Cryptocurrency in India – "Indicoin" (June 2019)

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Abstract— Indicoin is designed to overcome the issues that Bitcoins have faced all over the globe. Many across India do not know about Bitcoins or cryptocurrency at all. Our take is to make Indocoin widespread across India in the early stages and globally in the later stages. We focus to make it more flexible wherein there are special ATM cryptocurrency machines for Indicoin and other companies offering similar service. We aim to make it as localized as possible with every citizen of India having access to Indicoin. We will also allow mining possible on mobile phones which will allow users to earn and make greater blockchains and increase the value of Indicoins. Money conversion will be made simpler in order to covert Indicoins into currency which is the Indian Rupees. We will be focusing on creation of an application which will help people across the country to learn more about Indicoin, the conversion rates and how to mine them on their own mobile phones with just one click. The concept is very similar to Bitcoins but we focus on mobility and ease of use. With one click one can download the Application on their desktops, tablets, mobile phones and laptops too. And another click would lead to the mining procedure which would require the devices to be idle and mining would take up significant load on the devices which will result in the device not being usable for the amount of time mining takes place. Indicoin will be available to every citizen of India and signing up would only require Personal Details and an ID proof with bank account details included in order to convert Indicoins into currency.

Keywords: Flexibility, Localization, Ease of Use, One tap activities

I. INTRODUCTION

A cryptocurrency is a virtual or digital currency that uses cryptography as security measures. A cryptocurrency is difficult to breach because of this security feature. Various cryptocurrencies are decentralized systems that are based on blockchain technology, a distributed ledger is enforced by a contrasting network of computers. Its organic nature is a defining feature of a cryptocurrency, and arguably its biggest allure. Rendering it theoretically immune to government interference or manipulation, Indicoin is not issued by any central authority.

Secure payments of online transactions that are designated in terms of virtual tokens representing ledger entries to internal system itself are known as Cryptocurrencies. Crypto refers to the fact that various cryptographic techniques and encryption algorithms, such as public-private key pairs, elliptical curve encryption, hashing functions, are deployed.

II. ABOUT US SECTION

This section will include our daily statistics of our website and applications and how we developed this idea and turned this idea and concept of Indicoin into reality. We will also feature blogs and posts about us in this section and we will include our links to social media sites like Facebook, Twitter, LinkIn, Instagram and Reddit.
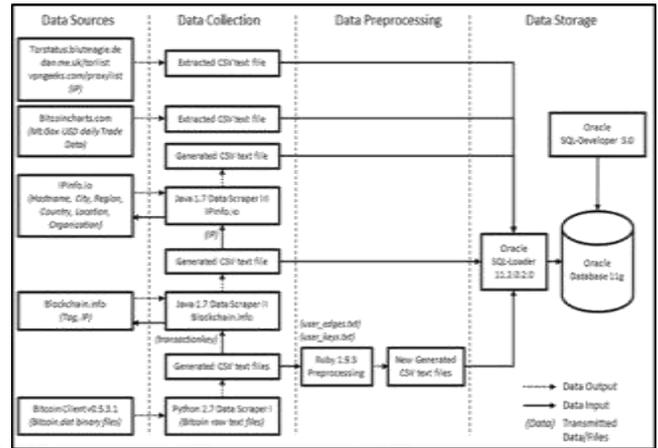
III. DATA FLOW DIAGRAM (DFD)

Fig. 1: DFD showing Data Sources, Collection, Processing, Storage

This Data Flow Diagram shows all the available data sources, how the data will be collected, how it will be processed in a unique, protected and safe manner and how it is later stored in the Database. This is how we focus to stand out compared to Bitcoins and other companies dealing with cryptocurrency.

IV. ARCHITECTURE OF CRYPTOCURRENCY

A. Blockchain

The validation of cryptocurrency is with the help of blockchains. A blockchain is a growing list of records, called blocks, which are linked and secured through cryptography. Each block usually contains a hash pointer as a link towards a previous block, a timestamp and the transaction data. Due to their design, blockchains are very much resistant to modification of the data. It is an open and distributed ledger that can record the transactions that take place between two different end-users or parties efficiently and in a permanent and verifiable way. It is managed by a peer-to-peer network collectively adhering to a protocol for validating new blocks, for the blockchain to be used as a distributed ledger. Once recorded, the data cannot be changed without the alteration of all other subsequent blocks which requires collusion of the network majority.

