

The Future of Mobile  
Payment Technology

W h i t e p a p e r

[www.bytus.io](http://www.bytus.io)

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# ABSTRACT

Making cryptocurrency the main medium of exchange is what the Bytus project is all about. Bytus is a private blockchain network which will facilitate buying and selling through cryptocurrency. The project consists of four main products that include the bytus token, Bytus Wallet, Bytus Private Blockchain and Bytus Cryptobank

The bytus wallet, the bytus private blockchain and the bytus crypto bank.

The private blockchain is based on the Graphene chain protocol which has been chosen for the excellent throughput that it offers. The whole system is designed such that it is virtually unhackable.

The Bytus wallet is a mobile app based platform that will bring together sellers and buyers to exchange goods and services through cryptocurrency. There are more than a thousand retailers currently in the Bytus network, and the number is steadily growing making transactions in crypto an undeniable reality.

The Bytus token is the fuel of the entire blockchain network. The higher the number of tokens you have the more bandwidth you will have to carry out transactions.

The crypto bank is the most innovative product of the entire project. The mobile based bank will allow the conversion of crypto into fiat with ease that has not been witnessed before. There is practically no transaction cost and the conversion takes place in a matter of minutes. The bank will essentially act as an exchange and facilitate the most important selling point of the Bytus project.



# 1 THE PROBLEM OF PAYMENTS IN CRYPTOCURRENCY

## Why did crypto fail to establish itself as a medium of exchange?

The lack of a supportive ecosystem that allows for buying and selling through cryptocurrency has been the reason why people have lost trust in crypto, and the market came crashing down in 2018. This problem has now been answered with a state-of-the-art solution.

## High and Unpredictable Commissions

The existing platforms that allow for buying and selling through cryptocurrency do not follow any set standards. Instead, the commissions are unpredictable and result in very high commissions making the transaction unprofitable altogether.



## Low Security

Digital wallets have flooded online marketplaces without addressing platform-specific vulnerabilities. The use of libraries further complicates the troubleshooting process on each platform.



## Transaction completion time is exhausting

On average, a transaction through existing wallets can take up to 30 minutes. Existing online banking on the other hand, takes less than a minute. Buyers and sellers who are used to quick transactions do not want to take into account other benefits that crypto might possess, as 30 minutes is too long for any sort of transaction.





## Lack of Acceptance and Usability

Not many sellers accept payments in crypto. Those who can, tend to avoid it because they are not fully familiar with Blockchain technology. It is important to have a well-implemented blockchain application.



## What is holding crypto back?

It is common for new currencies to become part of digital wallets, but implementing them is a long and arduous process.

When you involve cryptocurrencies into transactions, there are multiple entry points. A universal ledger that is decentralized means less revenue for banks. With no support from the existing banking system, the chances of converting crypto into fiat with ease is not likely. The costs of conversion will remain very high causing people to forgo all the benefits of cryptocurrency.

There are no platforms that readily allow for buying and selling goods and services through crypto currency.





## 2 THE IMPOSSIBILITY OF INSTANT CONVERSION

### Crypto to Crypto Conversion

The existing platforms do allow for conversion from crypto to crypto. But this feature is still slow and can be expensive in terms of commissions or cost of transactions. Practically all exchanges offer this facility only, with no options for conversion to fiat.



### Crypto to Fiat Conversion

There are no standardized platforms that are offering any sort of conversions of crypto into fiat. Those that do offer are full of frauds. People have lost more money in converting crypto into fiat than they made. A reliable platform that fulfills this huge gap in the crypto market is the need of the hour. Cometh the hour cometh BYTUS.

The Bytus ecosystem seeks to work in this niche where conversion of crypto into fiat will become a reality. No need to wait hours for a transaction to complete or running the risk of losing your money. Bytus offers the most cost-effective and technologically advanced solution in the market today.





