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\$RPI - RPiCoin



<https://t.me/rpicoin>



Contact@rpicoin.com

Version 1.0 Whitepaper

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MuskyFX
Co-Founder & CEO

RPiCoin is an open source crypto-currency founded in May 2018. Our very first Blockchain was forked from the Blackcoin source focussing on being an Energy efficient Proof of Stake (PoS v3.0) coin. I'm very happy to announce that we will soon upgrade the entire codebase to implement many new features such as: Zerocoin Protocol for additional Privacy, up-to date HD Wallets including Multisig and the ability of using Masternodes next to our current PoS 3.0 mechanism.

On behalf of the entire team I want to thank our current investors and the community for your great support, we are happy to introduce the first version of our Whitepaper! Read more to get to know about our unique use case and future plans.

Contributors: Swegsley, Knicko, TUXCMD and Bobermo



Acknowledgements

RPICoin would not have been possible without the prior works of the respective Bitcoin, Peercoin, Blackcoin and Wispr teams. Open source software and its contributors are constantly paving the way towards new and exciting innovations. When information and knowledge are free to build upon, society as a whole benefits. We are grateful to our predecessors for the opportunity to contribute and make our mark in this ever-growing ecosystem.

Disclaimers

This document and any related documentation do not constitute an offer or solicitation to sell shares or securities. The information provided here is not intended to be a basis for any investment decision(s).

RPICoin does not provide investment advice, counsel, or solicitation for investment in any particular security and shall not be construed in such ways. This document does not constitute and should not be construed as an offer for sale or subscription. Neither is it an invitation to offer or buy any securities or other financial instruments.

This whitepaper is a living document and is improved and edited on a regular basis. The strategies and ideas you will read about will continue to be added to, revised, and improved as we move the project forward.



Abstract

Today security and privacy is more important than ever. Fast-moving technological advancements have rapidly broadened our horizons and connected the world like never before. RPICoin is based on the Bitcoin source code which has been introduced in 2008. Cryptocurrency is steadily moving into the mainstream and we can now transfer digital currencies across the globe in an instant using the power of the blockchain.

Our goal is a fast, secure and energy efficient cryptocurrency that forms the foundation for future development of various platforms and applications. This by making use of the underlying payment architecture the RPICoin platform provides. Our goal is to make our RPICoin cryptocurrency available by providing custom blockchain creation and services thus allowing businesses to take full advantage of the Blockchain technology.



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1. Brief Introduction to Cryptocurrency

1.1 Background

In 2009, Satoshi Nakamoto released a paper entitled *Bitcoin: A Peer-to-Peer Electronic Cash System* detailing his vision of commerce. Nakamoto's vision detailed a peer-to-peer currency system backed by a hash-based proof-of-work. The network would timestamp transactions by hashing them into an ongoing ledger that could not be changed without redoing the proof-of-work. Nodes would choose the longest chain as proof of events witnessed by the largest pool of hashing power. As long as $\geq 51\%$ of the network hashing power is controlled by nodes not intending to facilitate an attack, the chain they generate will remain the longest. (Nakamoto 2008)

1.2 The Block

Each block on the network is prefaced with an 80-byte header containing a double SHA256 hashed copy of the previous block's header, Merkle root (a double SHA256 hashed derivation of all the hashes that occurred in the block), the time stamp at which proof-of-work began, difficulty target this header's hash must be less-than or equal to, and the nonce at which miners reached the difficulty target. As such, any attempts to modify any transaction in any block will result in the rejection of the block by the network's miners. (Bitcoin Core Team 2017)

1.3 The Blockchain

Groups of transactions are formed into blocks and those blocks are placed chronologically into a chain - forming the blockchain. The blockchain creates a moving history of all of the activity within the network and serves as a distributed consensus model where any transaction can be verified at any time (Crosby et al. 2015)

1.4 Proof-Of-Work

A Proof-of-Work (PoW) is a piece of data which is costly to produce so as to satisfy certain requirements but is trivial to verify. Bitcoin uses the Hashcash PoW. Mining, the process of producing PoW, plays the central role in creating, distributing and securing Bitcoin and many its variants. The most common criticism of PoW mining is its massive waste of energy. At the time of writing, the total daily revenue of mining Bitcoin is around 1.8 million USD. Depending on the aggregate profit margin and the fraction of overall cost that electricity accounts for, we estimate the daily total electricity cost between 200K and 500K USD. In addition to this wastefulness, there are several more reasons why mining remains a very controversial aspect of PoW cryptocurrencies.



