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# ABSTRACT

MiraLab was conceived as a P2P cryptocurrency exchanger with a simple and straightforward interface. The development of the idea was financed using our resources and investments from crypto enthusiasts. This year, the capitalization of cryptocurrency went up sharply, and the stock market volumes grew after it. The media picked up the topics of blockchain and cryptocurrency. It has become clear that development needs to be accelerated in order to take a foothold in the market.

Meanwhile the idea has been evolving and it has been transformed from a P2P exchanger to the full-fledged Mira software suite. Mira is a simple and reliable way to exchange, transfer and store cryptocurrency. We want to make the process of interacting with cryptocurrencies understandable for any user. Now you can simply send a file to purchase cryptocurrency.

Mira allows you to safely store and transfer cryptocurrency as well as buy it and sell it. Is it possible to compare Mira with wallets and exchanges? Because of the smart contract features the answer is no; but first things first.

# OVERVIEW

## MIRA ENABLES MAKING VIRTUALLY ANY TRANSACTION WITH CRYPTOCURRENCIES EASILY, QUICKLY AND SAFELY.

To ensure the security and high speed of transactions, and to offer the community a universal solution for all cryptocurrencies, we have developed the concept of the Mirabox container. The key feature of the Mira platform is an encrypted file containing cryptocurrency<sup>1</sup> (for example, in the case of bitcoin, a private key). To open MiraBox, you must meet certain conditions as well as know your password. MiraBox is associated with the relevant contract on the MiraNet blockchain, so that the service can control the opening and identify the information.

We are developing three types of MiraBox containers: [NominalBox](#), [MultiBox](#), and [SmartBox](#) – each with different functional features:

- **NOMINALBOX** is a container with one type of cryptocurrency.
- **MULTIBOX** is a container with an arbitrary number of different supported cryptocurrencies.
- **SMARTBOX** is a MultiBox with additional functionality.

The Mira software suite supports MiraBox containers and their transactions and transfer operations. The suite consists of four key elements:

- [MIRALAB.IO](#)
- [MIRAWALLET for PC](#)
- [MIRAWALLET MOBILE](#)
- [MIRANET](#)

We are staging the ICO to finance the development of the Mira software suite. The hard cap of the project is **US\$20 MILLION. 30.77 MILLION MIRA TOKENS** will be issued in total;

**78% OF THE TOKENS WILL BE OFFERED TO THE COMMUNITY DURING THE ICO.**

The [MIRA token](#) is an infrastructure token that will be used to pay MIRA fees for transactions using MultiBox and SmartBox. Between 25% and 35% of the tokens that are accepted as payment will be burnt. Most of the remaining tokens will accumulate on the Mira account and will not be sold on the market. Some Mira services will be paid for in fiat currency; this will allow us to fund the operational costs of the platform. Thus, with the growth of the platform's turnover, the total demand for the MIRA token will always be greater than the sum of the supply.

<sup>1</sup>Technically MiraBox does not contain cryptocurrency, the container only encrypts a public and private key. For a user, however, this means that bitcoin (or other cryptocurrency) is in their wallet.

MIRA token holders can perform the roles of node, smart contract designer and/or arbitrator, and receive additional rewards in MIRA tokens.



## ICO PARTICIPANTS WILL RECEIVE:

- **100 FREE MIRABOXES TO EACH ICO PARTICIPANT** who bought MIRA tokens for a sum exceeding **US\$5,000.**
- **500 FREE MIRABOXES TO EACH ICO PARTICIPANT** who bought MIRA tokens for a sum exceeding **US\$100,000.**
- **20 % DISCOUNT ON THE PURCHASE OF MULTIBOX AND SMARTBOX TO ALL ICO PARTICIPANTS** the discount will be in effect for 12 months after the launch of Mira v 1.0.



## MARKET ISSUES

It's no secret how quickly cryptocurrencies are entering the lives of ordinary people. Bitcoin is discussed in the papers, on TV, and people who are far from the IT market talk about its costs during lunch. However, knowing and being able to use it are not the same, however; and with all the popularity of cryptocurrency and blockchain, even now to pay for something with for example bitcoin, a person needs to deal with a number of technical questions:

- How does it work
- How to get a wallet
- How to buy bitcoin and other cryptocurrency
- How to store: online wallet, offline or exchange
- How to protect money from theft
- How to send it



Even an experienced computer user will need several hours or days to understand the issues. What if there is no desire or time to go into the details? Let's take a look at the most popular means of storing and exchanging cryptocurrencies using the example of bitcoin.

## OFFLINE WALLETS

Advanced users prefer offline wallets. These wallets download a complete copy of a blockchain and act as peer nodes to support the network. The most common option is [Bitcoin Core](#). It provides maximum security, but has a number of drawbacks:

- × **HAS SPECIAL REQUIREMENTS FOR THE TECHNICAL SPECIFICATION OF A PC.**
- × **THE BITCOIN CORE CLIENT OCCUPIES MORE THAN 100GB (WHEN FULLY DOWNLOADED),** so the user will need plenty of free hard drive space.
- × **IT TAKES A VERY LONG TIME TO SYNCHRONIZE A WALLET.**

## ONLINE WALLETS

Some of the disadvantages of offline wallets are solved by online wallets. You just have to install an application, for example, on a smartphone, and then you can access your assets from anywhere. Online wallets typically have a kind of friendly interface, so it's easy to understand their functionality.

Nevertheless, online wallets have one key drawback: they are centralized, which means they are susceptible to hacking, fraudulent operations, government regulation and so on. In fact, cryptocurrency stored in online wallets is not fully owned by the user, and the larger amount in the account, the more acute the problem.

There is another issue that is common to online and offline wallets – the speed of transactions. All wallets transfer cryptocurrency through the blockchain, which means you have to wait for transactions to be confirmed.

## EXCHANGES

The benefits of exchanges are clear - above all, they offer liquidity and a wide range of tools. However, the problem may be that there is no guarantee of repayment to users if the exchange (even with a good reputation) bursts, is exposed to a hacking attack or its owner (often anonymous) leaves with customers' money. As with online wallets, the money on the exchange do not belong to the user.

Cryptocurrencies do not have the status of securities in any country in the world, so it is not possible to return them within the legal framework. Thus, the security of assets cannot be controlled by their owner.

The shortcomings outlined above have led us to believe that the market needs a fundamentally new way of storing and using cryptocurrency that is understandable to any user. So we are working on the Mira software suite.

# SOLUTIONS TO THE ISSUES

Mira facilitates interaction with cryptocurrencies. To ensure the security and high speed of transactions, and to offer the community a universal solution for all cryptocurrencies, we have developed the concept of the Mirabox container. MiraBox is an encrypted file containing cryptocurrency<sup>1</sup>. To open MiraBox, you must meet certain conditions as well as know the password.

## MIRABOX IS SUPPORTED BY THE MIRA SOFTWARE SUITE:

- ✓ **MIRALAB.IO** – online service for MiraBox;
- ✓ **MIRAWALLET for PC** – desktop application for working with MiraBox. MiraWallet has an open source code that will be posted on GitHub, which will allow you to open MiraBox even if [miralab.io](https://miralab.io) is unavailable;
- ✓ **MIRAWALLET MOBILE** – smartphone application for iOS and Android;
- ✓ **MIRANET** – Ethereum-based Mira blockchain.

## UNIQUE ADVANTAGES OF MIRABOX:

### EASE OF USE

It is easy to transfer and store because it is a regular file that can be transferred outside of blockchain.

### SECURITY

You can open the content only by knowing the password and meeting the smart contract conditions that can be added to MiraBox.

### TRANSPARENCY

An open MiraBox can be loaded into MiraLab or MiraWallet and you can find out exactly what is inside. Key data is stored on the MiraNet blockchain. If you do not have a password or if you do not comply with smart contract conditions, you will not be able to access the content.

### ANONYMITY

MiraBox does not contain data about its creator and can be opened anywhere in the world. To buy or sell cryptocurrency packaged in MiraBox, you don't have to create an account or wallet. And if you use a private MiraBox, the content will be completely hidden.

<sup>1</sup> Technically MiraBox does not contain cryptocurrency, the container only encrypts public and private key. For a user, however, this means that bitcoin (or other cryptocurrency) is in their wallet.

## FAULT-TOLERANCE

If the [miralab.io](https://miralab.io) domain is unavailable, you can open MiraBox in the desktop or mobile version of the MiraWallet application. MiraWallet will always be available for download on GitHub.