## 3 GOALS AND TASKS

### Goals

- ..... Crypto is the future, Bytus will just help make the future arrive faster.
- ..... The goal of Global Digital Payment's Bytus platform is bring back people's trust into cryptocurrency by proving its usability on a global level.
- ..... Bytus has built a network of retailers who will accept payment in cryptocurrencies making quick and safe transactions with crypto a reality.
- ..... The platform will offer instant conversion of crypto to simplify the payment process.
- ..... To minimize the usage of cards and currency for buying and selling and make the Bytus mobile service the medium of transaction.

### Tasks

- ..... Implement a private blockchain network to facilitate exchange of goods and services through crypto
- ..... Implement a secure application for clients to store their private keys without the possibility of outside intrusion
- ..... Establish the first ever cryptobank – which will act as a standardized currency exchange
- ..... Creation of the Bytus token which will act as the fuel of the whole Bytus Private Blockchain Network





## 4 COMPANY MISSION

The Bytus project's mission is to make the conversion of cryptocurrency into fiat easier and standardized without assuming any safety risks and incurring any unnecessary transaction costs.

### Why has Bytus set out on this mission?

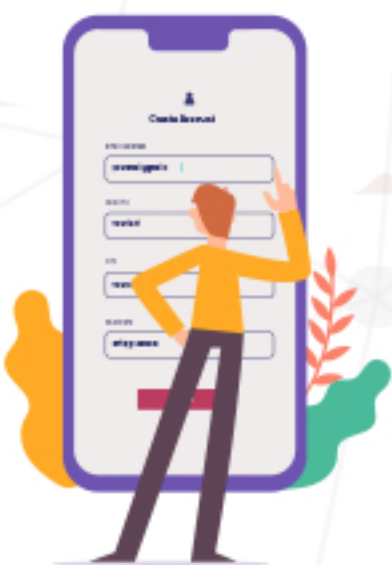
The fact that there still is no platform in the market that can change crypto into fiat without the use of external services has been a major hurdle in the growth of cryptocurrency as a medium of exchange. This gap has been identified by Bytus, and we seek to fill this gap through a comprehensive private blockchain network.

In this network or ecosystem, the owner of the Bytus Wallet will be able to pay through the internet using a QR code and instantly convert crypto into fiat.





## Types of Users in the Blockchain



### User Registrar

This is the user who first registers new accounts. Once a user gets into the system, registers and passes the KYC process, they will be given their public key and account name.



### Super User

Once proper KYC procedures have been carried out, the super user creates an account using the aforementioned public key and account name.

When a user logs in, the registrar user starts assigning tokens to accounts and freezes them by 1 bytus token to the receiving channel and the second channel.



### Average User

This is the user registered by the super user.

#### Name

The name of the account of the user specified during registration

#### A Private Key

Is randomly generated and unlocks access using to the user's asset. The owner's transaction is verified public key that is bound to the user's account

#### Public Key

The private key is generated in the application and issued to the user

#### User Transactions

These are directly associated with the user account and can be both incoming and outgoing

#### Outgoing Transactions

These are directly created by the user and confirmed with a private key signature that was signed for the transaction.

#### Incoming (paid by the recipient)

The user acts as a recipient authorizing their 'receiving channel' to confirm the transaction.

#### Incoming (paid by the sender)

The user acts as a recipient. There is no need to authorize the transaction because the sender's channel is used.





NAME

First name



Public key



Transactions that are stored in the blockchain

## Example

Your friend has \$2 in his bytus account and he wants to buy a hamburger. Your friend does not have any tokens to send or receive. The store on the other hand has \$0 in their wallet but have 500 bytus token for receipt. When your friend buys the burger, he will simply have to bring his phone to the seller's wallet, the amount will enter the seller's wallet and a transaction will be created and signed. Your friend's money in the account will sent to the seller's wallet using the seller's blocked tokens. The seller will automatically sign this transaction and send it to the network, and the network will take merely 2 seconds to confirm the money deposit into the seller's account.





