Đaonomic project
Tokenization platform for everyone

Project team

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The ultimate mission of the Daonomic project is building tokenized economy by introducing a new method of trade that utilizes cryptocurrencies rather than traditional fiat money. The platform offers free-of-charge self-service tokenization toolkit. Issued tokens can be sold to any whitelisted buyer for cryptocurrency or traded for the other tokens directly. Token issuer obligations are securely tracked on the blockchain to ensure fair trade and a return on investment.

Summary

The Daonomic platform is the key element of Daonomic project, designed to provide core tokenization infrastructure. The platform, which is powered by blockchain technology [1], offers a free-of-charge self-service toolkit for any ecosystem participant to issue tokens and join the tokenized economy.

Tokens [2] can represent products or services a token issuer is committed to deliver immediately or in the future. Tokens can also stand for an asset or a part of an asset, e.g. company share. Additionally, tokens can serve as application coins providing access to certain software features. The choice of the token type and tokenization mechanism depends on the nature of business or business idea the token issuer plans to develop.

Well-known Initial Coin Offering (ICO) [3] is a special case of tokenization aimed to raise finances. However, the tokenization concept has much more potential. Tokenization can be conducted not only to raise finances, but also to set up a trade without conventional paper contracts and other legal formalities. In this case a blockchain distributed ledger will ensure trade security and transparency. Additionally, an ICO is usually conducted at the beginning of product development to raise initial financing, whereas a tokenization can be conducted many times and at any project stage with no restrictions. In this case it is critical for token issuers to ensure sufficient token liquidity and fulfill obligations that have been coded in smart contracts.

Daonomic Tokenization Platform Features:

- Support of multiple blockchains: Ethereum [4], Waves [5], Bitshares [6], NEM [7], TON (upon availability)

- Self-service toolkit to tokenize any business in minutes using pre-engineered token issuing models, including interactive tokenization [8] and DAICO (tapped tokenization) [9] proposed by Vitalik Buterin & team

- Unique appraisal-based tokenization mechanism to ensure tokenization process quality and transparency

- Rating system to confirm token issuer's credibility

- On demand KYC support

- In-platform token exchange to enable direct token trade

- Critical platform data to be stored on blockchain using high security standards

- Open source code allowing users to run desktop lightweight client anytime and anywhere

- No entry fee

As soon as Daonomic's ecosystem develops and accommodates a variety of tokens, it will be possible for the participants to exchange tokens directly using an in-platform token exchange service. This will allow a new era of trading with the lowest possible transaction costs.

1   Introduction

The current economic environment is based on central entities and authorities, (e.g. banks), which settle transactions and guarantee the security of digital assets (e.g. money). Such centralized systems require a lot of investment in infrastructure and have significant operating costs. This results in high transaction costs and delays.

With the development of blockchain technology, it became possible to create a blockchain based ledger as an alternative to a centralized digital asset management system. The ledger makes it possible to securely track property rights for any digital asset represented by the digital tokens built on a blockchain. The technology solves the problem of security and makes it possible to manage digital assets automatically without any involvement of the central authorities. Thus, the investor gets a chance to reduce expenses related to the legal legwork, banking, and financial regulations, while entrepreneurs, businesses, and households can attract cheaper and faster financing. Businesses and consumers receive an opportunity to make trades without legal documentation, as secure operations will be provided by smart contracts of the blockchain.

Recently a new method of raising funds and making investments based on a blockchain technology has come into play - Initial Coin Offering or ICO. ICO is a special case of business tokenization. Token issuers opt for an ICO to bypass the rigorous and regulated capital-raising process required by venture funds or banks. During the ICO, the issuer generates cryptocoins or tokens having certain value. As the clear majority of the present ICOs are conducted by the IT startups, the tokens usually represent very special digital units, which give an access to a certain functionality of the IT product, (Ether [10] in Ethereum as an example). Alternatively, tokens can represent company shares or value of the product or service the company is producing or intends to produce. The issuers sell those tokens to the investors or consumers for the cryptocurrencies, (e.g. Bitcoin, Ether and others), thus solving the fundraising problem. ICO had proven itself as a good working mechanism. In 2017, the total funds raised on ICOs around the world exceeded $4B [11].