## OPENNESS

All the software has open source code that will be posted on GitHub.

## CUSTOM SMART CONTRACTS

The possibility of adding MiraBox opening conditions according to a user's unique specifications (for example, not earlier than a specified date or after confirmation from a third party).

## ACCORDING TO THEIR FUNCTIONS WE DISTINGUISH THREE KINDS OF MIRABOX:

- **NOMINALBOX** – MiraBox, which can contain only one kind of cryptocurrency. The NominalBox is the easiest and cheapest way to buy cryptocurrency.
- **MULTIBOX** is MiraBox with arbitrary content. MultiBox can contain one or more kinds of cryptocurrencies. Also in MultiBox, you can add any document up to 25MB.
- **SMARTBOX** is MultiBox with an integrated smart contract. A smart contract is a restriction on opening SmartBox content until predetermined external conditions are met.

! THE BEST WAY TO LEARN ABOUT THE BENEFITS AND HOW YOUR PRODUCT WORKS IS TO UNDERSTAND HOW IT CAN BE USED IN REAL LIFE. LET'S LOOK AT SOME EXAMPLES OF HOW THE MIRA SOFTWARE SUITE IS APPLIED IN REAL LIFE.



## EXAMPLE 1. STASH

Buying cryptocurrency is as simple as placing an order in an online store

# 1

The other day, the auto mechanic John saw the news about bitcoin on the television and became interested. He asked his co-workers, talked to his supervisor on the topic. Everybody has heard about bitcoin before, but nobody knows any details.

From the conversations, he realizes that cryptocurrencies are growing in price (which means it's going to be good for a rainy day or in older age) and that they don't physically exist (and so the wife won't find the stash). **JOHN WOULD LIKE TO INVEST \$500 IN BITCOIN, BUT HE'S NOT READY TO WORK THROUGH ALL THE DETAILS.**

? **OBJECTIVE:** buy bitcoin

✓ **SOLUTION:** NOMINALBOX

John visits the [miralab.io](https://miralab.io) website, enters the dollar amount for which he would like to buy cryptocurrency. 1 bitcoin on the exchanges stands at \$6,000, so for \$500 the service offers John the opportunity to buy NominalBox with 0.083 BTC. John chooses a convenient method of payment, and [miralab.io](https://miralab.io) generates a link to download the NominalBox file and the password.

**THIS FILE CAN BE KEPT ON YOUR COMPUTER, SENT BY MAIL, OR SAVED ON A FLASH CARD.**

If John (or someone else) wants to unpack the file and access its contents, it will suffice to download it to the [miralab.io](https://miralab.io) service (or [MiraWallet](https://mirawallet.io) program) and specify the crypto wallet to which 0.083 BTC will be sent from NominalBox. If John wants to sell bitcoin, he can do it without unpacking NominalBox:

**MIRA GUARANTEES BUYING MIRABOX FOR 99% OF THE MARKET VALUE OF CRYPTOCURRENCY.**

## EXAMPLE 2. BEARDS OF A FEATHER

Bitcoins as bills

# 2

Hank is an advanced man who has a passion for cryptocurrencies, blockchain, iPhones, and all things modern. He wants to be paid only in bitcoin for his services.

James is an old man with conservative views. He prefers notepad to an iPad, old Nokia 3310 to a smartphone, and investing in rail transport to cryptocurrency. However, he needs to pay 1.0 BTC to Hank, who prefers to accept payment only in bitcoin.

? **OBJECTIVE:** buy and transfer bitcoin

✓ **SOLUTION:** NOMINALBOX

Hank knows that the easiest way to buy and send bitcoins is Mira. Hank recommends Mira to James. James visits [miralab.io](https://miralab.io), buys a NominalBox (with a predetermined amount as for John from the previous example) with his credit card; without even downloading the file he specifies the recipient's e-mail, and sends the file.

Hank opens the e-mail on his computer and downloads the file to MiraWallet for PC, checking the value of the NominalBox sent to him. And if Hank is on the road, he can open the file on his smartphone, downloading it to MiraWallet Mobile or [miralab.io](https://miralab.io).

### EXAMPLE 3. GOOD GIFT

A reliable way to save money

# 3

Middle-level manager Eddie wants to save cryptocurrency for his 13-year-old son to be able to buy an apartment in London and a car when he reaches the legal age. However, Eddie doesn't know what cryptocurrency is going to grow in price during this period, and he'd rather diversify his portfolio.

? **OBJECTIVE:** buy BTC, ETH  
(and other cryptocurrencies of choice)

✓ **SOLUTION:** MULTIBOX

Eddie visits [miralab.io](https://miralab.io) and creates a MultiBox that "packages" 2 BTC and 30 ETH.

If he has enough BTC and ETH, he can package it into a SmartBox using the [miralab.io](https://miralab.io) or MiraWallet Mobile functionality. If he doesn't have the right number of bitcoins, he can buy them on [miralab.io](https://miralab.io), as in the previous examples with NominalBox.

After Eddie gives the file and password to his son, he can download it to the service and see the content. His son will also be able to upload the file back to [miralab.io](https://miralab.io) and sell the BTC and ETH in it for 99% of the nominal value or "unpack" them and sell it on a cryptocurrency exchange at the exchange price. The money received, unlike an apartment and a car in London in a few years, can be spent right now on a new gaming computer and a bicycle.

## EXAMPLE 4. GOOD GIFT NO. 2

A reliable way to save money

# 4

Eddie knows his son can do just that, so he also understands the importance of ensuring the integrity of the cryptocurrency portfolio over the next five years.

The objective is supplemented by a condition: Buy BTC, ETH (and other cryptocurrency of choice) and ensure their integrity over the next five years.

### ✓ SOLUTION: SMARTBOX

Eddie visits the [miralab.io](https://miralab.io) and creates a MultiBox that "packages" 2 BTC and 30 ETH. Eddie also specifies the smart contract condition:

#### | CAN BE OPENED AFTER 12.11.2022

After Eddie gives the file to his son, he can download it to the service, see the content and opening date, but he cannot do anything to it before the specified date.

On the designated day, MiraLab will send a notification to the recipient if Telegram or e-mail has been specified.

As you know, the two main enemies of any trader are fear and greed. Nick, the nervous trader, trading altcoins understands this, and if he starts to lose, he loses his head. Anger and irritation provoke failures and unfounded solutions.

? **OBJECTIVE:** limit the risks

✓ **SOLUTION:** SMARTBOX

For Nick, it's most important to stick to the original plan and not to lose more money than he can afford. He sends altcoins to SmartBox with a condition that it can be opened in seven days.

At the same time, he concedes that the course of events may change unexpectedly and that the funds will be needed before the 7 day period ends. Therefore, Nick adds one more condition:

**CAN BE OPENED IN 7 DAYS**

OR

**IF THE RATE FOR BTC (or another cryptocurrency) IS GREATER THAN \$8,000.**

Nick saves the file on the desktop and calmly, with a cold mind starts to trade.

John likes Dagny very much and wants only Dagny to open a container of important information and cryptocurrency which is intended only for her.

? **OBJECTIVE:** protect information and assets from access by third parties

✓ **SOLUTION:** SMARTBOX

John knows Dagny's e-mail and Telegram, and creates a SmartBox with a condition:

**YOU CAN ONLY OPEN IT IF YOU HAVE ACCESS TO DAGNY\_T@GMAIL.COM E-MAIL OR TELEGRAM: @DAGNY\_T**

When Dagny opens the SmartBox, after entering a password, a link to the e-mail or Telegram address will be used to confirm the opening. Without this, the SmartBox cannot be opened.

You can bind a SmartBox to a recipient's phone number, IP address, code phrase, or geolocation.

## EXAMPLE 7. FAIR DEAL Agreement

# 7

Cartman promised Kyle to create a nice website for 1.0 BTC. Kyle doesn't want to risk the money and pay ahead. Cartman has already been cheated on by customers; he performed a service, and the client refused to pay.

? **OBJECTIVE:** guarantee quality performance of services

✓ **SOLUTION:** SMARTBOX, MIRAGARANT

Kyle goes to [miralab.io](https://miralab.io) and creates a SmartBox with a condition:

### ARBITRATION TRANSACTION

He then uploads the generated file to Mira, enters the password, and sends the file to Cartman. He sees that the file is valid and that it contains bitcoin. Now, both users must click the "Start Deal" button. Until Kyle clicks the "Deal Successful" button, the system will not allow anyone to open the SmartBox. If negotiations are stalled, it is possible to enlist accredited Mira Arbitrators, who are paid by the party that made the claim and, if he wins – by the losing party.

