Evangel（EVA）
White Paper
Evangel Program

Contents

Abstract

Decentralization is an inevitable tendency of the human society development and it relies on freedom, social justice and equality. The emergence of Blockchain technology is the product of decentralization in a certain phase. We can see the world is now breeding Blockchain applications in a wide range and involving it into our lives. Our team believe that so far the main task is to establish a stable, fair and easy-to-use decentralized platform. Meantime, the only way to promote decentralization is to decrease the threshold of developers, encourage Blockchain users and develop communities.

The Evangel Program（EVA）is a system platform based on EOS open source design. EVA innovatively comes up with a fund-raising model to raise available EVA tokens from all token holders to gather necessary system resources for application developers. Meanwhile, this model makes token holders into investors who can benefit from project investment. People get rewards and thus the process of fund-raising itself also shows the token holder's decision-making power over system platform resources. Furthermore, we expect the application developers can obtain those donated system resources by paying future application

revenues in advance. EVA aims to set up a community where all citizens can participate and make decisions.

EVA will support multi-chain technologies, all assets of other main chains especially those supporting EOS can be integrated into the EVA network via EVA functional contract in the future.

Background

- **Why we choose EOS**

Bitcoin (BTC) achieved an open, decentralized, and distributed ledger as a first-generation encrypted digital currency, meanwhile, with the restrictions of programming language and transaction structures, complicated applications are unable to be deployed and launched. Ethereum works as a developing platform of smart contracts, it brings in Turing complete language which improves the scalability of smart contracts application scenarios. The widely usage of ERC20 and ERC721 protocols promotes the development of Blockchain to a great degree. The high-latency and low-throughput remain to be the main technological obstacles for Blockchain applications.

EOS is a Blockchain operating system designed for DAPP (Decentralized Application) against the issues of latency and volume with concurrent chains and DPOS (Delegated-Proof-Of-State) infrastructure in which millions of transactions can be confirmed within one second; it created a base platform and provided the application developers with functional modules simplifying the DAPP developing procedures.

The robustness and incorruptible nature of EOS makes it the perfect choice for us, besides, EOS follows MIT licenses and offers probability as well as much convenience for our cloning work.
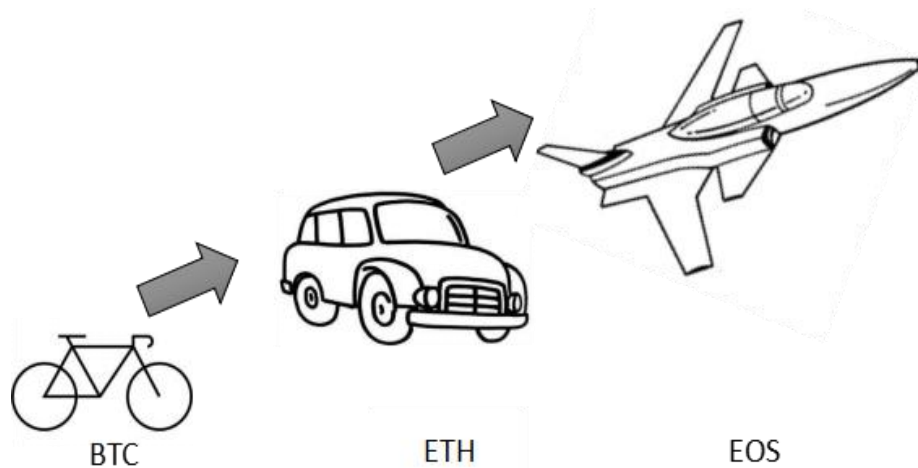

EOS advantages

- **Current Problems**

Different from other platforms, for the application developers in EOS platform, the larger the share of EOS tokens they have, the more system resource (network bandwidths, storage, processing) they can occupy. For the applications users, they can access the Blockchain apps without currency costs.

