



We transform
digital money
into real goods

White Paper

Version 3 of October 03, 2018

Introduction

Joys is a payment service provider for making payments in any cryptocurrency when buying products and services. Joys is a global open blockchain platform based on the Ethereum private network that allows adding virtually any cryptocurrencies and tokens as payment methods without breaching the law even in countries where cryptocurrency is not accepted as a legal tender¹. The project is designed for those merchants who intend to accept bitcoin or other cryptocurrency. We are creating a Joys platform for projects that provide customers with the opportunity to make cryptocurrency payments or use tokens in retail stores, subject to local laws. We propose to use Joys for conventional projects that would like to accept blockchain and use cryptocurrency to encourage participants, facilitate incentive programs and loyalty.

That means that Joys is a platform that integrates blockchain technologies and cryptocurrencies into the real economy, enables users to reap the benefits of blockchain technology in everyday life.

¹ Joys does not sell any products or services and does not provide currency exchange services.

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PROJECT BACKGROUND AND MARKET REVIEW

1.1. Market structure: cryptocurrency payment platforms

Today, a large number of companies and projects generate infrastructure through cryptocurrency payments and use blockchain technology to commit transactions. Today they penetrate all areas, from interbank cross-border payments to private p2p transactions.

Financial platforms for transactions using blockchain and cryptocurrency can be classified as follows:

I. “Fiat” money transfer system based on cryptocurrencies and blockchains.

In this case, cryptocurrency is not the purpose of a transaction, but a means to transfer government-issued currency (fiat money). Users of these systems don't necessarily know that cryptocurrency is used to make money transfers. Cryptocurrencies in these systems provide high speed and low price transactions. Such systems are ranked as follows:

- A. **Money transfer system** — a system that provides international and inter-bank money transfers for individuals in national currencies. These include, among others, money transfers and bill payments.
- B. **B2B payments** — platforms making payments to companies and businesses in national currencies.

II. Cryptocurrency payment systems.

Such systems provide services that facilitate the use and circulation of cryptocurrencies, and broaden the use of cryptocurrencies in the economy. Such systems include:

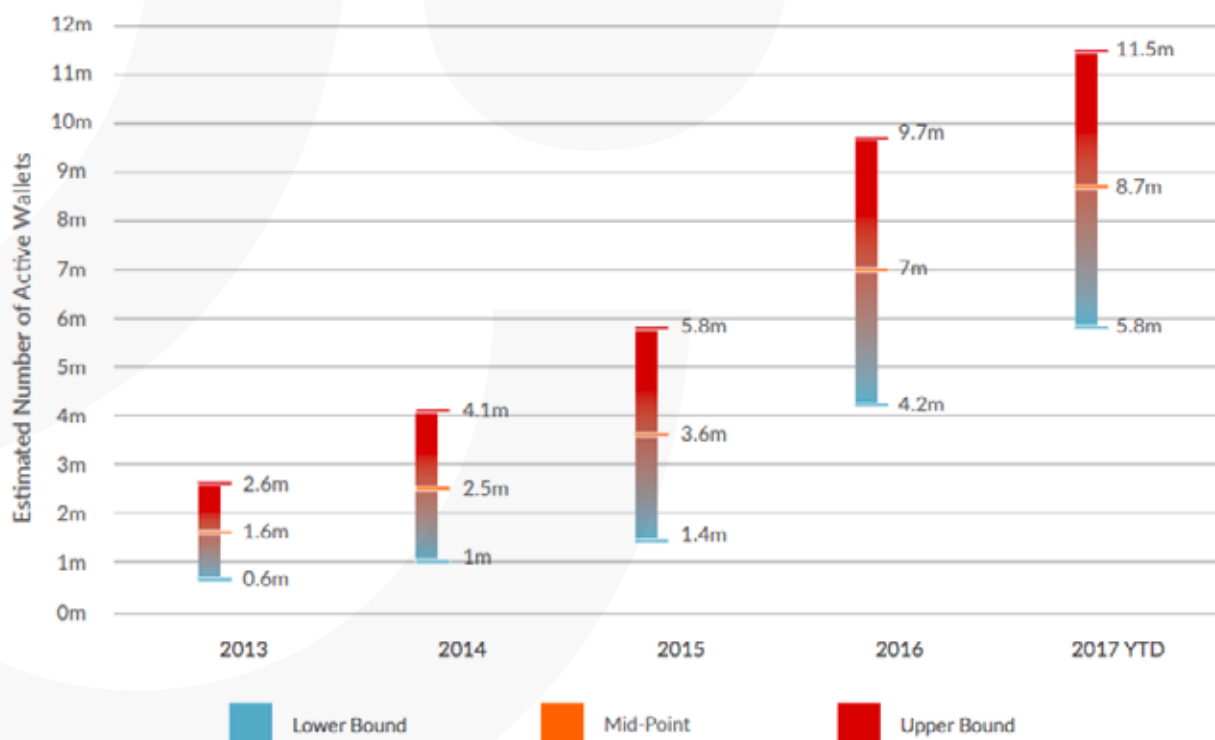
- A. **Payment services for vendors** — process payments for purchases and sales for retail and service businesses accepting cryptocurrency.

- B. **Universal platforms** — offer a variety of services: Instant transfers between users within one payment system, invoice payment, cryptocurrency conversion, buying and selling cryptocurrency for fiat money and other services.

The focus of interest of the Joys project and of this document is payment services projects for vendors, receiving cryptocurrency payments.

1.2. Payment services for vendors

According to a survey conducted by the Cambridge Centre for Alternative Finance, the number of active cryptocurrency wallets increased from 0.6-2.6 million in 2013 to 5.8-11.5 million during 2017 (figure 1). In this study, the wallet was considered active if it produced at least one transaction per week.



Business owners who are starting to accept cryptocurrencies as payment for goods and services, expect to get a large number of new buyers and popularity among the crypto-community and thereby increase their profits. Demand creates supply.

To accept cryptocurrency as payment today has become pretty easy, especially for smaller stores, where there usually isn't a line. Many

companies in this market offer solutions that enable businesses worldwide to accept payments in cryptocurrencies in real stores just like they would on a website. Next, consider what solutions are in the payment services market today, along with their advantages and disadvantages.

Solutions for e-commerce

Projects provide a payment tool that allows online stores to accept cryptocurrency — this can be embedded code and plugins for different CMS and designers: WordPress, WooCommerce, Magento, ZenCart, etc. Often, these projects act as gateways and accept many cryptocurrencies. This is the biggest group of projects. Some are listed below:

CoinBase — <https://www.coinbase.com>

CoinPayments — <https://www.coinpayments.net>

BitPay — <https://bitpay.com>

Blockchain Merchant — <https://www.blockchain.com>

Coinify — <https://coinify.com>

UTRUST — <https://utrust.com>

Advantages:



Easy, fast and cheap way to accept online payment through cryptocurrency;



Large choice of platforms and solutions.

Disadvantages:



Solutions are limited to only online stores;



Contravening the laws of many countries.

Individual POS devices

A number of companies offer their own POS-devices for conventional and online stores. Sellers can accept payment both in cryptocurrency and in fiat money. Some projects only allow you to accept bitcoins, some work with different currencies. As a rule, all services can convert cryptocurrencies into fiat money.

Here are some of the solutions:

PundiX — <https://pundix.com>

Crypt2Pos — <http://crypt2pos.io>

Coinify — <https://coinify.com>

CoinKite — <https://coinkite.com>

BitXatm — <https://sumoatm.com>

Advantages:



Fast connection and configuration;



The ability to use one device for receiving the payment both in cryptocurrency and in government issued money.

Disadvantages:



There is a need to adapt both the program and physically under the tax law requirements of different countries;



Only suitable for a narrow segment of the business;



Requires replacement of existing equipment;



Contravening the laws of many countries.

Payment cards

Some projects offer debit cards that allow you to use Bitcoin and other wallets, bound to card accounts, to pay for purchases in stores. Most of the projects only work with Bitcoin wallets, but there are some that allow you to use Bitcoin Gold, Ether, and Litecoin. Some companies are collaborating with international payment systems, such as VISA. Ingenico has integrated Bitcoin payments into their cash registers of new models.

BitPay — <https://bitpay.com>

Bitwala — <https://www.bitwala.com>

SpectroCoin — <https://spectrocoin.com>

Wirex — <https://wirexapp.com>

Advantages:

-  Merchants do not need to change hardware;
-  Quick and easy to start accepting payments;
-  Convenient for buyers, a ready infrastructure all around the world.

Disadvantages:

-  A buyer must obtain a new card with a very limited number of issuers;
-  Not available in all countries;
-  Limited number of accepted cryptocurrencies;
-  Contravening the laws of many countries.
-  High risks of regulation and prohibitions from the payment systems, acquirers, banks, and regulators — in connection with the Fourth EU Directive on combating money laundering, restrictions apply for holders of the cryptocurrency debit cards.

Smartphone apps

Widespread solutions in the form of applications for smartphones for implementing p2p transfers. Sometimes this functionality is embedded into the native cryptocurrency wallets.

Blockchain Merchant — <https://www.blockchain.com>

Coinify — <https://coinify.com>

Advantages: solutions allow business owners to best simplify the inclusion of cryptocurrencies in the list of available means of payment.

Disadvantages:

-  You need a smartphone at the cash register;
-  No automated payment POS system;
-  Does not comply with the laws of many countries.

Loyalty programs and Cashback

These projects offer solutions for implementing loyalty programs based on blockchain. There are both private projects that are tailored for a limited group of stores, which are both open and they represent the loyalty programs based on blockchain with its own cryptocurrency. For purchase by the user, store-partners pay a fee, which then can be used to purchase goods and services.

LoyalCoin — <https://www.loyalcoin.io>

Points Loyalty Wallet — <https://www.points.com>

Loyalty BitCoen — <http://bitcoen.io>

LoyaltyX — <https://www.loyaltyx.co>

Selfpay.Asia — <https://ico.selfpay.asia>

Metal — <https://www.metalpay.com>

Biocoin — <https://biocoin.bio>

Revolut — <https://www.revolut.com>

Strictly speaking, these systems are not payment services that provide the ability to pay with popular cryptocurrencies in retail and service outlets. But if the cryptocurrency of this project is traded on the stock exchange, then, if you wish, you can buy tokens for another loyalty program cryptocurrency, and then use them in stores approved in the coalition in order to receive the discount. To charge, debit, and for accounting these cryptocurrencies, a separate POS device system is required that brings these solutions closer to systems with a separate cash register, or to solutions on smartphones.

Payment services integrated into POS

These kinds of projects offer different options from the solution introduced above, for accepting payments. They create infrastructure by integrating into the POS system. This approach provides a familiar business logic to sales for the seller, the usual interfaces work, all sales are automatically calculated in the accounting systems and it does not require the installation of new cash register software and/or hardware.

Paytomat — <https://paytomat.com>

Joys Digital — <https://joys.digital>

Paytomat is just beginning to create infrastructure and is integrated in several open POS systems. The project solution does not allow legal adoption of the cryptocurrencies in countries where digital means are not accepted as viable means of payment. This is seen as the main obstacle to scaling the project.

Joys Digital team creates a global infrastructure with hundreds of integrations into existing cash registers that are used every day in millions of retail outlets worldwide. Today, more than 25% of banks in Russia have Joys module, as well as some 50% of gas stations in Germany, and many hotels and restaurants worldwide. This provides a wide range of ready-made integration solutions with cash registers.

Conclusions

The biggest problem for nearly all providers of cryptocurrency payment services is violating the laws of most countries when taking cryptocurrency as payment. Because of this, they have come together with difficulties in dealing with banks and operators of payment systems. The second biggest problem is installing new cash register hardware or lack of automated sales and payments in cryptocurrency. And finally, the third problem is the limitations of applicability to existing solutions for business.

1.3. The uniqueness of the Joys Digital solutions

To implement processes that introduce cryptocurrency as a viable means of payment, Joys is applying the techniques already allowed by law, loyalty programs, prepaid and gift cards, as well as technologies for the treatment of digital coupons. So the project is seeking legal compliance when making payments in cryptocurrency.

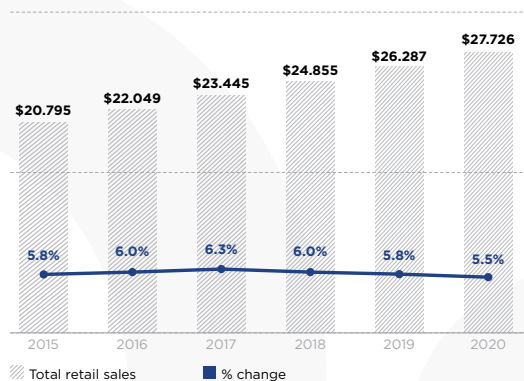
The infrastructure that is built by the Joys team has an open API: Neither the bank, payment system, nor the regulator cannot block it. The source code of the project will be available later for the crypto community, which will allow anyone to be involved in the development of the project.

Based on market research, it follows that the solution of the Joys project out of all of the solutions today is quite unique in the cryptocurrency market.