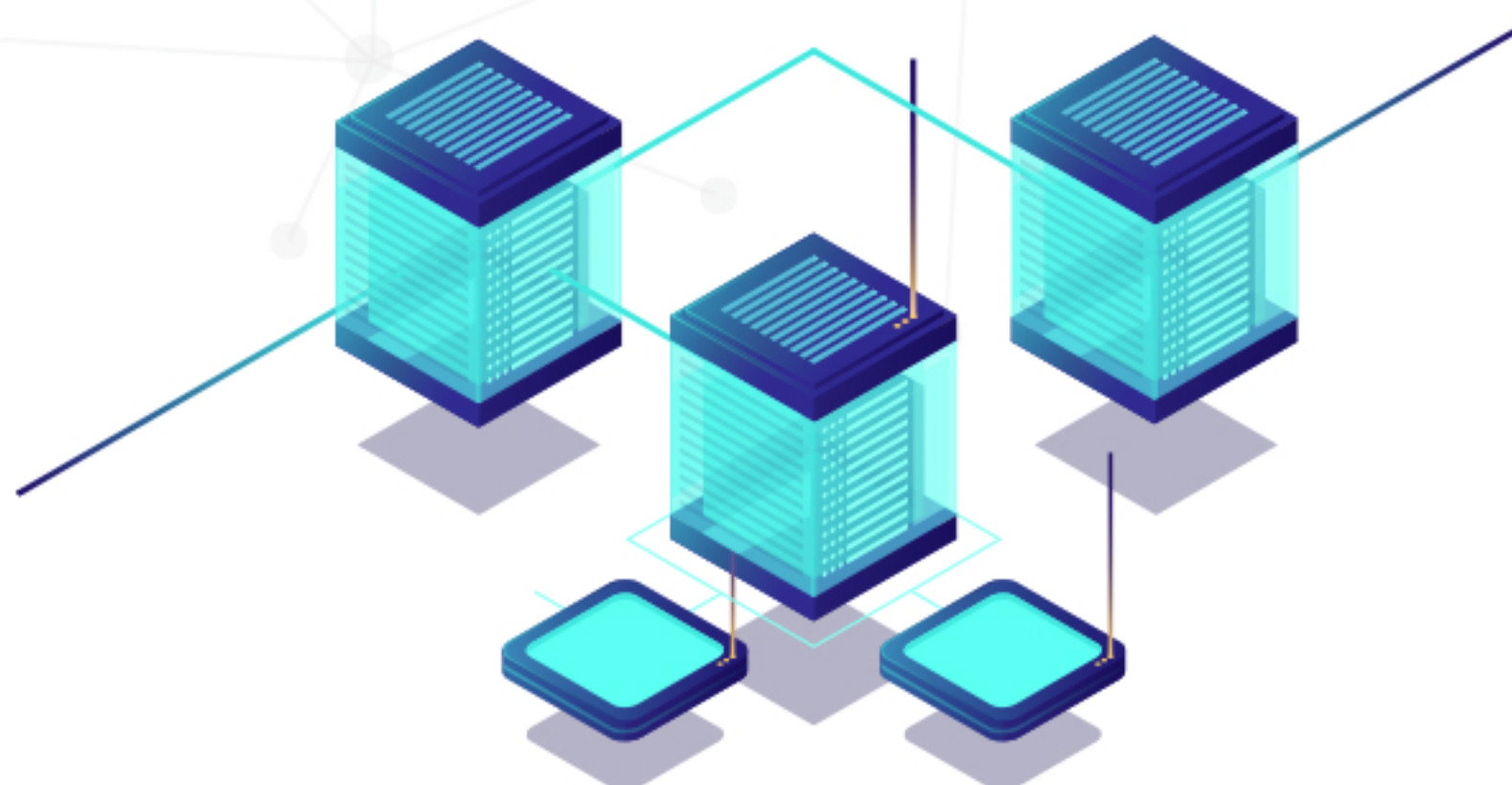
## The validator user

This user validates new tokens to the network based on information coming from the Oracle.