This kind of resource allocation, however, raises high-standard requirements for DAPP operation models. Qualified DAPPs are expected to have good design patterns and services. Additionally, the development team will need the fund to occupy certain share of tokens to get system

resources at the risk of being imitated by some big investors in the vicious competition. Therefore, the big investors of EOS can take an advantage of the EOS tokens and seize more resources in the competition.
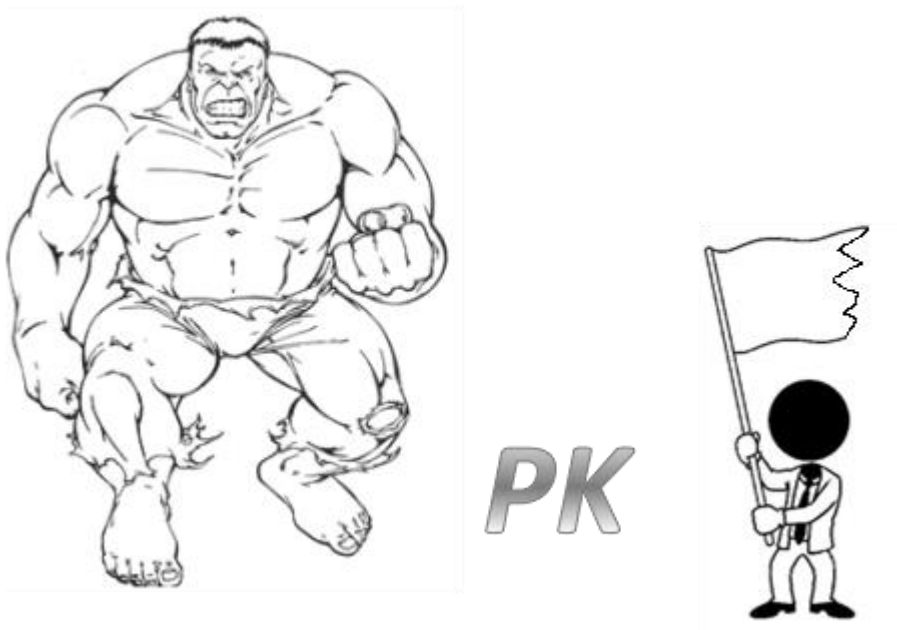
Monopoly

• **Our Solution**

Regarding the issue of resource allocation, we come up with the EOS lease application which aims to raise available EOS tokens to collect system resources for application developers. When we are implementing this, we find this method increasingly strong and invincible, considering the open-source feature of EOS, we decide to set up EVA program(EVA) in which we will add some improvements after cloning the EOS base platform and make EVA an independent new vehicle.

EVA fund-raising advantages

Fund-raising Model

EVA adopts the same resource allocation model as EOS, the more EVA tokens the application developers hold, the more system resources they can possess. The EVA tokens are pledged instead of consumed in the real scenarios.

- **Solving Resource Allocation**

To prevent the non-equivalence of resource distribution, we propose the fund-raising model to gather all available EVA tokens from token holders and supply the most system resources for the DAPP developers. Obviously, the method we put up can prevent the monopoly in the system platform and make up for the fund shortage issue that any DAPP developers confronted with.

Based on the justice and open nature for all the DAPP developers, they can win the competition depending on the services and ideas rather than be defeated by marvelous competitors.

- **Fund-raising Process**

The process of EVA token-raising actually makes the token holders into the investors which will benefit from revenues through participating in the fundraising projects. This revenue model is absolutely guaranteed by the project team and, in fact, it's a new pattern of leasing model.

At the beginning, the fund-raising team will configure the pattern, the total amount and rate of return, pay a deposit to start the fundraising, our platform will lock the deposit till the whole process ends.

During the fundraising period, the EVA token holders will be given the option to invest the projects according to the projects' rate of return, their basic understanding and prospect analysis of projects. The investors can have their EVA tokens back the same way if the total raised amount doesn't reach the expected fund goal after the funding cut-off date. For the projects which reach the fund goal, the platform will automatically return the EVA tokens and the profit to the investors. The entire procedure is implemented through Blockchain smart contracts and nobody can tamper the ledger.