1.5 Proof-Of-Stake

Proof-of-Stake is an alternative to PoW first introduced in Peercoin, where based on connectivity to the network and random chance, you can receive new coins to assist in the decentralization of the network. One useful feature of Proof-Of-Stake is the significant saving in energy consumption in that it requires no dedicated hardware and negligible amounts of electricity to reward miners, and in many cases is far more resilient to a 51% attack on the network. (Blackcoin Core Team 2016)

1.6 Initial Distribution

PoS by construction relies on a fair and wide distribution of a cryptocurrency but doesn't deal with the logistical issue of how to achieve this fair distribution in the first place. By comparison, mining in PoW, despite all its drawbacks, also serves as a potent channel of distribution. This chicken-and-egg problem was and remains a major challenge for all PoS cryptocurrencies. So far there have been two popular workarounds:

- a) "pre-mine", i.e. similar to subscription to stock IPO in financial markets and
- b) a hybrid system of PoW and PoS with PoW gradually fading away after an initial period.

The main criticism of "pre-mine" for PoS coins is its lack of guarantee of either fair or wide adoption. The vast majority of "pre-mine" turned out to be fraud. For those which were not, investors and speculators with deep pockets can easily control a large stake in the currency, transforming its nature into more as a speculative vehicle than a currency. Over-concentration of stakes also increases the security risk of the decentralised network. The PoW-PoS hybrid system alleviates these concerns by running PoW and PoS in parallel. PoW mining works as both a steady distribution channel and a fall-back network security mechanism. As PoW block rewards go down over time, PoS has enough time to move to the spotlight. Unfortunately, it doesn't matter what particular model a PoS cryptocurrency uses for initial distribution. The mere knowledge by the public that a cryptocurrency will eventually rely on PoS compromises its ability to achieve a fair and wide distribution. This is the inherent paradox of Proof-of-Stake.



2. Introducing RPICoin (RPI)

RPICoin (ticker: RPI) founded in 2018 is a decentralized, community-oriented, fast, secure and easy to use cryptocurrency. Our deliberate fair launch strategy allows participants the opportunity to join a promising project at its inception. With no ICO and only a small pre-mine RPICoin, adopters will have ground-floor access to an easy to use, mobile device supported cryptocurrency with an ambitious development roadmap.

Our number one priority is the community. Therefore, we have adopted the Proof of Stake 3.0 system because we believe it to be the world's most secure and efficient method of coin generation. RPICoin has solved distribution issues with giveaways, contests and daily lottery pools. With these incentives we managed to have a fair for all distribution of the pre-mined RPI Coins and a secure Blockchain.

Using a Proof-Of-Stake network consensus, we are able to secure the RPICoin blockchain, offer better network stability and enable multiple coin control features without using an exorbitant amount of energy. RPICoin is focussing on mobile support and ARM- based devices to extend and make use of energy consumption in a smarter way.

By investing in and usage of RPICoin you can earn a passive income by keeping your wallet unlocked. Entry is low and anyone that participates in the staking process will receive a fixed stake of 300 RPI each. Depending on the amount of coins you hold, you will earn stakes (rewards) more or less frequent. If an investor supports the network by running the wallet 24/7 a year, the Return on Investment (ROI) would approximately be 45% annually.

The RPICoin Blockchain will be the frontier of numerous implementations, including but not limited to:

- Fast, scalable, secure and reliable transactions
- Anonymous staking and payment system using the Zerocoin protocol
- Earn Passive Income by staking & running Masternodes
- Multisig & HD Wallets
- Masternodes and Staking
- Atomic swaps and side-chains
- Gaming / Gambling platform
- Custom Blockchain creation and services
- Partnerships with other projects and businesses
- A Decentralized Marketplace platform
- More RPI hosted services will be described & announced during further development
- A unique bounty hunting platform for finding specific data which is being (illegally) shared across the world wide web, rewards will be paid in RPI
- RPICoin Payment Provider offering ready to use services/plugins for merchants and to easily swap RPI between different (crypto) currencies.

Our RPICoin blockchain and platform will be an ecosystem that continuously improves the technology behind it. Create new and innovative applications, builds a decentralized marketplace, provides partnership opportunities for other projects and businesses, offers blockchain- related services to third parties, both public as private.



2.1 RPICoin Specifications

Specification	Descriptor
Coin Name	RPICoin
Abbreviation	RPI
Algorithm	Scrypt
Coin Type	PoS v3.0
Pre- mine	10% (683M RPI)
Block Rewards	300 RPI
ROI	~45% annually
Max Supply	5,999,991,337 RPI
Minimum Stake Age	4 Hours
Maximum Stake Age	Unlimited
Address Letter	R
Fee	0.0001 RPI
Maturing	10 Blocks
RPC Port	31030
P2P Port	1
Block Spacing	0 seconds
Block Size	1 MB
Block time	60 seconds

With our future plans to upgrade our code base certain specifications will change and get added. We will announce the exact details as soon as possible while the team works on implementing the current chain on the testnet to ensure a smooth soft fork. Details on the exact date and block height of the fork will be communicated along the process.

Note: We will also revise the Return of Interest and other Parameters as used in the current situation.