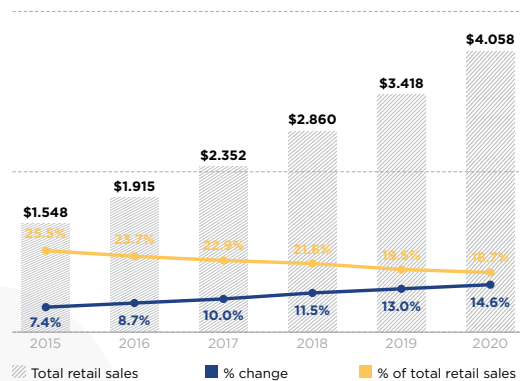
1.4. Market size

The global retail market in 2016 amounted to \$22.049 trillion, \$24.445 trillion in 2017, and \$27.726 trillion in 2020². The share of e-commerce in these sales today account for only 10% of these values.

Total Retail Sales Worldwide, 2015-2020
trillions and % change



Retail Ecommerce Sales Worldwide, 2015-2020
trillions, % change and % of total retail sales



Of course, we realize that Joys will not switch all of these payments to itself, but these figures allow us to understand the Joys market size and growth potential of the project and scaling. If you look 5-10 years into the future, our goal is to occupy 20% of the payments market in the retail sector. And this goal depends on the development of the digital economy and the cryptocurrency market, including public cryptocurrency, which has already been laid out by Venezuela and El Petro.

The short-term prospects of the project and the demand for coins we at Joys estimate based on the size of the cryptocurrency market today (early may 2018): \$415.5 billion.

Most of the participants in the cryptocurrency market today consider them digital financial assets for the purpose of accumulation, financing and growth of capital. But that is only one of the functions of money:

- 1) measure of value;
- 2) means of circulation;
- 3) means of payment;
- 4) means of accumulation;
- 5) global money.

² <https://www.emarketer.com/Report/Worldwide-Retail-Ecommerce-Sales-eMarketers-Updated-Forecast-New-Mcommerce-Estimates-20162021/2002182>

Thanks to the dollar conversion, cryptocurrencies have a function of measure and value. Joys contributes cryptoengine functions for means of circulation and means of payment. We assume that approximately 1% of the cryptocurrency market participates in real treatment as a means of payment and even less in the legal field. Juniper Research predicts that by 2020 digital payments will exceed \$5 trillion.

Until the end of 2019, we expect that through the payment service, Joys will occupy 0.5% of all transactions in the cryptocurrency market a month. Assuming that the capitalization of cryptocurrencies will not decrease, at least when compared with the current volume (according to <https://coinmarketcap.com>), that is:

$$\$415,500,000,000 * 0,5\% = \$2,077,500,000$$

So our goal is to make payments in cryptocurrency equivalent to \$2,077,500,000.

Joys suggests three ways to use the payment service:

1. Payment of goods and services with JOYS.
2. Payment of goods and services with cryptocurrency and token payment plus a 1% commission in JOYS.
3. Payment of goods and services with cryptocurrency and token payment plus 2% fee in the payment currency with subsequent conversion of the commission into JOYS.



II

PROJECT DESCRIPTION

2.1. Introduction

Joys is an open, global blockchain platform that integrates blockchain projects and cryptocurrencies into the conventional real economy.

It is suitable for:



Projects issuing their own cryptocurrencies or tokens;



Owners of any cryptocurrency;



Stores (primarily retail stores) willing to accept payments in cryptocurrency.

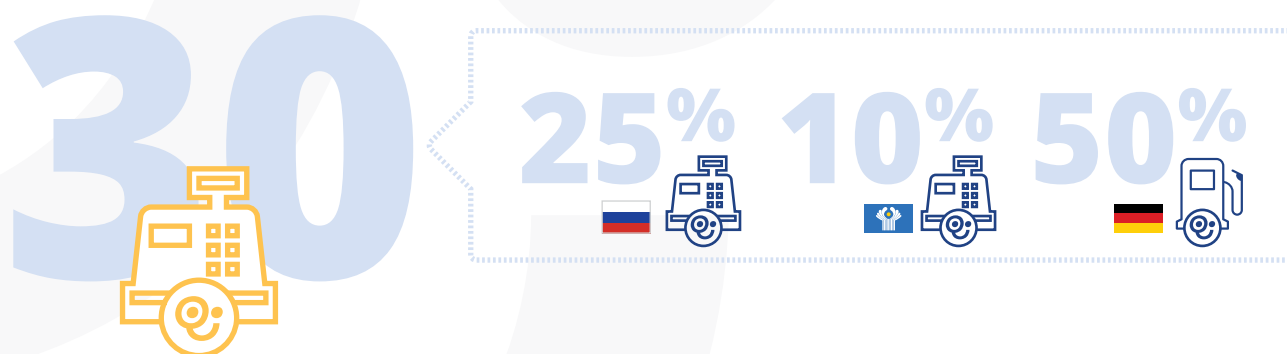
Joys allows you to legally carry out mutual settlements between participants in the system, Joys and stores — online and retail. We provide a link to the blockchain projects, to the platform, and integration into the cash register at the point of sale. This saves project teams, who want to have their cryptocurrency or tokens accepted in stores, from having a long, hard, and expensive integration into the cash registers. Also, under certain conditions, they do not need to obtain a separate legal opinion in each country or buy expensive licenses.

Using Joys, buyers will be able to use cryptocurrency in everyday life as payment for partial or full value of goods or services. Such transactions are legal: the platform records them as payment through prepaid (gift) cards from the store, discounts or remunerations (bonus) in accordance with the rules of the loyalty program or marketing campaign, like miles, bonus points or discount coupons. All stores work with this, and they only accept fiat money in accordance with the laws of their country. Where cryptocurrency is allowed as a means of payment, Joys gives the ability to merchants to accept nearly any kind of cryptocurrencies in addition to all of the existing methods of payment.

The process of purchase and payment in modern retail trade is closely associated with incentive programs and loyalty. We predicted this at Joys. The seller can configure discounts, bonuses or cashback, launch marketing campaigns, or include mlm schemes attract new customers in the system. Tax payment and compliance with the laws of each country are the responsibility of the seller. But we check the source of funds and provide customer identification³.

2.2. Project Achievements

To implement the stated objectives, we performed the integration of the cash register software with our platform. retail and service businesses do not need to install additional hardware or software: We have performed the integration of cash registers ourselves. Joys API is built into many cash registers: TMS30 Scheidt&Bachmann, Micros Fidelio, Micros Opera, Micros 3700, Shtrikh-M, DANCY KASSA, EVOTOR, 1C8, UniPOS, Pro-T-5, Artix, Pharmacy 2007, Trade Farm, UKM4 Supermag, etc. to start using Joys, you have to activate the Joys module in the software of the cash register.



POS terminals, which already includes a Joys module, are used in 30 countries. 25% of the banks in Russia already have the Joys module, 10% — in other CIS countries, 50% of gas stations in Germany.

We have created a payment processing service that allows you to take any cryptocurrency or tokens and almost instantly to conduct a transaction providing payment in guaranteed fiat currency in the account of the merchant within one business day.

³ We perform KYC/AML

2.3. Tasks to Solve

The value of Joys for blockchain projects and customers

Joys is an open system: our technology and services can use any project and holder of almost any cryptocurrency or token. We enable projects to apply blockchain technology in their solutions. We are open for partnership and ready to provide the ability to use Joys cryptocurrency project if the partner does not have its own cryptocurrency or tokens and the project needs it. Project [Rate&Goods](#) is the first embedded solution for Joys to encourage users for their social activity in the app, and before the start of the Joys ICO, this functionality will be activated. Joys and the [International payment system 123](#) decided to combine the two infrastructure projects, to empower customers to use cryptocurrency to pay for goods and services in a large number of countries. We will continue to support and collaborate on a partnership basis with other projects, contributing the best value of our work. We believe that this approach will give the project a powerful competitive advantage in the market and will facilitate the growth of Joys' cryptocurrency values.

We are creating Joys as a means of bringing together the traditional monetary system and the new technology-based blockchain in order to make the society's economy more efficient. We are expanding the scope of any cryptocurrency blockchain project in retail stores and service companies, thereby bringing the conventional retailers to blockchain community, we are contributing to the greater value of cryptocurrencies on the whole and project currencies connected to Joys separately. Joys' platform enables people to pay for real purchases in conventional stores with any liquid digital money or tokens. Joys' payment service simplifies, speeds up, and lower the price of obtaining goods and services for the owners of cryptocurrencies and tokens. We promote blockchain technology and help embed them into the real economy, accelerating the arrival of the point of no return moving to the digital economy.

Value proposition for sellers

Develop not only the money, but also the people who use this money. Today's geeks, that are already involved in the new blockchain economy, will change tomorrow's world and bring millions and billions of people with

them. These people are the future economy and clients of your business. The project aims to help sellers of goods and services attract new customers to increase sales right now. We open for sellers of goods and services an easy and convenient access to the blockchain economy. This will ensure the influx of customers who are holders of different cryptocurrencies and tokens without financing of research, development, and marketing. And the main thing is the fast-growing and active audience, which has money and is willing to spend it. Sellers receive a powerful tool to increase sales. The ability to pay for goods and services using cryptocurrency will make the store available to a wider audience involved in the digital economy. The company's profit from one new customer will increase over time due to the increase in his revenue, savings, needs, and transition to other more expensive commodities.

Joys is a tool for creating loyalty programs and marketing campaigns that you can customize and analyze. With the help of a platform, the business focuses its attention on a specific group of customers and directs its incentives towards those customers who provide the maximum impact. Joys' built-in marketing tools, that we develop and embed in accordance with our RoadMap, will ensure revenue growth from same-store sales, increase the frequency of purchases, expand the list of goods and services sold to one buyer. Thanks to these marketing techniques, the business will receive an influx of loyal customers.

Joys applies technologies that help maintain the legal compliance of the use of cryptocurrency in sales to the maximum possible extent under applicable law. Joys pays particular attention to legal issues, taking into account the law of the countries where the project will be presented.

2.4. How it works

For other blockchain projects with their own token or cryptocurrency

Projects with their own cryptocurrency can ensure their reception in any store connected to the system. For example, the project has its own cryptocurrency which can only be paid for rent servers in a certain data center. When integrated with Joys you will pay the same with cryptocurrency for coffee at a nearby coffee shop or for petrol at the gas station on the

way to work. The same applies to projects where there are bonuses, game currency or internal currency.

We approach each integration individually, we consider whether a project has its own cryptocurrencies or tokens, whether they are traded on exchange, whether or not they are private, etc. For this we provide access to the Joys API or widgets for your app or website.