Being secure by design, blockchains an example of a distributed computing system with high Byzantine fault tolerance. Blockchains solve the problem of double-spending without the need of a trusted authority or central server.

B. Timestamping

To solve the issue of the need for a trusted third party, cryptocurrencies use various timestamping schemes to prove the validity of every transaction. Proof-of-work was the first timestamping scheme.

CryptoNight, Blake, SHA-3, and X11 are some hashing algorithms that are used for proof-of-work. The most widely used proof-of-work schemes are based on SHA-256 and scrypt algorithms which can be learnt.

For securing a cryptocurrency network and achieving distributed consensus through requesting users to show ownership of a certain amount the proof-of-stake is a method is used. The scheme is largely dependent on the Indicoin, and there's currently no standard form of it.

C. Mining

Mining is validation of transactions in cryptocurrency networks. Successful miners obtain new cryptocurrency as a reward. By creating a complementary incentive to contribute to the processing power of the network, the reward decreases transaction fees. Generating hashes for this validation has become far more complex over the years, with more people venturing into the world of virtual currency.

According to the amount of work they contributed to the probability of finding a block, some miners pool resources, sharing their processing power over a network to split the reward equally. Who present a valid partial proof-of-work, a share would be awarded to members of the mining pool.
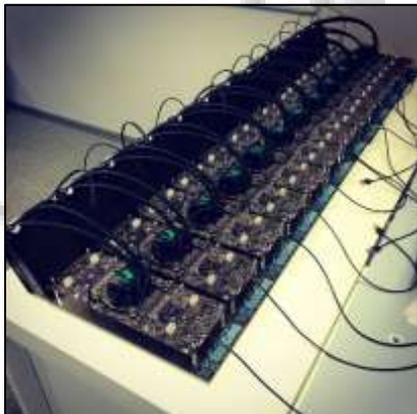

Fig. 2: Hashcoin Mine

D. Wallets

The cryptocurrency wallet displays and stores the public as well as private Indicoins for future expenditure or balance viewing. It is possible to write in the public ledger, effectively spending the associated cryptocurrency, with private key. It is possible for others to send currency to the wallet, with the public key.

Fig. 3: An example paper printable cryptocurrency wallet consisting of one cryptocurrency address for receiving and the corresponding private key for spending

E. Anonymity

Cryptocurrency is virtual and not anonymous in that the Indicoin within a wallet is not tied to people, but rather to one or more keys or addresses. All transactions are publicly available in the blockchain thereby, cryptocurrency owners cannot be identified. To collect the personal information of their users, cryptocurrency exchanges are often required by the law.

V. WHY DO WE STAND OUT?

− People in India are not familiar with the concept of Cryptocurrency, we will be the first of all who will introduce this in a country with a population of one billion people. India became familiar to Online Transactions just a couple of years ago with the boon of Demonetization in India.

− We aim to make use of Indicoin as vastly as possible, we focus on every transaction being possible with the help of Indicoin from purchase of vegetables to purchase of jewelry and from purchase of clothing to purchase of lavish and luxurious cars and vehicles.

− Before launching Indicoin we have planned to run advertisements about us on search engines, social media sites and every possible place where people can possibly notice us and get attracted to us and what we offer.

− We are running campaigns wherein we offer free Premium Membership under our scheme. GoldIndicoin is the premium membership which has perks which the normal accounts would not have. More offers and special discounts are available to the Premium Members, as we are starting up now we our rates for memberships and every service we offer are very reasonable and we aim to be consistent throughout to attract more and more customers.

− We will also slowly expand to other countries of the subcontinent like Myanmar, Sri Lanka, Nepal, Bangladesh etc.

− Only legit transactions will be allowed, we will be going through every company's request to register and through our campaigns we will physically be visiting companies to offer our services.