2.2 RPICoin Economics

RPICoin is a blockchain technology enabled open-source and privacy focused digital currency. It is a technological innovation which is being run by smart tech gurus who believe in the future of Blockchain. The relationship between PIVX, Bitcoin and RPICoin is quite simple: PIVX is a Bitcoin fork (an improvement on the Bitcoin source), RPICoin is a PIVX fork (an improvement on the PIVX source). To maintain the health and security of the blockchain, RPI will reward users for participating in the network by using the Proof of Stake mechanism.

Just like competitors seeking top capitalization on the markets today, RPICoin guarantees fungibility, top-notch security and privacy.

The current code base of RPICoin is based on Blackcoin, the previously described soft-fork will be based on the PIVX code base using the same secure Proof of Stake 3.0 (PoS 3.0) mechanism as currently implemented in RPICoin.



2.3 Pre-mine Distribution

Total Premine	683.500.000 RPI (10% of Total Supply)
Community funds	341.750.000 RPI (50% of Premine)
Development funds	205.050.000 RPI (30% of Premine)
Exchange funds	136.700.000 RPI (20% of Premine)

To find out the current state of the Pre-mined funds please have a look on our block-explorer as all wallets have been labelled according to the allocated funds.

Community funds which contain 50% of the pre-mined funds are allocated to fairly distribute towards the Community by using Airdrops, Bounties, Lotteries and Give-Aways. For each way of distribution, we have setup guidelines and rules, in order to be eligible to claim the funds. Mainly to prevent single users participating with different accounts claiming these funds but also to ensure a fair and decentralized way of distribution.

Development funds are used for the future Development and to cover the current running costs. (Computing Power for our main website, explorer and other core services). These funds are also being used to pay freelance developers or other services aiming to improve RPIcoin's development process. Approx. 90M RPI has been locked and reserved for future development and can be used by the RPICoin Team. These funds initially have been locked for a 1-year period and will be available as of May 2019.

Exchange funds are used to cover the expensive listing fees asked by the majority of Exchanges to have RPICoin listed.

The primary use of all funds from the Premine is to expand the features of our platform and to fairly distribute the funds towards the community including 100% Transparency from the day that the Genesis Block has been generated. We choose to fork from Blackcoin for our initial start-up because of the easy- to trace funds and what we find to be important during the initial start "Transparency". From this point we want to move on and perform a soft-fork from the current RPICoin Chain to a new Proof of Stake algorithm based on SHA256 and the implementation of the Zerocoin protocol to provide the best privacy while processing payments.



3 The RPICoin v0.2 upgrade

Currently under development

Currently RPICoin is built on the Blackcoin PoS 3.0 protocol and Bitcoin core 0.10.x code base which provides a Passive Income to its users by staking and keeping the wallet unlocked. During this period, it was easy to track the 10% pre-mined funds of which 5% is allocated for bounties, give-aways and lotteries. Transparency was one of our key factors, to be able to proof how we successfully distributed these funds in a way to have the network as decentralized as possible.

In order to keep providing a secure, fast and easy-to-use cryptocurrency, we decided to improve our code base by using the PIVX core which allows us to make use of the latest blockchain technology and upgrade to the latest Bitcoin core 0.17.x as well.

The RPICoin team still has to decide upon specific Parameters for the new blockchain, this may include the (ROI) Return on Investment gathered by Staking, the collateral (RPI) needed to be able to run a Masternode and the rewards for regular Staking and for running a Masternode.

As soon as our new code base has been finished and successfully deployed within our test network, we will announce the exact date of the Soft-fork and Block-height. The new code base will proceed on our current blockchain at a specified block, therefore Wallets, Transaction History and Funds will still be available after successfully forked towards our new code base. Updating older (v0.1.2 and below) wallets in order to get up and running on the updated blockchain would be required.

A summary of the new features

- Zerocoin Protocol (zRPI)
- Masternode implementation
- New updated wallets
 - HD Wallet support
 - Ability to export & import private keys to your wallet
 - MultiSig support
 - Options for both private and transparent transactions using zRPI
 - Managing your Masternodes
 - New layout and many more options
- Advanced RPC commands and bugfixes
- Earn passive income through Staking (wallet) and by running Master nodes



3.1 Masternodes

With our V0.2 release RPICoin will implement masternodes, which are enhanced nodes to provide additional services and add an extra layer of security to the RPICoin Blockchain network. One of the services provided by masternodes is processing Zerocoin (zRPI) private transactions. Anyone with (TBD amount) RPI can setup and operate an RPICoin Masternode. This Masternode has to be online 24/7 to be able to receive rewards for supporting the RPICoin network. This way Masternodes help provide additional security, reliability and performance to the blockchain. Given their large stake in the RPI Blockchain, Masternode owners have an even larger incentive to maintain the integrity and security of the blockchain and thus help guide the growth and value of RPICoin over time.

To establish a masternode, (TBD amount) RPI is needed and would need to be locked as collateral in a transaction performed in the owner's RPICoin's wallet. This in its turn can then be safely paired with the Masternode using a Private Key. In case your Masternode gets hacked your funds will still be safe within your own wallet!

