

MATREXCOIN

www.mx-coin.com

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Introduction

The internet has revolutionized in the past decade, and it has given an overwhelming opportunity for multiple niches to grow and expand exponentially. The most benefitting domain due to the prosperity of internet happens to be the e-commerce marketplace. This, in turn, has provided a great platform for several other businesses to grow and integrate with e-commerce industry as third party service providers.

Financial institution happens to be the most important and robust pillar of commerce on the internet. Even though it works reasonably well for most of the transactions, there are instances where this model requires considerable improvisations in terms of trust, integrity, and security.

An utmost amount of security lies when cash exchanges hands. But when such dealings happen over the internet, extensive measures need to be taken, and the responsibility does not only rest on the shoulders of decentralized cryptocurrency but payment gateways as well. Since the portals handling these currencies are quite different from mainstream ones, great deals of sophisticated infrastructure and resources are required to ensure the safety of sellers as well as buyers.



This paper presents the electronic payment system based on



cryptographic measures that allow two individuals to directly transact with each other, without having to rely on any third party. Of course, there are third parties working on the backend of our system, but the user does not have to worry about them at all.

Why digital currency?

The very first digital currency appeared on the canvas of internet in 2009, and since then, it has changed the dynamics of financial transactions in terms of speed, reliability, and privacy. This robust innovation was led by dominant thoughts since people were quite concerned about confidentiality and integrity of financial transactions, post the World banking crisis.



Unfortunately, traditional banking works in an entirely orthodox fashion where system operators often have access to personal and financial information of the subjects involved in any transaction.

Therefore, Matrix coin happens to be another step in fortifying your personal information and making your financial transactions discreet while establishing a rich and diverse community. Since it is a digital currency, none of the governments can manipulate the volume of coins, nor the price. This is because Matrix Coin will produce a fixed amount of currency in a given period and will not be affected by inflation anywhere in the World.



A Glance at the History of Cryptocurrencies...



Bitcoin

It was the very first cryptocurrency in the World, launched in 2009 and even though no one knows the real name of its creator, a hypothetical name floats across the internet, known as Wei Dai. Satoshi Nakamoto.

This coin had the sole goal of tackling issues in the traditional model of doing business and carrying out transactions. Bitcoin depends on several financial institutions and third-party wallets to make it one of the most celebrated and non-disputable cryptocurrencies the World has yet seen.

Therefore, any two clients have the liberty of carrying out independent transactions without relying on any intermediary, except the wallet where Bitcoins are virtually stored. Some people still have concerns as to which of the available wallets are secure and trusted by Bitcoin and for that, there is a lot of exchanges and wallets available on their website.



Altcoins

Bitcoin brought a significant wave of innovation on the internet, and people realized that technology possesses far more potential than just being restricted to a robust payment gateway. After six years of successful Bitcoin trading, Vitalik Buterin launched a currency which is quite well-renowned by the name Ethereum.

Since Ethereum was a newer solution, it aimed at countering and addressing the issues that were still there even after the launch of Bitcoin. Therefore, the inventor decided to add an array of functionalities that could drift its scope not only in the financial industry but sideways as well. It implies, that apart from just using it as means of transaction, consumers could do a lot more and feed their expectations.



Furthermore, it also played a pivotal role in making the processing time way more efficient than it was in the case of Bitcoin and offered smart contract functionality as well. It ensured that the people could create latest token types as well. As a result, the response from the public sector was quite overwhelming, and in a very short span of time, there was a boom of new tokens, known as Altcoins.

Since then, there have been a number of different currencies on the internet, accounting for more than 1000 in registered quantity.

The Core Idea

The underlying and hardcore idea of our project is very straightforward. We aim to create a Global community, united under the flag of Matrix Coin, with mutualism among all. This community will eventually help every member to make the profit and help each other financially at the same time.

Matrix Coin is not just offering you a wealth of coins. In fact, we are providing you with our very own and personalized wallet, which is best suited to perform transactions between every single entity owned by the parent company. Due to this, you do not have use any third party payment gateways, which might incur taxes on your transactions.

For instance, if you open an e-commerce store with a payment option of Matrix coin, your customers will use our personalized wallet, which will save them from paying any additional tax. Ultimately, this measure will benefit your business and will turn your prospects into customers.

We also plan to produce our own tangible and intangible products ranging from sewing needles to deep freezers and split air conditioners. This would not only cut off the additional costs on your wallet, but you will also be able to buy maximum while paying zero to minimum taxes. The credit goes to our decentralized currency and of course, the wallet.

Since we believe in establishing a mutualistic community, it is one of our primary goals to share profit between each of our members. In order to decide a fair and logical distribution of profit, each member will have a specific rank, and that position will determine his or her stake in our overall profit.





Advantages to the Consumers

As mentioned above, Matrix Coin is offering an array of benefits to its consumers. This section will emphasize on how we make each of the advantages Srational for our consumers.

