PalletOne
Token Economy Whitepaper

V1.0 beta

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Contents

Overview

PalletOne is committed to building an "IP Protocol" for the blockchain world so as to implement the decoupling between blockchain application and underlying chain, value benchmarking and exchange of token in all blockchains.

- In terms of technology, PalletOne has implemented the parallel computation by the mediator elected by DPoS consensus mechanism and the jury established by VRF random election as well as the distributed storage with DAG has implemented the parallel writing so that a high performance public blockchain comes into being. Through introducing the multilingual smart contract support and blockchain adapter, PalletOne has implemented the decoupling between decentralized application and underlying chain. Meanwhile, the presentation of abstract layer of token even upgrades the cross-chain super public blockchain and helps the implementation of safe and high efficiency issuance and circulation of token.

- In terms of community governance, PalletOne Token is not only the vote on the competitive election for super nodes but also the opinion expression for the participation in system parameter adjustment and punishment on wrong-doings. With the governance of a Fountation, it will promote the healthy and stable growth of the entire PalletOne ecology.

- In terms of applied ecology, PalletOne will build a set of complete smart contract template store-DAppStore ecology. The developer can make profits through selling the contract template developed in the template store, miner (mediator and juror) nodes can benefit from participation in the consensus and contract execution, end-users can get rid of the complicated and high-threshold contract development and deployment process and rapidly implement their own demands through purchasing the contract template.

As the mainnet of a large number of public blockchain projects goes online, value islands are taking shape one by one, PalletOne has solved the problem that the token value can circulate only on one blockchain platform, created a high performance platform for value exchange and token circulation, provided the possibility of commercial application implementation for all blockchain products, and promoted the development of token economy of blockchains.

In terms of technology, PalletOne aims at building an "IP Protocol" for the blockchain world so as to implement the decoupling between blockchain application and underlying chain; in terms of token economy, PalletOne Token will link the value network on all blockchains to implement the value benchmarking and exchange of tokens on all blockchains from the perspective of neutrality, development and intercommunication.

General provisions

Governance framework

PalletOne Fountation plays a leading role in governance in the early stage of the project. The Fundation includes:

- PalletOne core consist of project team and counselors that are in charge of rapidly promoting the development of the project.

- PalletOne committee consist of community representatives, major ecological contributors and industry experts that are mainly in charge of participating in community promotion and governance and making decisions on the governance policies in the later stage.

- PalletOne community is divided into 3 categories, including governance team, technical management team and token holder management team.

Governance principles and development route

At the beginning of PalletOne's going online, due to imperfect popularity and community construction, a powerful organization is required to push ahead with the rapid and healthy development of the entire PalletOne ecology. The Foundation is set up to take charge of project promotion and ecology construction amid the early development of PalletOne. With the increasingly mature PalletOne ecology and constant development of communities, the Foundation will gradually hand over the right of key decision on community governance and technological development and others to the communities so as to implement the evolutionary route of "centralization strengthening → centralization weakening → decentralization".

According to the technical implementation and community construction of PalletOne, it is estimated that the Foundation will act as a governor within the period from project approval to the mainnet's going online. Within 2 years after the main network goes online, the Foundation will gradually hand over the governance right of PalletOne to the community. 2 years after the mainnet goes online, with the gradual improvement of communities and increasingly mature governance process and schemes, the representatives of all communities can further broaden the voting governance to unanimous voting of community members to implement the governance of full decentralization.

Design principles of PalletOne Token

PalletOne Token is designed according to the governance framework and governance principles so as to support PalletOne to form a healthy token economic entity.

Meng Yan, PalletOne Counselor, CSDN Vice President and famous expert in blockchain token design around the industry, has summarized four principles and seven traps related to the token design, and those principles have become the guideline for PalletOne Token design.

Four principles of token design

- A token economic system must be able to provide true value to each user in the system and incentivize the productivity of each user in the system.

- Value loop principle: each role is on the value loop, without singularity.

- Protocol principle: a great economic system relies on the protocol behavior and economic incentive rather than tedious process and enforcement

- Transparency principle: the system allows centralized design, but shall eliminate the black box as far as possible and necessary information shall be revealed in a full, complete and true manner.

- Justice principle: praising virtue and punishing vice shall be advocated, instead of pampering cheat and corruption.

Seven traps in token design

- Banker trap: there is no real business and improvement in production relations and the participants seek only to gain by market operation.

- Singularity trap: there is a value singularity in the system, that is, there is a role where the token only flows in or out.

- Complexity trap: the rules of the game are too complicated which are difficult to be implemented by the system and cannot be understood by the user.

- Fraud trap: serious loopholes appear at key game points, allowing one party to cheat and profit.

- Utopia trap: no governance, no consultation and no dispute resolution mechanism.

- Somali trap: the power of the governor is decentralized and fragmented, and multiple centers scuffle with each other.

