

JOYS — THE SOLUTION FOR THE DEVELOPMENT OF THE DIGITAL ECONOMY OF MODERN STATES

Abstract

The article examines the main problems of digital economy development based on blockchain and cryptocurrency technology. The author analyzed the main myths in relation to the blockchain and bitcoin technology. The author also considered in detail the new technology Joys, which according to the author will accelerate the development of the digital economy in modern countries, as well as will make more available the digital solutions for the wide range of population in different countries of the world.

Key words: : bitcoin, blockchain, cryptocurrency, digital economy, payment service, Joys.

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Today there are many misconceptions and myths about the blockchain and cryptocurrency. By the way, in Russia even those who write laws for blockchains are often subject to these myths.

October 31, 2008 Satoshi Nakamoto¹ published an article “Bitcoin: A Peer-to-Peer Electronic Cash System”². January 3, 2009 Blockchain was born — first transactions and first purchases were made in Bitcoin network.

¹ Satoshi Nakamoto is the pseudonym of the person or the group of people who created the Bitcoin Protocol and the first version of the software in which the Protocol was implemented. Satoshi Nakamoto did not want to reveal his identity and used the operating system Tor to provide anonymity. He indicated that he lives in Japan and he is 37 years old. However, these data are not confirmed by linguistic analysis, according to which, the English language is native to the creator of Bitcoin. Since 2010 Satoshi Nakamoto has not been involved in the Bitcoin project. Several attempts have been made to uncover the real person or the group behind this name, but none of them have been successful.

² The article «Bitcoin: A Peer-to-Peer Electronic Cash System» was published in the mailing list on the cryptography (The Cryptography Mailing list) metzdowd.com, with the description of Bitcoin.

Before proceeding to the description of our technology Joys we offer to analyze several myths about the blockchain, Bitcoin and cryptocurrency. And also Distributed ledger technology (DLT) will be described.

Myth #1. Blockchain equals Distributed Ledger

The blockchain is one type of distributed ledger. Distributed ledgers use independent computers (or nodes) to record, share and synchronize information in their respective electronic ledgers. Blockchain organizes data into blocks. The blocks are closed by a type of cryptographic signature called a ‘hash’; the next block begins with that same ‘hash’. That is how it is verified that the encrypted information can’t be manipulated.

Myth #2 and the most common: Blockchain Equals Bitcoin

Bitcoin is a type of digital currency that was first created on blockchain tech-

nology. The blockchain was developed specifically for the Bitcoin. That's one of the reasons why people get mixed up between technology and cryptocurrency. Blockchain enables peer-to-peer transactions to be recorded on a distributed ledger throughout the network. But the technology has modified to meet the standards that businesses require today.

Myth #3. Bitcoin is not real money

Money has taken many forms through the ages: shells, wheels, beads and even cows. All forms, though, have always had three things in common: 1) money is a store of value, 2) money is a unit of account, 3) money is a means of exchange. Addition characteristics of money are durability, portability, divisibility, uniformity, limited supply, and acceptability. Bitcoin and some rest cryptocurrencies have all of these properties. Finally, they are supported by millions of processors that build its network and gigawatts of electricity.

Myth #4. Bitcoin is used by criminals

Yes, bitcoin has been the method of payment by some criminals in the past. But by some estimates, 90 percent of U.S. dollars have traces of cocaine on them from being used in the drug trade and no one is suggesting eliminating dollars. Drug Enforcement Agency Cyber Investigative Task Force reports that bitcoin usage for illegal activity has plunged by nearly 90 percent in the past five years. Plus, more regulation on bitcoin is quickly being established. For example, the U.S. Commodity Futures Trading Commission (CFTC), which regulates futures and options markets, already approved the creation of options trading around bitcoin.

Myth #5. Crypto transactions are anonymous

Many people are under the false assumption that all crypto transactions are anonymous. Bitcoin and most crypto cur-

rencies is pseudonymous. That is to say, a bitcoin address can be tied to a particular user. The whole point about bitcoin is that it's actually transparent. Every transaction is recorded on the blockchain and visible to everyone. Many government organizations have established relationships with major exchanges to complete the mapping of the address to the owner.

Myth #6. Cryptocurrencies Are Volatile, So Blockchain Must Not Be Reliable

This fallacy is a continuation of myth number two: Blockchain Not Equals Cryptocurrency. Blockchain has many applications beyond cryptocurrencies. Often people associate the volatility of cryptocurrencies with the credibility of blockchain technology.