Privacy: Identity theft is quite common nowadays, and most of the cyber security events occur in the instances of financial transactions. In order to minimize and eradicate that, our platform allows you to finalize your payments without associating any personal information with the transaction. Each wallet account comes with a unique ID, and that serves as your identification on the entire network. As long as you do not choose to reveal your information credentials to the public, we do not do it by default, nor do we allow any other individual to violate your privacy. Even if someone tries to decrypt your personal information, several years would be required to crack our high-grade encryption.

Transparency: Since our platform runs on blockchain technology, it is possible for everyone in the network to determine when a coin is spent. However, due to our robust encryption algorithms, no one can ever know the ID of individual who paid or received that coin. Therefore, Matrix coin enjoys the transparency of a public ledger.

Value: Since there is no third party involvement (even the wallets are provided to you with the account), the payments are transferable without any tax across the network. Ledgers are constantly and automatically maintained; therefore, merchants can never charge hidden fees without being noticed.

Secure: Our Proof of Stake model ensures that the risks related to 'Selfish Miner Flaw' are always kept under the belt, and only the individual possessing a higher number of coins enjoys the leverage of mining more coins that the one who owns lesser. By this, everyone has a stake in currency, and the overall community takes more interest in enhancing the security as well.

Accessibility: This is one of the primary areas where digital currencies enjoy a distinguishable victory over conventional banking. Not only is this solution free from any minimum cost, but you also do not even have to pay anything to maintain your savings in our wallet. Therefore, Matrix Coin is providing masses with an opportunity to get beyond the poverty line and raise their standard of living.



International Trading

If you use bank accounts and credit cards for International transactions, they might cause an array of problems due to the fact that they may be associated with the government, interest rates and may incur inter-country transaction fees as well.

When people have to pay across currency lines, they do not only have to pay taxes on their side but for the receiver as well. Not just that, but they also have to pay for any additional costs that may arise as a result of availing services such as the Western Union.

However, this 'confusion' of taxes is eradicated, or at least minimized, in digital currencies such as Matrix coin. This is because these currencies play a pivotal role in dismantling the barriers between different markets. Since these are not influenced by the status of any currency belonging to a specific country, International transactions are least likely to undergo a burden of taxes. Moreover, the process gets efficient as well, and it also brings a dense competition to the market of remittances.

Untapped Audience

This is the most 'rational' advantage of using digital currencies since they provide feasibility to millions of customers who are not using banks or other financial institutions to save and spend their money. However, these digital currencies provide them with a secure and efficient means of saving and spending their wealth on the internet. Millions of people across the Globe either do not have access to banks, or they hesitate using the banks for some fraudulent practices in the past. The 'bubble' of digital currencies could engulf their fears since they do not have to depend on orthodox methods including cheque and cash-only transactions.

Many customers have found this a reasonably attractive option because previously, they had to pay between 1.5 percent to 10 percent for each transaction, depending on the amount and bank. According to the World Bank, approximately 75 percent of the World's poor do not have bank accounts. Even the ones who are willing to have bank accounts, cannot do so because of the raging costs associated with the procedures. Therefore, digital currencies, such as Matrix coin, provide the unbanked community an opportunity to actively take



part in the World's economy and be a part of the mutualism, as hoped and planned by Matrix Coin.

Lost Money

It is a reasonably understandable fact that if you possess money, you are always at the risk of losing it. Now if you ever lose \$100 from your physical wallet, it may not shock you. However, if you lose some digital coins from your e-wallet, that is a huge concern due to two major factors:

1. The value increases every second day, and each coin could be worth more than \$10,000 in the near future
2. Someone has violated your security, and he or she could use the same credentials to cause any cybersecurity even once again

Since this is a huge concern, the boom of digital currencies has paved the way for an array of third party service providers who could emerge out to protect the loss of wallets.

Alternative Reserve Currency

None of the digital currencies is as mature as the paper currency, and hence, they all tend to vary dramatically in very short intervals. However, in some of the countries like Venezuela, where inflation has grown by at least 100% in this year, these digital currencies are far more stable than mature fiat currencies.

Therefore, if we just talk about Venezuela, the use of digital currencies has grown approximately seven times in just 2017.

Disruptive to the Point of Change

At various instances in this paper, it is emphasized that digital currencies have led the way towards thwarting the traditional mode of transactions. This section re-emphasizes that due to the introduction of blockchain and electronic ledgers, these currencies are able to maintain an utmost level of market transparency. There is an array of customers who neither trust word of mouth, nor do they believe blogs. For them, a public ledger holds the maximum



significance, and that is precisely what we deliver in our solution by offering a sheer level of trust.

Power to the People

When the dealing of currency goes digital, there are fewer intermediary parties involved in transactions and other affairs. Therefore, each cryptocurrency enjoys the luxury of devising and implementing its very own rules and regulations, which are not dictated by any government. As a result, the probability of a branch manager or bank executive exploiting the regulations for personal financial gains is halted or at least diminished to a significant extent. Hence, this approach does not only removes the role of the bank as a middleman but empowers people as well.