- Centralized black box trap: the system has a centralized black box and the important decisions are not transparent.

Participants of PalletOne Token ecology

PalletOne Fundation

PalletOne Foundation holds 30% initial token which is mainly used for PalletOne ecology construction, market promotion and healthy operation of the system and community maintenance and other aspects. In addition, a part of funds are used for investment to propel the development of PalletOne ecology and maintain the lasting operation of the Foundation.

In the PalletOne, the Fundation is required to fulfill the following obligations, which includes:

- Setup the open source community or technical team to conduct the R&D and iterative upgrading of PalletOne products.
- Construct the PalletOne application ecology.
- Support or invest the PalletOne-based DApp developer.
- Prevent and punish the behaviors unfavorable for PalletOne ecology, and maintain the healthy growth of the system.
- Hold a neutral attitude for all voting behaviors, and the token held by the Fountation is not involved in any voting activity.

At the same time, the Fountation enjoys the following rights:

- Launch a voting proposal.
- Obtain the forfeited deposit.
- Obtain the commission at a certain proportion when the smart contract template is sold.
- Deposit its token in a deposit contract and obtain 2% of annual interest rate as earnings.

The PalletOne Fountation is only entitled to launch a proposal for the governance of the entire PalletOne system, and whether the proposal is finally executed is decided by community poll. In terms of community governance, the Fountation can launch the proposals, including but not limited to:

- Modification of system parameters.
- PalletOne improvement proposal.
- Punishment on omission or wrong-doings of mediator.
- Punishment on omission or wrong-doings of jury.
- Punishment on wrong-doings of DApp developer.
- Other registration or cross-chain proposals.

PalletOne communities

As a decentralized and fully open source blockchain platform, PalletOne's development depends on the support of communities. The PalletOne Fountation actively organizes and establishes the communities with different functions, including ecology governance communities, developer communities and token holder communities.

Whatever the function of the communities, their objectives are consistent, that ispropel the healthy and stable development of PalletOne.

PalletOne communities are obliged to:

- Actively participate in voting for various proposals on the PalletOne platform.
- Regularly hold online or offline meetings and synchronize the progress of all aspects of PalletOne.
- Actively publicize PalletOne, and develop and expand the communities.
- Boycott various wrong-doings unfavorable for the development of PalletOne.
- PalletOne communities enjoy the following rights:
- Launch the PalletOne improvement proposal (referred to as PIP）
- Receive remuneration in the form of token issued by the Foundation for their services.

Super nodes (mediators)

Users become mediators by payment of PalletOne Token as deposit and community poll. As mediators, users must fulfill the following obligations:

- Pay the deposit no less than the amount stipulated by the community.
- Invest the server with good enough performance and network as super node of PalletOne.
- Guarantee to be online for a long time.
- Complete the work including generation of witness unit, deployment of contract template, deposit holding, election of jury as mediator within the active time slice.
- Complete the signature verification of witness unit within the inactive time slice. Accordingly, users enjoy the following rights:
- Obtain 2% of annual interest rate of deposit in the form of the PalletOne Tokens.
- Obtain 1% of annual interest rate of all current token as the earnings exclusively enjoyed as mediator in the form of the PalletOne Tokens.
- Obtain the procedure fee from users' transaction as earnings in the form of the PalletOne Tokens.

After a user is elected to be a super node, he must ensure good performance and network of server. In case that the super node fails to be packaged to generate the witness unit within the stipulated time slice for the reason attributed to the server or network, it shall be deemed as discarded piece and be recorded into the statistical information of the super node, which would affect the subsequent voting of super node.

Random nodes (jurors)

Users become potential jurors by paying the deposit, and are elected into a jury of the contract at random when the contract is established or executed and take charge of executing the contract. As jurors, users are required to fulfill the following obligations:

- Pay the deposit as jurors in a lump sum.

- Provide the server with good performance and network as node of jurors, and take charge of executing the distributed smart contracts.

- Guarantee to be online for a long time.

- At the same time, nodes of jurors enjoy the following rights and interests:

- Obtain 2% of annual interest rate of deposit as earnings in the form of the PalletOne Tokens.

- Obtain the procedure fee charged for the execution of smart contracts by users in the form of the PalletOne Tokens.

After a juror is elected into a jury at random, he would be elected as major juror in the jury at random each time a contract is applied. The major juror is responsible for executing and completing the contract within the stipulated time, collecting the execution results and signatures of other jurors, and charging the procedure fee for this transaction. If the computer of the juror has low configuration and poor performance, and he fails to complete the contract and collect signatures within the stipulated time after being elected as major juror, he will lose the qualification to charge the procedure fee for this transaction, instead, a new major juror elected shall charge the fee. Such incentive method ensures that users can initiatively provide the servers with good performance as node of jurors

DApp developers

In the early time, the PalletOne Fountation regularly holds PalletOne DApp development contest and hackathon and other activities to attract DApp developers. The wining user or team may directly obtain the PalletOne Token award, and the Fountation further hatches DApp to make it become a commercial application.