Our Masternodes can be setup to run on a VPS (Virtual Private Server), at home or on a Raspberry Pi as long as you have a reliable Internet Connection with 24/7 uptime.

If the masternode owner ever wishes to stop operating their masternode, they can unlock their coins and terminate its function at any time. Like stakers, masternode owners receive a portion of the block rewards which as of this writing is **150 RPI** per block. For a masternode owner, a passive stream of income is thus created.

A quick calculation based on 50 active masternodes operating on the RPICoin Blockchain network. This equates to about 20% = 150 Million RPI (Example based on 3Million collateral RPI to run a masternode **the exact amount is still to be decided**) locked as masternode collateral, decreasing the circulating supply from ~452Million RPI to ~302Million RPI. The Return on Investment (ROI) for a masternode owner based on these conditions is about ~75K RPI per month, which equates to about a 30% annualized return. These numbers will change as masternodes are either added or removed from the RPICoin Blockchain network and as block rewards decrease gradually over time at specified block intervals.

The RPICoin team has developed a detailed guide for setting up a masternode and both the team and community are available to provide support in the Telegram group for those less technically inclined.



3.2 Proof of Stake

The RPICoin core blockchain is based on Proof of Stake v3.0 (PoS 3.0). The Proof of Stake bases rewards on how much stake each participant has in the RPICoin Blockchain network and for their participation in validating and processing RPICoin Blockchain transactions and blocks. This alternative method of achieving distributed blockchain consensus offers a number of advantages over PoW consensus algorithms.

- It uses vastly less computing power and electricity to secure the blockchain. There are estimates that Ethereum and Bitcoin PoW mining burns over **\$1 million** in electricity and related costs per month. PoS is much more sustainable and environmentally friendly in comparison.
- There is less need to issue new coins to provide incentives to participate in the blockchain process, leading to less need to inflate the currency. RPICoin Blockchain transaction fees are negligible compared to Bitcoin fees. This for similar reasons as there is no need to incentivize a miner to process them. Furthermore, the transaction fees are burned as they are used, reducing the total supply of RPI to offset some of the increase in supply from PoS rewards. As transactional use increases, it is possible there could even be negative net issuance of coins.
- PoS allows for greater decentralization, since the RPICoin Blockchain nodes are way more energy-efficient. There is no need for a large centralized mining farm as there is with many PoW coins. This greater decentralization makes it more difficult for centralized coordinating groups of nodes to form and thus halts groups that do from harming the RPICoin Blockchain network.

These and other benefits of PoS provide RPICoin Blockchain with a secure foundation. Nodes on the blockchain network have to be holders of RPI in order to participate in blockchain mining and they have a natural incentive to protect and enhance the value of RPI.

Anyone with a RPICoin Blockchain wallet can keep it online with staking enabled to help process, confirm RPI transactions and build the blockchain. In return for providing this service and securing the RPICoin Blockchain network, stakers may receive a portion of the block rewards, that as of this writing is 150 RPI awarded for each block, which is targeted to occur every 60 seconds. The likelihood of being chosen to mine a block and receive the associated staking reward is based on the number of RPI being staked by each RPICoin Blockchain node.



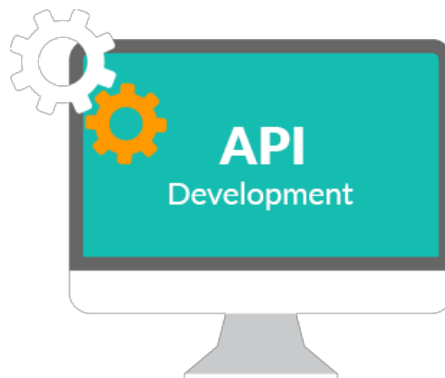
4 RPICoin platform solutions

Future development, to be announced on roadmap

4.1 Blockchain Custom API's

We are dedicated to let other Cryptocurrency platforms and non-cryptocurrency businesses alike, make use of our platform. We do this by providing a highly stable, compact and diverse custom API. With this we open up our platform to others to benefit from our secure, private and fast platform.

RPICoin's core is based on the same code as the Bitcoin's blockchain. Our custom API will be fully compatible with cryptocurrencies based on Bitcoin. This means that any application or platform that uses the default Bitcoin's RPC or command line can be used with our services. New functionality would be provided by RPICoin's specific API calls.





4.2 Enabling Decentralized Commerce

There is a worldwide movement in the blockchain community to achieve a shared vision of decentralized digital commerce. RPICoin is committed in doing its part by working tirelessly on delivering critical missing elements for a truly decentralized economy. One where everyone can contribute and where innovations are propelled on a global scale.

To this end, RPICoin will contribute by further improving upon existing Open-Source solutions. Such as the Open Rights Exchange protocol for connecting API providers and consumers. These tools are being built to provide world-class capabilities to developers around the world and simultaneously allow anyone with great code to easily monetize their work and ensure that the value created by the decentralized economy is accrued by the people putting in the work.