# TYPES OF MIRABOX CONTAINERS AND THEIR FUNCTIONS

As mentioned above, we distinguish three types of MiraBoxes according to their functions:

- **NOMINALBOX**
- **MULTIBOX**
- **SMARTBOX**

## NOMINALBOX

**NOMINALBOX** – a MiraBox container which can contain only one kind of cryptocurrency. Buying a NominalBox is the easiest and cheapest way to buy cryptocurrency for fiat. The user only has to choose the cryptocurrency they want to buy in the NominalBox container and its amount. All the rest will be done by Mira itself.

NominalBox is similar to BTC-e (WEX) codes, but in contrast, the coins are not centralized (but contained in the MiraBox), and therefore do not depend on any service capacity.

A user can choose to buy a NominalBox with a certain predetermined value inside (for example, 0.1 ETH, 0.05 BTC, 0.1 ETC) or any value of their own choosing. In the first case, the transaction is performed instantaneously - the user receives a MiraBox that was previously created on Mira. In the second case, the transaction is completed after the network confirms it.

### ! IMPORTANT TO NOTE:

We provide the broadest possible list of NominalBox with predetermined values in order to speed up transactions within Mira. To this end, a reserve fund will be established in cryptocurrency and fiat to ensure the necessary level of liquidity for the Mira system.

The acquisition of a NominalBox does not require the verification and authorization of the user. The most popular payment tools in Europe will be accepted.

NominalBox is not only the simplest and fastest, but also the cheapest way to buy cryptocurrency for fiat. The user pays for cryptocurrency in fiat at the current exchange rate + Stock Commission and Commission for transferring cryptocurrency + Mira Commission. However, the Mira Commission is minimal; it is only **0.05%** of the transaction amount. This revenue allows us to fund the further development and maintenance of the platform's operational capability. Thus, in essence, NominalBox allows for the purchase of cryptocurrency almost at cost (the user would still pay stock fees on the stock market).

! **EXAMPLE:** The exchange price of 1 BTC is \$6,000. The user buys NominalBox with 0.5 BTC for euros. EUR/USD rate at the time of the transaction is 1.15.

Let the exchange fees be 0.5% of the transaction volume. The value of the selected NominalBox in the user's currency is then calculated according to the formula:

$$((\$6,000*0.5)*(1+0.5\%)/1.15)*(1+0.05\%) = 2,623.05 \text{ EUR}$$

## MULTIBOX

**MULTIBOX** is a MiraBox that can contain one or more kinds of cryptocurrency. Also in MultiBox, you can add any document up to 25MB.

When a user creates a MultiBox, via a user-friendly interface he selects the kind of content that will be placed in the MiraBox: BTC, ETH, etc. Then Mira does everything on its own: provides the purchase and packaging of the selected cryptocurrency in the MultiBox, and the private key is placed in the closed part of the MiraBox. In this way, you can quickly purchase several types of cryptocurrency or create a cryptocurrency investment portfolio that guarantees secure storage for the MultiBox.

To purchase a MultiBox, you must undergo a registration procedure at [miralab.io](https://miralab.io). Our platform will calculate the value of the selected volume of cryptocurrency by the same principle as for the NominalBox. The difference is that the Mira Commission will be paid for in MIRA token instead of fiat. The user can pay the fee to Mira with independently purchased Mira tokens (on an exchange or during the ICO), or purchase a MIRA token on [miralab.io](https://miralab.io) at a rate corresponding to the best bid price. The platform will calculate how many MIRA tokens must be purchased to pay the commission, and will calculate the cost in fiat to the transaction amount. Thus, the process of buying a MultiBox for a user will not be more complicated than buying a NominalBox, and he won't even notice which transaction was made. The Mira Commission for the sale of the MultiBox is **0.3%** of the transaction amount.

# SMARTBOX

**SMARTBOX** is a MultiBox with an integrated smart contract. A smart contract receives information from oracles that can restrict the opening of the SmartBox content until certain external conditions are met or reached.

## ! SMARTBOX FEATURES IN THE FIRST VERSION:

- **CAN ONLY BE OPENED AFTER A CERTAIN DATE AND TIME**  
(for example, not before 12/31/2020, 00:00)
- **YOU CAN OPEN IF THE RATE FOR ANY CRYPTOCURRENCY IS GREATER THAN OR LESS THAN A CERTAIN VALUE**
- **ONLY THE RECIPIENT CAN OPEN**  
(you will need confirmation via e-mail, Telegram, or/and phone)

To avoid situations in which the specified opening conditions may never be met, when you create a SmartBox the date is optional, and you can uncompress the box without having to unpack it.

Thus, the functionality of the Mira platform allows the open SmartBox holder to always see its contents, but he will only be able to uncover it if the smart contract condition is met. This allows you to use the SmartBox to pay for any services that must be performed at a specific time or when certain conditions are reached.

SmartBox purchase is similar to buying a MultiBox. To implement it, you must complete a registration process on [miralab.io](https://miralab.io) and, through the platform interface, select one or more of the available smart contract terms.

In future versions of Mira, the list of smart contract offers to be selected will be expanded, and a smart contract designer will be implemented, in which token holders can design smart contracts themselves and receive part of Mira's fee in payment for their work.

The Mira Commission for the sale of a SmartBox is **1.50%** of the transaction amount and is paid in MIRA tokens on the same basis as the MultiBox.

Mira guarantees the delivery of cryptocurrency to create the MultiBox and SmartBox according to the most advantageous conditions for the user. The fee is charged only for packing cryptocurrency in the MiraBox. Thus, it is not necessary for the user to purchase cryptocurrency, he may add cryptocurrency to the MultiBox or SmartBox by paying only a service fee (**0.30% OR 1.50%, RESPECTIVELY**).



Apart from dividing the MiraBoxes by functionality, we divide them by privacy:

## **OPEN MIRABOX AND PRIVATE MIRABOX.**

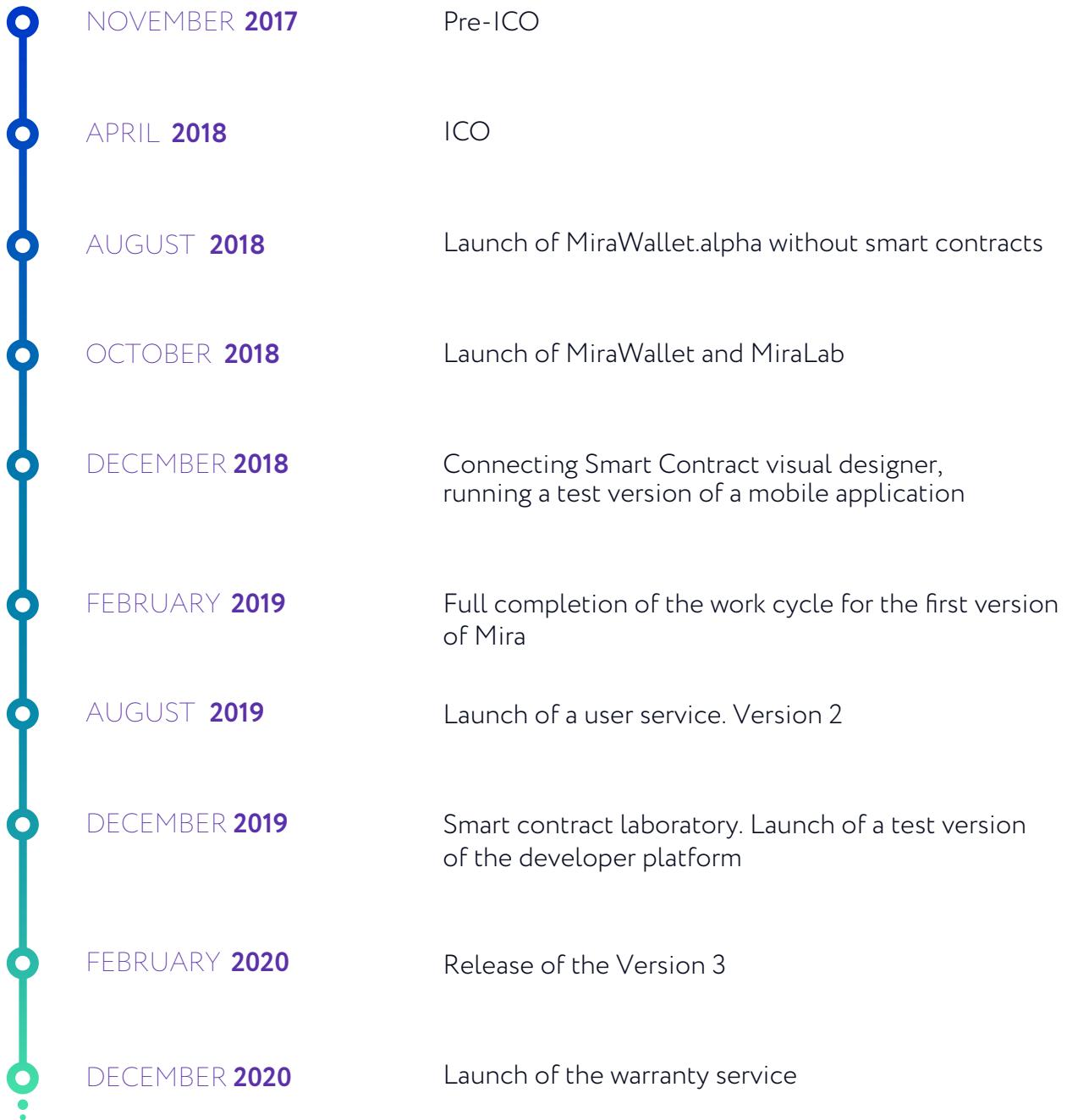
**OPEN MIRABOX** is a container which contents will be transparent to the owner of the file. He can download it to [miralab.io](https://miralab.io) or the MiraWallet PC/MiraWallet Mobile application and see what's inside: denomination, type, and amount of cryptocurrency.