After the PalletOne main network goes online, a DApp developer can issue his own smart contract template and specify itsprice in the PalletOne. A DApp developer can make profits after common users purchase the contract template in the smart contract store.

A DApp developer is required to fulfill the following obligations:

- Pay the deposit in the form of the PalletOne Tokens and submit other materials and become a certified DApp developer. Only the application of certified DApp developer can appear in the smart contract template store.

- The smart contract shall not be involved in any wrong-doing behavior, otherwise, the deposit shall be forfeited.

- Pay a certain token to deploy the contract template

- At the same time, the DApp developer enjoys the following rights:

- Obtain 2% of annual interest rate of the deposit as earnings in the form of the PalletOne Tokens.

- Freely specify the price for the contract template.

- Obtain the earnings in the form of the PalletOne Tokens from users' using the contract template.

Common token holders

Users can obtain PTN (PalletOne Token) through candy dropping, purchase from an exchange or other gifting activities and become token holders on the PalletOne platform. If users do not participate in mining (becoming a mediator or jury) or DApp development, they are deemed as common token holders.

A common token holder is required to fulfil the following obligations:

- Must pay the transaction fee in the form of the PalletOne Tokens at the time of launching a transaction (including token transfer and contract invocation).

- Must pay the fee in the form of the PalletOne Tokens for the template when using a paid smart contract template.

- At the same time, a common token holder enjoys the following rights:

- Freely transact/exchange token on the PalletOne platform.

- Participate in voting for the election of super nodes.

- Participate in voting for other proposals.

- Execute various operations for smart contracts (including establishment, invocation, inquiry and destruction).

Exchange

An exchange is also known as secondary market which is the place where tokens are distributed twice. Users can obtain or sell off the tokens through the exchange.

As a cross-chain blockchain platform, PalletOne itself also supports the application of establishing a decentralized exchange. Users can set up an exchange contract with the counterparty on the PalletOne so as to implement the exchange of BTC, ETH and PalletOne Token. PalletOne itself will not participate in such exchange of PalletOne Tokens on the platform. Main obligations of an exchange include:

- Ensure the safety of users' assets.

- Complete the check of KYC and AML.

- Participate in voting for super nodes and community governance.

- An exchange enjoys the following rights:

- Charge the transaction fee in the form of the PalletOne Tokens for users' transaction.

- Charge the voting subsidy that tokens are used for voting.

Governance mechanism of PalletOne

Initial issuance of PalletOne Token

1 billion PalletOne Token is issued initially and the definition of Ethereum ERC 20 standard shall prevail before the mainnet goes online. After that, an exchange contract of PalletOne Token will officially go online synchronously, and users with ERC20 Token can exchange their own token for that on the platform of mainnet at any time, without the need of traditional snapshot mapping.

PalletOne Token is called as palette in Chinese, being referred to as PTN.

Additional issuance of PalletOne Token

In order to attract more participants to join in the PalletOne community, PalletOne suggests taking the lower transaction fee as the friction of system transaction data.

For jurors, the interest of the deposit paid by users is calculated by day, and settled in the deposit contract. For example, a user pays 100,000 token as depoist and acts as a juror, 1 year later, the user applies for withdrawal from the role as juror, then the user will obtain 102,000 token from the deposit contract, the 2,000 token thereof is the awards issued additionally as a juror.

- For super nodes, 2% of interest of deposit can also be charged. In addition, the system will count total issuance amount of token and amount in the deposit contract when a mediator completes his duty in turns in a period, namely new votes are counted, and the difference between the both is the token amount circulated outside. The daily interest rate of all token amount circulated outside is calculated according to 1% of annual interest rate, then, in combination with the number of time slices that the mediator generates the witness unit, we can see how many additional awards are issued for the current witness node in each witness unit.

- For DApp developers, they must pay the deposit and can obtain the interest of deposit calculated according to 2% of annual interest rate, but developers must ensure that the contract template is not involved in backdoor or wrong-doing behavior, otherwise, the deposit will be forfeited.

- Any of the above-mentioned interest rate shall be paid in the form of PalletOne Tokens.

Election of super nodes

The mediator in the PalletOne is also known as super node which generates though DPOS consensus mechanism. After users or organizations submit the application for competitive election of super nodes to the Foundation and pay the deposit, they are qualified to participate in the election of super nodes.

In the PalletOne, one vote represents 1 node at most and 1 token corresponds to 1 vote. The vote is launched in the form of transaction, if the UTXO corresponded by the vote is used, the vote is invalid. The Foundation keeps neutral amid the election of super nodes, and all token held by the Foundation does not participate in the voting. The deposit paid by users cannot participate in the voting either.