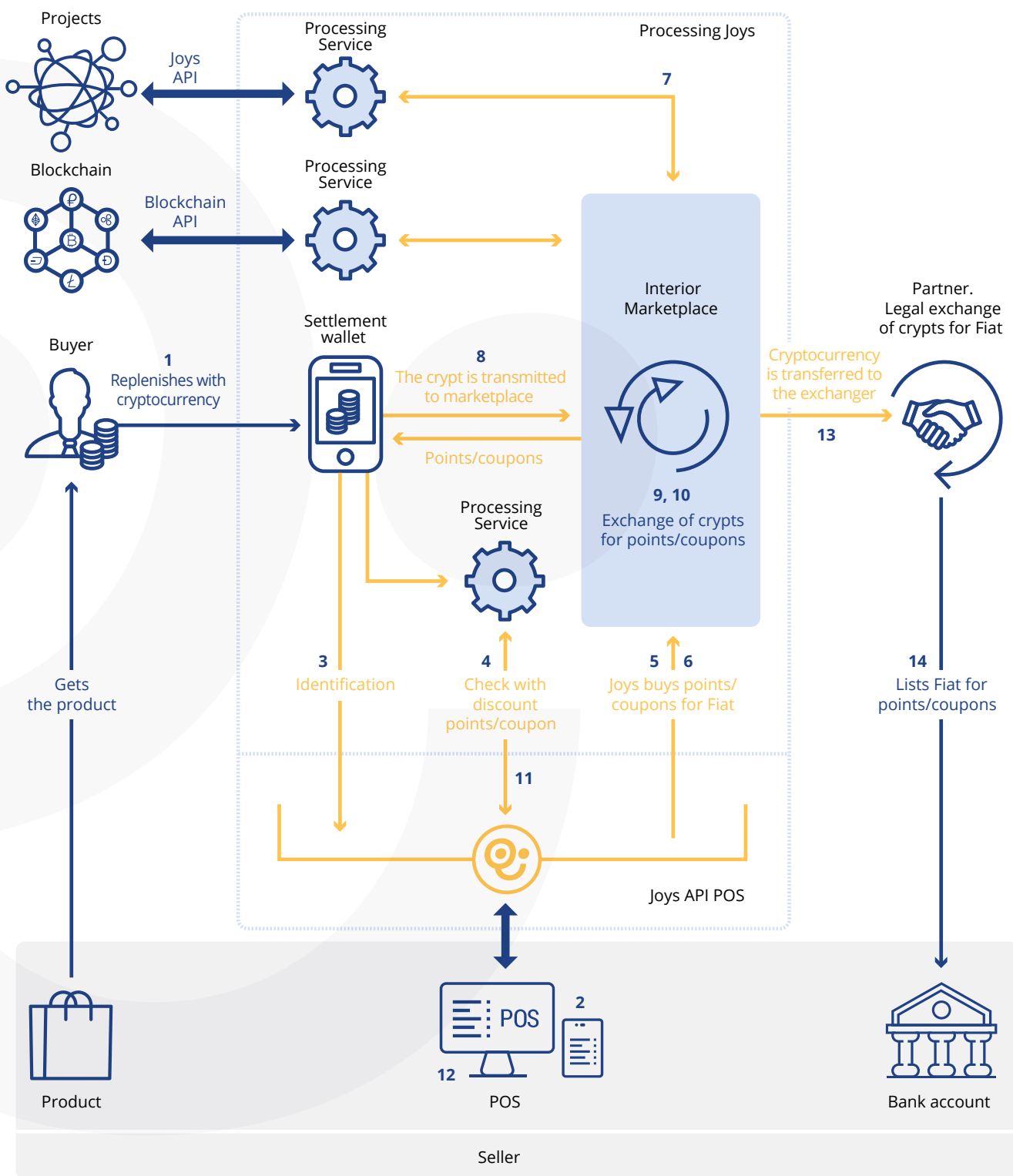
For Stores

We perform the integration in a cash register of stores in order to ensure the usual business logic of sales — no need to install a new cash register software or hardware. When in the arsenal of Joys' platform, there are new cryptocurrencies, the system allows you not to change the integration solutions with cash registers. In doing so, we build our own infrastructure of integration into the cash registers, without inclusion the infrastructure of international payment systems, such as VISA, Mastercard, UnionPay or others. But we do not exclude the possibility to use the capabilities of the International Payment Systems to ensure the interests of our users and customers.

For Buyers

For those countries where it is prohibited in stores to pay with cryptocurrency we offer two processes: using reward points to pay part of the purchase (this process is already ready and working) and using prepaid cards and digital coupons for the full payment (this process is being tested). The system operation is shown in the diagram below.





Work Algorithm



1. Before starting to make purchases, the buyer creates a settlement wallet, in Joys' app or in the partners' apps, in the cryptocurrency he wishes to use for purchases. It replenishes this wallet.



2. At the cash register a sales slip is generated as usual.



3. The buyer is identified at the counter in the cash register: the seller reads the QR code displayed on your phone screen.



4. The cash register transfers the generated receipt and buyer ID to Joys via an encrypted channel and applies a digital signature of the cashier's desk where the purchase is made.

Partial payment through cryptocurrency (Processing of bonus points)



5.1 Joys, on the basis of the contract with the seller, issues a certain number of bonus points given to the seller depending on the conditions of the loyalty program of the vendor and the sum (receipt). These bonus points are accepted directly only by this seller in accordance with the offer of its loyalty program.



6.1 The bonus points in the package are transferred to Joys Marketplace.



7.1 Joys API gets a current exchange rate for the exchange of goods for cryptocurrency from ShapeShift.



8.1 In accordance with the user's offer, upon its authorization in the POS system at the time of purchase, the system transfers to the Joys Marketplace the amount of cryptocurrency calculated at the exchange rate, equal to the number of bonus points in the currency of the receipt.

Full payment with cryptocurrency (Processing of digital coupons)

5.2 Joys, on the basis of the contract with the seller, issues a prepaid card in the form of a digital coupon equal to the amount in the currency specified in the receipt. This digital coupon is accepted in stores only from this seller.

6.2 The issued digital coupon is transferred to Joys Marketplace.

7.2 Joys API gets a current exchange rate for the exchange of goods for cryptocurrency from ShapeShift.

8.2 In accordance with the user's offer, upon its authorization in the POS system at the time of purchase, the system transfers to the Joys Marketplace the amount of cryptocurrency calculated at the exchange rate, equal to the face value of digital coupon in the currency of the receipt.



9.1 In Joys Marketplace it will automatically exchange the amount of cryptocurrency proposed by the buyer for the bonus points of the seller.

9.2 In Joys Marketplace it will automatically exchange the amount of cryptocurrency proposed by the buyer for the digital coupon of the seller.



10.1 On behalf of the buyer, it will exchange the amount of cryptocurrencies proposed by the buyer for the bonus points of the seller. Bonus points will be credited to the buyer's personal bonus.

10.2 On behalf of the buyer, it will exchange the amount of cryptocurrency offered by the buyer for the digital coupon of the seller. The digital coupon is linked to the ID of the buyer.



11.1 Over an encrypted channel, with a digital signature, Joys transfers the receipt, the buyer ID, and the amount of bonus points required for the buyer to make a purchase with a discount into the POS system.

11.2 Over an encrypted channel, with a digital signature, Joys transfers the receipt, the buyer ID, and the digital coupon of the buyer into the POS system.



12.1 The POS system verifies the content of the receipt, the conditions of the loyalty program, and closes the receipt. The buyer receives the goods.

12.2 The POS system verifies the content of the receipt, checks and approves the use of a digital coupon, and closes the receipt. The buyer receives the goods.



13. Joys transfers the cryptocurrency obtained after exchange in Joys Marketplace to the payment partner who has an appropriate license to exchange the cryptocurrency into the currency of the receipt.



14. The partner makes the exchange of cryptocurrency into fiat money and in accordance with the agreement with Joys, charges the fiat currency to the account of the seller as payment of bonus points or prepaid card in the form of a digital coupon.



In countries where the purchase of cryptocurrency is allowed, the scheme of the transaction is simpler.

Work algorithm:



1. Before starting to make purchases, the buyer creates a settlement wallet, in Joys' app or in the partners' apps, in the cryptocurrency he wishes to use for purchases. He replenishes this wallet;



2. The receipt is generated as usual.



3. The buyer is identified at the counter in the POS system: the seller reads the QR code displayed on your phone screen.



4. The POS system transfers the generated receipt and buyer ID to Joys via an encrypted channel and applies a digital signature of the cashier's desk where the purchase is made.



5. Joys, on the basis of the contract with the seller, issues a prepaid card in the form of a digital coupon equal to the amount in the currency specified in the receipt. This digital coupon is accepted in stores only from this seller.



6. The issued digital coupon is transferred to Joys Marketplace.



7. Joys API gets a current exchange rate for the exchange of goods for cryptocurrency from ShapeShift.



8. In accordance with the user's offer, upon its authorization in the POS system at the time of purchase, the system transfers to the Joys Marketplace the amount of cryptocurrency calculated at the exchange rate, equal to the number of bonus points in the currency of the receipt.



9. In Joys Marketplace it will exchange the amount of cryptocurrency proposed by the buyer for the digital coupon of the seller.



10. On behalf of the buyer, it will exchange the amount of cryptocurrency offered by the buyer for the digital coupon of the seller. The digital coupon is linked to the ID of the buyer.



11. Over an encrypted channel, with a digital signature, Joys transfers the receipt, the buyer ID, and the digital coupon of the buyer into the POS system.



12. The POS system verifies the content of the receipt, checks and approves the use of a digital coupon, and closes the receipt. The buyer receives the goods.

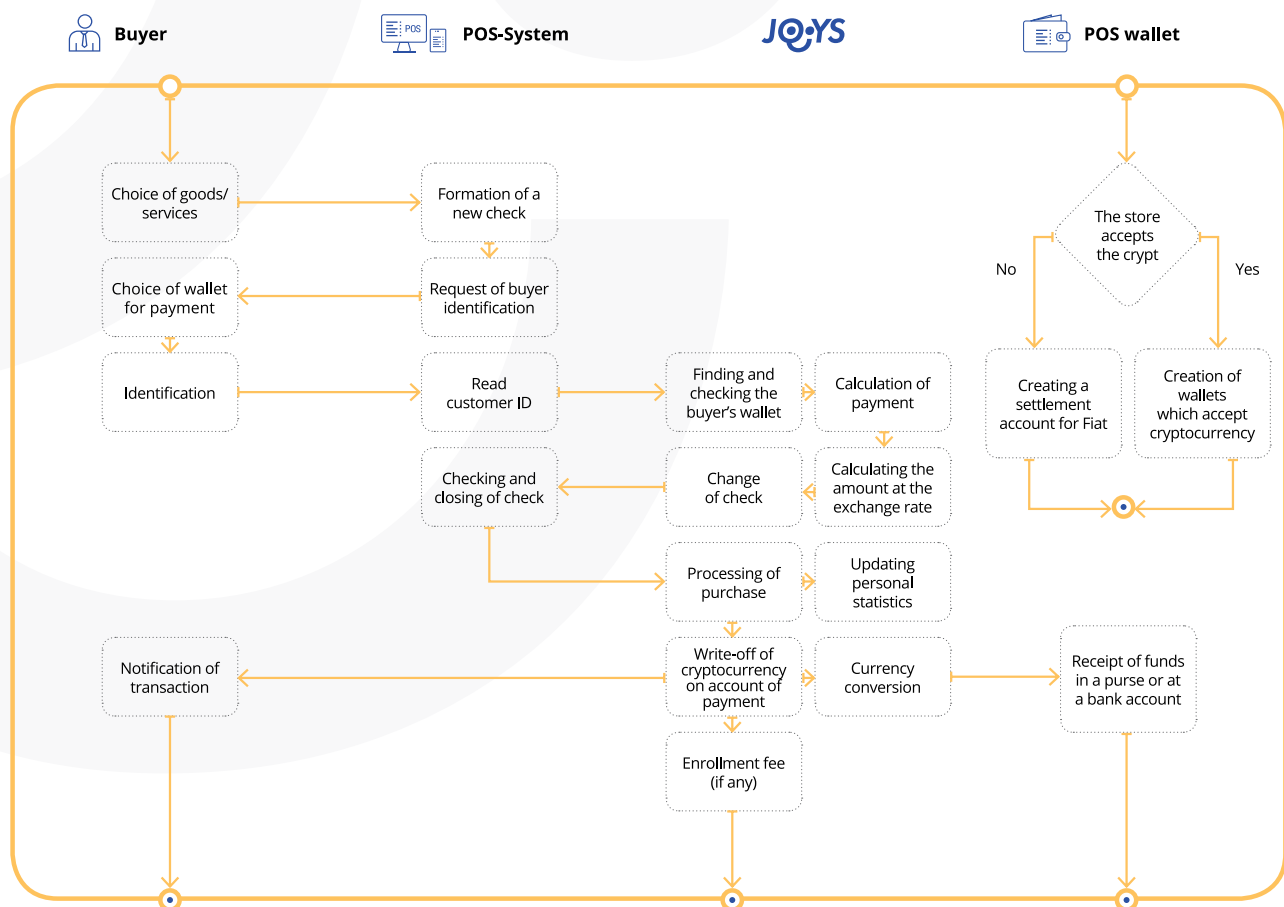


13. In the case that the store accepts the cryptocurrency the buyer chooses to use for payment, Joys transfers the cryptocurrency received from the buyer to the wallet of the seller. If the seller does not accept the cryptocurrency the buyer chooses to use for payment, Joys exchanges the cryptocurrency received from the buyer in ShapeShift for the cryptocurrency specified by the seller.

The competitive advantage of Joys in comparison with other solutions for the reception of cryptocurrency as payment means in countries where cryptocurrency is allowed as a means of payment:

- Full automation of the sales process with cryptocurrency,
- A virtually unlimited number of accepted cryptocurrencies and tokens,
- Embedded support of acceptance of the cryptocurrencies in POS software systems,
- Convenience for buyers and sellers,
- The seller gets the opportunity to place advertising content in the user's application, as well as the opportunity to report on transactions.

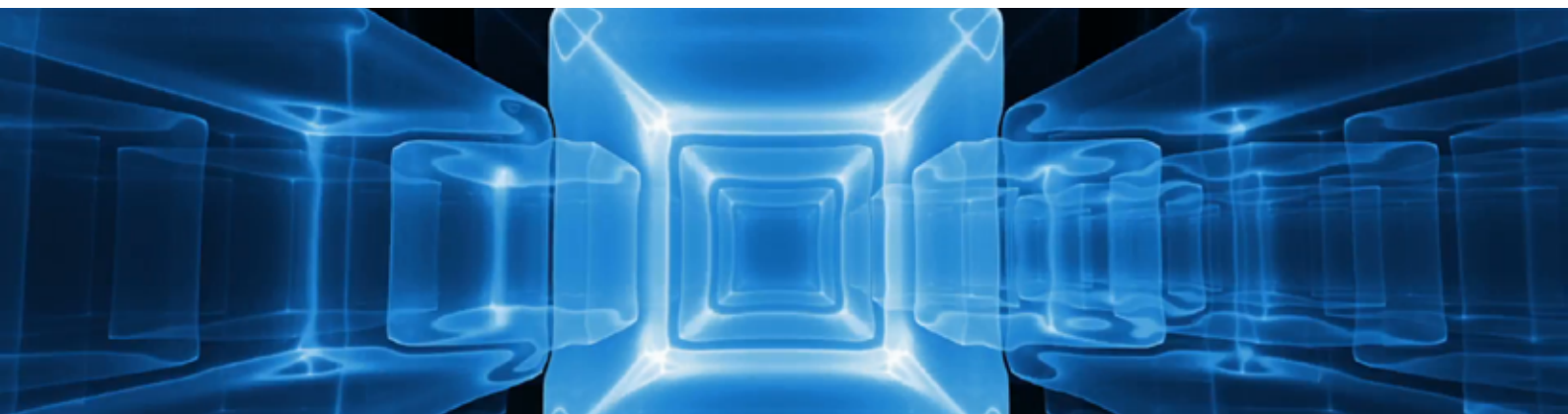
Buyers can pay for purchases⁴ with settlement wallets in Joys' application or other projects that are connected to Joys. The payment for purchase is made through scanning of dynamic QR codes (Code 128 or PDF417) on the smartphone screen. The purchase model is presented in the diagram.