If, for example, this is a MultiBox with bitcoin and ether, the user will be able to see the addresses where these tokens will be stored. Private keys will be stored in the container's private content, which will only be available when the container is password-open. The container can only be opened once, and Mira will always know if the container was previously opened.

**PRIVATE MIRABOX** is an entirely anonymous container; the MiraNet blockchain has no information except when the unpacking status and the box ID are included in the block. In a private MiraBox, all information is encrypted and becomes unrecognizable for both user and the Mira system. What Mira knows is the status of this container's unpacking. Only the creator knows about the content of this **MIRABOX**, and it is as anonymous as Mr. Satoshi Nakamoto himself.

# MIRA SOFTWARE SUITE AND ITS DEVELOPMENT

The Mira software suite will develop in accordance with the roadmap.



We will continually redesign existing services and launch new ones. A total of four major modifications to Mira is planned.

# MIRA SOFTWARE SUITE V 1.0

This is the start version of the software suite. Mira v 1.0 includes the core software suite:

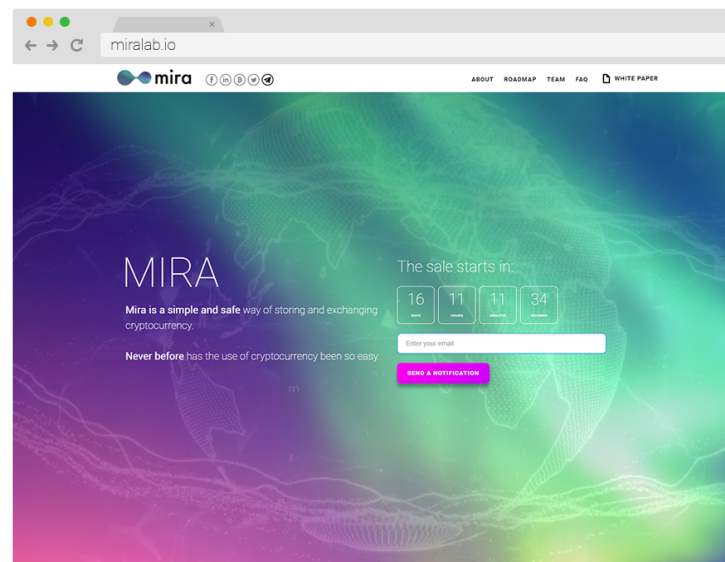
- [MIRALAB.IO](#)
- [MIRAWALLET PC](#)
- [MIRAWALLET MOBILE](#)
- [MIRANET](#)

The launch of MiraWallet alfa is scheduled for August 2018. A full launch of [miralab.io](#) and MiraWallet will take place in October 2018. In December 2018, SmartBox functionality and a test version of MiraWallet Mobile will be added. Full completion of the Mira v 1.0 cycle is scheduled for February 2019.

## MIRALAB.IO

### SERVICES:

- Sale of NominalBoxes.
- Creation and selling of MultiBoxes and SmartBoxes.
- Unpacking and sending the contents of any MiraBox to the recipient's wallet: to open MiraBox, simply load it in [miralab.io](#) or MiraWallet, and specify the container's password and wallet to send the content to. Mira will do everything else.
- **Optional:** storage and transfer of MiraBox to the addressee (e-mail or Telegram). You may not download MiraBox, but choose to send it to the right person immediately or at a designated time. The MiraBox will be stored in protected Mira stores – the user will possess only a password.



- **Password change:** You can upload the MiraBox to Mira and repackage it with a new password. For example, you can change the password to a NominalBox.
- **Reverse buy of the NominalBox from a user:** Any user can unpack the contents of the container and sell the tokens on an exchange or P2P exchanger. Mira guarantees the sale of the container for 99% of the market value of the total cryptocurrency.

[Miralab.io](https://miralab.io) does not store passwords from MiraBox, so it is not possible to open it centrally in any way.

In Mira v 1.0, MiraBox will support several major cryptocurrencies: BTC, LTC, BCC, ETH and the packaging of an arbitrary file. This file can be, for example, a postcard to a gifted value or a deal. The file can be added to the MultiBox and SmartBox, and its weight is limited to 25MB.

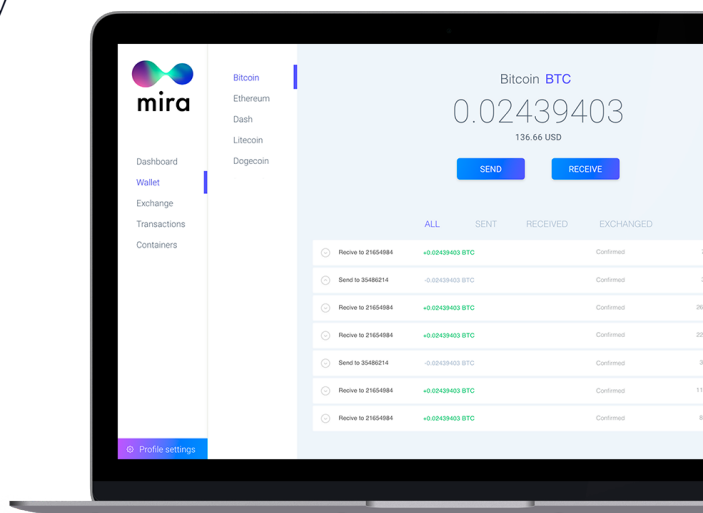
Later versions of Mira plan to extend the cryptocurrency list and functionality.

## MIRAWALLET FOR PC

The MiraWallet program will have similar functionality to [miralab.io](https://miralab.io), with several features available to desktop software.

### PC MIRAWALLET FEATURES:

- Unpacking MiraBox.
- Create and sell MultiBox or SmartBox when you interact with [miralab.io](https://miralab.io).
- Displays the balance/count of content in MiraBox: in the MiraWallet settings, you can select a working folder to which the user can save MiraBox. MiraWallet will scan this folder and display "balance" to the user of the account, that is the number of coins of each view as a total of MiraBox. This makes the program seem like a wallet because the overall balance will be visible as well as the balance of each coin separately. MiraWallet can only count the contents of open MiraBoxes. Private MiraBoxes will remain private.
- Split and merge MiraBox: this feature is designed to merge MiraBox or split one MiraBox into multiples. Let's say a user has a MiraBox containing 1 ETH and he needs to send someone 0.2 ETH. You can load MiraBox into the service and select the Split function. The application will create two new MiraBoxes: in one of them, Mira would pack a



user-specified portion of the coins, and the rest of the coins would be retained with the original password. Alternatively, there are two MiraBoxes, and their contents need to be merged into one. You can download both MiraBoxes to the program and select the function to merge them. These operations are free for the user, and the only fee that is charged is paid when boxing is purchased.