The service period of a super node is 24 hours, that is, for each 24 hours, the system will count the latest voting condition again, and then the next round of super node will come into being.

The system constantly counts the performance condition of super nodes, and publicizes it to the community so as to provide convenience for users to make a decision on voting. In addition, if a super node fails to participate in the consensus for more than 24 hours consecutively, the system will compulsorily forbid the node to be super node, although the node gets very high votes, meanwhile, the Fountation will launch a punishment proposal for the node.

Deposit contract

Users must pay the deposit before becoming a "miner" (Mediator or Jury) in the PalletOne. The method that users pay the deposit is to transfer the PalletOne Token with designated amount to the deposit contract, and the deposit is entrusted under the deposit contract.

The deposit contract is divided into 3 categories, namely, mediator deposit contract, juror deposit contract and certified developer deposit contract.

1. The mediator deposit contract only ensures that users are qualified to become mediator nodes, but not ensures that users certainly become a member of 21 super nodes. Users need to strive for votes from communities after paying the deposit, only 21 nodes with high votes can become super nodes (mediator), the node that fails to be elected as the super node will automatically become the node of juror and obtain the transactionfee as earnings through executing the contract as a juror.

2. The juror deposit contract can ensure that users are elected into potential juror pool, but the jurors are elected from the potential juror pool at random and constitute the jury when the contract is established. If the computers or network configuration of users are poor, which causes that each execution of contract is slower than other jurors, they may not obtain the transaction fee from the execution of the contract as earnings.

3. The certified developer deposit contract is the custody contract of the certified deposit paid by the smart contract developer who hopes to issue his own contract template in the contract store. If the developer of smart contract template only uses his own contract, he is not required to present his contract template in the contract store, so he does not need to conduct certification.

The deposit entrusted under the deposit contract can be refunded when users dismiss from the post of mediator or jury, or developers do not present or sell off his contract templates any longer.

In addition to custody and refund of the deposit paid by users, the deposit contract has the function of forfeiting the deposit. If a user does not act for a long time or attacks maliciously amid acting as a mediator or jury, the Foundation can apply for freezing the deposit of users and cancelling the qualification of the user as a mediator or jury to the contract, and publicize the situation to the community, and organize the community to vote on the forfeiture of deposit. Similarly, the certified developer must ensure that his contract template is not involved in any wrong-doing behavior, in case that any wrong-doing is discovered, the Foundation can also initiate a vote on the forfeiture of the deposit of the developer. The forfeited deposit will be transferred under the name of the Foundation to help further construction of the community.

Transaction fee

To prevent junk transaction occupying the network, calculation, storage and other resources of PalletOne, PalletOne introduces friction in each transaction and prevents malicious junk transaction from DDoS attack to the system in the form of collecting transaction fee. Meanwhile, the execution of smart contract needs the additional introduction of juror node for calculation and verification, so the execution of smart contract also will incur additional transaction fees.

For the ordinary transfer transaction not involving the execution of smart contract, it is only needed to pay 0.001PTN as the transaction fee, which will be collected by the Mediator at witness node.

The deployment of smart contract involves the Mediator's verification of contract and the occupation of storage space of PalletOne, so it is needed to collect default 1PTN from the developer as the transaction fee.

The execution of smart contract involves the execution and verification by the jury and the final witness of super node, so it is needed to collect 0.01PTN as the contract execution transaction fee by default. Such transaction fee shall be collected by the leader of the jury executing the contract. If the contract is not executed completely within the time specified and memory occupation range, it may be deemed that the contract is overtime, and the jury will stop the further execution of the contract without changing the state of the contract, but the transaction fee will still be collected. Therefore, if the contract has a complex logic and needs a long time to execute, or if the memory resources and access resources occupied by the contract are large, the users must increase the transaction fee, otherwise, the juror may refuse to execute the contract because of low transaction fee.

Punishment mechanism

In addition to the 2% additional use for awarding the mediator and juror, PalletOne also designes other award and punishment mechanisms to ensure the users' honest unit producer, and non-action or evil doing will be punished. The specific measures include:

- Mediator super node must be online permanently, and when it is its own time slice, it must product a witness unit within the time specified. The system will count the output of the witness in real time and feed it back to the community, so as to provide basis for the users to vote. If a mediator super node fails to produce a witness unit for 24 consecutive hours, it will be removed from the mediator list mandatorily, and the Fountation will put up a proposal to penalize or confiscate the node deposit and the community will vote to decide the final penalty of the node.

- If a mediator super node is offline for a long time and does evil, once it is found by the community, the Foundation will freeze the deposit of the node, stop that node from further acting as the role of super node, and will initiate a vote of punishment to the community. If the community voting meets a certain condition, the Foundation will penalize or confiscate certain proportion of or even all deposit of that node.