Our purpose is to make it easier for developers to build applications and API's on any Bitcoin-based-platform, as well as to seed the market with popular API's and look for solutions to chain them.

4.3 Benefits:

Standardization: Ensures APIs are compatible and interoperable, making implementations much easier.

4.4 Discoverability:

Find missing components. A single marketplace with user reviews and third-party assessments replaces time searching the web for each piece of technology needed.

4.5 Reducing Costs:

Removing middlemen means APIs are built more easily so end cost to the consumer can be much lower.

4.6 API Chaining:

APIs can be chained together without needing to translate different access control models and payment mechanisms at every level.



4.7 RPIPay Platform – Payment gateway

RPICoin will build a **100% Free**, fully open-source, P2P cryptocurrency payment processor for self-sovereign individuals and businesses. Private, secure and censorship-resistant which will be hosted on **rpipay.com**.

At RPICoin we believe in the freedom and unregulated usage of digital currencies. The ‘people’s money’ should be available to everyone regardless of your activity or monthly turnover figures. With this in mind we have adopted a “**No Monthly Fee**” policy to ensure that every merchant has the best possible opportunity to develop their business in the e-commerce digital age.

With a **free** and streamlined integration including full customer support, your online business can start accepting worldwide orders with all cryptocurrencies in no time. No hidden fees, No start-up fees, No monthly fees. We simply charge a percentage of each crypto transaction. Simple, clear and without any obligations.

To offer cryptocurrency to fiat-based transactions we are currently looking for a private banking partner.

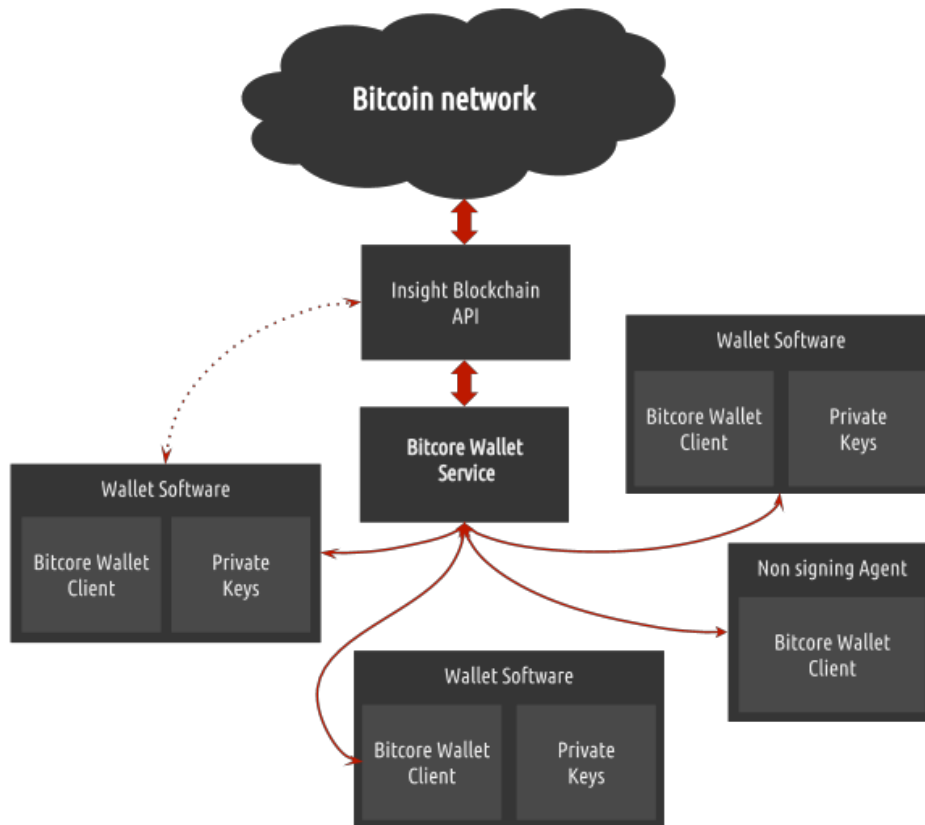
4.8 Features

Built with the community in mind, RPIPay services is a feature-rich software package with plenty of use-cases that can solve problems for different types of users.

- Receive Bitcoin / Altcoins
- Payment buttons
- Point of sale application
- Internal wallet
- Lightning Network
- Receive Donations

4.9 Bitcore Wallet Modules (BWS)

The bitcore-wallet-service (BWS) is a daemon that facilitates multisig HD wallet creation and operation through a simple and intuitive REST API. BWS can be installed within minutes and can accommodate all the needed infrastructure for peers in a multisig wallet to communicate and operate.



The second project is the client library bitcore-wallet-client. The library provides methods for safely accessing BWS and creating peer keys.

- Responses are validated by the client library
- Addresses are derived independently from the extended public keys
- Transaction proposals are signed and validated by peers
- During creation, new peers are validated through a secret shared key, unknown by BWS.