In order to implement the receipt of cryptocurrencies in online stores you will need to embed a special widget.

⁴ In fact, retail and service companies provide discounts in accordance with the terms and conditions of their loyalty programs and or marketing campaigns.

III JOYS' BUSINESS MODEL



3.1. General Principles of Business Model

When designing the business model, we adhered to the following core principles of our project:

-  Entering ICO, we attract money for project development. We are aware that the project may evoke interest of different categories of buyers: management funds, private institutional or speculative investors. For us, all categories of buyers are important, each of you has a role to play.
-  We are creating a project that will independently earn money by providing high-quality and sought-after solutions.
-  Cryptocurrency JOYS has a sign of utility tokens and does not need participation in company management, voting, or profit distribution⁵. We do not promise growth in the value of JOYS cryptocurrency and its listing in the stock exchanges.
-  We plan to earn income both in cryptocurrency and in fiat money.
-  We allow the project to enter the IPO with time, when the project will reach the appropriate level of development.

⁵ Howey's Test Results:
<https://drive.google.com/open?id=1v1zhKlezkTOW4lmv8B1SRoakRn6UtarQeLeLCLnjBQ>

3.2. JOYS' Cryptocurrency Value Growth Model

There are four parties for whom we create Joys:



projects that do not have their own cryptocurrency and they need it,



projects that have their own cryptocurrencies or tokens and holders of those cryptocurrencies or tokens,



cryptocurrency holders who wish to pay with cryptocurrency,



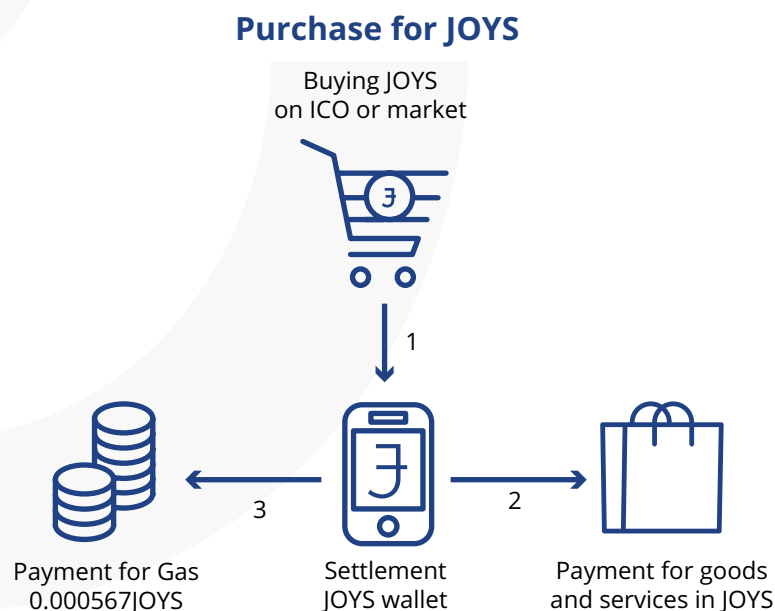
businesses wishing to attract new customers with cryptocurrency.

We expect that JOYS cryptocurrency will be among the main cryptocurrencies of payment for goods and services worldwide. This is solved by creating the most extensive infrastructure project to which we and our partners will 'plug in' a variety of stores, buyers, and other partners.

For each country, the legal aspects may differ significantly. We recommend that users get professional advice.

Purchase with JOYS

If the purchase is made using only JOYS then a commission for the transaction will not be charge⁶. This is the main advantage of buyers who use JOYS' coin as compared to other market players.



Description of the Algorithm:

- 1 — the user buys JOYS and charge to the settlement wallet.
- 2 — the user pays with the JOYS cryptocurrency for the purchase.
- 3 — price of gas is written off from the settlement wallet

⁶ In addition to the payment for Gas, which is 0.000567 JOYS per transaction.

We forecast that at the end of 2019, 25% of transactions will be paid only with JOYS . This will make the following monthly turnover:

$\$2,077,500,000 * 25\% = \$519,375,000$

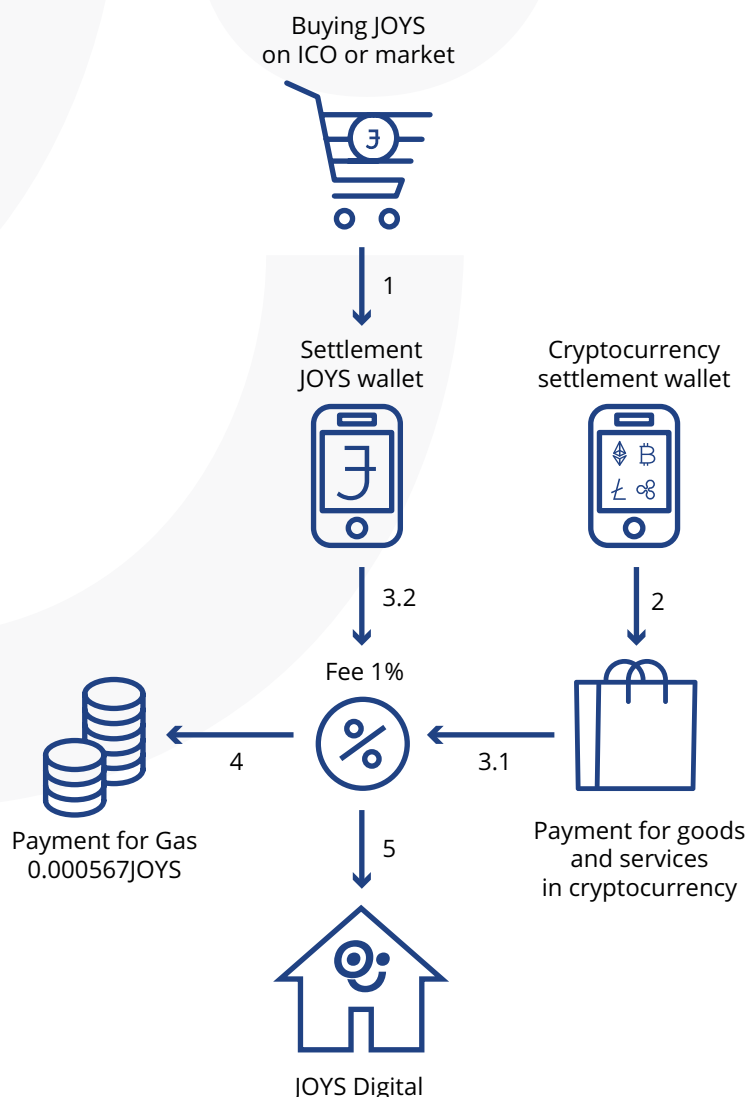
At the final price ICO Joys Stage 1 of \$0.05, this will make the demand $\$519,375,000 / \$0.05 = 10,387,500$ JOYS

This value already exceeds the total initial issue of JOYS.

Payment of Commission in JOYS

All transactions in cryptocurrencies different from the JOYS are subject to a 1 % commission for the payer, charged to the sum of the transaction and paid in JOYS. For example, if the payment is made in Bulgaria, then the buyer must have a JOYS wallet; a 1% commission charged to the transaction will be written off from the wallet at the exchange rate at the time of payment. This allows buyers to decide upon what gains more advantages to them at any time — to make purchases with JOYS for free or use a different cryptocurrency and then pay a fee to JOYS.

Purchase for cryptocurrency with JOYS for fee



Description of the Algorithm:

- 1 — the user buys JOYS and charge to the settlement wallet.
- 2 — the user pays for the purchase with available cryptocurrency.
- 3, 4 — JOYS commission of 1% of the purchase price, including the price of gas, is written off from the settlement wallet.
- 5 — commission is the source of the Joys project revenue.

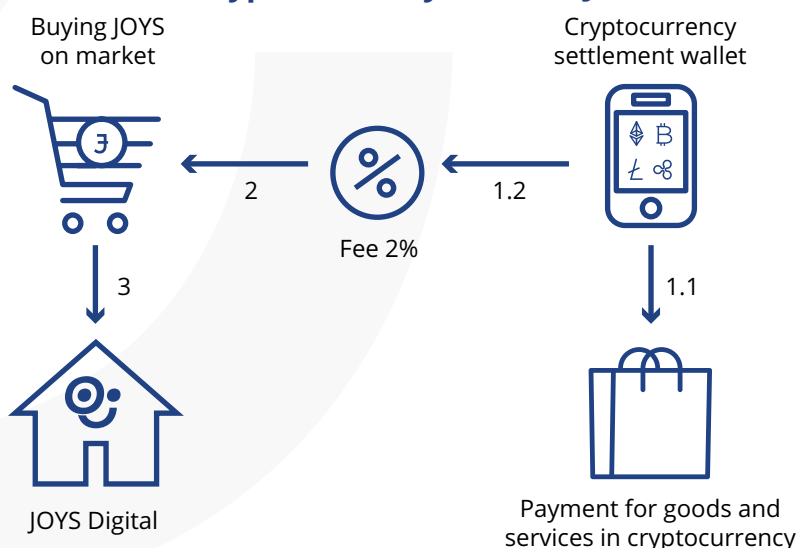
We forecast that at the end of 2019, 25% of transactions will be made for commission 1% paid in JOYS . This will make the following turnover:
 $\$2,077,500,000 * 25\% * 1\% = \$5,193,750$

At the final price ICO Joys of \$0.04, this will make the demand
 $\$5,193,750 / \$0.05 = 103,875,000$ JOYS

Commission paid in the currency of the payment

For maximum convenience for users, we will provide them with the opportunity to pay a commission at the rate of 2% from the amount of transaction, in the currency of payment. At the same time, a commission is converted in the free market to JOYS, and is credited as revenue to the wallet of the JOYS project. Such way of tackling transactions rewards users of the service for their loyalty to JOYS: The higher the loyalty, the more JOYS is used, the less the commission will be charged.

Purchase for cryptocurrency without JOYS for fee



Description of the Algorithm:

- 1.1 — The user pays for the purchase with available cryptocurrency.
- 1.2 — commission of 2 % of the purchase price, including the price of gas, is written off from the settlement wallet.
- 2, 3 — commission is converted on the Exchange into JOYS coins and credited as Joys project revenue.

We forecast that at the end of 2019, 50% of transactions will be made for a 2% commission. This will make the next JOYS turnover:
 $\$2,077,500,000 * 50\% * 2\% = \$20,775,000$

At the final price ICO Joys of \$0.05, this will make the demand
 $775,000 \$20/\$0.05 = 415,500,000$ JOYS

Calculation of the demand for JOYS

Thus at the rate of JOYS , equal to the rate 5 cents at the end of the ICO project, the aggregate monthly demand for JOYS cryptocurrency will be 10,491,790,500:

1. 10,387,500,000 JOYS — payment for goods and services with JOYS.
2. 103,875,000 JOYS — payment of a 1% commission in JOYS.
3. 415,500,000 JOYS — payment of a 2% commission in the currency of the payment.

The initial total issue of JOYS cryptocurrency is 10,000,000,000. The ICO sales will be no more than ₮ 5,500,000,000, the remaining amount will be distributed in accordance with the White Paper, a smaller part of the balance of ₮ 4,500,000,000 will go to the market. By the end of 2019, JOYS issue for mining will be ₮ 21,024,000. This represents 0.2% of its monthly demand, and will not significantly affect market demand in JOYS. The calculation does not take into account the use of JOYS for financing purposes, hence reducing the JOYS offer for the market.

We cannot make predictions and promise growth in the value of and in the future, JOYS. In this paper, we only provided our calculations on demand until the end of 2019. These calculations do not constitute a declaration for public, promise, or offer, may not be in line with the future reality.

3.3. Project Profit Growth Model

Attract buyers, cryptocurrency owners, as new clients of retail and service businesses. It is the core value of the JOYS platform. This value for business is for free.