## Oracle

This program allows users to provide data to the locker from outside chains (such as bitcoin blockchain, receipt of money from banks, and the Ethereum blockchain).



## Exchange Users

These are programs that publish their source code and serve as banks. They store some of the funds while helping users exchange one token using their algorithms.





## Example

The exchangers regularly update their database to stay on top of exchange rates to facilitate exchange and allow users to enter a number of different tokens on its accounts that will be used for exchange. The users send a transaction to the exchanger address through the “receiving channel” of the exchanger. This indicates which other tokens are wanted for exchange. The exchanger seeing the transaction signs with his private key confirming he accepts or rejects the transaction.



If the exchanger has accepted the transaction for exchange, then he uses his algorithms to calculate how many tokens he should send. The sending channel is used to immediately send the necessary tokens to the user.

The exchanger could refuse to accept the transaction for several reasons. In this case, the user's money is returned into their account without making any changes to the blockchain account. To exchange dollars for cue balls, the seller sends a transaction to the public exchanger with the tokens of dollars, indicating that they want to get a cue in return. This transaction will be made at the expense of the exchanger once it is signed. The sign confirms and sends the transaction to the account of the user.

User

Blockchain

Validator

inputs/outputs

Bitcoin

inputs/outputs

Other crypto  
inputs/outputs

Fiat inputs/outputs





## 6 PRIVATE BLOCKCHAIN

- ..... The Bytus Blockchain is a database, organized in blocks. The brilliant thing about it is that these blocks are written in a decentralized way, without anyone having to trust anyone else. It is the first database that is 100% decentralized, where thousands of nodes of a network can write without having a central node to organize them.
- ..... The blockchain has a centralized method of confirming the transactions. A transaction can only be initiated by the owner of the private key assigned to each user making it impossible for anyone else to spend the asset tokens except for the owner.

### The Graphene Chain Protocol

- ..... The Bytus Private Blockchain is based on the Graphene chain protocol. Graphene uses delegated proof-of-stake consensus protocol, which is more efficient in terms of speed than Ethereum proof-of-work. In Graphene, it is free of charge to track any blockchain or any asset, because the Graphene blockchain has a slightly different business logic. The idea behind it is the following: when you put some proof of an existent asset or cryptocurrency (Bitcoin, Ether, etc.) into the wallet, you immediately receive smart coins that equal the amount of Bytus tokens. Graphene can additionally track time stamps available on other blockchains, which means that the atomic-swap arrangement doesn't require a lot of additional actions.
- ..... The private blockchain has attracted more than 15000 retailers from around the globe which has opened up the possibilities for a Bytus-based economy. The retailers on the Bytus network can accept payments through the Bytus wallet which will make it easier and safer for both parties involved in the exchange.
- ..... A user will be assigned the responsibility for assessing the correctness and transparency of data in the blockchain. These users will be launched on the basis of Bytus servers. Public nodes will be available that can be raised by anyone to check the work of miners. These nodes will play a central role in informing the community about violations in the network.

### What is the Bytus project and why should you choose it?

The Bytus project will replace the usage of Visa and MasterCard totally through its mobile wallet. The purpose of the project is to simply facilitate transactions in crypto and the ease of conversion of crypto into fiat.



## 7 AN ECONOMY OF THE BYTUS TOKEN

All the transactions in the Bytus project will be dependent on the Bytus token. You can get the tokens through the junction of different types of currencies you have in your wallet. The tokens will represent your ability to make transaction and determine the width of the channel. The wider the channel the more transactions you can make.

### Example

1 bytus token is equal to one transaction per network per day. The user bought 50 bytus and now he can make 50 transactions every day. Once he sold 20 bytus tokens, his channel is narrowed down to 30 transactions per day. The time through which the channel will be tapered in the network configuration.