- The juror node also must be online permanently, and it is needed to provide a computer environment with good performance and a rapid network environment. If the computer configuration of the juror node is too low, when it is selected as the jury to execute the contract, it might be impossible to complete the operation within the time specified, thus missing the opportunity to obtain the transaction fee of contract execution. Besides, BFT mechanism is used within the jury, if the juror does not sign on a contract after execution, it will be deemed that the juror is offline and the system will count it in real time and feed it back to the community. If the juror is offline for a long time, the Foundation also will send an application to the community for confiscation of deposit.

- The smart contract developers may sell the smart contract template they develop through the contract template shop, but if the contract has serious errors and the backdoor equivalent user suffers from loss, the user may apply to the Foundation to penalize the developer while applying for the compensation for loss. According to the actual condition, the Foundation may initiate a proposal to the community to punish the developer, the community shall vote to decide the final punishment result and the Foundation shall make compensation to the contract user.

Governance decision making mechanism

The governance mechanism of PalletOne is basically realized through voting, which is classified into 2 types:

- For the voting of competition of super nodes, PTN is used for voting.
- For the voting of other decisions, the new Token defined is used for voting.

Voting method

Except that PTN is sued for the election of super nodes, a new token is defined for the voting of each decision, and it is issued to the community in the form of candy dropping, and the principle of candy dropping shall be decided by the core team and committee through discussion, and then submitted to the committee for determination. The user transfers the token to a destruction address for voting.

Modification of PalletOne parameter

Most parameters (such as additional offerings annual rate and super node block-out time) in the running of PalletOne system are designated according to the running experience of massiveblockchain projects and combined with the characteristics of PalletOne itself. However, with the running of PalletOne, both community and application are changing continuously, and when some parameters do not adapt to the new environment then, PalletOne fundation may initiate a proposal to modify PalletOne system parameters. The community will decide whether the parameters should be modified finally though voting.

Improvement proposal

PalletOne community may put forward PalletOne Improvement Proposals (PIP for short). After the community puts forward an improvement proposal, it first discusses through such communication tools as We-chat group and Telegram; if the evaluation of discussion result meets the actual demand and is feasible, a PIP will be formed. PIP is discussed in relevant governance communities to further determine the detail and the proposal will be submitted to the community for voting, and only the PIP that is passed through community voting can be transferred to the core development team for realization or for merging the realization submitted by the developer community.

Change of rules

PalletOne establishes an overall rule for the community governance, similar to EOS constitution, and all members participating in the PalletOne ecology shall comply with the overall rule. However, the overall rule does not remain unchanged, and with the change of time and environment, the community may discuss and initiate a request of modification of overall rule and the modification of the overall rule will be realized through voting.

Reduction or exemption of transaction fee and voting incentive

In order to reduce the transaction fee of PalletOne Token and realize 0 transaction fee, and also in order to stimulate users to participate in the voting of super node, PalletOne has an economic incentive for the voting.

Based on the benchmark that the users hold 100 PTNs and can have 1 transaction free of charge and calculated by the transaction fee 0.001PTN, we need to provide a subsidy of daily rate of 0.01‰ (single interest, i.e. an annual interest rate of 0.365%) for the users. Such subsidy must be incurred in the transaction containing voting, and in case that the PTN transaction initialized by the users does not contain voting, the subsidy is not calculated.

In addition, in order to encourage users to actively participate in the community voting, but not to vote for only once for a long time, the system set token age (quantity of tokens *number of days of holding tokens), and at the time of calculation, there is an upper limit of number ofdays of holding tokens, and for the days exceeding the upper limit, interest will not be calculated, and the upper limit is 100 days by default.

For example, if the token held by user A is voted once every 100 days, and 300 days later, the user will have 3 votes and he will obtain the subsidy corresponding to a token age of 300 days. If user B has the same number of token, but he votes once every 150 days, then he will have 2 votes and obtain the subsidy corresponding to a token age of 200 days. If user C has the same number of token, but he votes only once within 300 days, then he will only obtain the subsidy corresponding to a token age of 100 days. Therefore, the user's active participation in the voting is beneficial.

Token ecology of PalletOne

Token Abstract layer

The token abstract layer is an independent module specially optimized for the token characteristics. In PalletOne, the PalletOne platform token and the user customized token are in the same level, with identical design and the only difference is that PalletOne token is a platform-based token and is universal, and only PalletOne token can be used as deposit collecting, transaction fee and contract module use fee.

PalletOne uses UTXO model which is the same as bit coin to record the users' token in bottom design, and in addition, in order to support the smart contract, the system provides the adaptation of UTXO with the account model, so that the smart contract can complete the operation of token without concerning UTXO.

PalletOne establishes the corresponding template and interface implementation for the most common types of tokens ERC20 and ERC721. When defining their own token, users only need to fill in several parameters to complete the issue of token. By contrast, such token model of Ethereum brings a higher threshold to users, making it is very easy to generate a bug in the smart contract.