2   Current tokenization problems

Despite being widely accepted, the current tokenization process has many disadvantages. It is true that ICOs reduce fundraising costs in comparison to banks or venture funds. However, it still requires a lot of time and money from the entrepreneurs or any other token issuers to set up the crowdsale properly and achieve the fundraising targets.

Currently there are many agents offering their tokenization services on the market providing custom ICO solutions. Therefore, each tokenization process has a unique design and technical features. It requires building complex software to power the crowdsale and reflect the investor rights in smart contracts. Token issuers must also pay great costs for consulting services, marketing, advertising, etc. This leads to higher tokenization costs and a longer set up time. In 2017, the average cost of a successful ICO campaign started from $50-100k and, in some cases, may exceed $1M [12]. This is often an almost impossible price for a small project, business, or an individual entrepreneur to pay.

As for the investors, in many cases it is hard for them to gauge the credibility of the token issuer and how exactly the issued token will guarantee a return on investment. The price of the newly generated token is determined by the token issuer and there is a significant chance it does not reflect a fair value. Thus, despite the growing number of ICOs, the crowdsale processes are still complicated and non-transparent, which prevents wide adoption of this tokenization method by entrepreneurs and investors.

The Daonomic platform is designed to solve most complications related to tokenization process by providing a self-service toolkit for anyone to tokenize his business quickly and without any fees. The platform will also give a set of instruments to the investors to evaluate the credibility of the token issuer and fair token value.

3 The Daonomic platform

The platform is designed to make a breakthrough in the process of business tokenization. Daonomic's mission is to make the tokenization process as simple as it can be. Tokenization on the platform is free-of-charge and there are no barriers to entry or legal formalities. The platform, powered by blockchain technology, offers a unique digital marketplace which directly connects investors and entrepreneurs, producers and consumers, and lenders and borrowers of any size, from any country, and any business area.

The platform supports multiple blockchains, e.g. Ethereum, NEM, Waves, Bitshares, etc. As soon as new blockchains go live and become sizable, they will be added to the platform as well. This versatility will help to attract and retain more businesses and individuals.

The Daonomic platform will provide a variety of pre-engineered tokenization mechanisms so token issuers can pick one suitable for their business needs. However, the platform will promote interactive tokenization methods similar to interactive tokenization proposed by Vitalik Buterin team in December 2017. The interactivity algorithm will make it possible for token buyers to make customized bids during the tokenization process by specifying how many tokens they intend to buy and for what price. In this manner, there will be competition for tokens in the open market environment. This will automatically ensure appropriate equilibrium between the price of the token and demand for it, reflecting the economic law of demand. These market valuation mechanisms will solve an important problem of liquidity for newly generated tokens. Wide adoption of interactive tokenization methods will increase token deal quality and the overall credibility of the Daonomic platform.

One of the key goals of the Daonomic platform is to ensure simplicity and high quality of tokenization. To achieve this, the Daonomic community will be empowered to evaluate the quality of deals and investment project performance. Based on this evaluation, token issuer will receive rating points. Upon delivery of token issuer's commitments, their rating will go up. If, however, they do not deliver, their rating will be reduced. Therefore, all participants will be motivated to deliver in order to keep their reputation at the highest possible level. The reputation of a good token issuer will make it possible to issue more economically advantageous tokens, as the risks for the token buyers will be much lower.

The ultimate mission of Daonomic's project is tokenization of the world economy and building a new method of trade that utilizes cryptocurrencies rather than traditional fiat money. As soon as Daonomic's ecosystem develops and accommodates a variety tokens, it will be possible for the participants to exchange tokens directly using an in-platform token exchange service. The smart rating system of Daonomic platform will ensure fair trade by confirming the reliability of all token issuers and buyers.

Tokenomics will become a new economic reality. The goods and services represented

by tokens will become liquid, secure, and easily tradable assets. All the intermediaries between sellers and buyers will be removed which will reduce transactional costs to the lowest possible level and ensure fair borderless trading. The world economy will get a new growth driver and every person on the planet will have a chance to benefit from it.