A Global Cryptocurrency

People have realized the importance and potential of digital currencies, and this is the very reason why investors are pouring in bucks to help establish new currencies. This has created an immensely rich pool of competition where every virtual currency is striving to get ahead of one another. This increasing competition will certainly enable the formation of a Global cryptocurrency that would have same value across the Globe.

No chargebacks

Now, this is something very important for the merchants. If you are using any digital currency as a mode of payment in your business (let it be Matrix Coin in this case), you are always on the verge of receiving falsified reasons for giving a full refund on the basis of a defected product. If your product was delivered in a defective state, you should refund the amount. However, in most of the cases, where merchants allow chargebacks through credit cards, clients take advantage of this approach, and after using the product for long, they simply demand a full refund.

The case is entirely different in this scenario. As soon as the client releases payment, it is marked completed in the system, and the network never



withholds that payment to check whether the client demands a refund or not. Of course, as a good business, you should refund the amount wherever and whenever required. But it is indeed a major step in diminishing the fraudulent client activity, which often undermines the business of a merchant.

No inflation

This is a huge concern, especially in Third World Countries. However, even some of the developed countries, like the United States, are not barred from this overwhelming problem that arises when central banks inflate their currencies in an attempt to survive the market.

With the launch of digital currencies, this problem is befittingly encountered since the entire network is decentralized and the quantity of limits is also controlled due to complex algorithms.



Internet of Things

This is the promising era of the Internet of Things where latest and robust technologies lead to an array of social changes. But most importantly, it shows a very dense effect on the way people spend and their mode of transactions as well. Since these latest developments have opened gates for an increased human collaboration and communication on a variety of matters, the outcome is nothing less than an interactive platform, providing a basis of mutualism for people belonging to different variants.

In the past few years, Internet has found its way into an entirely new business format, known as 'Internet +.' In its truest essence, it refers to the social and economic development of "Internet + all traditional industries." As indicated by the very name, this stage has spun the Globe towards the development of network platforms, favoring reforms, innovation and emergence of an array of industries.



At the moment, the niche of information is entering a very crucial stage of development where every object has the tendency to be interconnected with the sheer help of internet. This stage is referred to as the third wave of development, followed by computer and internet industries (IoT).

In order to fully grasp the concept of the Internet of Things, it is critical to understand that this technology comprises of two hardcore foundations. Firstly, the basis of IoT is the internet, and in fact, it is safe to call it an extension of the internet. Secondly, the next stage of IoT refers to the exchange of information between different objects. These objects are the end to end machines that are responsible for sending and receiving messages over the internet, and this is a particular example of object-to-object interrelation.

However, these array of developments, including the IoTs, have failed to comprehensively solve the issue of autonomous cooperation and transactions. One of the foremost reasons lies in the fact that different parties involved in such agreement are often the stakeholders.

In order to overcome this issue, we have introduced the concept of Value Internet of Things, which we plan to implement through Matrix Coin, by utilizing the feasibility of blockchain. Since it is a decentralized transaction storage technology, backed by cryptographic measures and point-to-point network, it plays a pivotal role in diminishing the interference of stakeholders by offering permanent storage of transaction in a uniform order, and these records are undeletable as well.

Hence, due to the boom of blockchain technology, masses have the liberty to trade efficiently without having to establish a great deal of trust in advance, since all of such issues are taken care of.

Matrix Coin at a Glance

Most of the benefits mentioned above apply to consumers as well as merchants. However, since the payments carried out through Matrix coin are irreversible, secure and do not carry any ID tags, merchants are far better protected than consumers, in terms of financial losses.

In the countries where crime rates are significantly higher, these merchants enjoy the liberty of carrying out their transactions without having to use any debit or credit card. Due to the integration of blockchain and peer network, it is almost impossible for the fraudsters to cause any unpleasant and unethical cyber event.



The Rules

- One email address per account (this is to ensure that only a single person is using our unique e-wallet issued against an account. It also helps the system to monitor any unusual activity and logins into your account.)
- Maximum deposit in an account is 1 BTC
- We support auto buy ICO
- Users who initiate server requests on their servers have to undergo a queuing method, called FIFO (First In First Out). It ensures that if person A sent a server request before you, your query would be entertained only after his session has timed out

Registration

- You can register by visiting: www.mx-coin.com
- Click on register button and fill in the form with AUTHENTIC details
- Verify your email address by visiting the confirmation link sent to your email
- Login with your details and follow the instructions



Account Activation

- In order to activate your account and start using its functionality to the maximum, you must initiate it with a minimum deposit of 0.01 BTC
- This amount will be used to purchase ICO
- After that, you will get two personal e-wallets for BTC and MXC, each (Matrix Coin)
- You will also be provided with a referral link that others can use to make their MXC accounts and you will be given commission on the creation of each account

ICO Period

Our ICO period will last from 11th to 30th November, 2017.

