.)

5) 20% will be allocated to Project Development Reserved (e.g. Exchange Listing).

6) 9% will be allocated to Private Fundraising

7) 1% will be allocated to IDO

Holding DNF will benefit from,

1) DNFT Protocol will use the revenue surplus of network operation to buy back DNF one after another and destroy it to permanently reduce the supply of DNF, so as to realize the trend of decreasing the total amount of long-term DNF.

2) DNFT Protocol will use the revenue surplus of network operations to establish a treasury fund to invest in DOT / BTC / ETH as the encryption asset "foreign exchange reserve" in DNFT Protocol ecology, to help DNFT protocol ecology achieve sustainable development, so as to benefit all citizens of this virtual country (that is, all DNF holders) and promote the future development of the whole network. DNFT Protocol plans to rent parallel chain slots for six years, with a maximum of two years for each lease contract. A total of three rounds of lease auctions will be held every two years, and it plans to distribute 30% of DNF awards to the crowdfunding contributors who have mortgaged their own dot to help DNFT Protocol win the slot lease rights, so as to make up for the opportunity cost of mortgaging dot.

3) After the DNFT Protocol network KNFT goes online, KNF (KNFT ecological token) will be airdropped to DNF holders.

4) In the NFT agreement of the DNFT Protocol, for the recovered NFT, part of the auction proceeds will be allocated to DNF holders, and the allocation proportion will be governed by the DNFT Council.

5.   DNFT Protocol Governance

The ultimate goal of DNFT Protocol is DNFT Dao Governance. In the beginning, the project team selects NFT protocol parameters and recovery governance objects, such as tax rate, change of payment cycle, etc. In the future, these will be upgraded iteratively through the mode of community governance. Community governance needs to be conducted through DNFT Council (holding DNFT Protocol token-DNF). DNFT Council runs through the whole life cycle, and only DNFT Dao can decide NFT protocol governance, NFT & Game award, ecological governance and other functions.

After the initial test and implementation of the TNFT version testing network, KNFT will be released online and added to the Kusama ecosystem. After KNFT runs for a period of time, KNFT main network will be started. The development of the DNFT protocol agreement is subject to the DNFT Council, and any improvement will be decided by the DNFT Council by vote. Some of the powers that the governance system can control are as follows:

1) Improvement of DNFT Protocol economic model

2) DNFT Protocol development plan improvement

3) NFT Protocol improvement

4) DNFT Protocol national treasury investment governance

5) NFT & Game grants award

6.   The RoadMap

DNFT Protocol will be launched in four phases.

In the 1st stage, TNFT phase, which is the model testing phase of the DNFT Protocol, the core modules of the DNFT Protocol will be tested and rehearsed in this phase. At the same time, it will cooperate with the test network to carry out a series of community and developer promotion activities.

In the 2nd stage, the first network KNFT stage, which is the model rehearsal stage of DNFT Protocol, KNFT will act as the first network of DNFT Protocol and verify the model of DNFT Protocol. KNFT, as a participant of Kusama ecology, will participate in the auction of Kusama parallel chain slot. At the same time, the advanced network KNFT will exercise the function of the main network DNFT in advance.

In the 3rd stage, the main network DNFT stage, which is the formal implementation stage of DNFT Protocol model, DNFT will act as the main network of DNFT Protocol, and will fully realize the DNFT Protocol model and ecology. As a participant of Polkadot ecology, DNFT will participate in the auction of Polkadot parallel chain slots. At the same time, with the launch of DNFT main network, NFT & Game grant incentive plan will be carried out simultaneously to encourage more NFT and game projects to enter DNFT Protocol ecological network.

In the 4th stage, Ethereum DNFT stage, which is the implementation stage of DNFT Protocol model on Ethereum network, DNFT Protocol will explore the direction of cross-chain application of Ethereum network and Polkadot network.