In addition to the techniques of attraction of new clients, we plan to launch the platform's built-in marketing tools — such as automation enabling actions, digital coupons, predictive analysis of consumer activity, gaming, and mlm-techniques: All that provide vendors with larger revenue from same-store sales, will increase frequency of purchases, expand the list of goods and services sold to one buyer, and increase the size of a sales receipt.

As long as the the cryptocurrency status as payment means does not have any legal definition, all of these products are property of JOYS. We intend to sell them for fiat money —in order to generate revenue for the company.

The main difference between our products and the similar market is, first and foremost, the target audience, with which we enable marketers to work with. These buyers are the future of every sales business.

JOYS will be used for all buying-selling operations, so there will be an increased number of stores connected to the system, and the increase in the number of buyers will lead to increased demand for JOYS.

3.4. Financial Goals of the Project

From our own experience, we know that the initial objectives of projects are repeatedly adjusted during implementation and rarely correspond to the original plans for revenue and/or the timing of reaching planned targets. However, it is always necessary to determine the financial goals of the project.

The project scalability of Joys is almost not limited geographically (you can scale the technology to new countries and markets) and size of the market (limit is the entire market retail sales of goods and services). The pace to achieve financial targets is influenced by several factors:

-  a technical integration of POS solutions in different countries and in different markets;
-  performance efficiency of marketing and the sales teams in local markets;
-  speed of introduction of the blockchain, higher business confidence in the cryptocurrency;
-  speed of government-level 'recognition' of blockchain technology and cryptocurrency in the legal framework, etc.

That is why now the upper limit of the possible financial result of the company can be estimated on the basis of the size of global retail market and the assumption that cryptogenics will completely replace the fiat money as regards payments and commission charges which the platform will receive for processing. At an average fee of 0.5% (which is 3-4 times lower than a commission of the current payment systems), we get the maximum potential based on the 2020 forecasts. This is equivalent to \$139 billion per year. This is a strategic and maximum foreseeable goal of Joys in terms of revenue.

Our financial objectives for 2018 are substantially more modest. While viewing the risks described in this document, we believe that the project will be a success if you start receiving revenue by the end of the year 2018. This will be on our plans from \$20,000. But in the next three to five years we expect there to be growth of cryptocurrency payments, and consequently the growth in revenue of JOYS at an exponential rate.

IV TECHNOLOGY DESCRIPTION

4.1. The rationale for the selection of technology

In order to achieve the project objectives, we have studied several tools: [Blockapps](#), [Monax](#), [Waves Platform](#), [Hyperledger](#), [Multichain](#), [Lisk](#), [Stratis Platform](#), [Chain](#) and the [Ethereum](#).

A lot of thanks to these project teams– they have tackled a great deal of things and suggested what we really need. Our final choice was [Ethereum](#). At the initial stage of service development the blockchain is ideal for us.

Ethereum, first and foremost, is a large community and the advanced development. The second, it is a large number of skilled clients, a nice API, and detailed documentation. The rich functionality of the Ethereum has allowed us, using the documented features of the platform, to create your own private blockchain. The latest version of Geth, Ethminer, and Mist are always available to all participants of the Joys network.

The development vector of Ethereum coincides with our, and we thoroughly study the use of PoS rather than PoW in our project.

But we do not refuse from the further use of other blockchain networks in which you can create and use smart contracts to meet the challenges of processing transactions. The architecture of our solution allows you to use any blockchain network in conjunction with Joys processing.

If you choose to join monitoring, our network nodes can be seen here: <http://eth.joys.digital:3000/>.

4.2. Transactions. Work of the system

In the course of our work on the project, we appreciated the importance of having proper and documented API to connect to third-party systems.

To connect to the current servers a separate service [Wallet-Server](#) was created. Its task is to be the bridge between our API and Json RPC API

Ethereum. This approach allows you to “safeguard” the current integrations from possible sudden changes in the Ethereum.

Of course, we do not decline the option to easily connect to our network, for example, for mining of our currency or purchasing it, but for a while, to take advantage of all the features, you will need to create an account in our system.

In all other matters there are no restrictions: you can also send our currency from wallet to wallet, publish your smart contracts or cause others.

We pin great hopes on smart contracts to implement loyalty programs and marketing campaigns, because we pursue to design and develop this innovative business.

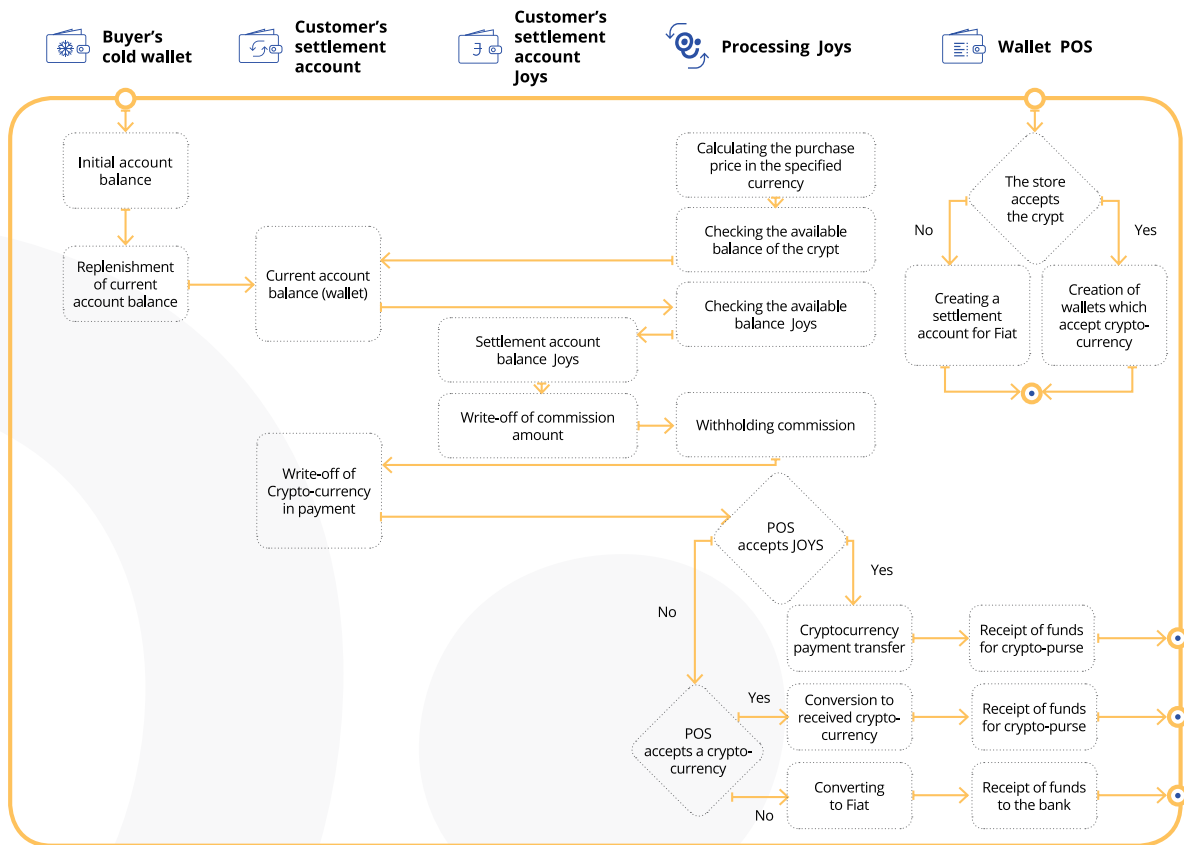
All blocks, wallets and transactions of our network are available: <http://ethexplorer.joys.digital/>

A transaction scheme for purchase depends on whether the buyer pays with JOYS or other cryptocurrency, and also on the system operating mode used in a particular store: based on bonus points or using digital coupons and⁷ prepaid cards. When processing a transaction for buying goods or services, at the time of transaction, Joys automatically performs cryptocurrency exchange for bonus points under a merchant’s loyalty program (if such bonus scheme is applied) based on the market rate. The system sends it to the store’s accounts in accordance with the rules of this retail or service company. The system registers a purchase using bonus points in the POS system. For online use of digital coupons and prepaid cards under a streaming contract, Joys buys a digital card from a store with a charged amount of the purchase and offers to exchange it in Joys Marketplace for cryptocurrency. Since the buyer before the purchase indicates cryptocurrency he wants to use, the system using the rate obtained from [Coincap Exchange](#) makes automatic exchange of cryptocurrency for a digital coupon or prepaid card and submits for payment to the POS system via API.

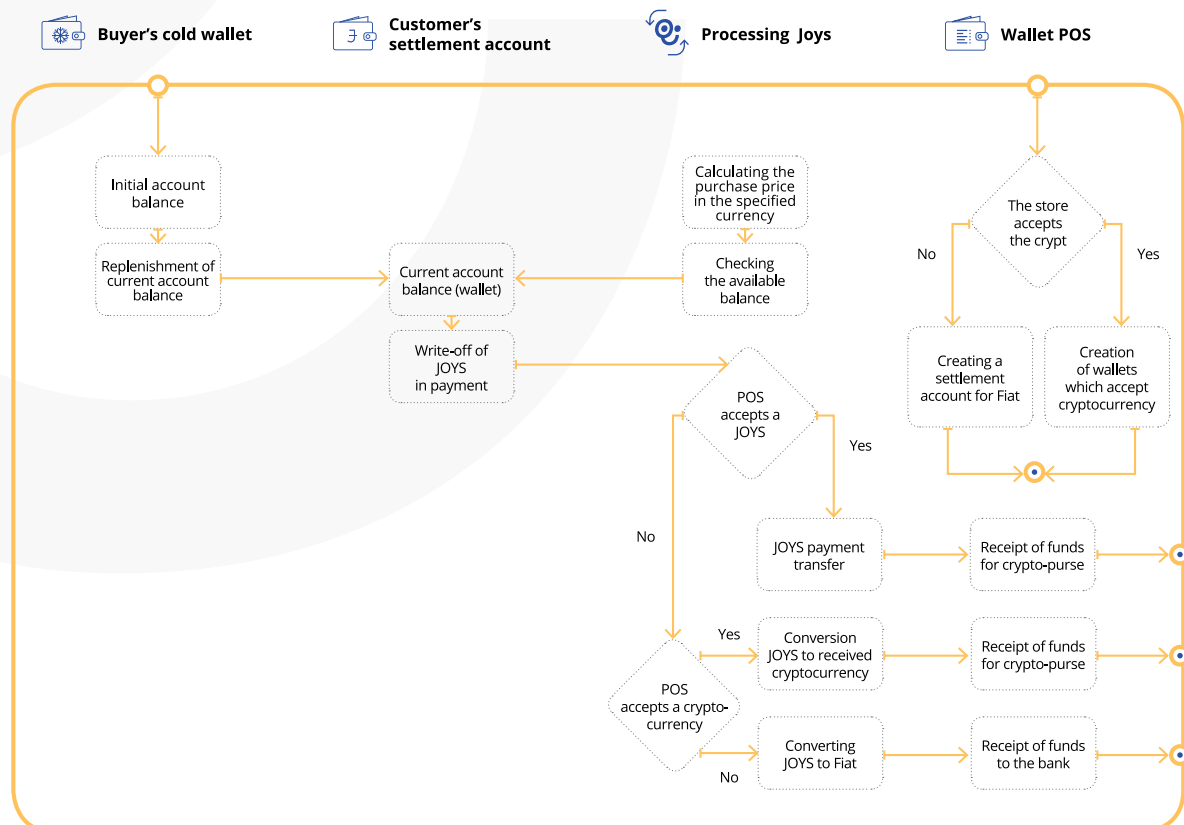
At the time of purchase the buyer needs only to choose the wallet in Joys Wallet application from which he wishes to pay for, log in and show the generated code to a cashier or automatic cashier. Release of digital coupons or bonus points are processed automatically.

⁷ A digital coupon is an electronic version or the card of a particular denomination that can be issued and received, and used for payment exclusively by electronic means.

Payment scheme for the purchase used JOYS



The calculation scheme for the purchase in the received cryptocurrency, except for JOYS



4.3. Description of JOYS cryptocurrency

Internal cryptocurrency "JOYS" plays the role of tokens "utility", a unit to count user actions, a mean of rewards to miners. In the future it is planned to introduce the fee payment system for use of the system. JOYS currency represents a digital asset, giving access to the services specified in this document (White Paper) provided by Joys extensive network.

The initial issue of JOYS is 10 billion units. Every 15 seconds a new block in the network is made for which the system pays 5 JOYS. Total annual issue is 10.512 million JOYS, which are necessary for each operation when using the system.

JOYS ' internal currency is the pillar and engine of all system processes; it is also a mean of confirmation of intentions, exchange medium and a "fuel" for smart contracts and payments. Participation of the JOYS in each payment enables generation of a unified distributed ledger of payments and sale slips in the Joys blockchain despite the fact that buyers pay with different cryptocurrencies. We record with the blockchain not only those who buys and where buys (wallets numbers), but also the content of the sales receipt that will enable analysis and in-depth consumer research, sales level and conduct other analytic researchers.