- Connect Cloud storage: The user will be able to connect to the program personal cloud storage from the list of available MiraBox backup copies. In principle, you can do this externally to the program (just by synchronizing the desired folder across the cloud), but the feature will be particularly useful, when using the Mira Wallet Mobile application.

The primary goal of MiraWallet for PC is to guarantee the security of MiraBox content even if [miralab.io](http://miralab.io) or MiraWallet Mobile is unavailable. The MiraWallet source code for the PC will be posted on GitHub, and independent auditing will be available for the community.

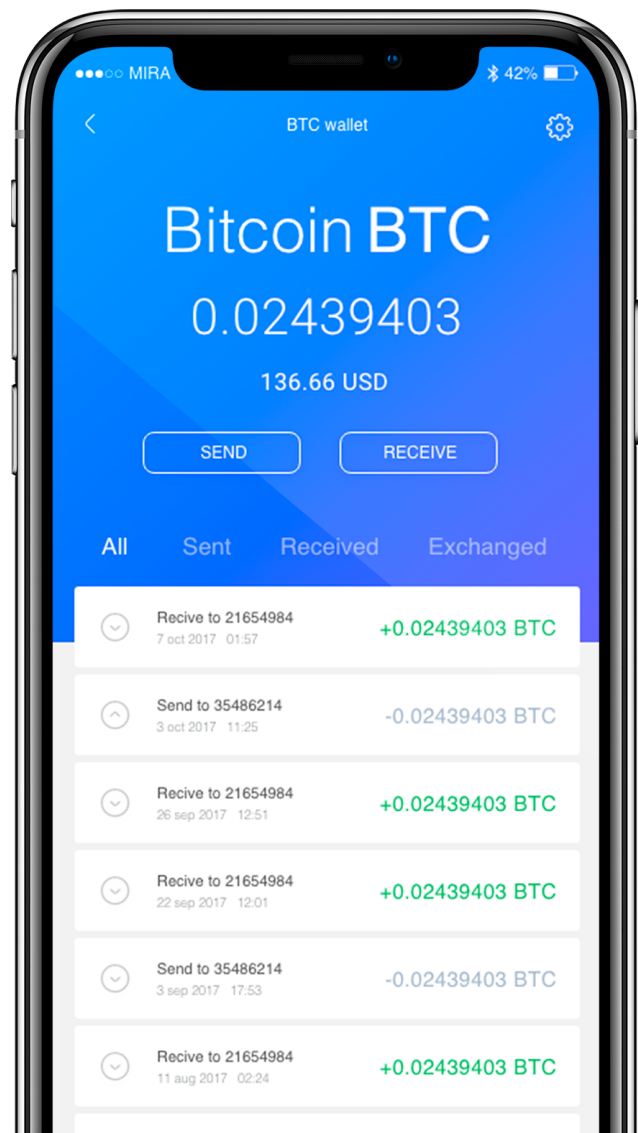
## MIRAWALLET MOBILE

Smartphone application for iOS and Android.

### MIRAWALLET MOBILE FUNCTIONS:

- Unpacking MiraBox.
- Selling NominalBox to user.
- Create and sell MultiBox or SmartBox to a user.
- Connect a user's cloud storage.

You will be authorized before using the application via fingerprint or password.



# MIRANET

**MIRANET** – the Mira Blockchain is implemented on the Ethereum basis, that is it includes all of its own functions including the creation/execution of smart contracts and interaction with them. The MiraNet Blockchain will be based on nodes which are the backbone of the network, provide a stable network, perform a variety of service functions (for example, guaranteeing the security and timely issuance of a key from the internal content of the MiraBox during unpacking).

During the first 6-12 months prior to the launch of the second version of Mira, the GBRs role will be performed by the Mira servers. You will then enter third-party nodes.

A node can be run by any owner of MIRA token who packed 3,000 MIRA tokens into a special MiraBox loaded onto the service. The remuneration for nodes will be based on 10% of Mira revenue nominated in MIRA tokens and distributed equally among nodes. We believe that the possibility to take the role of node to participate in revenue distribution for the project will spur demand for MIRA tokens and will increase its exchange rate value. For more information about Mira revenue, see the chapter "The Economy of Mira".

# THE EVOLUTION OF THE SOFTWARE SUITE MIRA V 2.0

The second version of the service will be an extended and expanded Mira v 1.0 feature. The platform and the software suite will become more user-friendly and functional.

Now MiraLab and MiraWallet can be used as ordinary cryptocurrency wallets, and user cryptocurrency will be stored in files (and/or personal cloud storage) and will remain protected by user passwords; this means that you will not be able to service in the event of an attack.

In Mira version v 2.0, most of the tokens popular at the time of the launch will be added. The number will continue to increase following market development.

Work on Mira v 2.0 will begin even before the completion of Mira v 1.0 and culminate in August 2019.

## NEW FEATURES OF MIRALAB.IO

- Functions are useful for sending and receiving cryptocurrency, similar to wallets.
- Integration with popular exchanges and online wallets. You can now save tokens to a MiraBox in multiple clicks. Similarly, you can send funds to an exchange by selecting the appropriate MiraBox, or automatically after choosing one.
- Creates a MiraBox with conditions for opening. As designer, you can now create entire sets of conditions for opening.
- Different types of authorization, including Google Authenticator, SMS, Telegram, etc.
- Mira can count the balance in a account by summing up all the MiraBox in a user's cloud.
- Integration with Telegram accounts: in Telegram Cloud, you can save MiraBox to send to IMS users.
- The smart-contract capabilities used in the SmartBox are enhanced.
- Cooperative creation of MiraBox. In a service, you can select the cooperative creation of MiraBox. You create a MultiBox or NominalBox that is open to make deposits for a specific time or amount. When the time elapses or the required amount is reached, the MiraBox is packed, with specified opening conditions.

- Such a function may be useful, for example, for charitable purposes. A MiraBox is created; the recipient and the fee amount are specified. Once filled, MiraBox is guaranteed to be able to be opened only by the correct recipient.

## NEW MIRAWALLET FOR PC FEATURES

- All functions from [miralab.io](https://miralab.io);
- Authorization in an application using Google Authenticator, SMS, and Telegram.

## MIRAWALLET MOBILE FEATURES

- MiraWallet Mobile will work similarly to wallet apps and online banking.
- All features from [miralab.io](https://miralab.io), including the SmartBox visual designer, will be added.
- A service will be developed to send MiraBox to contacts from a phone book.

## NEW FEATURES OF MIRABOX

- **MIRABOX CAN ONLY BE OPENED AFTER CONFIRMATION FROM A THIRD PARTY** (one or more persons), so-called "arbitrators". However, you will be able to set the percentage of evidence required to open a MiraBox: all arbitrators must confirm the deal, or more than half, or a certain percentage. Packaging the document in MiraBox first version and introducing arbitration into the second is a step towards the introduction of the MiraGarant service in later releases.
- **MIRABOX WITH "DOUBLE BOTTOM"**  
These MiraBoxes will provide two levels of protection by creating internal hidden content with a second password that cannot be accessed with a basic password. Moreover, only the owner of the MiraBox will know about the hidden content. In the first, closed part of MiraBox, a small amount of money, insignificant document or photo, may be placed. So, in the case of opening of a MiraBox by an intruder, they'll think there is nothing valuable except this picture. Install the master password on all the MiraBoxes of the same owner.



# MIRA V 3.0. SMARTBOX LABORATORY AND PLATFORM FOR THIRD-PARTY DEVELOPERS

The opening conditions that you specify, when you create a SmartBox are essentially a visual designer of smart contracts, where you can enter data about external events (currency change, timing, and conditions).

The MiraBox will package the code that will execute when the MiraBox is opened and given access to the MiraNet blockchain. You can publish code to the blockchain only to resolve conflicts when a dispute occurs.

At time of design, it is extremely difficult to consider all possible ways of using MiraBox, and centralized development may not be flexible enough to meet all the demands and requirements of the market. We cannot predict which market demands and technological innovations will open new features of a SmartBox. Therefore, building on Mira we are planning to create a third-party platform that will allow you to create additional services using the SmartBox. This will resemble CMS plug-ins, when each new add-on adds functionality to the current service.

The platform and strict code standards will be developed. Each add-on will only be added to the system after a thorough review by MiraLab, and a test period of use. All third-party add-ons will have open source code.

We called this the **"SMART CONTRACT LABORATORY"** service.

