

White Paper

Versão 0.0.1

Bizanc Blockchain



1.0 Summary

Bizanc is a decentralized platform for commercialization of digital assets, operating on a Blockchain architecture, allowing trading of cryptocurrencies such as Bitcoin, Ether and Tokens of the Ethereum network, as well as the issuance of Tokens within the Bizanc network itself. The platform aims to enable, in addition to a market of strictly digital assets, the tokenization and negotiation of conventional tangible and financial assets, such as: bonds, commodities, derivatives, reward and loyalty program points, and other fiduciary currencies. The decentralized structure of the Bizanc network confers a highly resilient, superior environment in availability and security by eliminating single points of failure, and reducing transaction costs compared to conventional solutions. Bizanc aims to provide greater liquidity to cryptocurrencies and accelerate the adoption of decentralized solutions by the market.



2.0 Contextualization

With the advent of Bitcoin in the last decade and the explosion of the cryptocurrencies derivative market in recent years, distributed systems technologies take space in the most diverse economic spheres, with the market demonstrating a strong interest in Blockchain, Distributed Ledgers and Smart Contracts technologies. Cryptocurrencies are beginning to emerge as a possible alternative to the traditional financial system, monetary policies and dirigism by central banks; allowing the transfer of significant amounts of financial values with security and agility, regardless of jurisdiction, free from the ties of traditional banking systems, forming a truly global market. Traditional institutions are studying ways to adopt technology.

However, one of the main difficulties faced by cryptocurrencies are the entry barriers to operate in this market. Despite the immense value attributed to the security and resilience of networks such as Bitcoin and Ethereum, contradictorily almost all of the trading of its assets still depends on centralized services, subject to all the flaws and problems that crypto-coins were created to solve.

From the conception of Bitcoin until the year 2018, there are more than 30 cases of hacked Crypto Exchanges, totaling more than a billion dollars in total losses, without considering the negative impact of this incidents on the public perception and the demand for cryptocurrencies.



3.0 Bizanc Network

In the face of these challenges, the idea of Bizanc, an open decentralized platform, using Blockchain's own protocol with a specific focus on value negotiation, was born, with the aim of facilitating and accelerating the adoption of cryptocurrencies. Bizanc mediates the interoperability between distinct Blockchains, and allows peers to pass market orders to a network composed of autonomous nodes responsible for ordering and executing in Bizanc's public Blockchain, guaranteeing high audibility and transparency to the operation of the network.

The Bizanc platform also features native token functionality, allowing users to easily merge digital assets with pre-established emission rules without the work of developing a proprietary Blockchain solution and leveraging the security and robustness of the Bizanc ecosystem.

3.1 Functionalities

The Bizanc platform has four basic functionalities: value transfer, exchange, Token generation and atomic swap.

Value transfer is the basic functionality of all cryptocurrencies, allowing users to move units of value between accounts. In Bizanc users can transfer any asset present in their wallets, such as the native currency BIZ, Bitcoin, Ether and Ethereum Tokens, or native Tokens generated in the Bizanc network.

In the Exchange environment, it is possible for the user to perform market operations, buy and sell orders, and order cancellations.



Token generation transactions allow users to establish a unique ticker name and symbol on the network, total stock of Tokens, and public keys that are allowed to manage the Token.

The atomic swap structure enables you to establish an account with a pre-allocated amount of an asset, and other users can deposit assets into this account and convert them to a pre-determined rate. This functionality exists to facilitate the distribution of assets and the organization of ICOs (Initial Coin Offering).

All operations are transmitted by the users to the network of nodes, which propagates the operation until its eventual mining. A fee is charged on the operation, and brokerage on executed market orders.