### How do the Bytus tokens interact with the Blockchain?

The Bytus tokens, as discussed, are the fuel of the Bytus blockchain network. All transactions in the blockchain will be made through the Bytus token. There are two main options for resources in the blockchain

- Sending channel
- Receiving Channel

### Sending Channel

When a transaction is created from the sender's user it passes through the sending channel. The network will show you an intimation when the transaction will use a sending channel. Once allowed, the transaction will enter the private blockchain network's mempool and from there it enters the validator through to the block without delay.

### Receiving Channel

When you receive a transaction in the channel you are notified about it. The amount is then debited from the sender's account and remains frozen until the transaction is completed and verified. Once the transaction appears in the mempool, the recipient sees it and can accept it by signing with the private key to accept this money.

You need to make sure that your bandwidth does not exceed while receiving, else, you will fail to complete the transaction. In this case, you as the user will need to buy more token to increase your bandwidth.

### Safe and Secure

It is necessary to set the number of transactions that can be stored in the mempool, in principle, for each user the number exceeds its bandwidth by 10 times. The mempool is fully secured as any attacks that are attempted won't work because the tokens are frozen during transactions. It's simple, a user is not allowed to draw more than they have, and when all of their tokens are frozen there is no chance of cyber attacks.



All the transactions in the Bytus project will be dependent on the Bytus token. You can get the tokens through the junction of different types of currencies you have in your wallet. The tokens will represent your ability to make transaction and determine the width of the channel. The wider the channel the more transactions you can make.

- ..... Once the user installs the mobile app, they will need to enter the KYC for the first time. Name (the KYC procedure, the user specifies on the bytus network, generates a seed phrase, and generates a private public key from the seed phrase). This code allows you access to the open Bytus wallet.
- ..... If a user wants to receive or send money, they will run a command through the wallet to generate a QR code at the specific parson's address. The user transfers money and waits for the transaction to enter the block in the original chain network. The validator then issues tokens that are calculated inside the bytus ecosystem.
- ..... When at the checkout, all the buyer needs to do is to show his phone with the amount to be paid and the currency in which he intends to complete the transaction. The seller if accepts, will send it for further approval back to the buyer where the buyer will confirm the transaction by scanning the QR code and doing a finger print recognition.
- ..... Buying and selling with cryptocurrency has never been this easy, but Bytus is here to fill all the gaps that have held crypto back in establishing itself as the most safe and secure medium of exchange!





**JUNE 18, 2018****The people behind a crypto revolution**

Global Digital Payment announces its Bytus project team which will be lead by Altug Tatlisu and Serdar Nurdogan while other key players will include [names of people].

**NOVEMBER 15, 2018****Preparations for Bytus token ICO near completion**

The Bytus token is almost complete and we are very near to an ICO that is going to bring peace to the financial turmoil in the world.

**MARCH 1, 2019****Bytus begins development of the mobile wallet**

The Bytus mobile wallet through which users will be able to make transactions goes into first stage of its development. It will be officially made available to the people in 5 months.

**MAY 1, 2019****Global Digital Payment starts its cryptobank development**

Global Digital Payment's Bytus project has set the foundations for its cryptobank. The cryptobank will facilitate the acceptance of Bytus token as a mode of payment and the conversion of crypto into fiat.

**JULY 1, 2019****Bytus launches its private blockchain network**

After months of waiting Bytus has launched the alpha version of its private blockchain network. Their aim of revolutionizing the world of payments in crypto has become even more clear.

**AUGUST 20, 2018****Bytus publishes first white paper**

The first concrete information regarding the architecture and other product details published by Global Digital Payment has gone online and a lot of speculation has been put to an end.

**DECEMBER 1, 2018****Bytus starts development of its blockchain network**

The blueprint of the Bytus private blockchain is ready and the development of the network is well underway.

**APRIL 1, 2019****Testing on the private blockchain network begins**

The Bytus private blockchain network starts its first beta tests. Developers are trying to figure out loopholes and bugs in the network before they finally launch it.