4 Supported token types

Token issuers will use the Daonomic platform to generate tokens which will be openly sold to investors around the world. The platform will support all common types of tokens:

- Utility tokens or uTokens are tokens providing access to certain functionality of a company software. They are also called user tokens or app coins. uTokens value depends on demand for this software functionality. Currently, it is the most popular type of token. For example, Filecoin raised $257M by selling uTokens that will provide users with access to its decentralized cloud storage platform.

- Securities tokens or sTokens are tokens backed by a real product, service, or any tradable asset a token issuer is going to produce. sToken value depends on demand for that product or service. In the United States, these tokens' sales and investments are subject to SEC securities regulations.

- Equity tokens or eTokens are tokens representing company shares and may guarantee a certain share of company profits. eToken based ICOs must also comply with local regulations.

Despite regulations, many experts [13] forecast tokenization will eventually turn towards issuing sTokens and eTokens. Indeed, it would be a natural development of the tokenization market because the real economy sector needs simplification and a strong efficiency booster. As soon as legislation stabilizes, tokenization will start penetrating the real economy and corporate sector. Tokens and smart contracts will start replacing company shares, conventional contracts, options, etc.

The function of the Daonomic platform is providing a comprehensive set of tools to start a successful and legitimate business tokenization process. However, as legislation around tokenization or ICOs rapidly evolves in many countries, it is the token issuer's responsibility to ensure they follow appropriate legal practices. The platform will cooperate with legal advisers around the world to issue and update legal guidance by country to help token issuers evaluate legal risks at the tokenization planning phase.

5 Fulfillment of token issuer obligations

As it was mentioned in the previous section, security tokens (sTokens) will likely be taking over utility tokens in the mid-term giving more opportunities to the real economy sector to enter the blockchain space. Blockchain provides all the functionality to set up a decentralized marketplace where every market participant can enjoy transparency and low transaction costs.

sToken representing future delivery of a product or service is a Smart Contract with a request function. Token holders can call the request function if they want execute the Smart Contract and receive product or service backed by that token. In this manner Smart Contracts will replace a conventional contracts.

The request function can have a number of restrictions, e.g. postponement of the contract execution or limited number of executions per time period (e.g. month or year). This functionality helps token issuers to match production capacity and schedule with the product or service delivery dates. Token issuers will be able to pose a requirement to specify contact information while token holders are making execution request, e.g. phone number or email to provide proper product or service delivery. There is a method in the Smart Contract, which shows the sequence and dates of the execution requests. Thus, all the participants can see in what order the execution takes place.

After the request function is called, the record of the request to fulfill obligations is saved on the blockchain under the unique ID. Then the requested quantity of the sTokens is put on hold until the token holder confirms Smart Contract execution. When the token issuer fulfills his obligations defined by the token, he calls the fulfill method by signing the request of a certain ID with his private key. The fulfill method can have "success" or "failure" status.

To confirm fulfillment of the obligations the token holder who sent the request for execution must also call fulfill method and sign it with his private key. After bilateral signing all the obligations are considered to be fulfilled. Tokens are burned and success status of the request is saved on the blockchain. Based on this blockchain data the token issuer receives rating points confirming his credibility and boosting liquidity of his token. Such unbiased rating system gives all the token issuers an opportunity to compete with each other on the open and fair market without any central regulation.

6 Security

Smart contracts on the selected blockchain will facilitate all operations of cryptocurrencies on the platform. The platform itself will not hold crypto coins received from token buyers. Instead, they will go directly to the token issuer's wallet. Therefore, token sellers will be responsible for the storage and proper usage of crypto funds. All the transactions will be signed by the private keys owned by the platform users. Daonomic platform will

provide a guide on crypto asset management for every platform user to reduce the risk of fraud or misuse of crypto coins.

7 Daonomic token (DNC)

Daonomic tokens (DNC) will be issued on the Ethereum platform in accordance with the ERC-20 token standard. They will be distributed among contributors and other Daonomic ecosystem members during the Daonomic platform ICO to be conducted in the first half of 2018.