The third project is a Command Line Interface based multisig HD Bitcoin wallet, bitcore-wallet. bitcore-wallet is a fully featured bitcoin wallet that uses bitcore-wallet-client and bitcore-wallet-service. It can be used as a reference for developers working on wallets and agents, but with features such as simple one-time backup, customizable multisig, and air-gapped operation support, it can also be a powerful wallet for advanced users.

4.10 RPIPay Service Use-Case


Running your own RPIPay server is not required to reap its benefits. Creating an account on our server is sufficient. Downside could be that you rely solely on our servers. With the potential growth of your business it will eventually become important to set-up your own server and operate completely independent.

- **e-Commerce:** Online businesses can connect RPIPay to their stores via integration plugins easily and accept payments from customers.
- **Brick and mortar:** Merchants with physical stores can use our Point of Sale app to accept payments.
- **Charities & Content Creators:** Accept donations via payment button or other apps with an increased level of privacy. No address re-use.
- **Local Payment Processor:** Process payments for your friends or local businesses and help them accept RPiCoin or other cryptocurrencies at no cost or for a fee.
- **Lightning Network:** Easy 1-click lightning node deployment. Accept second-layer payments or use the node as a consumer and make payments.
- **Exchanges:** By developing integration with RPIPay exchanges can allow instant to fiat conversion for local merchants.
- **Hosting Providers:** Create easy 1-click RPIPay deployment solutions for your customers or sell RPIPay on a hardware device.
- **Developers:** Learn and get the name out by working on an open-source project and participate in transforming the payment processing business.

RPIPAY SERVICES

RPIPAY SERVER IS A FEATURE-RICH SOFTWARE WITH PLENTY OF USE-CASES PROVIDING CYPTO PAYMENT SOLUTIONS FOR BUSINESS OWNERS AND USERS

USE-CASES



Who can use it?

- e-Commerce**

ONLINE BUSINESSES CAN CONNECT RPIPAY TO THEIR STORES VIA INTEGRATION PLUGINS EASILY AND ACCEPT PAYMENTS FROM THEIR CUSTOMERS.
- Brick and mortar**

MERCHANTS WITH PHYSICAL STORES CAN USE OUR POINT OF SALE APP TO ACCEPT PAYMENTS.
- Charities & Content Creators**

ACCEPT DONATIONS VIA PAYMENT BUTTON OR OTHER APPS WITH AN INCREASED LEVEL OF PRIVACY. NO-ADDRESS RE-USE
- Local Payment Processor**

PROCESS PAYMENTS FOR YOUR FRIENDS OR LOCAL BUSINESSES AND HELP THEM ACCEPT RPiCOIN AT NO COST OR FOR A FEE
- Lightning Network**

EASY 1-CLICK LIGHTNING NODE DEPLOYMENT ACCEPT SECOND-LAYER PAYMENTS OR USE THE NODE AS A CONSUMER AND MAKE PAYMENTS
- Exchanges**

BY DEVELOPING INTEGRATION WITH RPIPAY EXCHANGES CAN ALLOW INSTANT CRYPTO TO FIAT CONVERSIONS FOR LOCAL MERCHANTS.
- Hosting Providers**

CREATE EASY 1-CLICK RPIPAY DEPLOYMENT SOLUTIONS FOR YOUR CUSTOMERS TO PAY FOR YOUR SAAS SERVICES
- Developers**

LEARN AND HELP CONTRIBUTING AN OPEN-SOURCE PROJECT AND PARTICIPATE IN ESTABLISHING A GREAT PAYMENT PROCESSING BUSINESS.



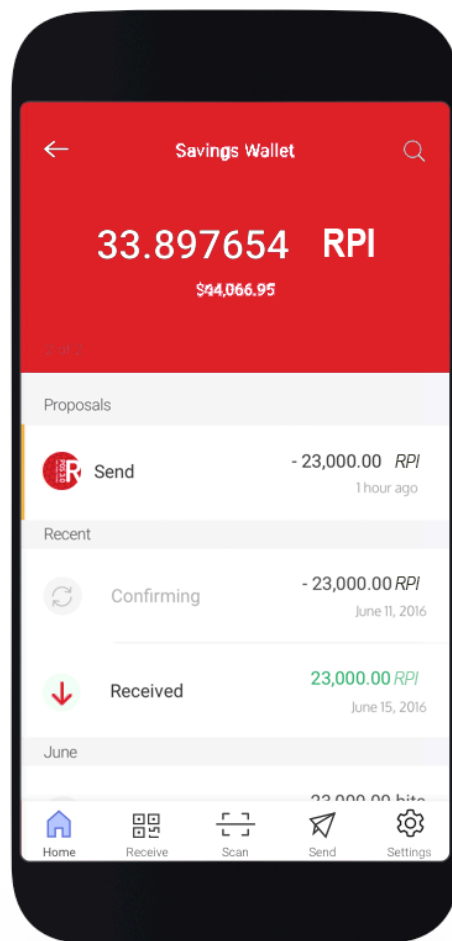
4.11 Merchants

By choosing RPI Pay to process payments, you are:

- Saving money (no fees, no subscriptions)
- Cutting off the middle-man (Payments go directly to your wallet)
- Enhancing privacy for you and your customers (no address re-use, no IP leaks to third parties)
- Saving time (easy integration and installation)
- Protecting yourself from interference in your business (self-sovereignty)

To enjoy most of these benefits, you don't even need to run a RPI Pay server yourself, you could just create an account on someone else's server. It will be even easier to set up for free or a fee depending on the host's choice. Downside is that you will rely on the server admin to keep it functional and up-to-date.