Pre-sale: 600.000 coins (11th-12th Nov)

ICO Phase (13th-30th Nov):

ICO Phase 1: 700.000 coins \$0.8



ICO Phase 2: 800.000 coins \$0.9

ICO Phase 3: 900.000 coins \$1

ICO Phase 4: 1.000.000 coins \$1.1

ICO Phase 5: 1.100.000 coins \$1.2

ICO Phase 6: 1.200.000 coins \$1.3

ICO Phase 7: 1.300.000 coins \$1.4

Coin details

Here are the most notable facts regarding Matrix Coin.

Coin name: Matrix Coin

Abbreviation: MXC

Characters: PoW/PoS hybrid

Block spacing: 120 seconds

Block reward: 0.1MXC

Block size: 4MB

Yearly interest: 12%

Stake ages: 30-90 days

Algorithm: X11

Total supply: 27.000.000

Pre-mine: 7.000.000

Presale and ICO: 6.600.000

Developer: 400.000

The system will return all BTCs that failed to get ICO, and you will be able to withdraw them as well.



VIP Members and Benefits

During this phase (we will announce the date later), all the accounts possessing a value of \$10, will be promoted to the status of VIP member.

It must be noted that if you skip this phase, we will implement a great deal of checks on our system and the criteria for acceptance into our VIP membership will be much difficult.

We offer attractive benefits to all of our VIP members and the two most notable ones are:

1. Free tickets to all MXD events (across the Globe)
2. VIP reward every month (10% of all MXD sales in any given month)

Bounty Campaign and Important Dates to Remember

- All of the qualifiers will get FREE MXD accounts of an overwhelming of worth \$100
- In order to qualify, you must have Facebook, Twitter, YouTube and Bitcointalk accounts (this is to ensure that giving you an opportunity to get rewards from our bounty campaign, will earn us market recognition)

11th December: MXC listing to Exchanger

20th December: MXC listing to Coinmarketcap

Marketing Campaign

Here is what we plan to do in our marketing campaign:

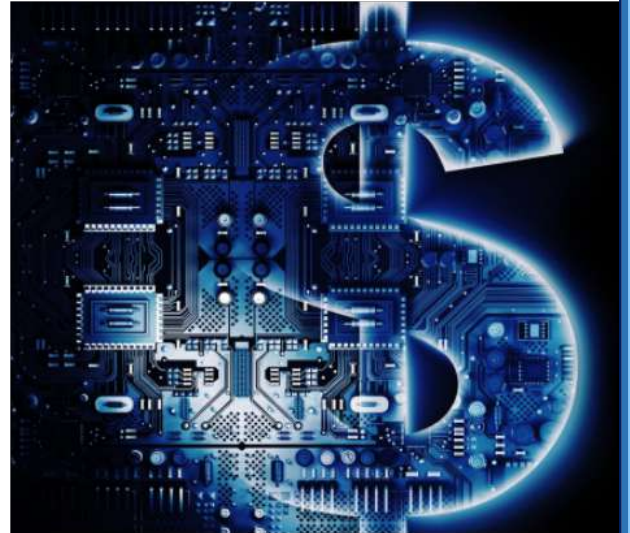
1. Bounties
2. Social Media Marketing
3. MX Dollar Program**

*** We also plan to launch our affiliate and lending program in the future that will use Matrix Coin for transactions.*



Blockchain at a Glance

In the most straightforward terminology, it is the name given to the system that administers and regulates transactions in digital currency. All the sales occurring in the system are recorded in a public ledger, and then they are processed by decentralized computers through a process, quite well known as mining. In this particular case, the unit of account is Matrix coin, with no centralized control or repository and for this reason, it is known as the decentralized virtual currency. As soon as you initiate mining, here are a few systems utilized by our pool.



- 1) Since it is a difficult task for the system to find blocks and the process may get burdensome for some coins, the procedure of finding blocks is broken down into shares. Basically, you just have to keep your wallet open and initiate a protocol that will tell the server to start mining. However, in order to guarantee a fair mining, the server side is also nested with another wallet possessing an array of functionalities, usually different from the one you own. This server-side wallet ensures whether it is indeed a valid block solution or not. As soon as the verification is successful, your share has the potential to be a block solution.
- 2) For diminishing the risk of fraudulent practices and double spending of coins, the coins generated by a block are not made available to our consumers right away. As soon as they are created, the entire network confirms them before you can take them out of the pool. The network discovers and analyzes multiple blocks on top of the one generated by your request for confirmation.



Cryptocurrency-based Payment Gateway

We plan to facilitate our members by launching a decentralized payment platform that would enable them to carry out transactions on various platforms.



In the future, we also plan to allow every sound cryptocurrency to be offered on our payment gateway, making it a multi-cryptocurrency payment gateway, best suited for International merchants.

Our primary aim is to establish a platform that would enhance the efficiency of transactions by diminishing the number of intermediaries involved over the internet. Ultimately, it will play a significant role to enhance the use of digital coins on a regular basis. Since Matrix Coin depends on an ecosystem of Blockchain as its core foundation, your transactions will be highly secure, outscoring the conventional modes of online payment gateways. Furthermore, due to the involvement of fewer mediators, the transaction cost or the fee associated with converting the currencies will also decrease significantly.