DLT¹ : The New power for your business

Blockchain technology for distributed ledgers lets us get rid of the economy of intermediaries. Stop wasting resources on the extra layers and connections in our business relationships. Blockchain applications based on blockchain will likely first replace processes and activities that are still manual and inefficient. Blockchain technology could fundamentally change the financial sector, making it more efficient, resilient and reliable. Eventually, blockchain could increase efficiency and lower remittance costs, and potentially improve access to finance for unbanked populations, who are currently outside the traditional financial system. This will enable billions of new customers to be included in economic activity. Blockchain has the potential to transform various

¹ Distributed ledger technology is a technology of information storage, the key features of which are the sharing and synchronization of digital data according to the consensus algorithm, the geographical distribution of equivalent copies in different locations around the world, the absence of the central administrator.

other sectors as well, like manufacturing, government financial management systems and clean energy.

In terms of accounting, the blockchain will produce the same revolution as the practice proposed by the Franciscan monk Luca Pacioli at the end of the 15th century about double entries in the ledger. Now you no longer need to maintain the registry! The distributed registry serves as a source of reliable information. You can attach any information to the record in the blockchain. For example, if we are talking about a car, then there will be indicated the place of production, data on repair work and other useful information.

Joys: we transform digital money to the real goods

Command and Concept

The Joys command consists of 30 people who create a global system that allows the use of various digital financial assets for purchasing products and services in the legal field in any country.

It isn't only cryptocurrency, but tokens of projects and companies, and even individual people! Each person. Blockchain

gives a unique chance to tokenize any asset. Even each of us! Imagine that your employer or your clients pay you using your own tokens, of which there is a limited amount. And the higher the demand for the result of your work, your tokens are more expensive. And then the more you earn. This is the perfect market mechanism. You will no longer think enough whether you get for your work! You just have only cared about your professional growth. The open market will do the rest for you.

Today there are many projects that solve these goals. But there are two unresolved problems:

First. There is no infrastructure that would allow to use such tokens everywhere, and cryptocurrencies to.

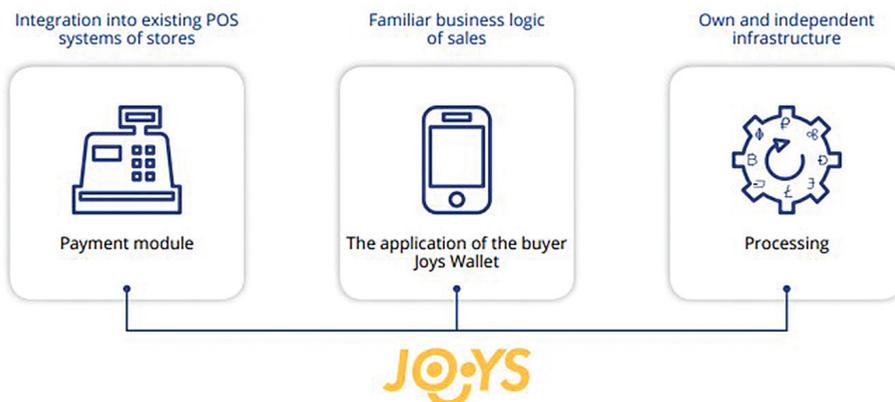
Second. There are no working mechanisms for accounting and converting such tokens for business.

Besides, in most countries it's almost impossible to legally make purchases in cryptocurrencies and tokens today. The framework of existing legislation doesn't allow to use digital financial assets as a mean of payment. We solve both of these tasks.

Product

Joys — international payment service provider allowing payments in any cryptocurrency when purchasing goods and services in online or retail stores.

Joys is:



Technology

The existing infrastructure of payment systems such as VISA and MasterCard is not suitable for solving the set goals. New calls require the rejection of additional equipment in favor of software solutions that can quickly change together with the cash register software, work with everyone SKU¹ in the check, high-speed money transfer, the ability to work with smart-contracts. For creating a fundamentally new infrastructure we are working with cash register software the vendor to integrate Joys API into the cash registers. Joys integrates in shops POS-systems² providing habitual business logic of sale. We open it to other projects and this is one of our competitive advantage!

25% of cash registers in Russia have Joys module, 10% — in other countries of CIS³. The Joys module is in the software of the hotels and the restaurants basically in Europe, in 50% of fuel stations in Germany and in many other European countries. That is why it is a reliable foundation to start and for successful realization of Joys strategy, it also provides reliable demands for Joys cryptocurrency. This new infrastructure should connect the most cash registers around the world.

To solve the conversion problem and legislation restrictions we have divided financial flows: digital assets and cryp-

¹ SKU (Stock Keeping Unit, единица складского учета) is an assortment unit that differs from other assortment items by at least one of the identification parameters (name, manufacturer, size, weight, type of packaging, etc.).

² POS — Point of Sale is a software and hardware system that operates on the basis of a fiscal data recorder; POS-system is assigned to a typical set of cash functions: accounting and release of goods, receiving and issuing of money, cancellation of the purchase, etc. Usually the components of the POS-system are called POS-computer, POS-monitor, check printer, fiscal recorder, POS-keyboard, customer display, cash drawer, magnetic card reader.