MiraBoxes somewhat resembles regular bills; you can calculate them, or you can save them. Therefore, such MiraBox can find applications wherever they are passed to cryptocurrency, but conditions for opening are added. For example, prizes in competitions, shares, charitable donations, rates, etc. Developers will be able to earn a percentage of the income from a SmartBox.

# MIRA V 4.0 WARRANTY-SERVICE. COMPLETING THE ACTIVE DEVELOPMENT PHASE

The main update in Mira v 4.0 will be the MiraGarant service. Based on MiraBox functions and the platform for developers, there is a great opportunity to create a warranty service. Let's say two people want to make some kind of deal. To do so, they:

Create a SmartBox      Add a document with the terms of the deal      Load it into the MiraGarant service      SmartBox is held on the service      The participants in the transaction choose to commence the deal      In the future, two options can be developed:



- If the parties to the transaction have fulfilled their obligations to each other, the sender transmits the password to the recipient and approval to open the SmartBox.
- If one of the participants considers that the terms of the transaction have not been fulfilled, the arbitrator shall be called by Mira. The arbitrator is a certified MIRA tokenholder.

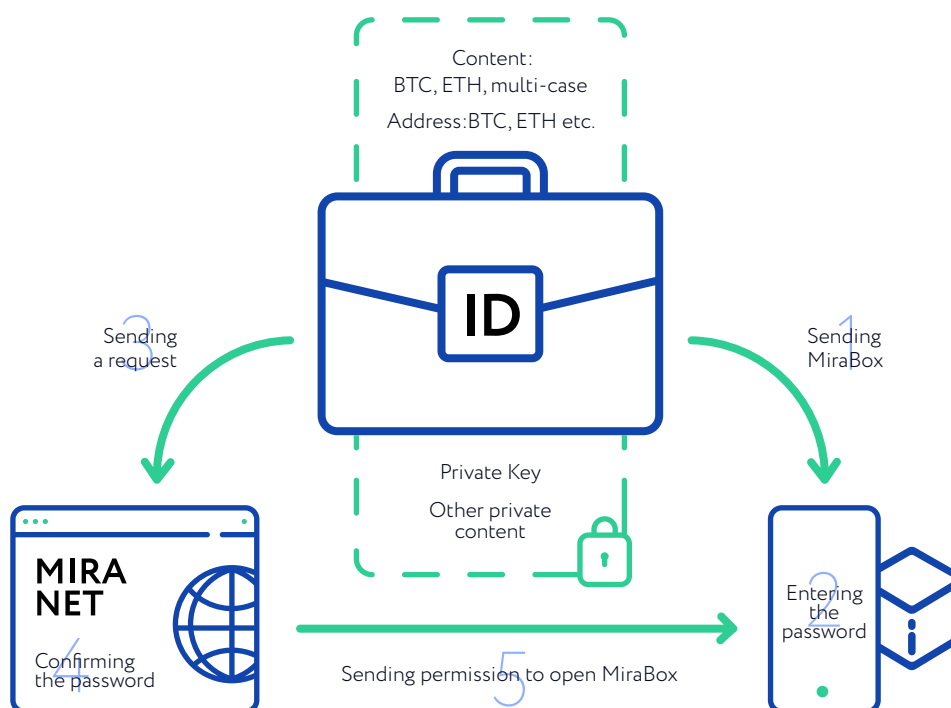
# MIRA TECHNICAL FEATURES

Key technical details allowing for better understanding of the MiraBox features are presented hereinafter. Further details can be found in the technical documentation.

Open MiraBox content includes metadata on the MiraBox contents, including addresses of wallets where the funds are kept. This ensures that a stated amount of currency is present in MiraBox. Encrypted contents contain the private key for opening MiraBox.

In order to decrypt the content, the program needs a password consisting of 2 parts: the password (generated in the user's browser when creating or buying MiraBox) and the key (to open the encrypted content, this is stored on the MiraNet nodes and is sent to the program when a user wants to unpack the container).

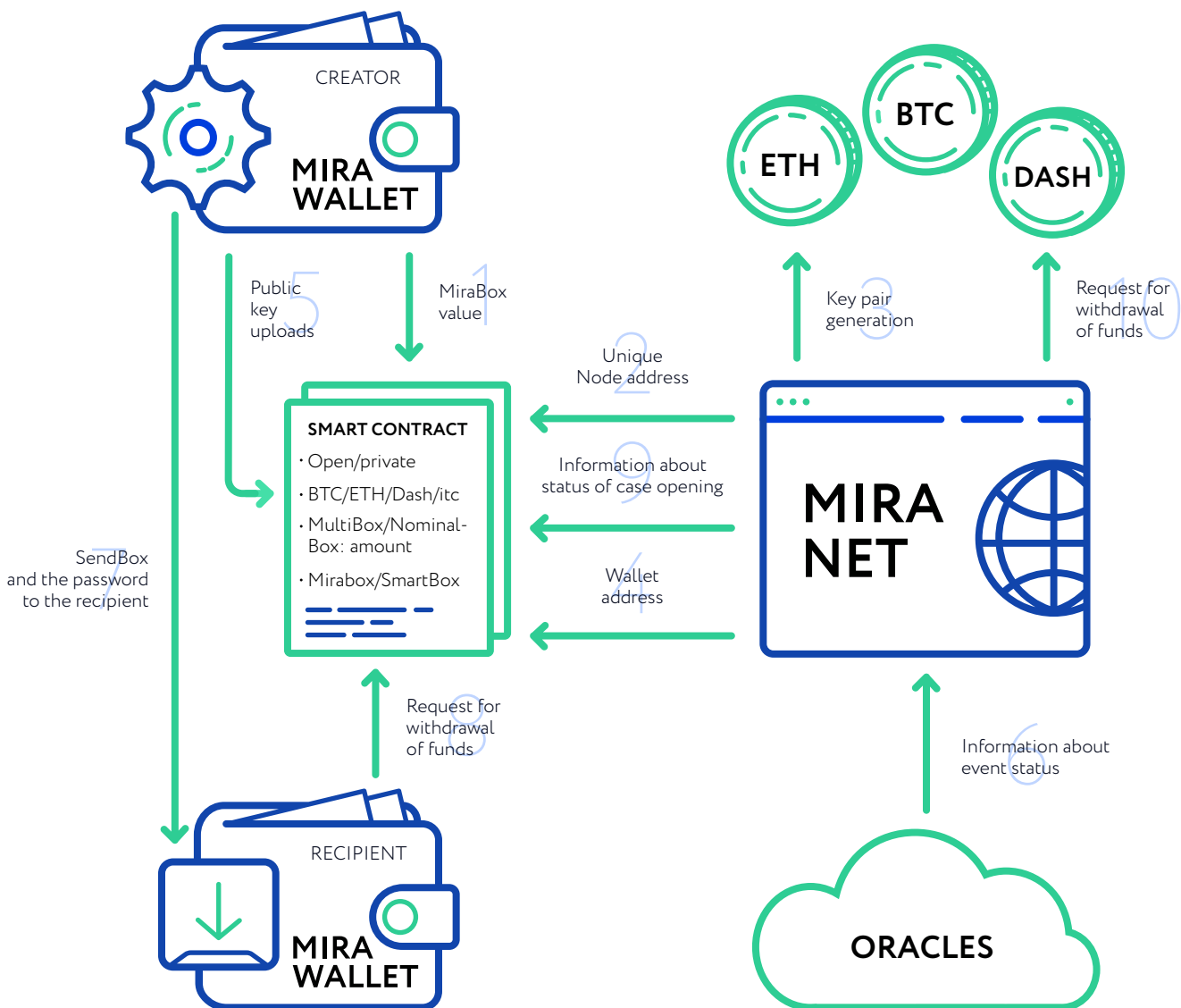
## SCHEME OF WORK MIRABOX



1. Sending MiraBox to an unpacking application.
2. Entering the password.
3. Sending a request to open MiraBox.
4. Confirming the password.
5. Sending permission to open MiraBox (from the technical point of view this is the transfer of the second part of the encryption from the node to the contract, after the encryption is validated, MiraBox opening is initiated).

**ALL CONTENTS OF THE PRIVATE MIRABOX ARE ENCRYPTED.**

## THE SCHEME OF INTERACTION



## FILE NAME

MiraBox file name does not involve any operating functions but is instead informative in function. Its extension can be changed; this will not influence its working.