In order to reduce human intervention, we plan to use our very own negotiating system that will also be used to close payment agreements between two respective parties. As soon as the agreement is made, this system will verify the authenticity of the payment and will notify the concerned counterparty to release the payment. In case if you are using our e-wallet for Matrix Coin, the system will require even less time, since it would not have to notify any external counterparty to release the payment. For the sake of making our processes crystal clear and transparent, we aim to make this very particular part of our system open for approved auditors, which will add an even dense layer of security.

This addition of security layer will ensure that the merchants enjoy an utmost peace of mind while carrying out transactions and most of the current consumers of conventional payment gateways will also adopt our futuristic mode of security implementation in payment gateways. When people realize that our system is way safer than the one they are using currently, they will, without even a glimpse of doubt, be a part of our network

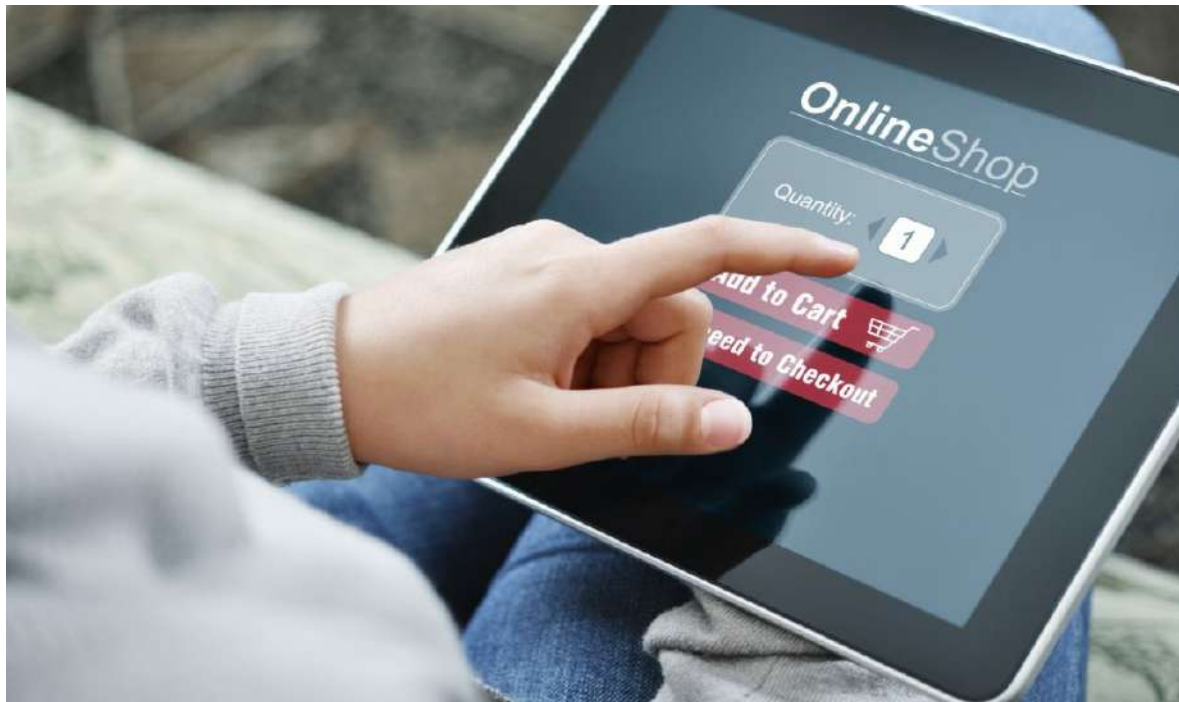


What Are the Benefits of this Payment Gateway?

Before going into the specifics, a very rational stance states that the most obvious advantages are in terms of cost, convenience, speed, and security. This section will explain how these benefits are achieved.

Since we are proposing a decentralized system, our customers will always enjoy freedom for when, how and where they conduct their transactions. Moreover, due to the fact that we intend to make it a multi-cryptocurrency payment gateway, everyone will have an opportunity to use a standardized platform, without having to use separate applications for transactions.

The automated tool for negotiating and closing agreements between two parties will have predetermined parameters to decide whether a particular deal has met all of the requirements to be declared as 'sound' or not. Therefore, it greatly enhances the transaction speed, and since it is backed by blockchain, your payments are most likely to be cleared within 15 to 20 seconds. Hence, merchants and customers enjoy a very significant advantage over the efficiency of traditional payments, where the system may take up to 3 days for clearing your payments.



The Role of Cryptocurrencies in E-Commerce

It is quite observable that cryptocurrencies are in high swing nowadays and sooner or later, they are going to capture every marketplace in the World. Since e-commerce is the fastest growing industry in the World with startups sprouting every second day, there is an immense need to integrate cryptocurrency with e-commerce. In order to embed this payment option with your store, there are two modes. Firstly, the Do It Yourself method and secondly, by using our API.