³ The **Commonwealth of Independent States (CIS)** is a regional intergovernmental organization of 10 post-Soviet republics in Eurasia formed after the dissolution of the Soviet Union.

tocurrencies exchanged for fiat⁴ in jurisdictions where it's legal, in the country, where purchase made, turnover only fiat.

Today, there are five ways to accept payments in cryptocurrencies in the legal field in jurisdictions where the status of cryptocurrencies not defined yet:

Bankcard linked to your cryptocurrency wallet. This solution allows you to perform over-the-counter exchange transactions. For this purpose, the user must have at least two wallets: one in a fiat currency and one in a cryptocurrency. Before purchase, it is necessary to convert cryptocurrency into fiat. Usually, one or two cryptocurrencies can be used in this set-up and only specific banks support it.

Loyalty programs. A cryptocurrency is exchanged for bonus points in accordance with the rules of companies loyalty program. The merchant can then get an equivalent of its offered discount in the local fiat currency into their bank account.

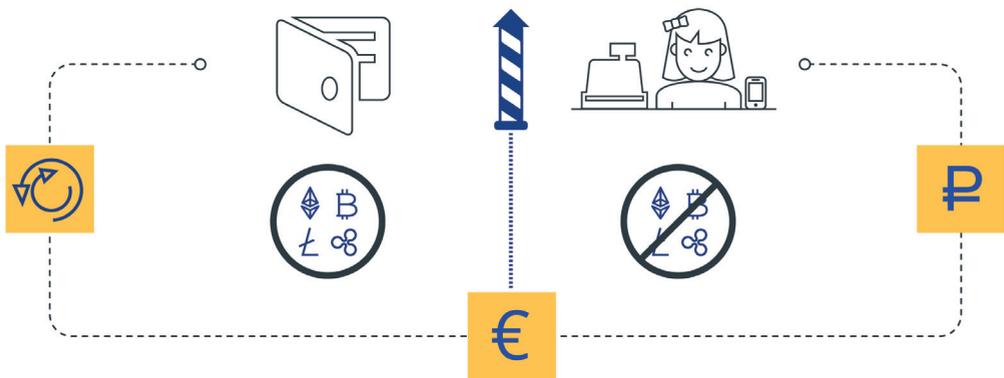
Gift and pre-paid cards. If a business sells gift cards or gift certificates, the easiest way for them to accept cryptocurrencies is by exchanging cryptocurrencies for a gift or pre-paid cards. The gift cards can then be used for purchases. The existing accounting methods can be used to keep track of the gift cards.

Digital coupons. Digital coupons are exchanged for a cryptocurrency. Digital coupons are a very flexible tool. You can set different rules for its use for purchasing. You can use gift and pre-paid cards as digital coupons form.

Information and technical interaction. A retail can accept various forms of digital payments: these can be, for example, the tools offered by the Electronic Money Institution. In this type of interaction, the user instructs an issuer to exchange his cryptocurrency into a fiat currency and to use it as payment for goods or services.

⁴ Fiat is the kind of money that can be cashed in banknotes or coins, you just need to use an ATM. Cryptocurrencies, in turn, have no similar analogues, you can pay for the purchase of goods or services only on the Internet.

Technical realization



Joys supports all these mechanisms for using cryptocurrencies and tokens to pay for goods and services depending on the regulations in a specific country and the local regulator's viewpoint on these types of transactions.

For customers, Joys gives mobile wallet where you can keep track of various blockchain accounts as well as bank accounts. This means that managing your money, paying for goods and services becomes a breeze. You can make fast and secure payments for goods and services using whatever assets you have.

Features

Our key feature is the ability to process any liquid and non-private digital assets. Joys gives to projects with their tokens a new quality, turning them into a means for making payments for purchases. Joys payment service makes products and service purchase easier, faster and cheaper for cryptocurrency and token owners.

An additional feature is the ability to implement the Fast Payment Systems for fiat currencies. In Russia we work together with NSPK and the Bank of Russia to implement a Fast Payment System for making purchases. This autumn, the System should begin to operate in a test mode.

As part of the Working group on Financial services of the BRICS countries Business Council, we are actively participating in the creation of the New International Payment System — BRICS Pay. This is an open payment system that will allow the use of any payment systems in the countries that have joined to BRICS Pay. The core of this system will be blockchain technology for distributed high-speed processing. Each country will have its own node of the payment system. In BRICS Pay will not be one central hub or supreme arbiter — all countries and all existing payment systems will be equal.

Conclusion

Our mission is to bring together blockchain projects and cryptocurrencies with the traditional real economy to make the benefits of blockchain technologies available to business and all people around the world in their everyday life.

Speed, reliability and safety, and ease of use — it's classic requirements of the 21st century which led us to progress.

It happened with PCs, mobile phones, the internet. So it will happen with digital assets and cryptocurrencies to. Join Joys!

Our website: <https://joys.digital/en>

We already integrated Joys module into:



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