



MEDIC COIN



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INTRODUCTION:

There are so many coins on the market, why do you need another coin? Medic Coin is unique in that it has an active team of developers, promoters, philanthropists, strong community and several products to back it up.

Medic Coin adopts OpenEMR and makes it more useful for doctors and patients. The developers are going to put a steroid on OpenEMR to make it ten times better than what it is now. OpenEMR in its form as Medic EMR allows patients and doctors to accept Medic Coin as a form of payment for office visits.

Medic Coin Team is working hard to release Medic Phone, a TeleMedicine app that allows patients to use Medic Coin to see an online doctor. Medic Phone will be integrated with Medic EMR to give you a complete and powerful electronic medical record.

Medic Coin allows you to mine, stake, masternode, and harvest. The Scrypt algorithm proof of work allows you to earn 77 coins for each block found. Staking allows you to earn 39.8 coins. Medic Coin's masternode owners enjoy 159.2 MEDIC per block found. Lastly, if you share your computing power towards Stanford University's Folding@Home project with their research in protein folding to find the cure for diseases and research drug properties, you get reward with MEDIC coins.

Medic Coin Marketing Team is dedicated to sign up different merchants to accept Medic Coin as a form of payment. The Marketing team hold experiences in the healthcare and their partners, including but not limited to cannabis shops, beauty salons and various retails. The end goal is continuously increasing MEDIC utility.

Medic Coin is unique and strive to do good things to make life better. Please help Medic Coin build a strong community and foundation.

FEATURES:

There are 199 coins in each PoS block. Masternode owners enjoy 159.2 coins or 80% of PoS block found. Staking allows you to enjoy 39.8 MEDIC coins or 20% of PoS block. To be a masternode owner you need 199999 MEDIC coins. A single wallet can do both staking and masternode at the same time. At the same time, you can have multiple masternodes in a single wallet.

There are 77 coins in each PoW block. The difficulty retargeting is every block. The last PoW block is 99,999. At that time Stanford University's Folding@Home kicks in to allow you to earn MEDIC coin through using your CPU/GPU to help scientists accelerate healthcare research multiple drugs/ medication properties and various diseases including Alzheimer's, diabetes, congenital diseases, etc.

MEDIC COIN SPECIFICATIONS:

Coin Name : Medic Coin

Coin Ticker : MEDIC

PoW Algorithm: Scrypt

Difficult Retargeting: Every 1 block

Maximum Block Size: 3MB

Max Supply: 500,000,000 MEDIC Coin

Block Time: 90 seconds

Stake age : 1 Hr

PoW Block Reward : 77 coins per block

Last PoW Block : 99,999 Block

PoS Block Reward: 199 MEDIC (80% to MN Owner; 20% to Stakers)

Masternode Collateral: 199,999 MEDIC

MEDIC EMR

Blockchain Quick Review

Blockchain is fundamentally a new type of database technology that is optimized to tackle a unique set of challenges. Historically, databases have been used as central data repositories by organizations to support transaction processing and computation. However, databases are rarely shared between organizations due to a variety of technology and security concerns. Blockchain is a shared, distributed database of transactions among parties that is designed to increase transparency, security, and efficiency. Blockchain is a database (with copies of the database replicated across multiple locations or nodes) of transactions (between two or more parties) split into blocks (with each block containing details of the transaction such as the seller, the buyer, the price, the contract terms, and other relevant details) which are validated by the entire network via encryption by combining the common transaction is valid if the result of the encoding is the same for all nodes and added to the chain of prior transactions (as long as the block is validated). If the block is invalid, a "consensus" of nodes will correct the result in the non-conforming node. Blockchain Ledger Transactions Blockchain has the following advantages over a conventional centralized database.

Security: Blockchain relies on encryption to validate transactions by verifying the identities of parties involved in a transaction. This ensures that a "false" transaction cannot be added to the blockchain without the consent of the parties involved. A complex mathematical calculation known as a "hash" is performed each time a transaction is added to the blockchain, which depends on the transaction data, the identities of the parties involved in the transaction, and the result of previous transactions. The fact that the current state of the blockchain depends on previous transactions ensures that a malicious actor cannot alter past transactions. This is because if previous transaction data is changed, it will impact the current value of the hash and not match other copies of the ledger.

Transparency: By its very nature, blockchain is a distributed database that is maintained and synchronized among multiple nodes – for example, by multiple counterparties who transact with each other frequently. In addition, transaction data must be consistent between parties in order to be added to the blockchain in the first place. This means that by design, multiple parties can access the same data (in some cases locally within their organizations) – thus significantly increasing the level of transparency relative to conventional systems that might depend on multiple “siloes” databases behind firewalls that are not visible outside a single organization.