Of course, if you are pursuing the very first, DIY approach, we assume that you possess some coding skills that you could utilize to generate and publish a QR code on the site. The ID and address of your wallet will be encrypted in this code, and your customers will scan it to send you the payments. Rest assured, they will never be able to know your real identity in person. However, it must be noted that this approach does not guarantee a full-fledged checkout. In most of the cases, the merchant is not able to collect all of the shipment information and more coding is required to finalize the transaction. But it should be noted that such coding always leaves some leaps for the hackers to steal your and your client's personal information.

In order to combat this sensitive issue and minimize coding hassles for the merchants, we have developed our very own API. Well, it is not an entirely



different approach for integrating third-party wallets into your website, as we have always been using APIs to run desktop applications as well. However, in modern dynamics of the internet and cryptocurrencies, APIs typically dictate the way developers can make new applications that can interact with web services (e.g., your checkout page interacting with Matrix Coin wallet).

Let's understand the usage of APIs from the perspective of Facebook. Now, if you are logged into Facebook from a browser or even on the mobile application, you do not have to login into every second application or website that is affiliated with Facebook. It does not only save time but adds a great deal of feasibility for developers and clients alike.

Moreover, you must have seen social media sharing icons on an array of blogs. When you click on any of these icons (Twitter, Facebook, Pinterest, etc.), the API of that particular service provider is called. Now if we map this concept to our system when your client will choose our wallet as the mode of payment on your checkout page, our API will be called, which will handle all of the features required for a secure and reliable transaction to occur.

Types of Cryptocurrencies Wallets

As of yet, we only plan to issue online and mobile wallets. However, this section is dedicated to updating your knowledge regarding all of the options that a cryptocurrency provider could go for, to facilitate its consumers. If in the future, we realize that due to the expansion of our network, our consumers need more types of wallets, we will be happy to facilitate you in that regard.

Desktop: This is the most orthodox implementation of a cryptocurrency wallet, where an application is installed either on your laptop or PC. It must be noted that due to security reasons, these wallets are only accessible from the machines they were installed upon. Henceforth, they offer robust security, but in case your hardware gets infected with a virus, or it gets hacked, you may lose all of your funds in no time.

Online: Portability advances a step further in these types of wallets since they can be accessed from any computer in the World, provided that it is connected to the Internet since the wallet must be accessed on a cloud. However, most of these wallets are vulnerable to attacks since they are controlled by third parties.

Mobile: This is what we are implementing for Matrix Coin. These wallets



run on your mobile devices as applications and offer an utmost level of portability. They can also be used on an array of retail stores across the Globe, without worrying about the currency conversion tax if your retailer has the same currency. However, they offer less space if compared with a desktop wallet.

Hardware: These wallets vary greatly from software wallets in terms of security since they store the private key of a user on hardware devices, such as USB. Even though the keys are stored offline, the transactions are always made after you connect them to the internet. The hardware wallets are compatible with a wide variety of interfaces and enable the users to make transactions in different currencies by offering an interface to choose from. Just plug in your USB or any hardware device containing the key with an internet-enabled computer. Enter your pin for verification, then hit the button of send currency and confirm to carry out the transaction. Through this procedure, you can prevent your data to stay offline at all times.



Cryptocurrency Mobile Wallet

Of course, it is a digital currency, and you cannot carry your Matrix Coins in hand or pocket. However, you could install a wallet on your mobile and keep your digital currency there.

It acts as your secure digital wallet, giving you the sheer opportunity to



receive, store and send digital currencies, such as Matrix Coin and Bitcoin. There are a number of digital currencies in the market that allow you to use third-party wallets for carrying the currency, but we offer you a highly encrypted wallet, without any third party dependence.

Talking specifically about the way these wallets work, the currency is not actually 'kept' inside the wallet as you do with the paper currency in your physical wallets. Instead of that, we will provide you a private key that will act as an encrypted digital code, working as an ID for your account. Moreover, we will also provide you with a public key that will be responsible for connecting your wallet with a particular currency. Henceforth, the association of your wallet with private and public keys, you will be able to receive, store and send payments on many platforms. It will also help us maintain a ledger, transparently.



Our Most Immediate Prospects

As a matter of fact, we are launching this cryptocurrency to help your business grow and reach out to a whole new variety of untapped audience. In order to do that, we must provide a great deal of feasibility, and we truly understand your concerns. This section will explain how we plan to do that, step by step. Even though the number of merchants who have started using cryptocurrencies in the recent past has increased dramatically, they are still in a considerable minority.



Partnering with Merchants

We strongly believe that in order to grow and spread across the Globe, the foremost step is to partner with merchants, having a plentiful say over the internet. For instance, in the near future, we might partner up with your local Apple store. So whenever you need to buy an iPhone, you would buy it at the same price all across the World. You would just have to order your product from their website and select Matrix Coin as the checkout option. Our API will ensure a secure transaction at the best price, with zero or minimal transaction costs associated with your purchase.