**BY DEFAULT MIRA ASSIGNS A NAME OF THE TYPE:**

**8817CA339F-0.1BTC.MIRA**



id MiraBox      Index content

- MiraBox ID is set in the very beginning in order to easily distinguish files.
- Mira content indicator records data for open MiraBoxes with one kind of cryptocurrency for convenience.
- Files with the .mira extension will be opened in MiraWallet by default.

# SECURITY

We pay maximum attention to the safety of the user's assets. This is one of our key advantages. Security is provided using the following methods:

## 1. A MULTI-SIGNATURE MECHANISM

In order to open MiraBox with cryptocurrency, it is necessary to pass MULTISIG verification. This means that more than one ECDSA signature is required to complete the transaction. Thus, no one member of the system can access the funds unilaterally. After opening, the MiraBox is marked as open and cannot be used again in Mira.

## 2. DOUBLE-ENCRYPTION OF THE MIRABOX FILE

When a MiraBox is created through MiraWallet, its contents are encrypted with the symmetric algorithm AES-256. If the user creates a MultiBox, an encryption is added using asymmetric ECC (Elliptic-curve cryptography).

## 3. ORACLES

A distributed system of predicting offchain events, built on the same principle as the Oraclize and ChainLink services. That is, events are verified by a number of independent servers that have a rating system that is based on which PoS confirms the prediction of a particular oracle.

By developing Mira, we are trying to create a service that will be useful and required both for newcomers to the crypto market and for the existing community. So in 2017, when it became clear to us that additional funding would be needed to implement our platform-wide functionality, we decided to offer it to the whole community instead of a limited list of venture funds. Participating in the Mira ICO, the community will participate in the future growth of a project which is also designed for their own needs.

**ACCORDING TO OUR CALCULATIONS, THE COST OF DEVELOPING THE MIRA SOFTWARE SUITE IS \$13 MILLION AND IS DISTRIBUTED AS FOLLOWS:**

<b>MIRA 1.0.</b> Software suite	<b>3M\$</b>
<b>MIRA 2.0.</b> Evolution	<b>2M\$</b>
<b>MIRA 3.0.</b> SmartBox laboratory and platform for third-party developers	<b>5M\$</b>
<b>MIRA 4.0.</b> Warranty-Service	<b>3M\$</b>

In addition, we understand that 'auto mechanic John' from one of the examples above will not know about Mira's services if we do not allocate marketing expenses. For John to be able to buy bitcoin in a container without fear of money transfers, we will need legal escort. And we will also need to finance a reserve fund in both fiat currency and MIRA token. We estimate the total hard cap of the project at \$20 million.

An open MIRA token sale will take place in 2 stages. During the pre-ICO, the value of 1 MIRA token will be equal to \$0.6. In the main ICO period, the value of 1 MIRA token will be from \$0.7 to \$1.0.

**MORE DETAILED INFORMATION IS PROVIDED BELOW.**

## GENERAL PARAMETERS

Token	<b>MIRA</b>
Maximum emissions	<b>30,770,000 MIRA</b>
Total amount to be sold	<b>24,000,000 MIRA</b>
Accepted currencies	<b>BTC, ETH, LTC, ETC, DASH</b>

## PRE-ICO PARAMETERS

Volume to Pre-ICO sales	<b>3,300,000 MIRA</b>
Soft cap on Pre-ICO	<b>NO</b>
Hard cap on Pre-ICO	<b>\$1,980,000</b>
Pre-ICO Price	<b>1 MIRA = \$0.6</b>

The price of 1 MIRA in ETH will be fixed one hour before the pre-ICO at the Poloniex exchange rate, and the ETH-to-USD rate will be updated every hour.

## PRIMARY ICO PARAMETERS

Volume to be sold on ICO	<b>24,000,000 MIRA</b>
Soft cap on ICO	<b>\$5,000,000 IN VIEW OF PRE-ICO</b>
Hard cap on ICO	<b>\$20,000,000</b>

ICO Price: The discount will decrease as the fee increases:

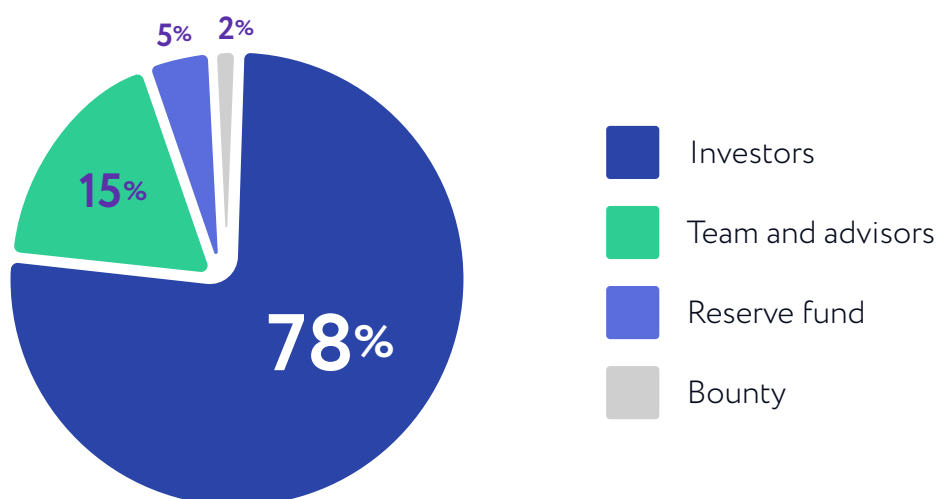
- **FIRST 4,500,000 tokens / 1 MIRA = \$0.7**
- **4,500,000 tokens / 1 MIRA = \$0.8**
- **4,500,000 tokens / 1 MIRA = \$0.9**
- **7,200,000 tokens / 1 MIRA = \$1.0**

The price of 1 MIRA in ETH will be set at one hour prior to the ICO at the Poloniex exchange rate, and the ETH-to-USD rate will be updated every hour.

### NO ADDITIONAL TOKEN ISSUANCE IS PROVIDED AFTER THE TGE IS CLOSED.

The tokens will be transferred to buyers as soon as the ICO is completed. If the soft cap is not reached during the ICO, funds will be returned to participants. 2% of distributed MIRA tokens will be transferred to bounty participants. In a case the hard cap is reached, 2% will be equal to 615,400 MIRA tokens.

Allocation of the tokens will be proportional to the number of MIRA tokens generated:



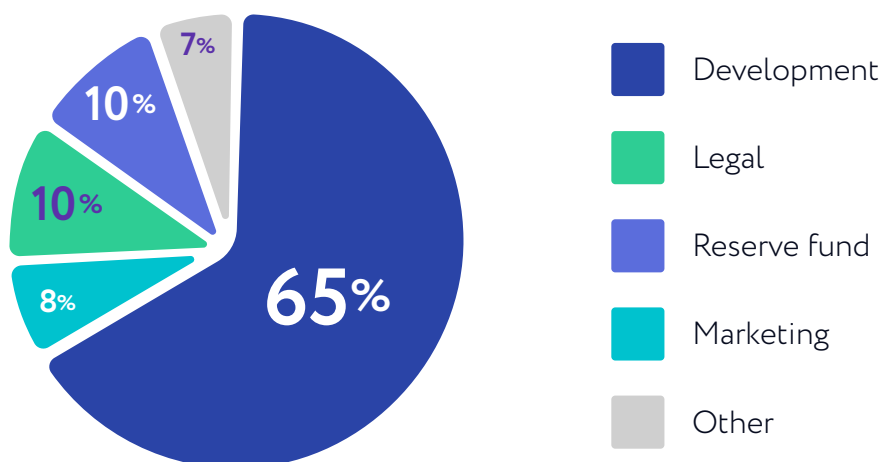


The share for the team will be frozen until Mira v 1.0 is complete. Then 75% of this share will be packed into a specially created SmartBox, whose smart contract conditions will be phased out as new versions of Mira are started. The share for advisors will not be frozen and will not exceed 20% of the team's share.

# ECONOMY OF MIRA

- 65% of the resources attracted by the ICO are planned to be spent on product development. About 30% of this amount will be spent on purchasing the necessary equipment, and 70% on the work of our internal team and third-party developers.
- 10% of the funds attracted are for legal services. We understand that regulation of the cryptocurrency market can change very quickly and in diametrically opposed directions depending on jurisdiction. Therefore, decisions will be taken by engaging experienced lawyers in the most pro-crypto industry countries at the time.
- 8% of the funds attracted are for the cost of active marketing in the first three years of the platform.
- 10% of the funds attracted are for the reserve fund in fiat currency required to maintain liquidity within the system.