Value anchor token

PalletOne Token is not a "value anchor token", but users on the Token Abstract Layer's smart contracts may issue "value anchor token" combined with cross-chain. For example, in the decentralized transaction application, the exchange defines a BTC-Token on PalletOne platform, and the token will be created and destructed according to account controlled by the exchange. When a user charges certain amount of tokens to the wallet account of the exchange, the smart contract will create new BTC-Token to the user automatically according to the deposit of the user, and in this way, user can use the token for various transactions. When the user needs to withdraw certain amount of tokens, it is only needed to return the BTC-Token to the contract for destruction by the contract, and pay the corresponding number of bit tokens to the user wallet.

Application ecology token

In case that a token issued is bound to an application or certain ecology, as the expression of value in the application ecology, the token is an application or ecology token. Take CryptoKitties as an example, each CryptoKitties corresponds to an ERC721 token, and these tokens are completely bound to the game CryptoKitties and has its value expressed through DApp application. PalletOne can completely support the application token that based on ERC20 and ERC721 by combining abstract layer with smart contract.

Equity finance token

If a token is lined with the equity of an organization and has a financial property, then it is equity finance token. Take the platform token issued by the exchange as an example, the exchange promises that it will use a proportion of the exchange profit to repurchase tokens and destruct them. That is to say, the price of the token is linked to the profit of the exchange, with equity finance. PalletOne supports the merchants and financial institutions to issue equity finance tokens through token abstract layer and repurchase and destruct them through the PalletOne-based decentralized exchange. For the avoidance of doubt, the PalletOne tokens are not equity finance tokens.

Contract template store

The contract template store adopts the model similar to Apple AppStore. After developing the contract based on PalletOne platform, the smart contract developer may sell the contract template in the template store. The pricing unit of contract template is PalletOne Token. The developer can determine the price freely and deploy it in PalletOne blockchain.

The contract template store will provide the users with a friendly contract template purchase platform to the users according to the condition of contract template in the blockchain and combined with the wallet of PalletOne. After purchasing the contract template, the user may use it directly, without any complex operation.

Transaction fee of customized token

PalletOne only support PTN as the transaction fee and transaction fee of contract execution by default. If the token customize by the users and the DApp on it reaches a certain scale and the token has a market price, then DApp may separate the circulation of the token from main mediator and jury through self-constructed mediator and jury nodes; while the mediator and jury self-constructed by DApp may select to charge the user customized token as the transaction fee, without using PTN as the transaction fee.

The self-constructed of mediator and jury by DApp for the customized token as the following advantages:

● The customized token can be used as the transaction fee. The ERC20 token customized on Ethereum can only be circulated as value, and cannot be used as the platform transaction fee and this means that when receiving ERC20 token, the user must hold ETH before using ERC20 token, which brings extreme convenience to users. While on PalletOne, the user holding the customized token is not necessary to hold PTN, and the self-created mediator and jury of DApp support the token as the transaction fee.

● The transaction is shunted to avoid network jamming. Taking Ethereum as an example, the popularity of a CryptoKitties game may cause jamming of the whole network, which leading to the transactions of other applications cannot be confirmed for a long time. If CryptoKitties is running on PalletOne, all CryptoKitties transactions may be executed through the self-constructed mediator and jury, and no matter how frequent the CryptoKitties transaction is, PTN and the transactions of other tokens and applications will not be affected.

● Parallel consensus, high extensibility. Whether Bitcoin, Ethereum and the emerging EOS, its single blockchain structure causes that no matter the consensus is optimized, it is difficult to reach extremely high TPS. While PalletOne adopts DAG as the storage infrustructure, which combined with the user customized token and self-constructed mediator and jury, can realize parallel consensus.

Although the self-constructed mediator and jury can provide the consensus and smart contract running of the customized token, their ledger will be synchronized to the main mediator of PalletOne as a part of the whole ledger, and meanwhile, the main mediator also needs to provide a cross-token transaction and transaction route etc, so mediator will charge a proportion of transaction fee of customized token collected the self-constructed mediator of some users. Therefore, with the development of application ecology, the main mediator will obtain the transaction fee income of PTN and relevant application token.