• Platform operation pattern

The innovative fundraising model eliminates the risk of possible monopoly in EOS platform, leading to a win-win pattern which is definitely the long-term Blockchain technology development trend.
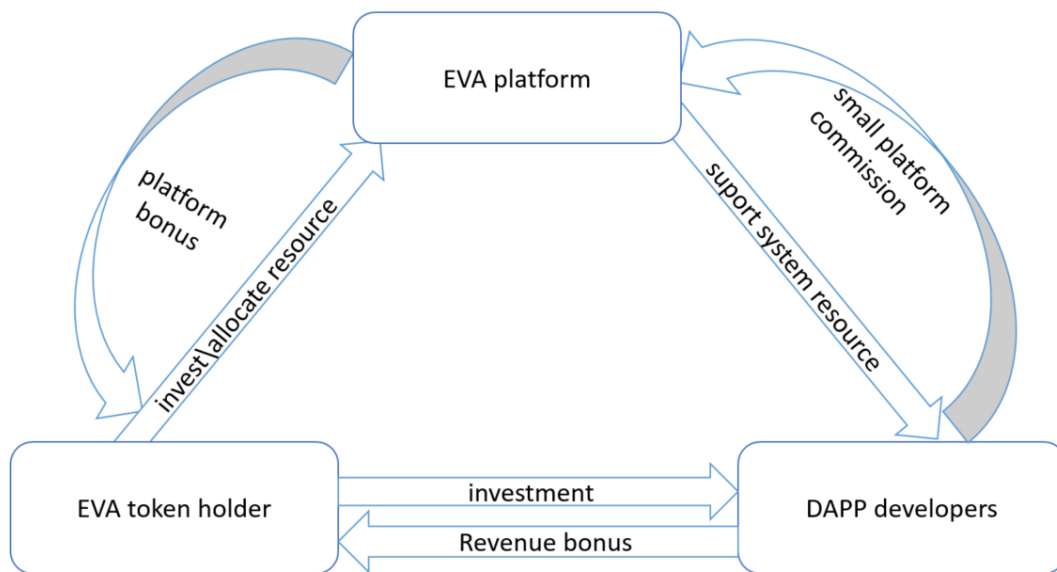
EVA platform operation pattern map

It's important to note that the token holders will get excessed returns from premium DAPP while depositing EVA tokens and executing their decision-making power, in turn, the marvelous profits drive token investors to discover brilliant DAPPs, improving the QOS (Quality of Service) of DAPP on the whole platform which safeguards the long-term sustainable development of EVA.

The fund-raisers will obtain the system resources donated by our investors if their DAPPs have more advantages in terms of ideas or services than others, guaranteeing the basic system resource requirement of DAPP operation as well as the DAPP's service quality to those investors. A significant aspect of this operation model is that the results of holders' decision-making power are a representation of their recognition for the fund-raisers and a new way of advertisement, encouraging many other developers to create DAPPs, which adds value to our platform.

By linking to the base Blockchain service, our platform is ensured running safe and robustly. We adopt this kind of brand-new fundraising model and get small commission, in return, it's promised that the token holders are supposed to get a portion of it, this model will promote our service back to the DAPP developers and investors.

- **Executing the Decision-making Power**

Every token holder of EVA is given the option to make decision over their tokens, as the EVA platform grows in popularity, it's estimated that numerous DAPPs emerge and holders have the power to decide on the system resource allocation, making fabulous DAPPs be in the lead.

By the way, the investors will be impacted by the rate of return, prospect and introduction of projects.

Honestly speaking, we respect the right of every token holder to show their preference and attitude to the DAPPs and make decisions in allocation resources or any other decisions we need later.

OAuth 2.0 User System

Apart from the main chain we mentioned before, our team will design a system platform based upon the main chain and set up an integrated user architecture consists of identity information, password protection, digital financial (multi-chain), payment method and credit investigation, etc.

By implementing this architecture, all users will be capable of giving one-click authorization and being exempt from the trouble of registration and login process wherever in main chain, multi-chain or DAPPs. It's vital that our users can protect their information, they can choose to open only the registration information validation function module to untrusted DAPPs and prohibit them exporting personal account.