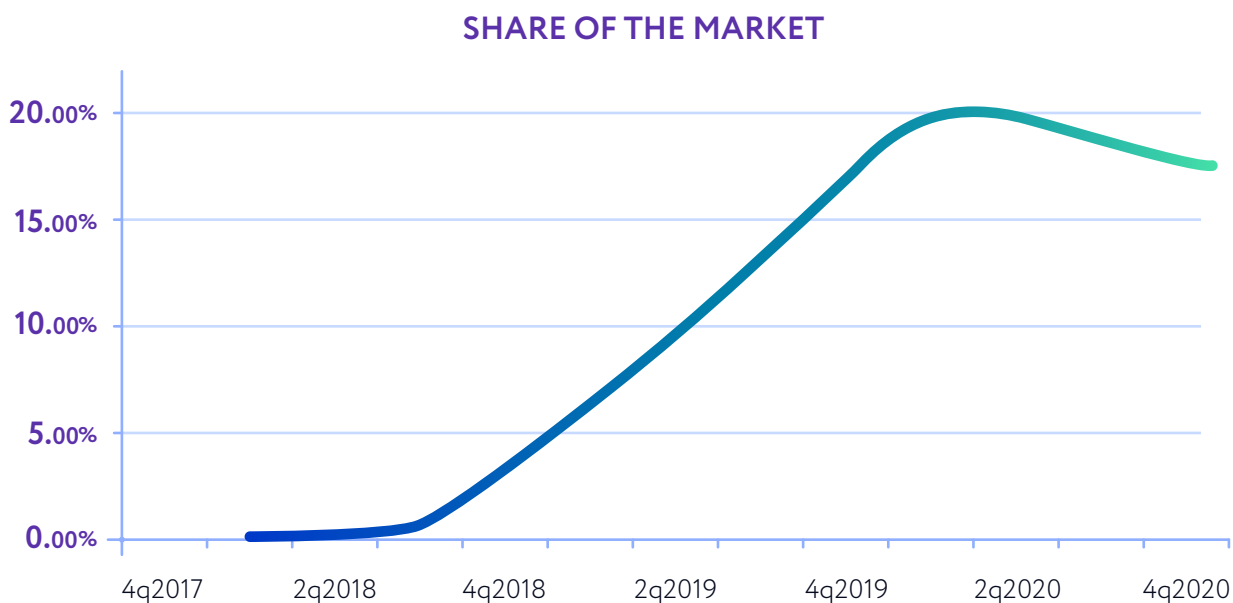
FUNDS ALLOCATION



The basis of the Mira financial model lies in the forecast of the total turnover of cryptocurrency. We are confident that the volume of trade in cryptocurrency will grow rapidly and expects that the average quarterly growth of BTC and ETH to the end of 2019 would be 10 percent and in the period 2020-2021 GG. - 5 percent.

According to our calculations based on Coin Dance's (<https://coin.dance>) statistics, the P2P share of transactions currently stands at about 3% of the total stock turnover of cryptocurrencies. We believe that the popularity of P2P with regard to stock turnover will grow, as this is the easiest way to buy cryptocurrency currently. According to our expectations, the P2P share will reach 6% of the stock turnover by 2021.

P2P exchangers such as Localbitcoins, paxful, etc. we consider our key competitors. The users of these platforms are our target audience. We believe that the high quality of Mira's services, together with the low commission and marketing strategy, will enable us to take 20 percent of the P2P market share by the end of 2020.



Mira has four sources of income and two types of fees, which differ in currency:

MIRA SERVICE	FEE,% OF TRANSACTION AMOUNT	CURRENCY	PROJECTED SHARE OF REVENUE
NominalBox Sales	<b>0.05%</b>	Fiat	<b>10.5%</b>
Reverse buy-out of NominalBox	<b>1%</b> <small>(net fee 0.5% minus our expenses)</small>	Fiat	<b>26.3%</b>
MultiBox Sales	<b>0.30%</b>	MIRA token	<b>18.1%</b>
SmartBox Sales	<b>1.5%</b>	MIRA token	<b>45.1%</b>

The problem with most utility tokens is that documentation focuses on infrastructural demand for tokens, ignoring the risks of infrastructural supply. Any token used as a payment instrument for a service will be sold on the market by the service provider (platform) because the operator needs to finance the transaction costs that are denominated in fiat currency. Thus, infrastructure demand will be balanced by an infrastructure supply, which will not allow the token to grow in price. This is why Mira diversified its revenue: we gain profits both in fiat and in MIRA tokens.

According to our financial plan, by 2020, more than 70% of our operating costs will be covered by income from fiat, and by 2021 all transaction costs will be covered by fiat income. This means that from 2021, Mira will not be able to sell MIRA tokens, which were received as a transaction fee, and until then sell a small portion of the revenue received by the MIRA token. In the Mira balance, the undistributed profit nominated in MIRA token, will be the result of a positive revaluation which will lead to an increase in fiat currency value of business profits.

### MIRA'S PROFIT & LOSS

United States dollars	2018	2019	2020	2021
Revenue Total	417	1,047,248	11,019,617	18,559,710
Fiat Revenue	410	528,260	4,120,858	6,837,788
Revenue MIRA token in dollar equivalent	7	518,988	6,898,759	11,721,922
Operating expenses	4,934,375	6,825,125	5,697,362	4,440,971
Ebitda	-4,933,958	-5,777,877	5,322,256	14,118,739

# THREE REASONS TO PARTICIPATE IN THE MIRA TOKEN ICO

## 1. WE HAVE A PROFITABLE AND PRUDENT FINANCIAL MODEL:

- As early as 2020, 70% of operational costs will be financed by fiat income.
- Over 60% of total earnings will be denominated in MIRA tokens by 2020.
- During next 2018-2019 we will liquidate 25% of MIRA tokens that we will receive as revenue. In 2020, the repayment rate for tokens will increase to 35%, and from 2021 – up to 45%:

	2018	2019	2020	2021
Token burning Factor <sup>1</sup>	25%	25%	35%	45%
Token burning, pieces <sup>2</sup>	2	129,747	2,414,566	5,274,865
Percentage of total number of burnt tokens	0.0%	0.4%	7.8%	17.1%
Share of turnover in tokens from total emissions	0.0%	1.7%	24.4%	51.1%

Most often, utility token models only assume that infrastructural demand is calculated to finance the project services. Our financial model takes into account not only the demand, but also the proposal, which will always arise, because projects need to finance their own costs, most often nominated in fiat currency.

Because we are burning tokens and diversifying the currency of our income, starting in 2020, the infrastructure demand will exceed 2.8 times the offer.

<sup>1</sup>The coefficient shows how many of the MIRA tokens used for paying for MIRA fees will be burned. For example, suppose the revenue in MIRA token for 2019 was \$943.2 thousand, and the combustion coefficient in 2019, 25% would be burned - the equivalent of \$235,800.

<sup>2</sup>The calculations are made using the nominal MIRA token price (1 MIRA = 1 USD). The actual result is likely to be different because MIRA token price will be variable.

## 2. TO ICO PARTICIPANTS WE OFFER ADDITIONAL INCENTIVES:

- 100 free MiraBoxes to each ICO participant, who bought MIRA tokens for a sum exceeding US\$5,000.
- 500 free MiraBoxes to each ICO participant who bought MIRA tokens for a sum exceeding US\$100,000.
- 20% discount on the purchase of the MultiBox and SmartBox to all ICO participants. The discount will be in effect for 12 months after the launch of Mira v 1.0.

## 3. TOKEN OWNERS ARE GRANTED THE RIGHT TO PERFORM SERVICES FOR THE PLATFORM:

- **NODE:** any holder of 3,000 MIRA token can be a node. The total compensation of the GBRS will be 10% of the Mira income nominated in MIRA token. We believe that this can support the demand for MIRA token in the secondary market as the project's income grows.
- **SMART CONTRACT DESIGNER:** SmartBox developers will be paid 50% of the Mira fee charged in MIRA tokens.
- **ARBITRATOR:** arbitrators are paid 2 percent of the value of the disputed assets at the date of settlement of the dispute.

# TO CONCLUDE

We will not create a revolution, we will not change the world, we do not promise subversive innovations, and we do not collect tens of millions for God knows what.

**WE JUST WANT TO MAKE A USER-FRIENDLY PRODUCT THAT WE WILL USE OURSELVES AND THAT WILL BE USED BY THE CRYPTO COMMUNITY.**

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