**MAY 5, 2019****Bytus token's pre-ITO**

The second round of the Bytus token's ITO cycle takes place. The company aimed to sell 10 million tokens and reached its hard cap.

**JULY 15, 2019****Bytus mobile wallet goes live**

The alpha version testing of the Bytus mobile wallet has been successful and is conducted 15 days before its proposed deadline. Looks like Global Digital Payment is already living up to its promises.



**SEPTEMBER 1, 2019****The Bytus token goes up for 3rd round ITO**

The Bytus 3rd round ITO becomes a massive success as the company reaches hard cap after putting on sale 35 million tokens.

**NOVEMBER 1, 2019****Bytus' cryptobank will sell the Bytus token**

The Bytus cryptobank will be selling the Bytus tokens after it goes live. The post ITO sale is expected to increase interest in the Bytus network.

**JANUARY 15, 2020****The Cryptobank is now operational**

Bytus has officially announced that the cryptobank is now operational and running on beta. The bank is expected to facilitate the growth of the network even further.

**OCTOBER 15, 2019****Beta version of the network is now available**

The beta version of the Bytus mobile network went live on the 15th of October and has attracted great attention from investors and users alike.

**NOVEMBER 15, 2019****Bytus mobile applications go beta**

The beta versions of the Bytus mobile applications have been made available to users worldwide. The apps have already attracted a vast number of users and Bytus is on the right track.

**FEBRUARY 20, 2020****Bytus has set its mark on crypto-based transactions**

Bytus has been successful in their objective to facilitate payments in cryptocurrency. People have benefitted from the network and Bytus' continuous improvements have only added to people's increasing trust in the technology.



## 12 ROUNDS OF ITO

**100%  
50 M**

### PRIVATE ITO

From 11/15/2018 to 11/30/2018 amount per round 10% - 5M tokens Price - 48% discount Minimum quantity for purchase- 1,5% from round total

### PRE ITO

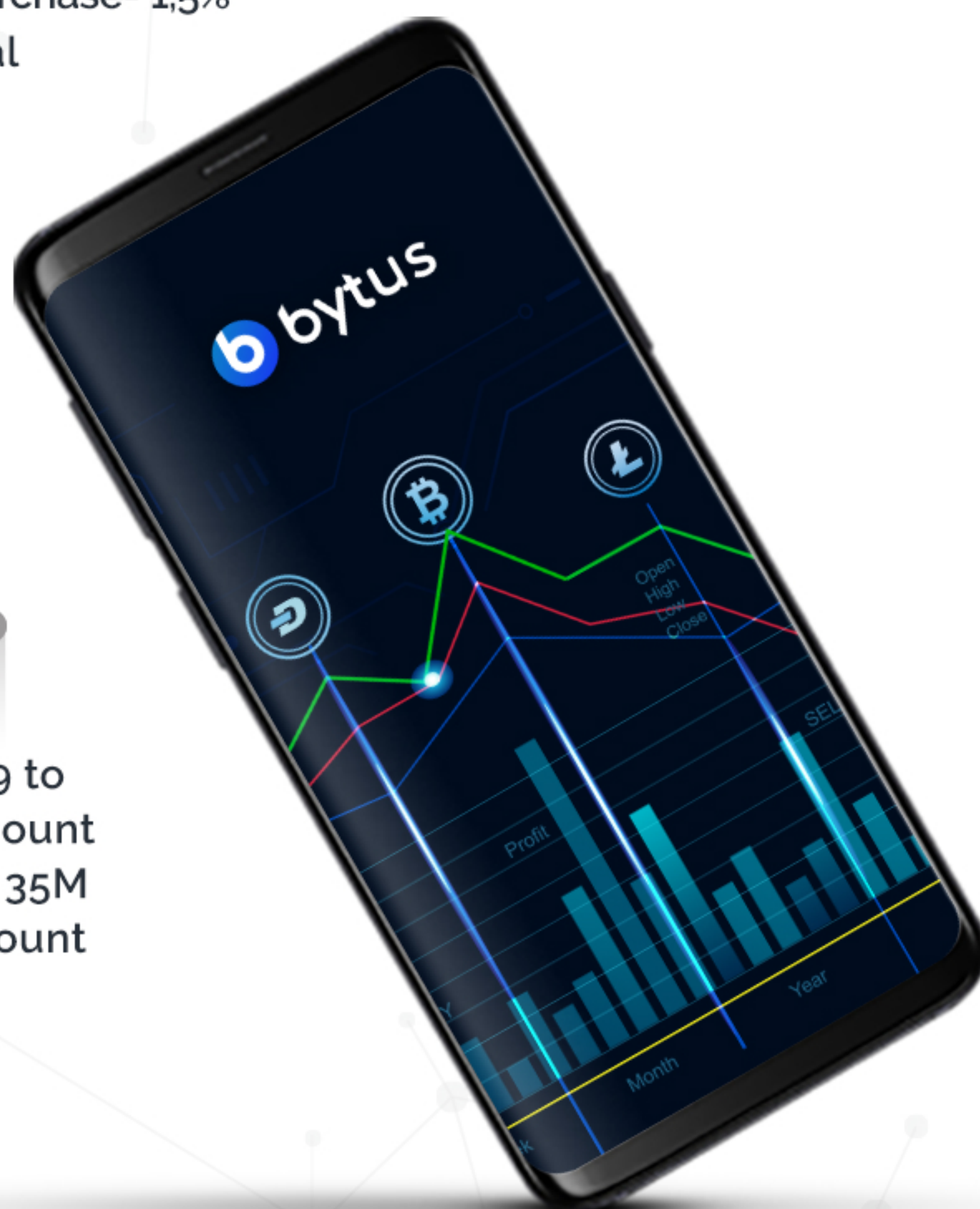
From 5/5/2019 to 6/5/2019 amount per round 20% 10M tokens Price-37% discount