Moreover, since the traffic is growing at an enormous rate and people often find their fuel tanks emptied in traffic jams that they often do not even have enough cash to fill up their vehicles. We plan to provide a very realistic solution to this overgrowing concern by introducing mobile wallet. Just visit the designated fuelling station and pay for refueling via Matrix Coin.

Partnering with Local Exchanges

Since we allow trading and mining on our platform, it is quite rational to assume that you will most certainly earn rewards in terms of Matrix Coins.

Therefore, a lot of consumers are often interested in withdrawing their digital currency so that they could use it in terms of paper cash in the markets where it is not accepted. Of course, if you want to buy fruits and vegetables from the local market, you would have to use paper cash, at least for the next few years.

Henceforth, we truly understand your concerns and requirements, and we plan to partner up with your local exchanges from where you could withdraw Matrix Coin into different currencies.

Mining

The literal meaning of 'mining' lies in the context of gold extraction. Since precious metals, such as gold, are scarce, the sole way of increasing their volume in





the market is through mining. It implies that since digital currencies are also limited and valuable, they need to be extracted or mined to increase their market volume. However, in the World of digital currencies, it does not merely refer to the idea of extracting the valuables. In fact, it is a robust measure to secure the network and verify computation as well.

Like all blockchain technologies, Matrix coin utilizes an incentive-driven model for optimizing security. Therefore, a block with highest overall difficulty is chosen, and miners produce their blocks which are checked by other blocks for validity. After comparing its difficulty and certain other factors, a block is only declared valid if its Proof of Work (or Stake) satisfies a certain threshold of difficulty.

We have protocols in place to ensure that the network never gets overwhelmed with the production of blocks so that they could be analyzed and validated with an utmost computational power. In order to achieve that, we do not allow the production of multiple blocks in a given timeframe. It ensures that the system synchronization is working at its optimum level and double spending or history rewriting is deemed impossible by any malicious actor. However, if the attacker possesses more than half of the mining power than both of these scenarios are possible, and that is what we term a 51% attack in the World of cryptocurrencies.

As mentioned in previous sections, it is worth noticing that any node participating in our network can initiate mining, but the expected revenue from each mining event is proportional to the mining power of that node.

Proof of Work

Basically, it is a protocol with an aim to halt the distributed denial-of-service attack, which has the purpose of sending an array of fake requests to the system, which ultimately leads in the exhaustion of resources.

At the moment, it is used by a huge number of cryptocurrencies, ranging from Bitcoin to Matrix coin and in order to grasp its working and concept to an absolute level, let's assume that you are solving a math exam and the class is filled with a lot of students. The students who come up with a solution, as well as a comprehensive proof of their answer that determines how they reached the final answer, deserve a reward. Now it is quite rational to assume that if a student does both of these tasks, he does not only uses a lot of brain power, but a significant amount of energy is also required which is demanded from the entire body.



Now, if we map this exact concept to the World of cryptocurrency, the math exam is your transaction and the classroom maps to the entire World where consumers and this network lives. Moreover, the student refers to the hardware that is running very complex algorithms and requires an immense computing power (brain power in the previous example). Lastly, the term 'lot of energy' is explicitly relevant to a huge amount of electric power required to operate the backend of Matrix Coin.

Well, the PoW approach does not have any disadvantage that could prohibit you from using this robust means of implementing blockchain, but in order to have an unbiased and comprehensive perspective about Proof of Work, let us explore a few (relatively) insignificant shortcomings:

- When more coins are mined on the network, the miner's reward gets significantly lower since the coins become difficult to mine
- More electric power is required which ultimately puts financial burden on the miner
- If you are a millionaire, then this con must not bother you by any means. However, PoW requires a sheer amount and standard of computing hardware
- If the miners find that there is another coin, offering much better rewards, they will ultimately move their hardware from your system





Proof of Stake

This is yet another algorithm designed to serve the same purpose as in the case of Proof of Work. However, its mode of operation is quite different. Even though Matrix Coin is utilizing this robust algorithm to validate transactions, it was initially used by Peercoin in 2012, as a result of a suggestion posted on bitcointalk in 2011.

Unlike the process of PoW, where miners are rewarded for solving mathematical problems and creating new blocks, PoS focusses on the creation of new blocks and the creator of each block is chosen depending on his wealth. However, it should be noted that no block rewards are involved in this mechanism, and all the currencies created in the past remain unchanged under all circumstances. Since there is no block reward involved, miners take the transaction fee. Therefore, the miners are referred to as 'forgers' in the Proof of Stake system.

Let us simplify the mechanism and use Matrix Coin as an example to understand the PoS system better. This system picks up the validator by determining the amount of coins held by that individual and the age of coins. A validator is the equivalent of a miner in this system. For instance, if you possess 100 Matrix Coins in your wallet, this will be considered as the stake of the validator, and age will also be attached to it, for how long you have it. If by any means, you transfer the coins from one wallet to another, the age tag associated with your stake will also reset. Basically, the amount of stake and age are collectively considered as a guarantee or security deposit. Rationally, a person possessing more 'stake' for a 'prolonged' time is more likely to be committed and loyal to the network and hence, enjoys a higher probability of getting a block validated.