Token economic model

The PalletOne token economic model is established on the basis of equality, circulation and extensibility. As the fuel token, PalletOne Token (PTN) supports the normal operation of the whole PalletOne platform. On PalletOne platform, through the cross-chain agreement, it is possible to realize the USDT cross-chain operation, so as to establish a price stable token, and through the docking of cross-chain protocol and BitShares, it is possible to implement the mapping of the corresponding stable token of BitCNY and other stable stable tokens, so as to provide a highly liquid digital asset for the ecology system. Each organization can create its own in-organization token and create a series of high-order tokens. The exchange provided based on PalletOne provides transaction services for various tokens on the PalletOne platform.
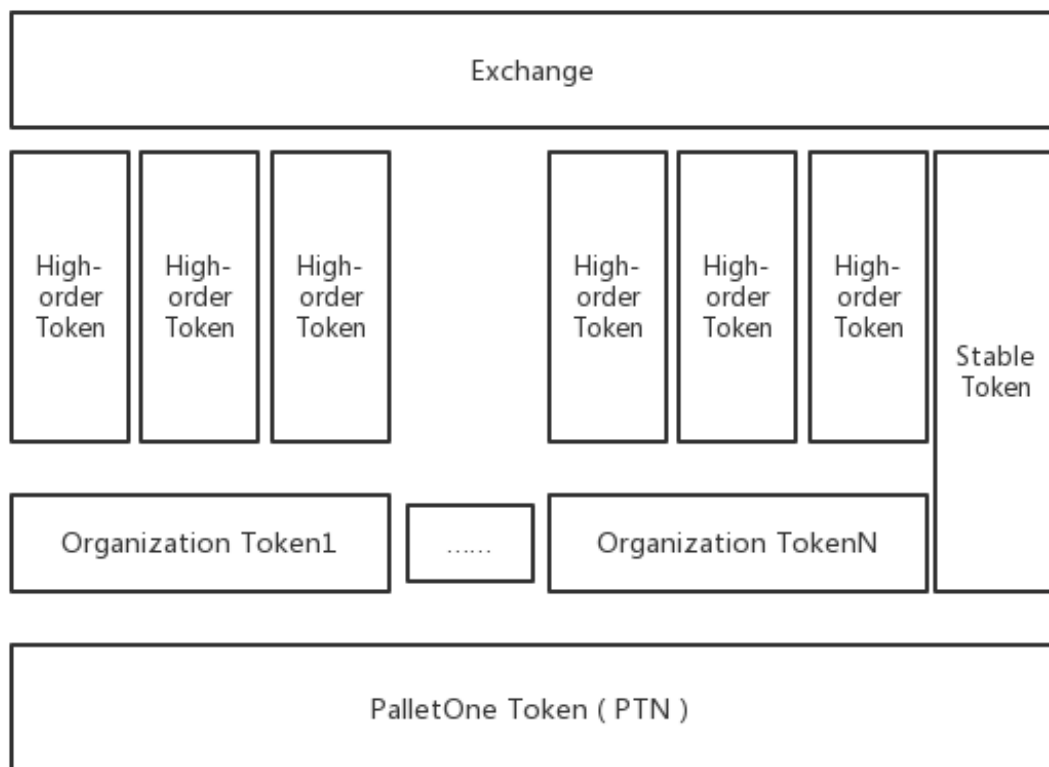
Summary

PalletOne is based on cross-chain technology and is aimed to break through isolated value island of blockchain, achieves the interconnection and intercommunication between blockchains and construct thevalue network in the world of blockchain. In the design of token economy, PalletOne, combined with its own technical characteristics and long-term objective, refers to 7 principle of blockchain economy system and avoids 8 traps in design and realizes a sound token ecology system through the distribution of different levels.
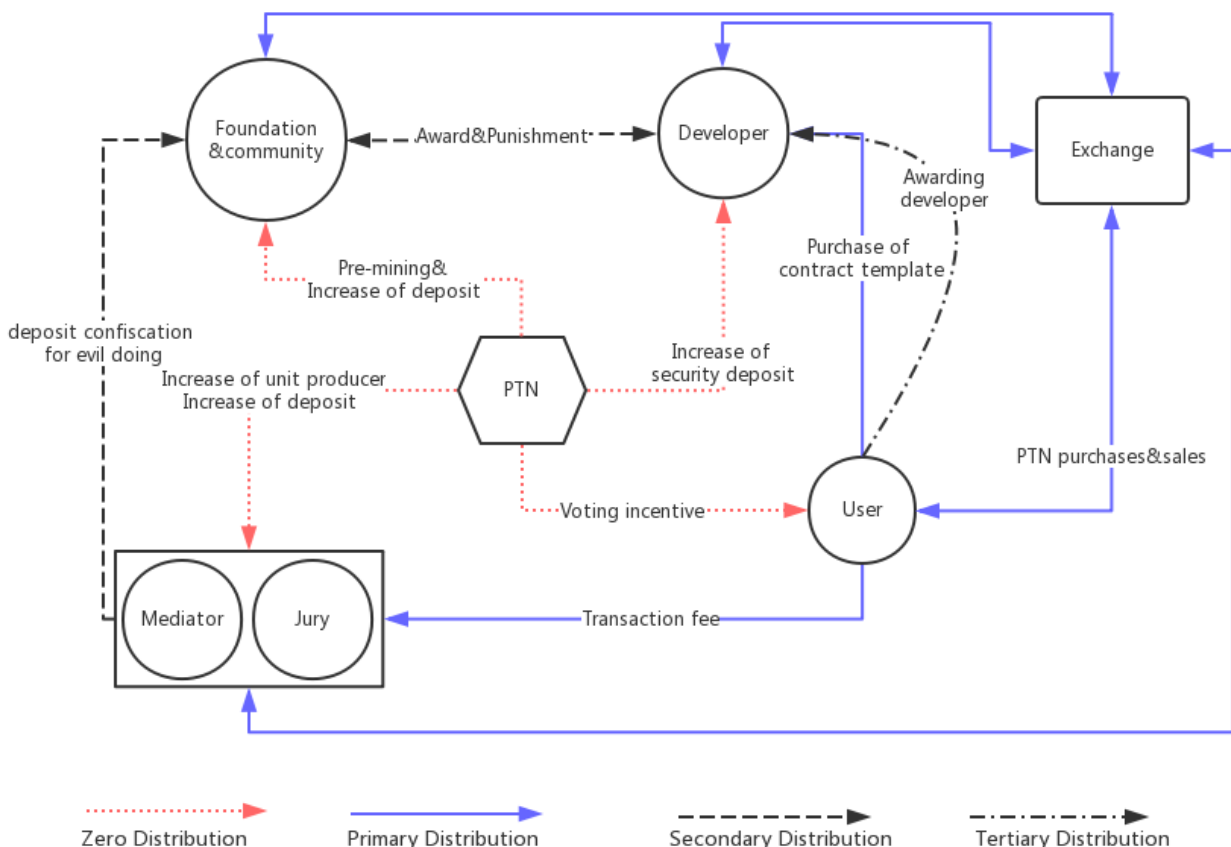
●Zero distribution: PalletOne issues 1 billion PTNs initially and distributes them to communities, funds, teams and angle investors in different proportions. After the initial distribution, PalletOne will continue to issue PTN to deposit holders, super nodes and as voting incentive subsidy.