### ITO SALE

From 9/1/2019 to 9/30/2019 amount per round 70% 35M Price-12% discount

### POSTITO

From 10/1/2019 selling via cryptoBank price: \$0,67

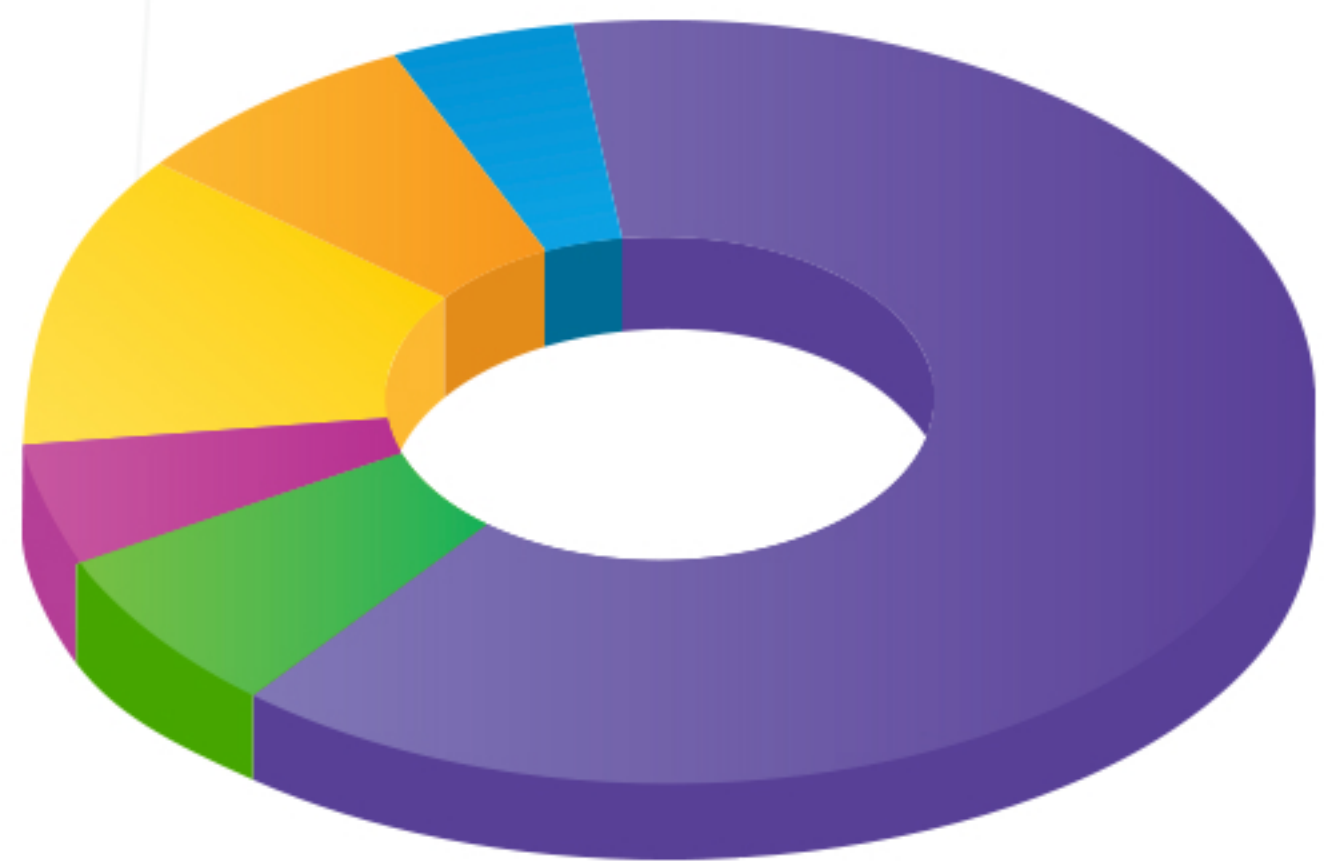


Unspent tokens on previous ITOs will go to POST ITO and will be sold via CryptoBank.



## 13 TOKEN ALLOCATION

- For Sale For Rounds
- Bounty
- Advisor
- Project Team
- CryptoBank, Validator, Registrar
- Ecosystem Creation

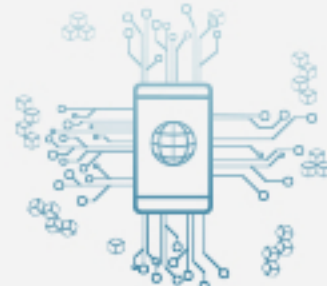




## 14 DISTRIBUTION OF FUNDS AFTER ITO



Development of  
Blockchain 4-5  
people



Mobile apps  
(Android / iOS) - 4  
people



CryptoBank - 2  
people



Marketing  
4-5 people



Guidelines - 2  
people

## DISTRIBUTION OF FUNDS AFTER ITO

Marketing & Branding

48%

Bounty

3%

Legal & Financial

14%

Ecosystem Development

35%





## CORE TEAM MEMBERS



**ALTUG TATLISU**  
BLOCKCHAIN DEVELOPER



**SERDAR NURDOGAN**  
FINANCIAL OPERATIONS



**IGOR MASLY**  
FULL STACK DEVELOPER



**CATHERINE MISHI**  
WEB DEVELOPER



**VIPIN KUMAR**  
BUSINESS ANALYST



**AJAY HADA**  
CRYPTO DEVELOPER



**IMRAN QURESHI**  
DIGITAL MARKETING



**ARICK DUTTA**  
MEDIA CONSULTANT



**ABHISHEK BANERJEE**  
MARKETING DIRECTOR



**AYON BHATTACHARJEE**  
SALES DIRECTOR



**SUROJIT CHATTERJEE**  
PUBLIC RELEASES



**NICOLAS NUPS**  
PROJECT MANAGER

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**BHARAT GANDASS**



**HAMZA KHAN**



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