The purchased JOYS cryptocurrency is not subject to refund and buy-out by an issuing company, except for specially negotiated terms in the Terms and Conditions.

In the future, we plan to reap the benefits making us of all power and capabilities of Ethereum.

JOYS can be obtained in several ways:



Participating in the Joys project:

- a. purchase JOYS for fiat money or cryptocurrency using the account of the buyer <https://joys.cash/>;
- b. get a reward⁸ for the maintenance of our network, you can connect to it at any time by using the Reticule <http://download.joys.digital/latest/>

⁸ The overall complexity of the network have already exceeded the capacity of "mining" on the CPU, so we recommend you to use GPU for these purposes.



In the projects of our partners in the form of remuneration for targeted actions assigned by the partner. For example, viewing ads, create customer reviews, etc.

JOYS Turnover:

+

mining

award for actions

purchase

-

payment for transactions

use in smart contracts

sale

purchase of discounts, coupons,
prepaid cards



V Legal aspects of

5.1. Processing

The use of cryptocurrency as a means of payment in most countries or expressly prohibited or not legally regulated, or requires a special license. Joys pays particular attention to compliance with the applicable law and the identification of clients, specifically aiming to eliminate such risks for our clients.

Joys implements three methods of using cryptocurrency to pay for purchases that do not result in a violation of applicable law⁹.



Loyalty Programs This method involves providing discounts for cryptocurrency. In this case, the cryptocurrency can be exchanged for corporate bonus points, which are awarded to the company in accordance with the rules of the loyalty program. Then the merchant can get an equivalent of the discount awarded in fiat money or cryptocurrency to his account where allowed. There is no payments in fiat money between the JOYS issuer and merchant as Joys does not provide exchange of the cryptocurrency to 'fiat' money. The buyer cannot exchange cryptocurrency for money in stores in any way. JOYS issuing company does not provide direct fiat-to-cryptocurrency exchange as to replace the stock exchange, and does not sell products or services. However, it provides access to a pool of benefits and discounts from our partners.



Gift cards and prepaid cards. If a commercial entity (legal entity or an individual entrepreneur) sells gift cards or gift certificates, the easiest way for him to start accepting the cryptocurrency is to exchange it for gift or prepaid cards. These gift cards are then used for purchases of goods or services. Therefore, already existing accounting methods apply to processing of gift cards. Cryptocurrency accounting will then be either minimized or eliminated completely to track only card sales, cards being the accounting unit. Therefore, the problem of partial accounting of cryptocurrency sales and taxation are optimized. This method is ideal for retail stores and food stores, where cryptocurrency payments via mobile phone for a small daily food

⁹ We recommend you to carefully consider the legal consequences of token purchases and cryptocurrency operations in your jurisdiction and you should additionally obtain independent legal and tax advice . We do not guarantee that the law or its interpretation do not change.

The company primarily acts in compliance with the token issuance jurisdiction.

purchases can be difficult, especially given the queue and customer flow. In this case cryptocurrency is best to use for purchasing prepaid cards, which can then be used at sales outlets.

 Digital coupons. This method implies exchanging digital coupons for cryptocurrency. Rules for using coupons allow you to be flexible in the terms of sale or exclude any goods in the receipt. The coupon can be applied at the checkout automatically — when the conditions of the marketing campaign apply and without the confirmation of the buyer, therefore reducing the time of purchase and queues at the cash register. QR codes can be applied along with other automation tools. Digital coupon can be a numeric presentation of gift and prepaid cards.

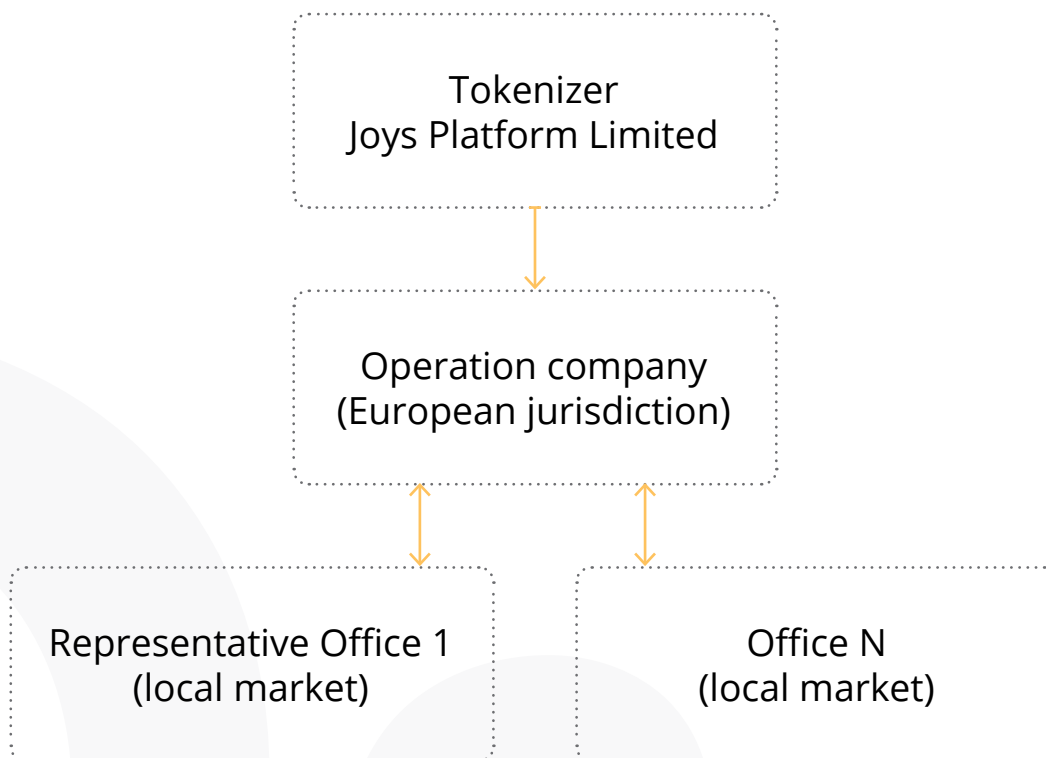
We have solved this challenge by creating multiple processing in one: blockchain-based payment processing, processing of bonus points, and processing of digital coupons (same processing function is used for prepaid cards) are integrated with each other. Functional diagram of the payment system is shown in the Figure in Section 2.3.2.

5.2. Operating activities

The structure of Joys Digital companies is shown in the diagram below.

Tokenizer, which runs the ICO and is liable for implementation of planned payment service ensuring legal use of cryptocurrency by payment for goods and/or services, registered in the Cayman Islands: JOYS PLATFORM LIMITED, company registration number 335907, date April 24, 2018.

For the development and operation of payment service, a worldwide operation company will be established in one of the European jurisdictions, where there is a legal framework for the cryptocurrency. Currently the following jurisdictions are being considered: Switzerland, Liechtenstein, Estonia, Malta, Luxembourg, United Kingdom, Ireland. The company will own the intellectual property, licensing, if necessary, open representative offices or subsidiaries in the countries of business and finance, sign contracts and engage in other activities aimed at commissioning, operation and promotion of the Joys payment service. Financing of this company will be from funds raised through ICO.



5.3. Intellectual property

While working on the project, the Joys team has created materials subject to intellectual property rights. We also used some materials with open source code for the project. All intellectual property rights are currently owned by JOYS PLATFORM LIMITED represented by its CTO, Sergey Zhdanov. It is planned to transfer these rights to the operation company in the European jurisdiction (see Section 5.2) as soon as such company will be registered.

List of software by Joys Digital covered by the intellectual property law:

No	Materials	Description	Date of creation	Date of implementation (available to third parties)
1	Reticule Joys	http://download.joys.digital/latest/ Free application for Windows and MacOS, for JOYS users and miners.	10/01/2018	30/01/2018
2	Site for Joys currency exchange	http://exchange.joys.digital Alpha release. Allows you to purchase Joys via PayPal and using Ethereum. It is scheduled to add more payment systems and cryptocurrencies.	31/12/2017	-
3	Telegram bot for Joys currency exchange	http://t.me/JOYS_wallet_bot Allows you to purchase Joys through Yandex Cashier.	01/12/2017	-

4	Telegram bot for marketing campaigns	http://t.me/joys_promo_bot Telegram bot allows Joys users to try out the minimum scope of project potential without additional steps, i.e. here and now.	01/04/2018	05/04/2018
5	Viber bot for marketing campaigns	viber://pa/info?uri=joysdigital Viber bot allows Joys users to try out the minimum scope of project potential without additional steps, i.e. here and now.	10/05/2018	11/05/2018
6	Joys POSapp	Free application for smartphones, Android and iOS. Provides accurate price calculation and purchase registration. Replaces the integration to POS system.	20/04/2018	25/05/2018
7	Joys application for EVOTOR terminals	Application is available in the EVOTOR appstore. Manages the bonus program, which can operate without plastic discount cards, calculate and log all sales in online POS EVOTOR.	01/11/2017	-
8	Application for Joys Wallet users	Application is available in Google Play and Apple Store. Application allows you to pay for your purchases with cryptocurrency, contains payment wallets in cryptocurrencies available for payment. Allows you to watch the news, list of shops working with Joys, and marketing campaigns in your city.	01/04/2018	-
9	Single Administration Account	Web application that allows the Seller to manage the terms of use of the payment services, promotions, loyalty program, and review statistics by the buyer.	01/11/2017	-
10	Processing Joys	A set of computer programs and services to manage transactions of cryptocurrency and fiat currencies offered and provided through the Joys payment service.	01/11/2017	-
11	Computer software Joys API POS	Interface for POS systems and Joys processing	01/11/2017	01/11/2017
12	Website of the project	https://joys.digital Open Web resource with project description	01/02/2018	10/02/2018
13	Personal account	https://joys.cash A specialized website that allows you to buy JOYS coins.	20/03/2018	30/03/2018
14	Joys PPS	Private payment network or a software suite for deployment of private payment systems based on blockchain technology including: processing, blockchain, POS cashier system and Wallet for the buyer.	30/05/2018	-

List of Digital Joys open-source software:

No	Materials	Description	Date of creation	Date of implementation (available to third parties)
1	Geth	Free Ethereum application for Joys network	-	01/11/2017
2	Mist	free application-Ethereum wallet	-	01/11/2017
3	Etherminer	free application for mining with the video card	-	10/01/2018
4	Claymore	shareware application for mining with the video card	-	10/01/2018
5	Genoil	free application for mining with the video card or processor	-	10/01/2018
6	Joys network monitoring site	http://eth.joys.digital:3000 Allows you to review network statistics, such as complexity, hash rate, average block time, etc. and voluntarily connected to nodes.	-	10/10/2017
7	Pool for mining in Joys network	http://pool.joys.digital Allows you to join a joint pool mining, displays pool mining statistics, and payments to pool members.	-	20/01/2018
8	Site showing blocks, wallets, and transactions within the Joys network	http://ethexplorer.joys.digital The website for viewing blocks, wallets and transactions within the Joys network. Also displays general network statistics for complexity and average block calculation time.	-	10/10/2017
9	Joys Blockchain	A collection of data in a distributed registry of transactions on the basis of the Ethereum private network, which is organized in accordance with the established structure that describes the data characteristics and relations between them for use in Joys services.	-	10/10/2017
10	Wallet-Server	https://github.com/Joys-digital/crypto-server A prototype web application designed to simplify the integration of third-party services and Joys network.	01/12/2017	

VI INITIAL JOYS DISTRIBUTION



When creating a blockchain issued 10,000,000,000 (ten billion) JOYS were issued.

5,500,000,000 (five and a half billion) JOYS, which is 55% of the scope emitted, will be floated. Of these, 500,000,000 (five hundred million) will go to Private Round, 1,500,000,000 (one and a half billion) will go to pre-ICO, and 3,500,000,000 (three and a half billion) will go to ICO.