The Bizanc platform has its native currency, BIZ. BIZ serve as an award to miners who succeed in mining a block, and as a basis in asset pricing and intermediation between market operations. Intermediating between BIZ and currency pairs in the Exchange environment enables the functionality of pathfinding. Pathfinding allows orders to be matched indirectly, in separate order books. For example, supposing Alice wants to buy ETH by paying on BTC and Bob wants to sell OMG and buy BTC, by the time Carol sends an order to buy OMG by paying in ETH, the platform is able to automatically marry Carol's order with Bob, and of Bob with Alice. This operation takes place atomically; or it runs at all ends, or does not occur, freeing participants from the counterparty risk.

A: BTC > ETH

B: OMG > BTC

C: ETH > OMG



With these functionalities, Bizanc aims to provide superior usability and significantly enhance the liquidity of the cryptocurrencies market.

Following the Bitcoin model - the first and most well-established crypto-model - the Bizanc network adopts a proof-of-work (PoW) consensus algorithm. In a PoW scheme, mining nodes must generate a cryptographic proof of computational capacity spent through a hashing algorithm to generate a valid transaction block that can be transmitted and assimilated by the rest of the network. In the Bizanc network, mining nodes are rewarded with an amount in native BIZ currency for each mined block.

3.1.1 Decentralized Exchange

Bizanc expands on Blockchains standard functionality to allow, in addition to value transferring, to also enable a Decentralized Exchange (DEX) structure. Users can send bid or ask orders, choosing the asset, quantity and price to be negotiated, which will be propagated to all nodes of the network. Open orders are stored in a temporary chain state, that changes after each order is mined, and is replicated on all nodes, until they are totally or partially matched to other orders. At the time the order matches, and once the block is confirmed the funds are properly credited.

This arrangement allows the Exchange operation to be open and transparent. Membership is free, any user can devote computing power to the mining function and ensure the integrity of the network. All transactions - whether transferring securities, trading, or deposits and withdrawals of assets - are permanently registered and accessible at Blockchain. It is also possible to verify the total volume of assets within the network, even those stored in account and not actively traded. The matching of orders occurs in a distributed way, by all the mining nodes. These characteristics make frauds and bad practices possible in centralized services become unfeasible, such as falsification of trading volume or selective match of orders.



3.1.2 Emission of tokens

Token and atomic swap functionality is intended to provide a complete solution to asset Tokenization and an effective digital asset distribution system.

A Token generation request is sent to the network, specifying parameters such as Token name and ticker symbol, supply and other public keys allowed to manage the Token. Nodes confirm that the name and ticker are unique, not conflicting with existing Tokens, and the request is mined and Tokens are generated. A specific fee is charged to avoid network spam or malicious Token generation. Each Token is identified by a unique hash.

3.1.3 Atomic Swap

Bizanc also enables the establishment of Atomic Swap orders. An operation is sent to the network determining the asset to be sold and which assets are to be accepted as form of payment, total amount and price. Other users may then transfer the predetermined assets so that they are converted to the target asset automatically (once the transaction is confirmed in one block) and atomically, without counterparty risk.



4.0 Conclusion

With such functionalities, Bizanc intends to accelerate the adoption of cryptocurrencies and interconnect the real economy with the virtual, overcoming the current entrance barriers and generating an ecosystem with minimal friction. Stable currency-backed securities and other fiduciary currencies may serve to facilitate the adoption of cryptocurrencies by the traditional market. Small businesses and retailers, for example, can take advantage of the security, agility, and reduced transaction fees offered by Blockchain solutions, and still hedge against the volatility of cryptocurrencies by automatically converting their values into some stable coin. Industries can organize open and decentralized exchange systems, representing exchange credits in tokens. Communities can create currencies specific to their local economies. The goal is to enable organizations that are not possible before, with less dependence on intermediaries, more transparency, enabling a truly global and barrier-free market.

This paper introduces the proposal of a Decentralized Exchange, describes its functionalities and possible advantages compared to available centralized services. It is proposed a platform in Blockchain that allows, in addition to exchange of values, asset trading and generation of Tokens natively. It also outlines platform applications and attracts them to its adoption.