− User data will be stored in our databases but the user can also chose to be anonymous and only the user ID with the device ID will be shared during transactions.

− We will be having a website as well as an Android Application and iOS is still in the alpha stage.

− Mining will be very easy and efficient as we will be trying to get the most out of the load that will be applied on the devices. And we are proud to announce that mining would have no limitations to hardware, the device should be smart, that's our only requirement.

− Overload tripping techniques like the MCB's at homes would be virtually be applied to the software, suppose the device is overheating or behaving abnormally due to the load on it, the software will automatically terminate and the device will be restarted for a fresh boot and no need to worry about the mining procedure as we keep saving the work proof every 60 seconds.

– We will be hosting an AMA (Ask Me Anything) on Reddit every Saturday at 11PM IST and we will be addressing issues and questions from basic to complex and get feedbacks from users and people trying to enquire about us.

VI. HOW DOES INDICOIN WORK?

A. Client

– Login/Signup: Customer inputs their personal , bank details with a valid proof ID which our bots verify and check within five minutes and a new account is created , then the user can chose to be either public or anonymous , the ID and bank details are stored securely in our servers. Otherwise users can directly login by inputting their credentials and then they receive a One-Time-Password on their Email ID or and then they can access their account.

– F.A.Q: Some basic questions will be put on the FAQ page and an email would be provided for custom support and advanced help. Live 24x7 support will be added at a later stage.

– Offers: Various offers available to the user will be put up on that page for ease of the customer itself. Customer can search for thousands of offers available to them and make purchases using Indicoins only.

– Pay: x Amount of transaction can be made by tapping on the button. The user should input the user ID of the receiver or the device ID and the customer can pay or transfer Indicoins with just one click.

– Transaction History: User can check all the previous transactions. It will include all the payments made.

– Conversion Option: Here the customer will be able to add money through their bank accounts and convert them into Indicoins or vice-versa.

– Buy GoldIndicoin: Users can get themselves a treat by buying the premium membership which shall offer them much more benefits than a normal user account.
Note: There are no employees working as middlemen hence the transaction is P2P (Peer to Peer) only bots, servers and computers are involved.

B. US

We have used the following resources extensively:
– HTML, CSS, PHP
– JavaScript
– Python
– SQL
– JAVA

VII. FUTURE OF CRYPTOCURRENCY

Who likes to carry physical cash and take care of it? Cash is not anti-theft but Indicoin is, we are digital and aim to be localized to fulfill everyone's needs in this country, we already are cashless but let's become decentralized now. We do not regulate under the government neither the users have to be public. Their money is safe here if they do not trust the government because their money is stored in the form of Indicoins. There is no limit to storing Indocoins and you do not even have to pay extra taxes to keep some Indocoins in

your wallet, convincing enough? There's a lot to explore about Cryptocurrency and mining. Once you learn about the perks and pros of Indicoins it's impossible to ignore us. The biggest pro is that no one kind of hacker or script can attack us, all they can do is try, our scripts are strong and maintained and up-to-date. Cryptocurrencies like Bitcoins are already blooming in other parts of the world but India. Here we do not have a clear picture about Cryptocurrencies, hence our campaigns will help create a clearer picture and attract handful amount of people to us and our services. Who wouldn't like to earn money by keeping their phones, laptops and desktops idle while not using them. Easy money but with a bit of stress on the devices with barely any chance of reducing the device lifespan.

VIII. CONCLUSION

We aim at achieving maximum success by involving as many people as we can, with least investment possible to hire people we have started this up by using our own experience and created and trained bots to achieve maximum security with no middlemen. This definitely is something different and new that will be introduced, some people might like it some might dislike it, if someone has to ask us what are and how do we work, well we are basically "a linked list that that work in mutual agreement to create Indicoins". We have used simple algorithms and technology that will allow Mobile GPU's to mine Indicoins, no parameters will be set whatsoever. We are 100% legal and all our transactions are secured as we already incorporate OTP technology for Emails, every Saturday we intend to communicate with our users which will help us grow and we will help them grow. In harmony this can hugely profit many customers as well as sellers because generating Indicoins is easy and hassle-free and so is payment on Indicoins.

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