2,800,000,000 (two billion eight hundred million) JOYS — 28% are reserved for partner projects and will be issued in accordance with the decision of the special Expert Board. The head of the Board is Joys CEO. He personally approves and is responsible for monitoring the targeted use of JOYS coins issued for the project. Reserved JOYS will be distributed to development and joint promotion of Joys with partners projects in the following areas:



5% for finance;



5% of e-commerce recommendation services;



5% in social networks;



5% in media, content;

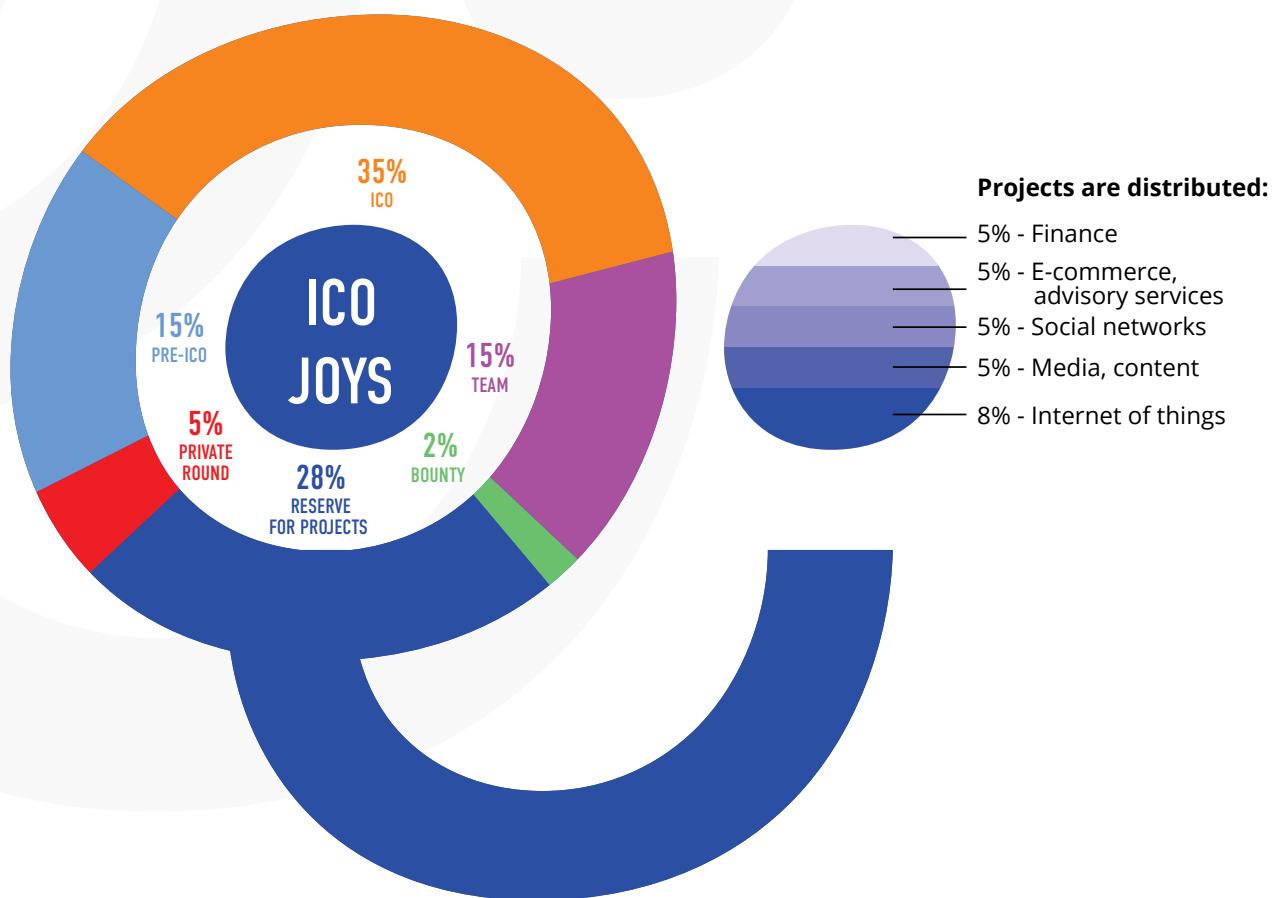


8% in Internet of things.

The remaining 1,700,000,000 (one billion seven hundred million), namely, 17% of issued JOYS will be distributed to the bounty program, 200,000,000 (two hundred million, 2%) JOYS and project team 1,500,000,000 (one billion five hundred million) JOYS.

JOYS intended for the project team are stored in the project wallets and will be distributed among the team members within two years under the smart contract upon ICO completion, according to the achieved targets and performance results set out in the Roadmap and the White Paper supervised by our escrow agent: Vice-President of the Russian Association of cryptocurrency and blockchain, Andrei Grachev.

Amount of undistributed JOYS at previous rounds will be transferred to the next round of ICO at the price of the next round. JOYS not redeemed after all rounds are transferred to the fund of the project team and will be used to attract and motivate new team members.



Schedule as well as additional information on the ICO.

Round	Private Sale	Public Presale
Tokens Volume	500 000 000	1 500 000 000
Min /Max cap USD	1 m/5 m	5 m/30 m
Availability Period	10:00 UTC April 16 — 23:59 UTC May 04 2018	10:00 UTC May 16 — 23:59 UTC May 31 2018
Min /Max amount of a single person Contribution in USD	10 k/no limit	6 k/no limit
Round Start Token Price USD	0.01	0.02
Price from the 9th day of the Round start, USD	0.015	0.025
Price from the 15 day of the Round start, USD	—	—

Round	Public ICO Sale		
Stage	Stage 1	Stage 2	Stage 3
Tokens Volume	1 500 000 000	1 000 000 000	1 000 000 000
Min /Max cap USD	5 m / 50 m	5 m / 50 m	6 m / 60 m
Availability Period	10:00 UTC June 21 — 23:59 UTC Sept. 04 2018	10:00 UTC Jan. 10 — 23:59 UTC Apr. 10 2019	10:00 UTC July 01 — 23:59 UTC Oct. 10 2019
Min /Max amount of a single person Contribution in USD	\$0,4k / no limit	\$0,4k / no limit	no limit / no limit
21.06.-09.07.	0,03		
10.07.-27.07.	0,035		
28.07.-14.08	0,04		
15.08.-04.09.	0,05		
10.01-10.02.		Market price at the end date of the round	
11.02.-11.03.		Market price at the end date of the round	
12.03.-10.04		Market price at the end date of the round	
01.07.-01.08.		Market price at the end date of the round	
02.08.-02.09.		Market price at the end date of the round	
03.09.-10.10.		Market price at the end date of the round	

List of currencies accepted in JOYS' payment system

In the first phase, only Bitcoin and Ethereum, the following currencies will be connected in the future: NEM [XEM], Reddcoin [RDD], Bancor [BNT], district0x [DNT], Edgeless [EDG], Bitcoin Gold [BTG], Litecoin [LTC], Siacoin [SC], BitCrystals [BCY], Ether Classic [ETC], Startcoin [START], Dogecoin [DOGE], Golem [GNT], Waves [WAVES], Digibyte [DGB], Decred [DCR], Melon [MLN], Lisk [LSK], Blackcoin [BLK], EOS [EOS], Clams [CLAM], LBRY Credits [LBC], Factoids [FCT], Gnosis [GNO], Vertcoin [VTC], Augur [REP], Omni [OMSC], NXT [NXT], FunFair [FUN], RCN [RCN], Status [SNT], Voxels [VOX], OmiseGo [OMG], Storj [STORJ], iExec [RLC], Qtum [QTUM], Wings [WINGS], 0x [ZRX], SingularDTV [SNGLS], Basic Attention Token [BAT], Civic [CVC], Bitcoin Cash [BCH], WeTrust [TRST], FirstBlood [1ST], Counterparty [XCP], Steem [STEEM], Nubits [NBT], Neo [NEO], Peercoin [PPC], Salt [SALT], Numeraire [NMR], Aragon [ANT], Bitshares [BTS], GameCredits [GAME], Monacoin [MONA], Metal [MTL], Madsafe [MAID], Swarm City [SWT], Novacoin [NVC], Tether [USDT], Matchpool [GUP], Ripple [XRP].

VII RISKS

7.1 Risk of failure

You need to remember that 9 out of 10 startups with ICO fail, and only about 1 out of 10 shows some profit. Joys team intends to take every effort to make the project profitable and beneficial to buyers. But it is possible that Joys platform will not be a success for various reasons: incorrect marketing strategy, insolvency of business arrangements, errors in the technical architecture of the project, etc. Since the funds collected in the process of ICO are not insured, in the event of loss of value for JOYS there is no chance to apply to the insurance representative for compensation of the lost value of financing. The buyer bears the risk of making an financing decision, and we recommend that you seek expert advice.

7.2 Management risk

We don't know what regulatory action in the blockchain projects can be taken by the authorities of the country concerned. We cannot guarantee that a change in legislation or its application will not affect the project. This means that we have a large area of uncertainty in obtaining the revenue in the market of the country concerned.

7.3 Risk of volatility

Currently, the increase in the value of Bitcoin and other popular cryptocurrencies is similar to the inflation bubble as has happened in the financial markets before. With each passing day the likelihood of this bubble bursting is increasing, resulting in negative consequences both for the project and for the industry as a whole. In case of a drastic decline in

the price of basic cryptocurrency the project may not get sufficient funding for its successful and/or full implementation.

On the other hand, constant and rapid growth of cryptocurrency stimulates accumulation and keeping the coins rather than using them to pay for purchases. Therefore, constant rapid growth rate of the cryptocurrency exchange rate against fiat money creates a risk that the number of transactions for the purpose of paying for goods and services will be small. Given the relative stabilization of the exchange rates there will be a new incentive to spend crypto-money.

7.4 Legal risks

Financing in cryptocurrency in placing project tokens (especially tokens that are not securities under applicable law) are weakly protected by the law in almost every country of the world. This leads to a substantial amount of scammers that create so-called Scam projects that collect financing but do not keep their promises. In order to protect buyers the Joys team is developing a legal structure that will diversify the risks, while JOYS owners do not face risks of managing operating activities. We hire lawyers to analyze the legislation and take all reasonable effort, apply good practices on the market, and implement the project within the legal framework.

We collaborate with lawyers with extensive international experience in the ICO as well as monitoring of operating activities in different countries, which is also pursued by the legal team.

Joys team publicly discloses information about all participants of the project, team, allocated bonuses and bounty, and will inform buyers about the project progress.

7.5 Other risks

The technologies used in the Joys project are cutting-edge and new technologies. This can be a risk itself, which the Joys team will not anticipate until the end.

Other risks also include the possibility of emerging new technologies that could radically affect existing cryptographic blockchain technology. Famous risk is the possibility of inventing a quantum computer.

Also, we cannot completely exclude Hacker attacks or other hostile actions against Joys project.

To protect us from such actions, the Joys project uses modern methods of system security: distributed, protected and cool wallets, anti-fraud security mechanisms, and other software, legal, and natural ways to protect your system.



VIII TEAM

The Joys Team is a synergy of single-minded professionals and partners. The core of the team is made up of employees of Dinect and Rate&Goods. We have already managed to create a working platform that accepts JOYS for goods and services even before ICO. We now have to include other cryptocurrencies and build infrastructure in many countries. We are confident that we will be able to do it, because many members of our team have an extensive experience in implementing similar challenges.



Andrey Mihailishin, CEO

Entrepreneur, co-founder on a number of projects: DiscountMobile, Dinect, MUVIS, expert in the field of automation and modeling of processes and systems; was the developer of information systems and Web services. In 2004 he successfully passes a postgraduate education course at SO RAS school of Russian Academy of Sciences, majoring in mathematical modeling, numerical methods and software suites. 2001-2006-Head of the Process Department in the Institute of Distance Education KemGU (development and implementation of new information technology in higher education, teaching at the Department of New IT, participation in federal target programs, grants). 2006 to 2009 — supervised the technical divisions in several engineering companies. In 2009 — co-founded and further developed interactive advertising platform DiscountMobile with feedback between business and consumers on the basis of a single discount card in mobile (cellular) phone. Since 2014 — Head of the Dinect, the platform for the automation of incentive and loyalty programs. Likes mounting tracking, rollers, beginner climber, runner, devotee to a healthy lifestyle.



Sergey Zhdanov, CTO/Back-end developer

Expert with vast experience in the field of distributed network solutions, computer programmer, accountant and father of three children. Before 2004 worked on servicing and configuration of software in a variety of state, federal and private organizations. In 2006 developed and later successfully sold proprietary software for pharmacies. Since 2007 founded the automated pharmacy referral service and managed it until 2009. Since 2009 — co-founder and CTO of interactive advertising platform DiscountMobile on the basis of a single discount card in mobile (cellular) phone. Since 2014 onwards is the CTO of Dinect, a platform for automation of incentive and loyalty programs. In 2015 started experiments on blockchain technology in existing businesses and systems — created a private blockchain network and prototype of multiplatform wallet for this platform. Amateur cyclist and quadcopter fan. Loves to read. Favorite book is Master and Margarita by Bulgakov. Participates in volunteer project — developing a mobile application for diabetic children.



Vladimir Tolmachev, CVO

Finance expert with 17 years of experience, an expert in the field of payment market and services. Co-founder of non-card payment system — Sendy project. In 2004 he graduated from the Plekhanov Russian Economic Academy majoring in Finance and Credit, qualification — Economist. In 1997 he graduated from the Moscow State Institute of Steel and Alloys (University of Technology)), specializing in Semiconductor materials and devices, qualification — Engineer (Microelectronics and Semiconductor Devices). In 2013 he co-founded and developed the payment system DIPAY, CBR license 0035 dated September 30, 2014. (September 2017 — rebranding to Sendy). Payment system, where electronic means of payment is an application installed on the client Smartphone. Enjoys downhill skiing and snowboarding, biking.