Daonomic token (DNC) is a utility token providing access to certain features of the platform.

1. E1. Every tokenization process on Daonomic's platform will be conducted using the unique Appraisal-based tokenization method. The token selling process will be regulated by the platform and will be conducted in the following way:

   (a) Conventional token sale. 90% of the issued tokens will have permission to be sold for any cryptocurrency.

   (b) Appraisal-based token sale. 10% of the issued tokens will have permission to be sold only for DNC tokens with the use of interactive tokenization method. Appraisal-based tokenization method is the core feature of the platform, which fulfills several important functions:

      - DNC token holders will have preferential access to every crowdsale process, as a fixed part (10%) of every tokenization process will accept only DNC tokens as a payment

      - Even if the conventional crowdsale is sold out quickly, e.g. in one hour, 10% of tokens will be still available for purchase for a minimum of 2 weeks in the interactive mode. Thus, every token sale process will go through an appraisal process by the community of DNC token holders.

      - Appraisal-based token sales will ensure the transparency of the token sale process. DNC token holders will define a fair token price by placing their bids for the new tokens.

         – If the token valuation in DNC exceeds the original token price proposed by the token issuer at the conventional token sale, all the participants of the conventional token sale will immediately receive a "buy" signal.

         – In case the token price in DNC is lower than the original token price, it is a signal that something is wrong with the token issuer's assumptions regarding his token price or business idea. This provides a form

of feedback from the Daonomic community aimed at increasing the quality of crowdsales conducted on the platform. It is up to the token issuer to decide how best to react to the feedback. The best practices are generally constant interaction with the conventional token sale and appraisal-based token sale participants and considering any critical comments and suggestions.

2. DNC tokens will also be used as a payment for Daonomic platform services:

- Token sale promotion services

- Tokenization process audit & scoring

- Customization of the tokenization process

- Advisory services: legal, technical, marketing, etc.

8 Open Source and Decentralization

Ensuring security and sustainability of the platform is one of the key priorities of the Daonomic team. Considering the rapid growth of the platform in the next three years, enormous amounts of data will be generated by the platform, including user account data, data on issued tokens, user rating data, etc.

Centralized storage of this sensitive information, e.g. cloud-based databases, would pose significant risks for token issuers and buyers. In the case of an unexpected shutdown or hacking attack, data could be potentially lost or damaged, interrupting platform operations. As the real economy sector is one of the platform's key domains, data losses would potentially disrupt the supply of critical goods and services undermining business operations and even economic or social stability in some regions.

For this reason, Daonomics platform will store all the sensitive data in a decentralized manner using blockchain technology. Critical data will be distributed across the network of nodes. Any attack or outage at a single point will not have a devastating effect because other nodes in other locations will continue to function. The distributed nature of these nodes also offers the advantage of making decentralized storage highly scalable.

Any user will be able to run a lightweight platform client on his/her own personal computer to access all the critical functionality of the platform. The platform will be available to anyone at any time and at any place on the planet, and nobody will be capable of disrupting its operations.

The Daonomic team recognizes the need for better transparency and closer cooperation with the blockchain community. We will open all source codes to the world as soon as the Daonomic ICO is successfully completed. Anybody will be able to access and use Daonomic software in a standalone mode outside the platform, enjoying the possibility of

using and building reliable and customizable desktop applications. We would also appreciate any comments and suggestions from the community of blockchain developers which help us to continuously improve the Danonomic ecosystem for all participants.

9   Conclusion

The Daonomic platform, based on blockchain technology, will significantly accelerate tokenization of the world economy by revolutionizing the business tokenization process. Tokenization will become cheap, simple, and transparent. Unique appraisal-based tokenization mechanism and balanced rating systems will ensure a high quality of trading operations and a transparent fundraising process.

Direct token exchange will revolutionize world trade as the involvement of fiat money and cryptocurrency will no longer be required. It will minimize transaction costs and make the fundraising process quicker and cheaper. We welcome everyone to join the Daonomic community, to challenge convention, and start a new golden age of economic growth and development for human society.

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