With the growth of your business it will eventually become important to set-up your own server to be really independent.





4.12 Online Store

If you're a merchant running an e-commerce business, you can easily deploy RPIPay and connect it to your store via integration plugins in just a few clicks.

RPIPay checkout is no different to any other payment gateway. Your customer gets an invoice. They pay it by scanning a QR code or by copy-pasting the amount and the address. When their payment is confirmed, you will be notified via your e-commerce CMS, and you can ship the item. Take a look at our demo online store.

4.13 Physical Store

For brick and mortar stores, RPIPay has a web-based Point of Sale (POS) App which can be customized. Similarly, to the online store, your customer is presented with an invoice that he can pay on the spot. You can create a watch-only wallet on your phone to be notified of the payments through the POS, without the need of any additional software. There are plans to develop the POS mobile app which would make the process even smoother.

4.14 Lightning Network payments

No matter the kind of business you run, RPIPay offers a very easy way to get started on the Lightning Network. You can use and experiment with this innovative second-layer solution build on top of Bitcoin by following this guide. Both merchants and customers can use RPIPay to receive or make payments off-chain with instant confirmations and neglectable network fees.



4.15 Charities and Content Creators (Donations)

Charities, non-profits, content creators and other organizations that want to accept cryptocurrency donations in a more private way than the traditional single-address can use the Pay Button or the POS app.

Benefits of using RPIPay for accepting donations:

- Saving money (no fees, no subscriptions)
- Cutting off the middle-man (Payments go directly to your wallet)
- Enhancing privacy for you and your customers (no address re-use, no IP leaks to third parties)

It is particularly important to mention that RPIPay prevents address reuse, as many people has been reusing address for donations in the past. Here is why you SHOULD NOT reuse RPICoin address:

- Privacy: reusing the same address for donations not only make it incredibly easy to link it to your identity, it also compromises the privacy of your donators and every person that interacts with you
- Security: by compromising your privacy, address reuse increases your attack surface, as people that want to steal you or harm you would have MANY information about you and your donators
- High fees: fees for a Bitcoin transaction are calculated according to the "size" of a transaction (which has nothing to do with the amount being sent). By reusing addresses, you are building huge transactions involving many inputs, that will cost you a lot in fees when you want to move them

Additional features are currently under development for future releases to enable crowdfunding and dynamic invoices.

4.16 Local Payment Processor

When you deploy a self-hosted RPIPay Server you can attach and create an unlimited number of stores and apps. This means when you launch RPIPay, you can become a payment processor for your family members, friends or your local community. You can do this to promote Bitcoin amongst people you know or to help out people that can't rely on other solutions.

While you're allowing them to rely on your full node, the payments go directly to their wallets. You have no control over their funds at any point in the transaction and cannot charge a processing fee. You can however, develop a registration paywall and charge (monthly) fees.



4.17 Cryptocurrency Exchanges

Cryptocurrency exchanges could benefit by integrating with RPIPay and allow instant conversion of cryptocurrency payments into local fiat currencies.

Being an open-sourced project, RPIPay doesn't have the power to impose anything on exchanges, meaning that any of them could build on top of it, regardless of their size or the country they operate.

4.18 Hosting Providers

Hosting providers can create easy 1-click RPIPay deployment solutions for their customers. Hosting companies can tap into this influx of new customers and benefit by hosting easily-deployable RPIPay instances for merchants.

4.19 Developers

RPIPay community is amiable and open-minded. Developers can not only learn a lot and get their name out by working on an open-source project, but also participate in transforming the payment processing business.

These are some of the many ways in which you can use RPIPay. Unleash your creativity and feel free to build your own solutions to solve problems.



5 Decentralized Marketplace (DP2PT)

Future development, to be announced on roadmap

A Decentralized Marketplace with RPICoin as the default currency to buy and sell items. The initial code base for RPICoin's (DP2PT) Decentralized Marketplace will be used from the OpenBazaar open-source project which established itself as the first usable example of a decentralised peer-to-peer marketplace. This provides the RPICoin Marketplace with a solid foundation to build on and meshes well with the upcoming RPICoin V0.2 update.