While all validation procedure is hosted in contract and we hereby declare that all user information is stored in main chain, particularly for password validation, users can select one-click login with EVA account or new registered account (the new password will be stored in user system of main chain), when the DAPP starts the password authentication, the password user entered will be only for the validation process with password in EVA user system, eventually the result will be sent back to

DAPP instead of interacting with DAPP directly thus disrupting the risk of password leak issue.
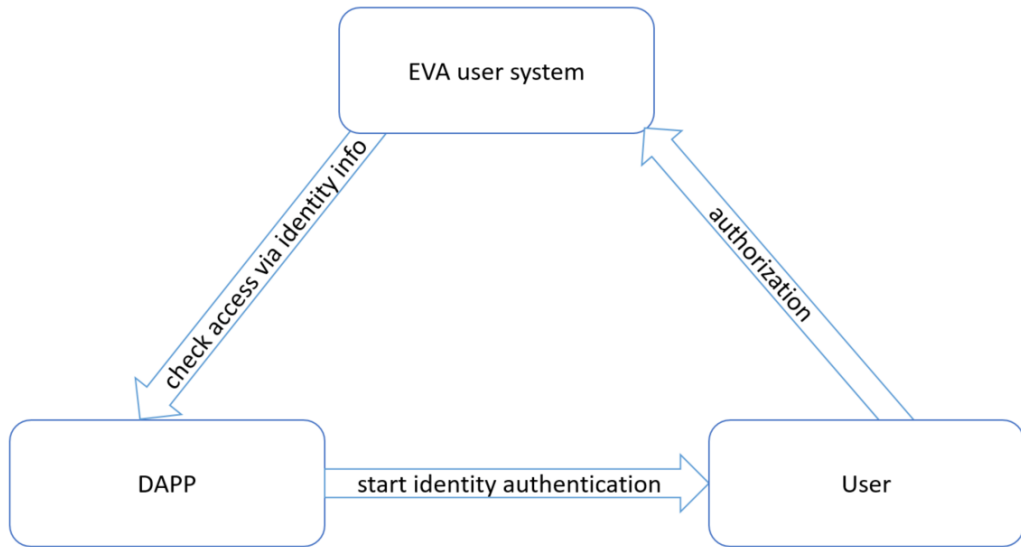
OAuth 2.0 login authorization process
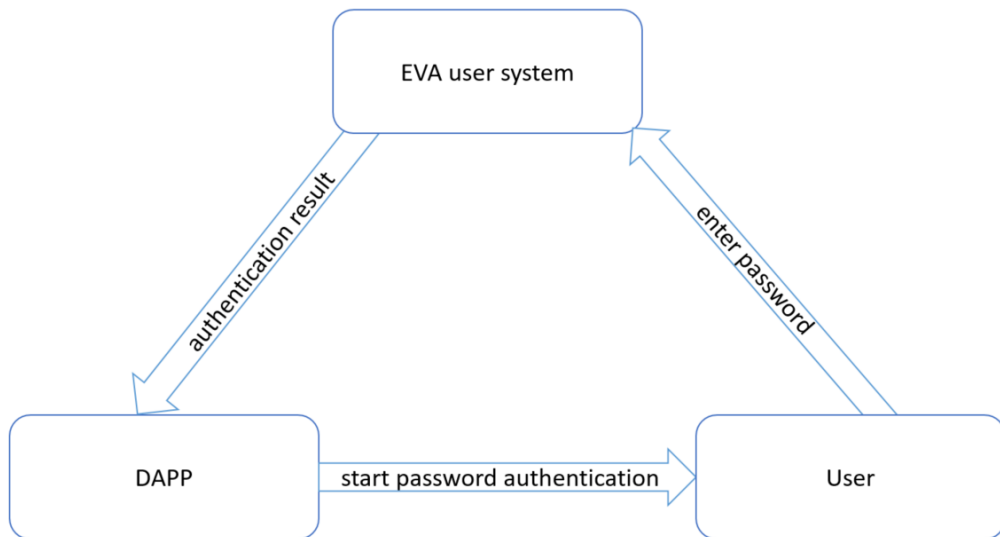
OAuth 2.0 second password login process

We can see not only the enormous user communities but the one-click login function offer much convenience for the implementation and promotion of applications, from this point of view, the DAPP developers can also benefit a lot from the sophisticated EVA user system.