Efficiency: Conceptually, maintaining multiple copies of a database with blockchain would not appear to be more efficient than a single, centralized database. However, in most real-world examples (including several of the case studies we examined in capital markets), multiple parties already maintain duplicate databases containing information about the same transactions. In many cases, the data pertaining to the same transaction is in conflict – resulting in the need for costly, time-consuming reconciliation procedures between organizations. Employing a distributed database system such as blockchain across organizations can substantially reduce the need for manual reconciliation, thus driving considerable savings. In addition, in some cases blockchain offers the potential for organizations to develop common or “mutual” capabilities that eliminate the need for duplication of the same effort across multiple organizations.

HIPAA Regulations and Compliance Guidelines

Before the discussion concerning its implementations, it is imperative to discuss issues regarding Health Insurance Portability and Accountability Act of 1996 (HIPAA). There are a couple of primary concern rules that include cloud computing guidelines, privacy, and security rule. The main aim of this paper is not to conduct a HIPAA law full investigation. Upon the moment of relevant application, issues that are pertinent to implementation discussion will be discussed explicitly.

Privacy Rule

According to the Medic Coin Team business model and due to Electronic Medical Records (EMR) sensitive nature, it is imperative for the Privacy Rule requirement to be observed. This is due to the private health information transmission and storage. The privacy rule, in this case, refers to the health plans, health care clearinghouses among other healthcare organizations that transit their work using the electronic form. Another party that is affected by HIPAA compliance is the service providers that act on their behalf. When it comes to the second hand agents also known as the Business Associates (BA), adhering to Business Associate Contract (BAC) is crucial. For many years, HIPAA has placed a strict requirement to the above agreements.

From an initial investigation, there are points of merit that include the requirements of them that are authorized to use, the use of the de-identified information and the definition of the private information is defined. De-Identified health information has been defined as the health information that provides an identification of a person where no reasonable basis that ensures that the information can be used in individual identification. When it comes to De-identified data restrictions that use restrictions, below is the summary of the restrictions. For example, there are no restrictions when it comes to the use or disclosure of the de-identified health information. In this case, this information does not provide an individual identification or even provide a reasonable basis to identify an individual. A boundary that separates identifiable and de-identifiable data acts as a source of information that restricts individuals. This boundary is associated with 0.04% of the US population.

HEALTHCARE INFRASTRUCTURE CONUNDRUM

Nowadays, healthcare prescribers can use a system known as e-prescribing to transmit prescriptions electronically. According to IOM Report titled Future Directions for the National Healthcare Quality and Disparities Reports, the quality of care delivered can be improved and medication cost reduced if prescribers start adopting health IT as a tool. Medical errors that occur during prescription, description, administration and patient's care monitoring stages can be reduced through e-prescribing adoption.

According to various studies, medication errors can also be reduced through the elimination of the handwriting interpretation. Through this elimination, the communication time between office staff and pharmacies is also reduced. The move can also avoid the high costs of adverse drug events. In a year, adverse drug events come to approximately 380,000 and 450,000 in the US. This results in a cost of \$3.5 billion in a year.

Among many aspects of e-prescribing, the clinical decision has a large number of computerized tools that are directed towards improving patient's care. The clinical decision support has computerized reminders, offers advice related to drug selection, dosage, allergies and interactions among many others. Once a prescription has been placed in the system, it follows the patient that ends up in handoff errors avoidance.

Open Source to Start the Movement

In the medical world, open source is comparable to a peer review. Through the software code, users are in a position to test, poke at, test drive and criticize the software since its public. Unlike other EMR's, users in this software can improve, customize it and learn to code. Through this source, physicians can also learn what many have considered as a black box that only magicians can open. Through open source, we (patients' and physicians) get enlightened about tools we use.

Lastly, open source is affordable with no license fee or entrance fee. In this case, anyone can join it. Through this community, issues of common interest between patients and physicians can be discussed. For those that think of starting an open source from scratch is a major issue, MEDIC Coin Team have you covered. Despite many developed EHRs, this section focuses on Medic EMR. This EHR largely addresses the issue of privacy where patients can control their health information.

Medic EMR

Medic EMR is a branch of OpenEMR. The team forked OpenEMR and provide support and integrate it with Medic Coin to create a Medic Coin ecosystem. Medic EMR, like OpenEMR, will be Meaningful Use 2 certified. Users will be able to switch between Medic EMR and OpenEMR flawlessly. Here are some rich features of the OpenEMR software that Medic EMR will benefit.

A feature-rich solution

Our vibrant community of volunteers and contributors have maintained critical OpenEMR features for over a decade. With over 30 supported languages, many customizations, and full data ownership.. On top of this, users in need of support can take advantage of our volunteer support network as well as over 30 vendors in over 10 countries.