The features of a truly decentralized and permission less marketplace further explained

5.1 The RPICoin Marketplace

No costs as there is nothing to download and use, unlike sites like eBay or Amazon there are no fees to list items and no fees when an item is being sold. Because the transaction is peer to peer (p2p), it is happening directly between buyers and sellers with no middleman to take a cut from each sale. It's completely free e-commerce.

5.2 Earn & Use RPICoin (Built in RPICoin Wallet)

Existing online payment systems such as credit cards are tied to your identity, has high payment fees and you run the risk of identity theft. RPICoin is more private, has no risk of identity theft, and costs little to use.

5.3 Secure Escrow and Dispute Resolution

Scammers may try to take advantage of both buyers and sellers online, but the RPICoin Marketplace offers a unique feature of RPICoin that helps prevent fraud: Multisignature Escrow. In our e-commerce marketplace buyers and sellers can choose to agree to a mutually trusted third party RPICoin Marketplace user before they start a trade. The buyer sends its RPI coins to an escrow account first. These RPI coins can only be released when two out of the three parties agree where it will be sent. Normally the buyer and seller are the two parties in agreement but if there is a dispute the third party has authority to settle the dispute. These third parties offering dispute resolution are selected in an open marketplace.

It's important to choose a moderator that is trustworthy for both parties on a decentralized network so make sure to join the RPICoin community and learn [How to Choose a Good Moderator!](#)

5.4 Live Chat

Every user on the RPICoin Marketplace network has access to an encrypted chat feature and can talk to any other user on the network. Buyers can ask sellers about their products. Sellers can confirm shipping details or offer customer support. If a dispute arises, all parties can talk to a trusted third party to help settle their dispute. All conversations are end-to-end encrypted for privacy.



5.5 RPICoin Merchandise and custom 3D-printed Raspberry Pi cases

We will start selling RPICoin Merchandise, pre-configured Raspberry Pi's including a custom designed 3D printed Raspberry Pi case and other services on the RPICoin decentralized Marketplace.

The platform will support Private Transactions based on the RPICoin Blockchain Cryptocurrency. Investors and Community members will be able to apply to be part of the initial Beta and Launch, providing some of the first products and services available on the marketplace.

Search Engines act as a centralized way of finding new stores on the RPICoin Marketplace. The hosted search-engines provided by RPICoin will be based on Open Source code and will filtered illegal content.



6 Partnerships

6.1 RPICoin & Aircoins

RPICoin Announces Partnership Collaboration with [Aircoins.co](https://aircoins.co)



Augmented Reality (AR) and blockchain applications are leading the next technology revolution. The Cryptocurrency market will reach \$1 Trillion market cap. Aircoins aims to unlock the digital ecosystem with hidden treasures for you to unlock in the AR environment. Be able to pick up, drop and trade cryptos in AR.





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8 Introducing the RPICoin Team

The founders



MuskyFX
CEO & Co-Founder



Prestin
CTO & Co-Founder

Developers



TUXCMD
Lead Developer



Awam
Blockchain Developer



Community Managers



Natz
Community Manager



Gilberto
Community Manager



Xtreox
Community Manager

RPICoin Team



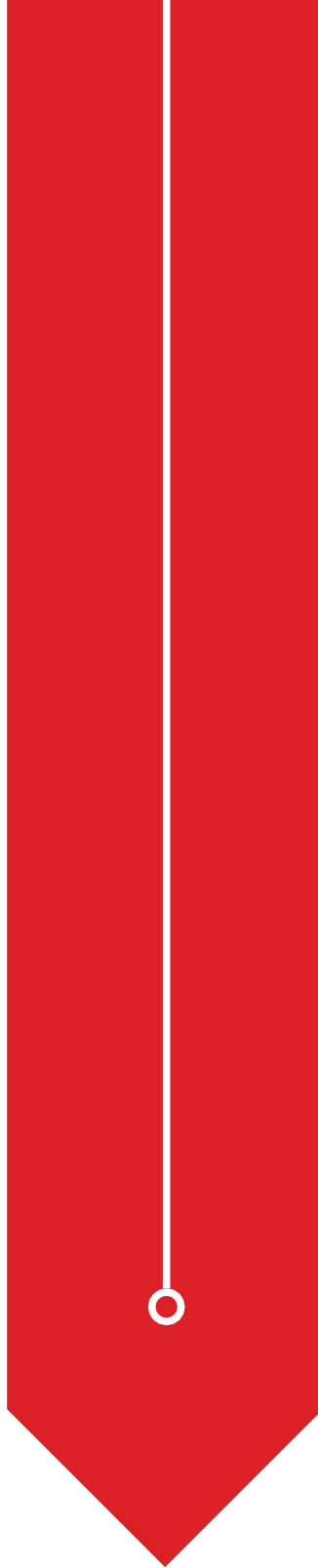
Knicko
Marketing Manager



Swegsley
PR & Partnership Manager



Laracm
PR & Partnership Manager



RPICOIN.COM



WWW.RPICOIN.COM



<https://t.me/rpicoi>



contact@rpicoi.com