Consensus Mechanism

EVA adopts DPOS as its consensus mechanism, there're total 21 nodes in main chain to maintain the EVA network.

- **Nodes Selection**

All the community members vote for the nodes and the top 21 representatives are elected to be the main nodes which are responsible for providing servers to maintain EVA network. As the sequence to produce blocks is arranged in advance, every node is allocated a time slot to do their job, the sequence is flexible and adjustable in accordance with the actual situation.

Other nodes ranked after 21 top nodes are the candidate nodes, ready to replace existing main nodes as soon as the main nodes break down or do evil things. All token holders are qualified to vote or participate in the selection.

- **Block Production**

At the end of each round of the election process, the server node will carry out the production of blocks, the unconfirmed transactions in the

network will be packaged into blocks, and the newly produced blocks

will be broadcast to other nodes. The node has no right to modify the

transaction content, such as the sender, receiver, or balance. If the node

fail to produce the block or put the transaction information in the block,

the next node will create a new block with twice the size of normal block

and it will contain the missing transaction information of previous node,

at once the confirmation time limit will also be extended to double.

Community Construction

EVA is designed based on EOS open source code, the design cost is relatively low, but this does not mean that the operation cost is low in later period, we still need maintenance, we are looking forward to involving more and more people into the construction of our community, EVA set a lower threshold for token holders, in addition to the operation cost and the promotion cost, part of EVA tokens will be distributed in the form of airdrops where all people owning unique Ethereum wallet address can receive a fair share of remaining EVA total supply. We hope more people could participate and join our community so some remaining tokens will also be distributed to participants in the community. The smart terminal version (mobile phone, tablet) community will be developed in advance in order to facilitate community members to participate in EVA construction.

EVA community will be a place open to everyone, everyone can make contribution to the community and benefit from it, the community treat all members with equity and every member can execute their own decision-making power.

- **Voting System**

In EVA community, everyone can execute their own decision-making power. In addition to what mentioned earlier about the fundraising method solving the system resource allocation, community members can also vote to execute their decision-making authority, the voting system on the EVA has two main functions:

First of all, vote to determine the EVA development strategy and roadmap, to evaluate the plans put forward by the other members of the community, thus boosting the normal development of the EVA community.

Secondly, vote to review resources on EVA and maintain the healthy and orderly development of EVA ecology. EVA allows users to publish their own applications and resources, but that does not mean that the users can do whatever they want including transmitting resources randomly. In order to purify the network circumstance and develop EVA ecology healthily, we introduce the consensus evaluation mechanism as an intelligent safeguard of EVA, at the same time, impose strict restrictions on resources violating the rules.