Scheduling

Advanced scheduling allows clinics to create repeating events, automated-workflows triggered by check-in, and patient reminds.

e-Prescribing

Enter a prescription into an encounter and have it electronically sent to the patient's pharmacy.

Medical Billing

Export billing data in standardized, including X12.

CMS Reporting

Generate CMS Meaningful Use reports with just a few clicks

Lab Integration

Have lab orders automatically sent to a lab and integrate the results into a patient's chart automatically

Clinical Decision Rules

Navigate complex patient algorithms using the clinical decision rules engine to ensure the highest quality of care for patients.

Advanced Security

HIPAA-friendly, fine-grained access control objects, and industry-standard password hashing helps to protect your practice from intrusion

Multilingual Support

Available in over 30 languages, and customizable to add more.

Medic EMR is an open source EMR with blockchain features. With the integration of Medic Coin payment system, patients can pay doctors for their visits. Doctors can reward patients with Medic Coin for keeping their blood pressure and diabetes under control. Pharmaceutical companies can pay doctors in Medic Coin for data mining.

Medic Phone TeleMedicine App

According to Grandview Research Inc., the global telemedicine market is expected to reach USD 113.1 billion by 2025. Key drivers of the market include increasing incidences of chronic conditions and rising demand for self-care. Furthermore, enhancing application of internet, virtual medicine and rising demand for centralization of healthcare are expected to save on cost incurred, which is one of the critical success factors attributing for the growth of telemedicine market.

Virtual medicine is beneficial by reducing the emergency room visits and hospitalization rate, thereby augmenting the market growth. The telemedicine market is segmented on the basis of products, and region. The service offers prime channel for various providers to communicate on the same platform and thus, centralize all the available data.

There are five(5) ways telemedicine is helping to solo practices reduce healthcare cost:

1. Use of remote analysis services. Remote analysis services, like telepathology and teleradiology, can contribute to lower cost and higher quality care as they enable highly trained professionals to work as a pooled resource. Use of these remote services enables low-volume providers to have around the clock coverage at a lower cost. In smaller facilities, there may not be sufficient volume to keep a pathologist or radiologist fully occupied. Telemedicine enables fractional employment.
2. Remote monitoring technologies. Remote monitoring technologies are enabling patients to be monitored on an ambulatory basis when they previously may have needed to be monitored as inpatients. Given the high cost of providing inpatient services, though, moving some forms of observation to an outpatient basis substantially reduces the costs borne by the healthcare system.
3. Phone monitoring technologies. The use of Phone monitoring technologies reduces the cost of complications due to chronic disease. For instance, an increase in body weight due to fluid retention is often a sign that someone may soon need to be hospitalized due to heart failure. Disease managers with access to daily weight information may be able to help a person experiencing fluid retention get the care they need before a crisis occurs. Averting crises both improves the quality of care and lowers costs.
4. At-home Triage Services. At home triage services facilitated by televisits with nurses and primary care physicians reduces the unnecessary (and expensive) use of emergency room visits.
5. Telemedicine Appointments. By offering telemedicine appointments, providers can reduce the amount of their unused capacity that goes to waste. Many services allow providers to start or stop accepting patients based upon their current availability. As this capacity would otherwise not produce any revenue, providers are able to provide remote patient visits at a rate that is lower than the one they normally offer. This in turn reduces system costs by enabling patients to receive care at a lower price point.

Hospitals can also reduce cost with Telemedicine:

1. Readmission Reduction

Telemedicine is being used as a key part of hospitals' readmission reduction programs to help combat high readmission rates. By improving the follow-up care and care management of a range of patients—from the chronically ill to post-surgical patients – hospitals find they can prevent many readmissions. Each patient's parameters were reviewed by telemonitoring nurses, who were able to then intervene for immediate teachings when the patient was out of their range.

2. Better Staff Utilization

Telemedicine enables health systems to better distribute staff throughout their healthcare facilities and load-balance resources across entire systems, reaching more patients with less strain on specialist resources. Telemedicine also improves provider-to-provider communication, which can also result in improved patient care and as a result, cost savings.

3. Preventative Outreach

Telemedicine can be a true game-changer when it comes to preventing hospital admissions by facilitating regular and convenient

FOLDING@HOME AND MEDIC COIN

Once the last MEDIC block of PoW is done, Folding@Home kicks in to allow you to earn Medic Coin through CPU/GPU protein folding. Folding@home (FAH or F@h) is a distributed computing project for disease research that simulates protein folding, computational drug design, and other types of molecular dynamics. As of today, the project is using the idle resources of personal computers owned by volunteers from all over the world. Thousands of people contribute to the success of this project.[2] F@h software independently runs to reinforce biomedical researches with virus prevention while facilitating drug designs utilizing Google Chrome Client from the Pande Lab of Stanford University. While you are busy with your everyday activities, your computer is working to assist biomedical researchers accelerate the mutation calculations to prevent a variety of diseases including Alzheimer's disease, cancer, Creutzfeldt-Jakob disease, cystic fibrosis, Huntington's disease, sickle-cell anemia, and type II diabetes[12][13][14].