●Primary distribution: the token holders may use the tokens they hold freely, including but not limited to transfer, payment of deposit, deployment of contract template, purchase of contract template and contract invocation etc. The users also can obtain the token by the following means: transfer-in, interest of security deposit, mediator transaction fee, transaction fee from jury's contract execution and developer template sales income etc.

●Secondary distribution: PalletOne Foundation, as the governance institution of the whole ecology,

takes the establishment of a healthy developing PalletOne ecology as the objective, punishes the behaviors not beneficial for PalletOne system and technology by means of initiating community governance proposal, and also awards the behaviors beneficial for PalletOne system and ecology by holding activities and developer context etc., so as to construct a prosperous PalletOne community

●Tertiary distribution: PalletOne encourages the development of Dapp on it, and in addition to the charged template, the developer also can issue contract template free of charge and the user may encourage the developer in the form of awarding.

As the token of the system, PalletOne Token is widely used in the whole process of system operation,

and the token abstract layer put forward by PalletOne makes it real for the users to define their own token rapidly and effectively. Based on the PalletOne token abstract layer, user may develop homogeneous token similar to currency, and also can develop non-homogeneous token similar to Cryptokitties, without coding by the users, and it is only needed to define certain parameters in PalletOne token template. Combined with the smart contract, the token abstraction layer may apply ecological token, value anchor token and equity finance token.

PalletOne is a system that benefits miner (mediator and juror), smart contract developer and contract users. Only a stable and sound token model and circulation logic can build sustainable application ecology and provide a platform that users will wish to use.

Declaration

The economic white paper is our current consideration on PalletOne token economy and governance, and in the later period, it might be further adjusted and iterated with the upgrading of community discussion and thinking. In addition, various parameters (such as interest rate and requirement for deposit) involved in this white book are only the preliminary estimation values, and after the testnet is online, they will be adjusted according to the actual test result and market reflection, and the parameters of main network online will be determined. After the mainnet is online, these parameters also do not remain unchanged, and the fund and community will initiate a proposal of parameter adjustment according to the actual condition, and the final modification result scheme be determined by the community through voting.

Terminology

Term	Interpretation
DAG	Directed acyclic graph, one kind of distributed ledger technology, which realizes the parallel writing of data. Blockchain projects such as IOTA, ByteBall and TrustNote apply this technology.
Jury	Jury is a local consensus community distributed to the specific contract case and consists of more jurors. There are many juries in the whole PalletOne.
Juror	Juror is the actual executor of the contract, and one juror may participate in more juries simultaneously.
Leader	A main node randomly selected in the jury, and it is mainly responsible for packing the contract execution result of data unit.
Mediator	Mediator is also called super node, which is generated by DPOS, consists of 21 nodes and is responsible for the consensus of the whole network.
Token	Token is the value carrier of the blockchain platform and it can be created, circulated and destructed.
UTXO	Unused transaction output, which is a unit producer model proposed in bit coin.