Last but not least, reasonable voting mechanism. In order to avoid the monopoly of EVA voting by individuals as large token holders, EVA
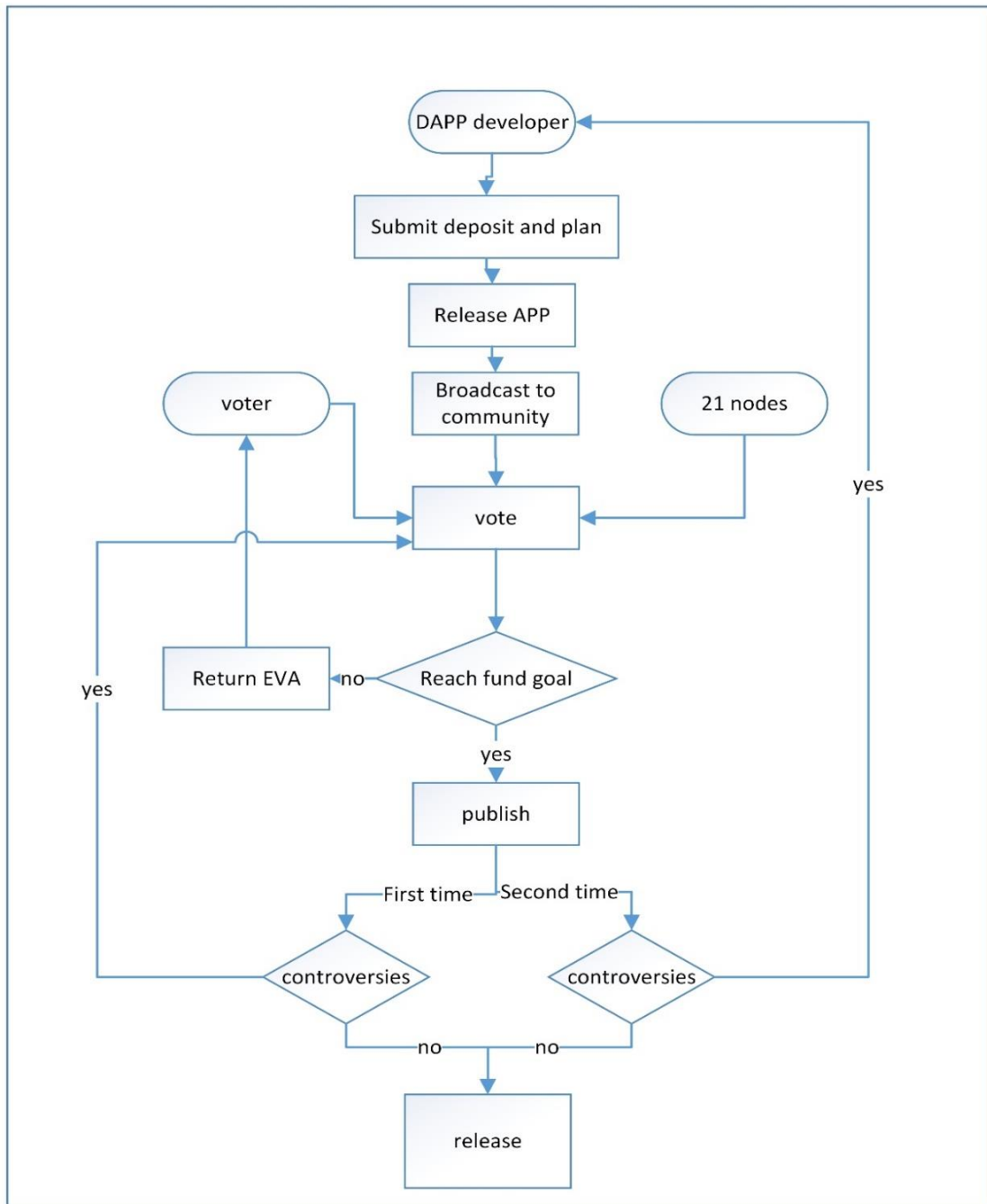
voting rights and EVA token holding amount are not linearly related. The relationship between the times of votes and the number of tokens held is as follows:

$$Y = \text{round}\left(\log_2(X + 1)\right)$$

Y means the voting times，x presents the number of tokens held. Function round () means the decimal result is rounded to the integer Y.

Voting system

- **Proposal System**

EVA will set the proposal entrance, community members can submit their proposals via the entry, submitted proposals will be transferred to the proposal system and accept community members' voting after being preliminarily filtered. The top 10 proposals per week will be broadcast as notifications to all members of the community and accept all the member' voting, when the voting of the proposal achieves a certain proportion or ranking, this proposal will be passed, and put on the agenda.

- **Reward System**

In order to promote the healthy development of EVA community, EVA will increase 10% of the tokens to the community every year as a reward. EVA encourages initiative participation in community activities by distributing EVA tokens, candies to benefit those actively participators in community construction, negative token holders seldom involved in construction won't get rewarded, for those people, their share of EVA will drop. EVA never encourages the behavior of reaping without sowing. In EVA community, no pains no gains, everyone could be rewarded by contributing to the community.

EVA system will reward those community members who offer good solutions (proposals or code) for EVA, whether to reward the contributors or how much rewards they can get will be determined by the voting results of community.