Folding@home is developed and operated by the Pande Laboratory at Stanford University, under the direction of Prof. Vijay Pande, and is shared by various scientific institutions and research laboratories across the world.[1]

The project has pioneered the use of Computer Processing Units (CPUs) and graphics processing units (GPUs) for distributed computing and scientific research. The project uses statistical simulation methodology that is a paradigm shift from traditional computing methods.[5] As part of the client-server model network architecture, the volunteered machines each receive pieces of a simulation (work units), complete them, and return them to the project's database servers, where the units are compiled into an overall simulation. Volunteers can track their contributions on the F@h website, which makes volunteers' participation competitive and encourages long-term involvement.

Similarly to other distributed computing projects, Folding@home quantitatively assesses user computing contributions to the project through a credit system. All units from a given protein project have uniform base credit, which is determined by benchmarking one or more work units from that project on an official reference machine before the project is released.[17]

Folding@home can use the parallel computing abilities of modern multi-core processors. The ability to use several CPU cores simultaneously allows completing the full simulation far faster. Working together, these CPU cores complete single work units proportionately faster than the standard uniprocessor client. This method is scientifically valuable because it enables much longer simulation trajectories to be performed in the same amount of time, and reduces the traditional difficulties of scaling a large simulation to many separate processors.[16] Each user receives these base points for completing every work unit, though through the use of a passkey they can receive added bonus points for reliably and rapidly completing units which are more demanding computationally or have a greater scientific priority.[18] [19] Users may also receive credit for their work by clients on multiple machines.[10] This point system attempts to align awarded credit with the value of the scientific results.[17]

Folding@home is one of the world's fastest computing systems, with a speed of approximately 135 petaFLOPS[6] as of January 2018. This performance from its large-scale computing network has allowed researchers to run computationally costly atomic-level simulations of protein folding thousands of times longer than formerly achieved. Since its launch on October 1, 2000, the Pande Lab has produced 139 scientific research papers as a direct result of Folding@home.[7] Results from the project's simulations agree well with experiments.[8][9][10]

WHAT IS INSTANTSEND?

InstantSend is an advanced service that allows for near-instant transactions to take place. With this system, inputs can be locked to specific transactions and verified by consensus of the masternode network. Conflicting transactions and blocks are rejected. If a consensus cannot be reached by the masternode network, validation of the transaction will occur through standard block confirmation. InstantSend is able to solve the double-spending problem without the longer confirmation times of other cryptocurrencies such as Bitcoin.

DARKSEND BASICS

DarkSend provides true financial privacy by obscuring the origins of your funds. All the Medic Coin in your wallet is made up of different “inputs” which you can think of as separate, discrete coins. DarkSend makes use of an innovative process to mix your inputs with the inputs of two other people, without your coins ever leaving your wallet. You keep full control of your money at all times.

The DarkSend process works like this:

DarkSend starts off by breaking your transaction inputs down into standard denominations. These denominations are 0.01 Medic Coin, 0.1 Medic Coin, 1 Medic Coin and 10 Medic Coin – kind of like the paper money that you use every day.

Your wallet then makes requests to specially configured software nodes on the network, called “masternodes”, These masternodes are then informed that you are interested in mixing a certain denomination. No identifiable information is sent to the masternodes, so they never know “who” you are.

IMPORTANT: Your wallet only contains 1000 of these “change addresses.” Every time a mixing event happens, one of your addresses is used up. Once enough of them are used, your wallet must create more addresses. However, it can only do this if you have enabled automatic backups. Consequently, users who have backups disabled will also have DarkSend disabled.

Without DarkSend, tokens with less history would become increasingly valuable as the network grows, because of their lack of association with prior transactions. Without fungibility, there is a risk that certain tokens could be “red listed” and lose some or all of their value if at any point in the past they had been found to be used in illegal or questionable activities. Nobody wants to hold money that was involved in illegal activity, yet after the activities take place, tokens re-enter the supply and pass to new users who had no connection with the prior illegal acts. We remove this issue with the implementation of DarkSend, which is included as part of the core protocol of the Medic Coin network.

CONCLUSION

MEDIC Coin is paramount to the success of creating a net-positive society because it is a research based cryptocurrency with strong community and high utilization; it is a force with potential to do good things and make life better. Owners and investors of MEDIC Coin enjoy the profits of masternode and PoS at the same time knowing that they are contributing to better society and building better future for later generations.

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