Therefore, it is a very robust and comprehensive solution to ensure that the risk of frauds is kept at its minimum by preferring those individuals to build blocks which are seemingly more loyal. Ultimately, the validator of each block keeps a commission and even entire transaction fee. Instead of mining, the concept of forging prevails in the case of PoS, because of the fact that each validator will process and forge the block in the chain network.

As compared with Proof of Word model, it overcomes the challenges and proves to be an even better option in the following ways:

- Expensive hardware is not required, and even an ordinary laptop would serve the purpose, as long as it is online



- Since it does not consume high electricity, PoS is an energy efficient model
- Validations are efficient
- Validators are far more loyal than PoW. This is because the stake depends on a number of coins possessed by an individual and the time associated with it

Incentive

This section of the whitepaper aims to explain the mode of operations in our network.

As soon as the first transaction is carried out in any block, we call it a special transaction because it propagates a new coin owned by the creator of that block. It is called an incentive since it persuades the nodes to support the network and provide means to distribute the coins into the network stream. This is because the system is decentralized and there is not any physical or logical body to issue them coins on its own. The nodes must participate to earn their rewards.

This perspective of incentive is quite similar to a gold miner expending his resources to increase the volume of gold in the market. However, in the case of Matrix coin, these expenditures are CPU time and electricity that is spent for mining.

Therefore, the approach of incentives does not only persuade the nodes to stay honest, but it also pushes the malicious attacker to think twice before making any move. Even if a greedy attacker tries to overcome our incentives, he would have to choose whether to defraud people to steal back his payments or he could use his practices to generate more coins. Therefore, we push the attackers to play by the rules, and even if they try to go for a greedy option, they end up releasing more coins into the stream. Instead of benefitting an individual, it benefits the entire network.



Reclaiming the Disk Space

You may remember that in previous sections, it was stated that a block discovers several blocks above it to ensure that the mining is not fraudulent and double mining is prevented. However, there is a problem if this procedure is carried out for a prolonged time and the disk space gets overwhelmingly dense since every second node tries to initiate mining.

Therefore, in order to save disk space, once your transaction is buried under an array of blocks, the spent transactions are discarded. To allow this functionality, without causing any disruption in the 'building' of hash, only the roots are included in the hash of every block.

Regulations

As of yet, there are quite fewer regulations imposed on digital currencies, because these are entirely centralized and none of the governments has exclusive control over it. However, standard money laundering regulations do apply to all virtual currencies, including Matrix coin.

Apart from their decentralized mode of operation, International trading



potential and anonymity of transactions also makes it (almost) impossible to implement any conventional regulations. This has led to a significant influx of consumers into these networks. However, we are firmly in favor of introducing proactive regulations that would ultimately enhance the trust of our consumers, provided that their privacy is respected. Moreover, if governments make it over-regulated, then it would not be any different from current currencies, and the customers will not find any persuasion to use it. It would not only push investors away from digital currencies, but over-regulation can also lead to the creation of a black market, that will certainly bypass the cryptographic measures.

Glossary

Mining reward

When a block reward is generated, it creates an incentive for the miners where they have the sheer liberty to add hash power to the entire network. Actually, every miner aims to mine this block reward.

Since miners can 'extract' Matrix coins and sell them at a profit, it is referred to as mining reward.

Fiat currency

Basically, the word 'fiat' belongs to Latin, and it truly means 'it shall be.' However, in our context, it refers to a currency that the government has declared to be legal, but none of the physical commodities provide its backing.

Instead of determining its cost with the reference of the overall value of the material, governments calculate it on the basis of demand and supply gap. In the past, most of the currencies were based on precious materials, such as gold and silver. However, now every fiat currency follows the model of 'faith.'

Selfish Miner Flaw

It occurs when a miner does not let his or her block discoveries go public. As a result, the network does not benefit from this discovery and just the miner's earnings prosper. Moreover, selfish miners also reveal their earnings to other honest miners, who, in turn, waste their resources on the blocks that are and were never a part of the blockchain.



Wallet

It is just a secure application that we use to store Matrix Coins and can be downloaded from our website. Please note that every account holder gets two wallets, one for BTC and the other one for Matrix Coin.

Proof of Work

This is essentially a system (or algorithm) that combines the computational power of a system with its mining capability. Each and every block must be hashed before it could initiate mining. Even though hashing is not a difficult process, but due to the fact that another variable is involved as a check to determine its authenticity, it makes the process more difficult. Therefore, a hashed block is what we call 'Proof of Work.'

Proof of Stake

This is an alternative to Proof of Work where your total currency and the time for holding each coin is calculated as stake.

The higher the stake, the higher will be your chances of mining.

Peer to Peer

It refers to the interaction of two or more parties over a densely interconnected network, such as the one followed in cryptocurrencies and torrents. All of these interactions are decentralized and are not controlled or governed by a single entity.