It is kind of unfair to token holders if the reward mechanism isn't about token amount, but it seems to discourage participants with small tokens if judging contribution only by token amount. The rewarding factor can't be linearly related to the amount of tokens, so we decided to adopt the following mechanism, the rewarding factors include two parts: THRF (Token Holder Rewarding Factor) and CRF (Contribution Rewarding Factor):

Token Holder Rewarding Factor： $A = 2^{\log_{10} \frac{token\ amount}{100}}$

Contribution Rewarding Factor： B

THRF is related to the amount of tokens only, if a holder has 1000 EVA, the value of THRF of 2, if he has 10000 EVA, the value of THRF is 4; And CRF is the rewarding coefficient of community members on daily contribution to community, such as voting reward, promotion and advertisement reward and rewards for discovering system vulnerabilities,

proposals reward, etc. The relevant reward details will be explained on the mobile terminal community.

The final reward factor C is:

Rewarding factor：C=A*B

When delivering candies, EVA tokens and other bonus, the amount will refer to the proportion that each community members' rewarding factor makes up the total rewarding factor of all members. For instance, if the total amount of EVA is 100000, and a member holds 1w EVA, his CRF is 4, then the rewarding factor C = 4 * 4 = 16, the total rewarding factor of all members is 10w, then this member will receive 16 EVA as reward. At the same time, the rewarding factor will be accumulated by days and reset to zero after token bonus is added every year.

Multi-chain Concept

With the rapid development of the Blockchain and fierce competition among the various chains, possibly there's a survival of the fittest in the end. However, there might be multiple chains booming instead of one single chain dominating all. In this case, EVA comes up with the multi-chain concept to complete the integration between different chains through multi-chain agreement. We may adopt the exchange mode to merge the valuable product (such as tokens) into EVA such as what we have been doing, the EOS of leasing business, we'll continue this job, in near future, EOS users can use the address provided by EVA to extract EOS to EVA system, even more, we may make the EOS circulate around the world and entrust EOS to EVA accordingly for the appreciation business, like what we are engaged now in EOS leasing model.

As a consequence, EVA is not a sealed system, it will be open to other chains and ready for good cooperation, that's why block chain technology is so charming.

Application Development

EVA adopts the same resource allocation method as EOS, and the share of EVA owned by the application developers in all tokens determines its share of system resources. Furthermore, EVA's fundraising model solves the problem of unequal distribution of resources, it collects the available tokens from all token holders and supply the system resources for DAPP developers, solving the fund shortage problem of the developers.

The fundraising model of EVA is a good touchstone for DAPP, if the model fails to get everyone's support, perhaps it illustrates that DAPP market is not yet ready so we might as well regard EVA as DAPP hatcheries owing to the low cost to develop and release EVA DAPPs (EOS development advantages, the raising pattern).

For popular applications, we will invite the original development team or EVA team to design EVA application system, EVA application system will pursuit the amount of DAPPs, there will be a focus area and preference on certain areas for EVA development team, for other DAPP teams, EVA has no right to interfere in their DAPP development and

release, EVA's decisions would be made by the community through

raising model.

EVA Token Distribution

EVA token has a total amount of 500 million, increased by 10% a year as a community reward.

20% for R&D team and early investors；

20% for private fund, project launch, product development and operation；

10% for porting and developing projects (EOS popular applications migration, new application support investment, all projects will be voted by the token holders, the benefits will be owned by all EVA holders)

10% for brand marketing, market expansion, public relationship maintenance, community ecology construction motivation；

40% for airdrop and community construction；

EVA Roadmap

1. 2018 Q2~Q4:

   EVA team will develop an appropriate user system based on the open source code after the EOS main network is deployed.

2. 2018 Q2~Q4:

   Mobile terminal community development (ANDROID/IOS)

3. 2018 Q2~Q4:

   DAPP project fundraising plan is as follows:

   a) EVA fundraising application development running based on EOS.

   b) Fundraising mechanism establishment based on EVA main network.

4. 2019~:

   Porting popular EOS DAPPs.

5. 2019~:

   New project investment plans.