Alexander Shamyantov, CCO / Investor Relations

Entrepreneur, experience in the financial services sector since 2004: during this time he succeeded from specialist to the position of CEO of financial banking company. Since 2014 has been engaged in financial consulting. Worked in the financial sector, attracted over RUB 2.5 billion for various projects Shares his experience and expertise for the benefit of clients with the purpose of ensuring the sustainability of their business and confidence in the future. He is big into target shooting.



Vladislav G. Gavriluk, CMO

Practicing digital expert with extensive experience across all online marketing channels, worked with the top 100 largest companies of Runet: Lamoda, BonPrix, Quelle, World Of Tanks, TCS Bank, Open Bank. Promoted big brands outside the Russian Federation using the Internet and direct-marketing. Monetized social networks and managed many Internet projects on a turnkey basis. Expert in the social networks: linkedin, FB. Ten years of expertise in online advertising and a deep understanding of international trends. Paints landscapes and writes books about business.



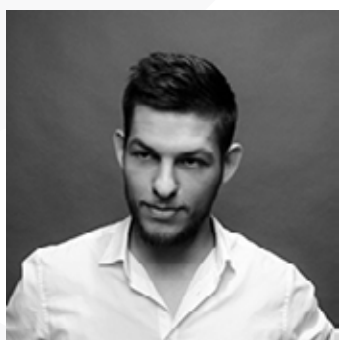
Ivan Krechetov, CFO

Financier with 17 years experience. Since 2004 has been a CFO in large holdings. During 6 years supervised the finance teams of up to 25 people as the CFO of the holding company with an annual turnover of USD 125M. The father of two children. Enjoys swimming, playing pool.



Anna Genergart, Head of Software Integration

Project Manager, Analyst. Expert in development, integration, and implementation of software products. Since 2005 to 2011 as a director she managed to implement several projects on integration of software products at the level of the Ministry of Finance and the Federal Treasury of the Russian Federation. Being the head of the service center, arranged maintenance of the agencies of the Federal Treasury in the South and North Caucasus Federal Districts of the Russian Federation. Since 2012 specializes in implementing projects for integration in retail software, payment systems and CRM. In 2015 completed training under the presidential program of management training with a qualification in project management. Takes a great interest in psychology, photography, literature, Spanish language and culture, has a diploma of Instituto Cervantes (Madrid) — DELE Nivel B2. One of the personal features she is proud of is the attention to detail and focus on results. Keen on the Spanish language and culture.



Lev Shemetov, Head of Partner Relations

Expert in the field of commerce and finance, Master of Banking. Entrepreneur, founder of several online stores. Since 2013 until 2015 he was the head of the branch of online advertising platform DiscountMobile; since 2015 has been a Deputy Head of the sales department in the Dinct project — platform for automation of incentive and loyalty programs. Has 10 years experience in sales and building a sales force from scratch. Invests in market cryptocurrency since 2017. Basketball player and beginner snowboarder; loves to travel.



Sergey Manenkov, Business Analyst

Professional experience: managing owner — since 1991; top manager, staff development, steering units — since 1993; project manager, business project manager, area manager — since 1992; HR consultant for establishment and reorganization of companies and units since 1989. Engaged in operations of the senior government agencies: Commercial Bank AKB Bars — Member of the Board; Holding FSC Russkoe Pole — Member of the Board of Directors of JSC FSC Russkoe pole, Vice President; Bakery JSC Znak Khleba — Member of the Board of Directors; Bank Expobank LLC — advisor to the Chairman of the Board, Member of the Board; OPTIMAL Management LLC—President, Board Member, senior consultant, MBO Holding (tires, wheels, service) — Deputy Director General for HR, Director of the Training Center; Group A&A — Deputy General Director of the holding company for HR, Member of the Coordinating Council of the A&A group (Belgium, Moscow Office); Publishing House RINO LLC –Director General; JSC Orgresbank — Advisor to the Chairman of the Board, leader of workgroups for the development of new products and automation. Graduated from the psychological Faculty of Lomonosov Moscow State University. Was engaged in development of humanitarian technologies for Cognitive centers for regional and municipal development (system analysis and design, social design and engineering, humanitarian technology) in the group supervised by Prof. G. Malinetsky and Keldysh REC IPM of RAS, design and reorganization of social actors (communities, associations, enterprises, organizations and entities), innovative teaching methods, curricula. Hobbies — simulation of consciousness and simulation games.



Ruslan Konovalov, Head of Sales Department

Professional and experienced manager. Higher military education, additional higher education in IT. Reserve officer. Headhunter. Sales expert. Establishment and management of companies operating in different industry sectors since 1996. Small and big projects, retail, wholesale, IT, managing teams of up to 280 people. 2018 — Joys. Head of sales. Building relations with partners and POS developers. Enjoys skiing and scuba diving.



Nikolay Smirnov, Project Manager

An expert in the field of project management, experience of more than 11 years, has the certificate of PME conformity as an expert in the field of project management. In 2010 graduated from FGCU VPO Siberian Academy of Public Service, qualification — State and municipal management. In 2006-2012 managed the international and all-Russian projects in the field of culture and youth policy. Was a manager of special projects dedicated to election campaigns at federal, regional and municipal levels. Since 2012 was the project manager for Development of a Dealer Network, Interactive Advertising Platform DiscountMobile Franchise System. Since 2015 is the Portfolio Manager of Dinect company. Hobbies: workout, cross-country skiing, traveling with his family.



Stanislav Lesnikov, project manager, systems analyst, UX Designer

Project Manager, Analyst. In 2002 graduated from the Faculty of Economics of KuzGTU with honors. In the same year he established a travel and advertising company. In 2004 developed and implemented innovative forms of advertising. Since 2006 was the head of Indoor&Digital business unit of a large off-line media agency. Since 2010 designed and supervised the implementation of DiscountMobile and Dinect.



Vyacheslav Tretyakov, Integration department specialist

In 2005 graduated from Kemerovo State University of Culture and Arts, Department of Automated Information Processing Technology. Since 2002 has been engaged in installation, adjustment, and maintenance of IT infrastructure of the enterprise, since 2014 specialist of the integration department of the company Dinct.



Mihail Ivanov, Security Expert

Expert in the field of development and operation of information systems. While working in the industry, he developed, implemented and used different systems — from furnace control systems for scientific experiments to the submission service for pension and tax reporting. Since 2013 was responsible for the smooth operation of all services and applications of Dinct.



Sergey Berlinskiy, developer

Software engineer with 20 years experience. Participated in the development of over 40 back-ends for large and small projects. Started programming in C++ and Perl, now switched to Python and Java. Great fan of simple and efficient code. Likes biking tours, photography, and geospatial surveys. Collects puzzle cubes of different designs.



Michael Gulev, Back-end developer

An experienced programmer. Graduated from the Faculty of Physics at KemGU in 1996. Since 1997 worked in a bank and was responsible for its entire IT infrastructure: over 16 years of experience and not a single failure! While working at the Bank has developed a large number of software. Since 2013 is the lead software programmer of Dinct. Enjoys playing mini football, loves long-distance hiking and skiing.



Viktor Kuznetsov, front-end developer

In 2011 graduated from the Mathematical Faculty of KemGU as a qualified mathematician-programmer. Since 2009 worked in KemGU and serviced computer and multimedia classes. After graduating from the university, he developed the software for industrial applications. Since 2011 developed more than twenty sites. Since 2014 has been a software engineer at Dinct. He enjoys snowboarding, loves to travel about his native country. Adherent to a healthy lifestyle.



Alexander Belyh, QA

In 2009 he got his first degree in Web development. An expert in the field of web testing and desktop applications. Over 8 years of experience. Specializes in discount systems and loyalty programs. Worked in different projects such as DiscountMobile, Dinct. Over a year was specializing in designing complex interfaces. UI portfolio includes such projects as micro-credit system and the universal delivery service. The main objectives of the work are simplification and improvement of developed products. Loves and knows how to find errors where others don't. Interested in designing and testing high-load systems. Keen on e-sports.



Alexey Zhdanov, QA

As a student of the Faculty of Applied Mathematics at KubGU, was an activist of a student scientific society. In 2015, has developed his first application for Android. In 2016 became interested in mathematical modeling of economic processes and technological analysis of finished models, as well as testing of software products. Favorite sport is sabre. Fascinated by robotics and good scientific movies.



Inna Churkina, PR

Graduated from the Faculty of journalism of the Lomonosov Moscow State University. Experience in PR since 2013: international communication agency Ketchum Maslov (promotion of brands Adidas, Philips, Audi, etc.), PR agency PR Partner (presentation on b2b-market company Wiberg, PR-support of CARO cinema network, Fibrum virtual helmet presentation and quests in Immersion reality). Likes clear texts, science fiction, photography, and animals. Takes a great interest in anthropology.



Nikolay Ziborov, SMM

Internet marketing and management specialist. In 2015 he graduated from Peter the Great St.Petersburg Polytechnic University. His previous experience included customer relations at «Sberbank» and «Tinkoff». In 2016 he was responsible for liaison with state authorities for outdoor advertising approvals. Since 2017, he takes an Interest in cryptocurrencies, regularly attends the exhibitions and conferences.



Jiang Xue, China Community

Entrepreneur. Expert in literature, editor, and journalist. In 2012 she graduated from Nanjing University (Nanjing University, Chinese Trad. 南京大學). Loves classical music and literature. Enjoys the Russian culture. Has a large home library. You can say that her library contains all the works of Russian classics. Studying the Russian language. Loves to travel and gain new knowledge.



Roman Meister, Partner Relations Advisor

Project consultant. CEO of Azbuka company, Rate&Goods project manager. Co-founder of the project for informing users of consumer goods. In 2008 got a master's degree at the Academy of National Economy under the Government of the Russian Federation (now Russian Presidential Academy of National Economy and Public Administration) as the Business Analyst. Since 2008 participated in the development of software for POS-terminals and stock accounting systems. In 2011 launched a service to inform users about consumer goods. In 2016 was the product manager for the Rate&Goods service — community, where users help each other in choosing goods. In 2017 became the head of the Azbuka company and Rate&Goods service: during this time the team was able to implement the largest catalog of products in Russia using barcodes, which facilitates the work of commodity experts, and helps buyers choose products all over Russia. Company works with: Evotor, SKB Kontur, Litebox, Qasl, Cashier Module, and many others. Fan of the Russian pyramid.

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PLANS (roadmap)

Date	Achievements
3Q 2017	Development of the Terms of Reference for the Joys system
4Q 2017	The development of crypto-cluster Development of Joys API v1.5 (static QR) Integration of the first project with Joys (Rate&Goods)
1Q 2018	White Paper Toss The Website Joystiq Pool for cryptocurrency miners JOYS (pool.joys.digital) Integration Joys API v1.5 in POS Joys Wallet v1.0 Reticule application for cryptocurrency miners JOYS The JOYS app for cloud POS Evotor
2Q 2018	Personal area for buyer JOYS Joys POSapp for smartphones Development of Joys API v2.0 (dynamic QR) Joys Wallet v2.0 Private round Presale Joys
3Q 2018	ICO Sale Joys Stage 1
4Q 2018	JOYS enter the crypto exchange Connecting the first store in Russia Connecting Fiat wallets Start integration Joys API v2.0 POS in Russia, CIS and EU ¹⁰ Start of wide connection of shops in Russia, CIS and EU ¹⁰
1Q 2019	ICO Sale Joys Stage 2 Development of marketing methods Creating an integration solution for e-commerce

¹⁰ But not before sufficient funds will be raised for the implementation of these works.

2Q 2019	Start of sales of marketing methods Start integration Joys API v2.0 POS in South-East Asia and Africa¹⁰ Connecting the first store in Southeast Asia¹⁰
3Q 2019	ICO Sale Joys Stage 3
4Q 2019	Start integration Joys API v2.0 POS in North America¹⁰ Connecting the first store in the USA¹⁰ Start of wide connection of stores in North America¹⁰
1Q 2020	Designing a new service for cryptocurrency and fiat payment systems and services
2Q 2020	Development of service for cryptocurrency and fiat payment services and systems
3Q 2020	Development of service for cryptocurrency and fiat payment services and systems
4Q 2020	Implementation and commercial operation of the service for cryptocurrency and fiat payment services and systems



¹⁰ But not before sufficient funds will be raised for the implementation of these works.

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CONCLUSION

Blockchain and cryptocurrency will change the world, and the Joys team intends to participate in this adventure by offering people light and easy-to-use platform for cryptocurrency and token payments in any store.

Bitcoin is already accepted by such companies as Baidu, Reddit, WordPress, Dell, Microsoft, many various cafes, pizzerias, and Yamada Denki electronics stores in Japan. This is the beginning of a financial revolution.

The ultimate goal of Joys is to create the infrastructure worldwide using cryptocurrency to pay for goods and services. Today the mission of Joys is to make a contribution to association of classical financial system and cryptocurrency industry, bring the point of transition of human civilization to the digital economy.

ICO Joys is a great opportunity for everyone to join in the general movement towards a new, open, global digital economy.

Join us in the financial restructuring of the world!

[Business plan](#)

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[Terms and Conditions](#)

[Statement on policy and awareness
on combating money-laundering](#)

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